



Construction of an Anti-Fraud Toolkit in the Public Sector through Synergy between Internal Control and Good Governance

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ABSTRACT

Fraud in the public sector is a complex challenge that requires an integrated approach. This Systematic Literature Review (SLR) analyzes 23 selected studies (2021–2025) to construct an anti-fraud toolkit by combining the synergies of internal control and good governance. The findings show that internal controls function as a technical mechanism for fraud prevention through control and monitoring activities, while good governance creates a transparent and accountable institutional environment. The integration of these two elements produces a significant synergy, whereby the effectiveness of internal controls increases substantially when implemented in a strong governance environment. This study also identifies supporting elements such as internal audit, whistleblowing systems, forensic accounting, management commitment, and digital systems as supporting components in the anti-fraud toolkit. The results of this study provide strategic guidance for policymakers in designing comprehensive and contextual fraud prevention systems in the public sector.

Keywords: Fraud Prevention, Internal Control, Good Governance, Public Sector, Systematic Literature Review

INTRODUCTION

Fraud is a systemic problem that threatens the foundations of the economy and governance. Fraud occurs not only in the private sector, but also in the public sector. The public sector tends to be vulnerable to fraud due to the complexity of stakeholders, rigid bureaucracy, and limited resources. Fraud in the public sector not only causes financial losses to the state, but also directly deprives the public of their rights. As a result, public trust in government agencies continues to decline. This is in line with information from the 2023 Corruption Perceptions Index (CPI), which states that Indonesia scored 34 and ranked 114th out of 180 countries. This data shows that the perception of corruption is still high in the public sector (Transparency International, 2023).

The Association of Certified Fraud Examiners (ACFE, 2024) report states that the government sector ranks third in terms of frequency of fraud cases. Fraud cases in the public sector are dominated by corruption cases, accounting for 55%. In addition, fraud committed by executives causes the highest median loss of \$313,000. Fraud by executives occurs due to poor leadership (poor tone at the top) and indicates weak good governance. Furthermore, the Association of Certified Fraud Examiners (ACFE, 2024) report states that more than half of fraud cases occur due to weak internal control systems (32%) and neglect of internal controls (19%).

Several research studies have identified tools, strategies, and approaches to combat fraud. (Kartiko Kusumo & Achmad, 2022) state that internal control is a mechanism that can be applied to detect and prevent fraud through structured procedures. On the other hand, good governance also plays a role in preventing fraud, especially in creating an ethical environment through the implementation of transparency and accountability (Wahyuni-TD et al., 2021), (Rahayu et al., 2025).



Previous studies have also identified a number of supporting elements that contribute to fraud prevention. Internal audits are recognized as an effective oversight mechanism in studies by (Supriadi et al., 2025), (Nadirsyah et al., 2024), (Abdul Aziz & Othman, 2021), (Khikmah et al., 2023), (Lonto et al., 2023), (Lubis et al., 2024). Furthermore, the whistleblowing system acts as a crucial reporting channel (Periansya et al., 2023), while forensic accounting is used for in-depth investigations of alleged fraud (Hajjat et al., 2024), (Alharasis et al., 2025). On the other hand, management commitment is also a determining factor in creating an anti-fraud organizational culture (Lastri et al., 2022).

The contribution of this research lies in providing an evidence-based framework that integrates two main aspects, namely technical control and governance principles, coupled with additional elements such as internal auditing, whistleblowing systems, forensic accounting, management commitment, and digital systems. This research not only enriches academic insight but also offers practical solutions for policymakers in designing comprehensive fraud prevention strategies.

Based on an initial analysis of 23 existing literature, the author found that the majority of studies used quantitative research methods rather than qualitative methods, with a comparison of 14 quantitative literature, 6 qualitative studies, and 3 mixed methods. Therefore, the author used the SLR (Systematic Literature Review) method with the aim of synthesizing the results of previous studies into a systematic framework. The author found that 70% of studies tended to examine internal control, good governance, and internal audit separately, without considering the synergy between them (Lubis et al., 2024). Therefore, the author intends to fill this research gap by synthesizing the relationship or synergy between internal control and good governance.

This systematic literature review (SLR) aims to fill the above gap by analyzing 23 recent studies (2021-2025) from the Scopus database. Specifically, this study aims to:

1. Analyze patterns of integration between internal control and good governance in fraud prevention based on the studies analyzed.
2. Identify supporting elements outside of internal control and good governance as additional mechanisms in the Anti-Fraud Toolkit.

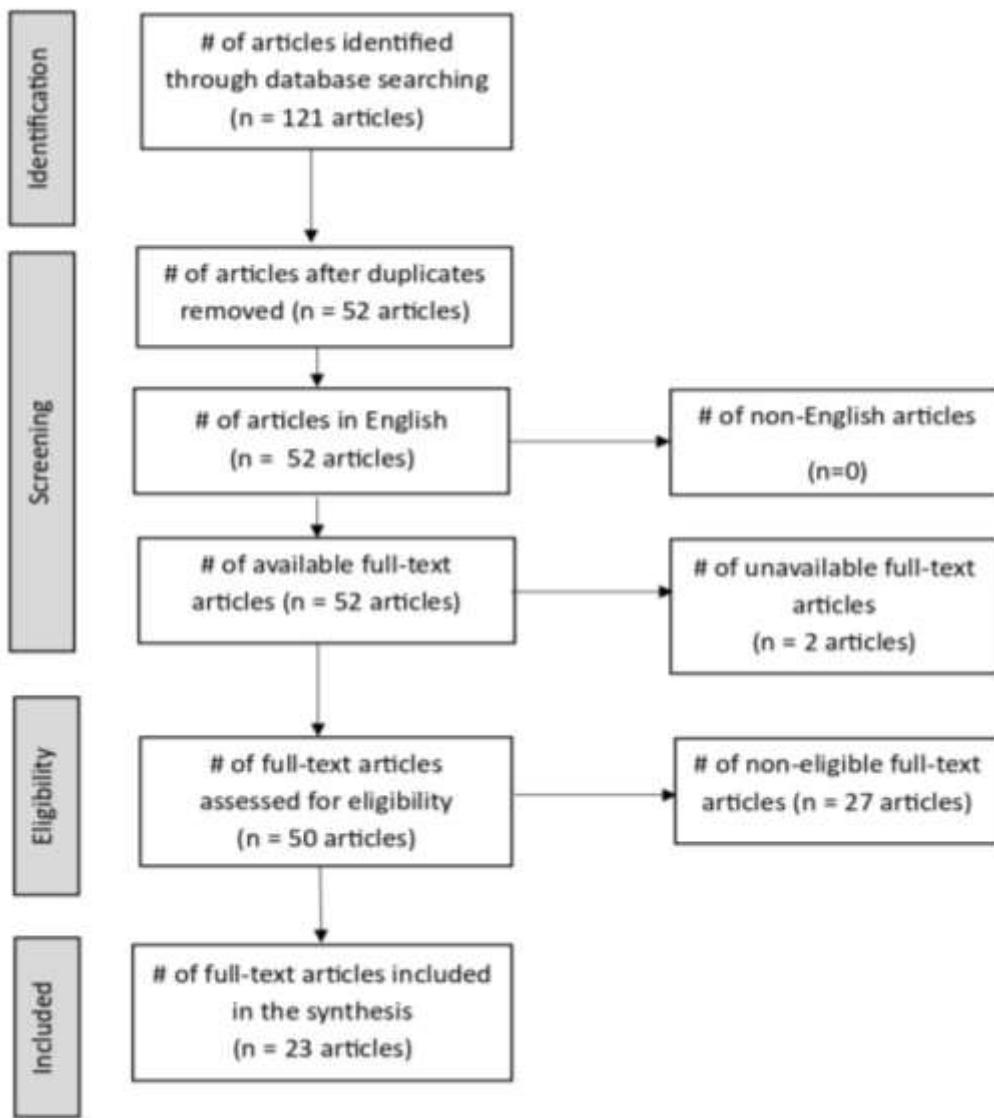
This study consolidates various elements of fraud prevention, such as internal control, good governance, internal audit, whistleblowing systems, forensic accounting, management commitment, and digital systems into an integrated "Anti-Fraud Toolkit" framework, which has been studied separately in previous literature. However, this study has limitations in its literature coverage, which is limited to Scopus-indexed studies (2021–2025), considering that studies from 2021 to 2025 are more relevant to current conditions.

METODOLOGY

Research Method

A systematic literature review (SLR) following the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines was used in this study. The SLR was conducted systematically through four main stages: identification, screening, eligibility, and inclusion to ensure transparency and the reproducibility of the study.

Figure 1. PRISMA Flow Diagram



Source : Image by authors

Inclusion and Exclusion Criteria

Inclusion criteria in this study includes studies that discuss topics relevant to the research, namely internal control, good governance, and fraud prevention in the public sector. The studies included must be available in full text and written in English or Indonesian. In addition, the studies must have been published between 2021 and 2025 to ensure that the findings used reflect the current conditions and context. All studies must also be indexed in Scopus to ensure the quality and credibility of the sources used.

Exclusion criteria in this study do not include non-academic studies, such as opinions, news, or proceedings that have not undergone peer review. Studies that are not relevant to the research topic namely, those that do not discuss the relationship between internal control, good governance, and fraud prevention in the public sector are also excluded. In addition, studies published outside the 2021–2025 period will not be considered. Studies that are not written in English or Indonesian, are not indexed by Scopus, and do not provide full text (only available in abstract form) are also excluded from this review.

Literature Research Strategy

The author used the Scopus database with the following details:



Table 1. Results of Article Search

No	Keywords	Number of Studies
1	"internal control" AND "fraud prevention" AND "public sector"	7
2	"corporate governance" AND "fraud prevention" AND "public sector"	1
3	"corporate governance" AND "fraud prevention"	11
4	"internal control" AND "fraud prevention"	32
5	"public sector" AND "fraud prevention"	10
6	"internal audit" AND "fraud prevention" AND "public sector"	4
7	"fraud prevention" AND "public sector"	10
8	"good governance" AND "fraud prevention"	6
9	"public governance" AND "fraud prevention"	1
10	"internal control system" AND "fraud prevention"	13
11	"internal audit" AND "fraud prevention" AND "public sector"	12
12	"control system" AND "fraud prevention"	14
TOTAL		121
Duplicates		69
Non-English		0
Irrelevance		27
Full text unavailable		2
Final articles to be reviewed		23

Source : Table by authors

The search for articles in Scopus was conducted in November 2025. The search was limited to the subject areas of Business, Management and Accounting, and Economics, Econometrics, and Finance, while the relevant studies for this SLR were those conducted between 2021 and 2025.

Article Selection Process

Based on the PRISMA diagram, the article selection process was carried out in several stages. The identification stage resulted in 121 articles found through a search in the Scopus database. Next, in the screening stage, the number of articles was reduced to 69 after duplicates were removed. In the eligibility stage, 25 full text articles were assessed according to the established criteria. Finally, after in-depth assessment, 23 articles met all the criteria and were included in the final synthesis of this study.

Research Questions

As a guide in the systematic literature review process, this study answers the following research questions:

RQ1: What is the role of internal control and good governance in preventing fraud in the public sector based on the latest literature?

RQ2: What supporting elements have been identified in strengthening fraud prevention beyond internal control and good governance?

RQ3: What are the theoretical lenses that could underlie anti-fraud toolkit?

RQ4: How can the synergy between these elements be integrated into an effective anti-fraud toolkit?

RESULTS

Patterns and Trends in Fraud Prevention Research in the Public Sector

Based on the results of an analysis of 23 studies using the Scopus database, research on fraud prevention in the public sector has increased significantly during 2021-2025. This trend is inseparable from the increasing complexity of bureaucracy, expectations of public accountability, and the increasing number of fraud cases in government institutions. Of the 23 studies, 15 were from Indonesia, indicating that fraud cases in the public sector are a serious concern. This is due to several factors, such as bureaucratic reform, regional autonomy that requires more intensive fraud control, and the high number of fraud cases in Indonesia. This background is in line with statements from (Lubis et al., 2024); (Usman & Sundari, 2024) which show the urgency of fraud as a critical issue relevant to governance. Apart from Indonesia, studies from Uganda (Kabuye et al., 2025), Malaysia (Joseph et al., 2021), (Madi et al., 2021) and Jordan (Hajjat et al., 2024); (Alharasis et al., 2025) confirm that fraud is a global problem, especially in developing countries that face similar institutional challenges.

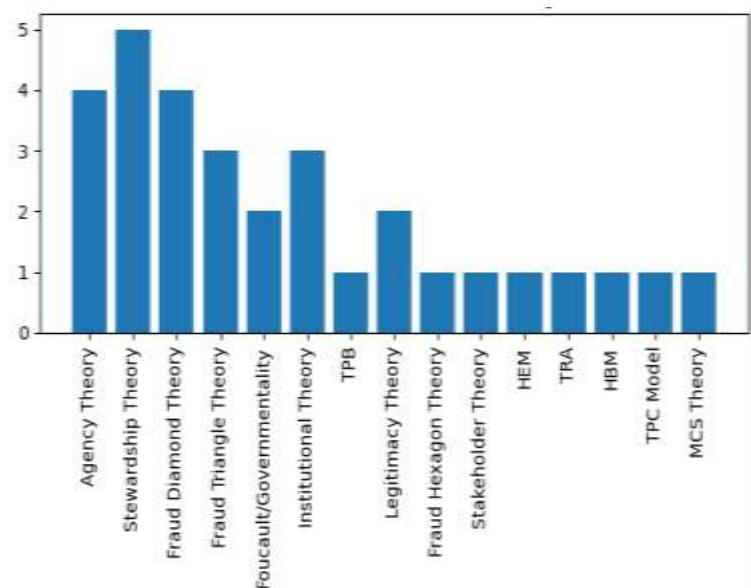
The quantitative approach dominated 14 studies, generally to test the relationship between variables such as internal control, good governance, internal audit, and fraud prevention. Meanwhile, the qualitative approach (6 studies) provides an in-depth contextual understanding of the dynamics of culture, ethics, and governance in education, health, and other public organizations (Larasati & Tjaraka, 2025); (Lastri et al., 2022). Three studies used mixed methods to explore the phenomenon of fraud more holistically (Nadirsyah et al., 2024).

In general, the thematic trends of the research can be mapped into three main groups:

1. Strengthening technical mechanisms for fraud prevention, such as internal control, internal audit, and monitoring activities (Kartiko Kusumo & Achmad, 2022), (Silalahi et al., 2023).
2. The development of ethics and values-based governance (good governance) as the normative foundation of public organizations (Wahyuni-TD et al., 2021), (Rahayu et al., 2025).
3. Integration of supporting instruments, such as whistleblowing, digitization, forensic accounting, and fraud analytics to address modern fraud patterns (Periansya et al., 2023), (Koerniawan et al., 2024), (Alharasis et al., 2025).

Theoretical Lens

Figure 2. Theoretical lens





Source : Image by authors

Stewardship Theory

Stewardship Theory was used in five studies (Larasati & Tjaraka, 2025), (Silalahi et al., 2023), (Khikmah et al., 2023), (Usman & Sundari, 2024), (Wahyuni-TD et al., 2021). These five studies emphasize the importance of public officials, auditors, and organizational leaders not acting opportunistically, but rather acting as stewards oriented toward the public interest. From a stewardship perspective, anti-fraud toolkits are not only viewed as formal oversight tools, but also as manifestations of ethical commitment, integrity, and responsible leadership.

1. Agency Theory

Agency theory was used in four studies (Larasati & Tjaraka, 2025), (Rahayu et al., 2025), (Kartiko Kusumo & Achmad, 2022), (Nadirsyah et al., 2024). Agency Theory explains the relationship between managers (agents) and shareholders or stakeholders (principals). The four studies explain the occurrence of fraud in the public sector, which occurs due to information asymmetry and weak oversight mechanisms. In this study, the anti-fraud toolkit is understood as a set of instruments designed to reduce agency costs through increased accountability, transparency, and effective oversight. Thus, agency theory contributes to explaining the importance of synergy between control structures and governance in preventing public sector fraud.

2. Fraud-Based Theory (FTT, FDT, FXT)

The Fraud Triangle Theory (FTT) was used in three studies, namely (Abdul Aziz & Othman, 2021), as well as two studies that referred to Cressey's (1953) concept as cited in (Periansya et al., 2023) and (Rahayu et al., 2025). This theory explains that fraud occurs when three main conditions are met, namely pressure, opportunity, and rationalization. Pressure refers to financial or non-financial pressure that drives individuals to commit fraud, such as performance demands, economic needs, or organizational pressure. Opportunity arises when internal control systems are weak, supervision is ineffective, or there are loopholes in governance that allow fraud to go undetected. Rationalization describes the process of moral justification by perpetrators of fraud, in which fraudulent actions are considered acceptable or temporary.

The Fraud Diamond Theory (FDT) was used in four studies, namely (Abdullah et al., 2023), (Larasati & Tjaraka, 2025), (Periansya et al., 2023), and (Supriadi et al., 2025). This theory develops the fraud triangle by adding one key element, namely capability, so that fraud is understood as the result of the interaction between pressure, opportunity, rationalization, and capability. Capability refers to the perpetrator's ability, position, intelligence, and courage to execute and conceal fraud.

The Fraud Hexagon Theory (FHT) was used specifically in one study, namely (Larasati & Tjaraka, 2025). This theory expands on the fraud diamond by adding two additional elements, namely ego and collusion, thus covering six main factors: pressure, opportunity, rationalization, capability, ego, and collusion. Ego refers to an attitude of superiority and greed, while collusion refers to the involvement of more than one party in committing fraud, which makes fraudulent acts more complex and difficult to detect.

These theories show that the construction of anti-fraud toolkits is greatly influenced by an understanding of pressure, opportunity, rationalization, capability, and other psychological and structural factors. Internal control and good governance are positioned as mechanisms to close opportunities for fraud, reduce pressure, and limit the capabilities and room for maneuver of fraud perpetrators in the public sector.

3. Other Theories

Other theories used in the reviewed studies include Institutional Theory, Legitimacy Theory, Stakeholder Theory, Foucault's Theory / Governmentality, Theory of Planned Behavior (TPB), Theory of Reasoned Action (TRA), Health Belief Model (HBM), Hierarchy of Effects Model (HEM), Technology-To-Performance Chain Model (TPC Model), and Management Control System Theory. These theories are used to explain various aspects, such as regulatory pressure and institutional norms, organizational efforts to maintain legitimacy, accountability to



stakeholders, individual intentions and behavior, perceptions of fraud risk, the role of technology, and the integration of control systems in fraud prevention.

Anti-Fraud Toolkit Foundation

1. Internal Control (IC)

Internal control plays a key role in fraud prevention. Almost all studies agree that internal control is the most powerful technical mechanism for preventing fraud. IC was the dominant topic in the 16 studies analyzed by the author. Based on the COSO Framework, the effectiveness of internal control depends on five elements, including control environment, risk assessment, control activities, information and communication, and monitoring (Usman & Sundari, 2024).

A strong internal control system can significantly reduce the risk of fraud through structured procedures and monitoring activities, (Kartiko Kusumo & Achmad, 2022), and (Lubis et al., 2024). Studies by (Kartiko Kusumo & Achmad, 2022) and (Silalahi et al., 2023) shows that public organizations with strong internal controls experience a significant reduction in fraud risk. In addition, (Kartiko Kusumo & Achmad, 2022) states that in village governments, fraud occurs due to weak separation of duties, minimal documentation, and weak human resource capacity.

Internal control also acts as an early warning system that enables organizations to identify anomalies before they develop into major scandals. The quality of internal control has been proven to improve with the support of digitalization, such as Siskeudes and e-procurement, which make accounting processes more transparent and minimize manual intervention (Usman & Sundari, 2024). Thus, internal control plays a role in reducing "opportunity" in the fraud triangle, while mitigating the risk of procedural failure.

2. Good Governance (GG)

Good governance is also a foundation for fraud prevention alongside IC. Good governance appears in 12 studies as a strategic and ethical foundation for fraud prevention. Good governance strengthens internal control by providing values, norms, and structures that ensure technical mechanisms not only exist formally but also operate ethically and consistently. This statement is in line with research by (Wahyuni-TD et al., 2021) and (Rahayu et al., 2025), which states that governance principles such as transparency, accountability, integrity, rule of law, and governance effectiveness have a significant effect in reducing fraud. Kabuye et al., (2025) also stated that good governance improves transparency and accountability in the management of public resources, which is an essential step in mitigating the risk of fraud.

The role of good governance in fraud prevention consists of three levels:

2.1 Structural level

This level focuses on the formal framework, namely the control system (Abdullah et al., 2023). In addition, this level focuses on policies and technologies that are in line with research (Silalahi et al., 2023) and (Usman & Sundari, 2024). Institutions must implement GG at the structural level to close loopholes for fraud.

2.2 Cultural level

This level focuses on behavioral dimensions, ethical values, and internal norms that serve as moral brakes to prevent rationalization in fraud. This level is supported by research from (Kabuye et al., 2025), (Abdullah et al., 2023), (Supriadi et al., 2025), (Abdullah et al., 2023).

2.3 Leadership level

This level ensures that the tone at the top (management commitment, leadership style, and example) set by top management (leaders) can support anti-fraud efforts (Abdullah et al., 2023).



In the university sector, good governance plays a major role in improving compliance in the management of education funds (Larasati & Tjaraka, 2025). Additionally, in zakat institutions, sharia-based good governance helps narrow the scope for irregularities in zakat management (Wahyuni-TD et al., 2021). Thus, good governance reduces the factors of rationalization and pressure in the fraud triangle, while ensuring that internal controls function properly without manipulation.

Supporting Elements Of Anti-Fraud Toolkit

The following are supporting elements that strengthen the anti-fraud toolkit in this study:

1. Internal audit

The author obtained the supporting elements of IC and GG in fraud prevention, namely internal audit. Internal audit was discussed in 10 studies, which essentially functioned as an important connector between GG and IC. Internal audit provides assurance, consulting, and evaluation functions regarding the effectiveness of internal control. Several studies (Lubis et al., 2024), (Supriadi et al., 2025), and (Nadirsyah et al., 2024) state that internal audit significantly helps detect, correct, and prevent fraud, especially through independence, competence, and the use of risk-based audits.

2. Whistleblowing System (WBS)

The whistleblowing system (WBS) is a supporting element for fraud prevention discussed in four studies. WBS is effective in detecting fraud that cannot be detected by formal mechanisms (Periansya et al., 2023). In addition, (Periansya et al., 2023) also states that an effective WBS requires governance support through whistleblower protection and an organizational culture that supports reporting.

3. Forensic Accounting

Forensic accounting is a supporting element discussed in three research studies. Forensic accounting plays a role in in-depth investigations when fraud is discovered or when prevention mechanisms fail. A study in Jordan shows that forensic accounting improves the quality of investigations and supports legal processes, while also providing learning opportunities for system improvement (Hajjat et al., 2024); (Alharasis et al., 2025). Additionally, (Clavería Navarrete & Carrasco Gallego, 2023) developed a practical implementation framework that emphasizes the classification of tools based on the type of fraud (financial fraud, asset misappropriation, corruption), stages of customization tailored to organizational capacity, and integration protocols with existing control and governance systems.

4. Management Commitment

Management commitment falls under the category of supporting elements for fraud prevention because it acts as a mediator that strengthens the relationship between anti-fraud policies and practical implementation in the health sector (Lastri et al., 2022). Leadership commitment as tone at the top greatly influences the effectiveness of all anti-fraud mechanisms (Lastri et al., 2022). If the tone at the top is poor, anti-fraud mechanisms become meaningless even if they exist formally.

5. Digital Systems

In an era of increasingly advanced technology systems, digital systems such as Siskeudes and e-procurement or other financial applications can improve or strengthen operational transparency and accountability (Usman & Sundari, 2024), (Silalahi et al., 2023). On the other hand, fraud analytics helps identify fraud patterns automatically and quickly for patterns beyond human capabilities (Koerniawan et al., 2024). Research by (Alfian et al., 2023) confirms that the adoption of fraud analytics in the public sector is still in its developmental phase, with implementation dominated by developed countries. This study identifies technologies such as Python and machine learning as key tools and emphasizes the need for local capacity building to reduce the digital divide.



The integration of basic digital systems and advanced analytics creates a layer of technological defense that is preventive, detective, and adaptive.

DISCUSSION

Synergy Between Anti-Fraud Toolkit Components

Based on the results of an analysis of 23 studies, it was revealed that the effectiveness of fraud prevention does not lie in individual elements, but in the synergy formed between the components of the toolkit. The synergy model constructed from a synthesis of the literature shows the characteristics of a complex but integrated ecosystem.

Based on the identified patterns, anti-fraud synergy forms a multi-dimensional network with three main types of relationships:

1. Core Synergy between Internal Control (IC) and Good Governance (GG)

The synergy between IC and GG is a fundamental basis for fraud prevention. The two complement each other in preventing fraud. This is in line with the statement from (Wahyuni-TD et al., 2021) that IC and GG build a two-way symbiosis that reinforces each other, which is manifested in:

1.1 From GG to IC

The principles of good governance, which include accountability and transparency, can be strengthened through more specific or stricter internal control procedures. These principles provide a normative foundation and strategic direction that make internal control more than just a procedural routine, but one that operates in an ethical environment with minimal opportunities for manipulation (Rahayu et al., 2025). Without strong GG, IC tends to become an administrative routine that is easily manipulated.

1.2 From IC to GG

Effective internal control implementation produces operational data, evidence of transparency, and feedback mechanisms that reinforce the legitimacy of good governance principles in practice. Kartiko Kusumo & Achmad, (2022) state that in the context of village government, a transparent control system not only prevents fraud but also builds public accountability, which ultimately strengthens overall governance. In addition, internal control mechanisms function as an early warning system that provides real-time information on the effectiveness of governance principle implementation (Usman & Sundari, 2024).

2. Complementary Relationships

Complementary relationships show two or more elements that complement each other's lacking functions. These relationships are manifested through:

2.1 Internal Control and Digital Systems

Research by (Usman & Sundari, 2024) and (Silalahi et al., 2023) shows that digital technology (Siskeudes and E-Procurement) can strengthen internal control through automation, reduce dependence on manual intervention, and improve accuracy. Conversely, internal control provides the necessary structure for effective technology implementation. In this context, technology acts as an "amplifier" that strengthens control capabilities, while internal control provides "guardrails" for the proper use of technology.

2.2 Good Governance and Whistleblowing

Research by Periansya et al. (2023) states that whistleblowing systems are only effective when supported by a governance environment that protects whistleblowers and follows up on reports. Good governance should provide protection/shielding for whistleblowers. On the other hand, whistleblowing can provide an "early



warning system" that strengthens governance transparency and accountability. Both demonstrate a mutually beneficial symbiotic relationship in which good governance creates conditions for effective whistleblowing, and effective whistleblowing strengthens the quality of governance.

2.3 Forensic Accounting and Internal Control Systems

Forensic accounting serves as an investigative backstop when internal control mechanisms fail to detect fraud. The results of forensic investigations are then used to improve and strengthen internal control designs, closing loopholes exploited by fraudsters (Hajjat et al., 2024),(Alharasis et al., 2025).

3. Mediating Relationships

Mediating relationships reveal indirect mechanisms whereby one element connects the influence of another element:

3.1 Good Governance , Internal Audit, and Fraud Prevention

Research by (Lubis et al., 2024)states that internal audit acts as a critical mediator that translates governance principles into concrete preventive actions. Internal audit not only tests compliance with controls, but also evaluates the alignment of operations with governance principles. In this context, internal audit serves as an "operational bridge" between high-level governance policies and implementation in the field.

3.2 Management Commitment , Internal Control, and Fraud Prevention

Research by (Lastri et al., 2022)states that in the health sector, management commitment does not directly affect fraud prevention, but rather through the strengthening of internal control systems. Leadership commitment manifests itself in the allocation of resources for the development of control systems, support for staff training, and exemplary compliance with procedures. This mediating relationship explains why verbal commitment without systemic support often fails to produce effective fraud prevention.

3.3 Whistleblowing System, Forensic Accounting, and Recovery and Learning

Reports from WBS often trigger the start of forensic investigations. Forensic accounting not only confirms fraud, but also provides recommendations for improvements that can be integrated into the governance and control framework (Clavería Navarrete & Carrasco Gallego, 2023).

4. Level Synergy

The network between Internal Audit, Whistleblowing, Forensic Accounting, and Digital Systems forms a multi-level detection system:

4.1 Level 1 (Preventive)

At level 1 or preventive, internal audit and digital systems play a role in routine and systematic checks aimed at preventing fraud through the deterrence effect. The existence of a good internal audit creates a high perception of risk for potential fraudsters.

4.2 Level 2 (Early Detection)

In the early detection process, whistleblowing acts as an early warning system that relies on the active participation of organization members. This is in line with (Periansya et al., 2023),which states that whistleblowing is effective in detecting fraud that is not visible through formal mechanisms because it accesses local knowledge and informal observations.

4.3 Level 3 (Investigative)

At the investigative level, forensic accounting takes on the role of responding to indications of fraud. Research



by (Hajjat et al., 2024) and (Alharasis et al., 2025) shows that forensic accounting not only investigates fraud that has occurred but also strengthens the system as a whole through learning from previous cases.

Implementation Challenges and Recommendations

Common challenges in the public sector identified from the literature include:

1. Cultural resistance and patronage

Traditional systems and patron-client relationships hinder the implementation of controls. Research by (Kabuye et al., 2025) notes that in Uganda, patrimonial culture undermines the effectiveness of external audit systems.

2. Limitations of management and auditor human resources

Research by (Lubis et al., 2024) and (Nadirsyah et al., 2024) shows that competency gaps are a major obstacle. A lack of in-depth understanding of control systems, risk-based audit methodologies, and digital literacy are factors that reduce the ability to detect and prevent fraud.

3. Lack of digital infrastructure

Research by (Silalahi et al., 2023) states that infrastructure unpreparedness hinders the implementation of e-procurement systems in several regions of Indonesia. In addition, a study (Alfian et al., 2023) reveals that there is a significant digital gap between developed and developing countries in the adoption of *fraud analytics*, with most public sectors in developing countries still in the early stages.

4. Political pressure and weak "Tone at the Top"

Research by (Koerniawan et al., 2024) states that political pressure is a factor that weakens "tone at the top." Political intervention often disrupts the independence of audit functions and rule enforcement. Inconsistent or merely symbolic commitment from top management can render the entire anti-fraud mechanism ineffective, as it is not supported by adequate resource allocation and role modeling (Lastri et al., 2022).

5. Inadequate Legal Framework and Protection

Research by (Periansya et al., 2023) emphasizes that without adequate legal and organizational protection, whistleblowing systems are ineffective. Without guarantees of protection from retaliation, employees are reluctant to report misconduct, rendering such systems ineffective (Periansya et al., 2023).

Future Research Directions

Based on the identification of research gaps from the 23 studies analyzed, several future research directions are recommended:

1. Comparative studies between countries

Future studies are expected to conduct a systemic comparison of the configuration and effectiveness of anti-fraud toolkits in countries with different governance contexts, which may result in more contextual and applicable models.

2. Exploration of emerging technologies

Future studies are expected to explore information related to the application of AI, blockchain, and other emerging technologies that can be used to strengthen anti-fraud systems.



3. Cost-Benefit Analysis and Impact Measurement

Future studies are expected to quantitatively assess the return on investment (ROI) of implementing an integrated anti-fraud system.

4. Interdisciplinary Research on Behavioral and Cultural Aspects

Future studies are expected to explore more deeply from the perspectives of organizational psychology, sociology, and ethics to understand the factors that encourage or hinder ethical behavior, the effectiveness of compliance programs, and ways to build a sustainable culture of integrity.

CONCLUSION

This study aims to analyze the integration between internal control and good governance in fraud prevention in the public sector and identify other supporting elements that can strengthen fraud prevention. Based on the results of an analysis of 23 recent studies, it can be concluded that internal control and good governance complement each other in fraud prevention. Internal control acts as a technical mechanism that ensures procedures and controls run properly, while good governance creates a transparent and accountable environment that strengthens the implementation of internal control. In addition to these elements, internal audit, whistleblowing systems, forensic accounting, management commitment, and digital systems also play an important role in strengthening fraud prevention efforts, forming an integrated and effective Anti-Fraud Toolkit. The success of implementing this toolkit is highly dependent on management commitment, infrastructure readiness, and a supportive organizational culture.

RECOMMENDATIONS

Based on these findings, it is recommended that the government and public institutions strengthen the synergy between internal control and good governance by ensuring the application of the principles of transparency and accountability at all levels of the organization. In addition, improving the competence of human resources in internal control and audit management is very important. The application of digital technologies such as e-procurement and fraud analytics can increase the effectiveness of fraud prevention by minimizing human error and increasing transparency. Strengthening a secure and responsive whistleblowing system is also key to detecting fraud early. Finally, strong management commitment is essential to creating a sustainable anti-fraud culture in public organizations.

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REFERENCES

1. Abdul Aziz, F. L., & Othman, I. W. (2021). Internal Auditors' Perception on the Efficacy of Fraud Prevention and Detection in the Public Sector. *Universal Journal of Accounting and Finance*, 9(4), 764–772. <https://doi.org/10.13189/ujaf.2021.090422>
2. Abdullah, M. W., Hanafie, H., & Bayan, A. Y. M. (2023). Internal Governance and Fraud Prevention System: The Potentiality of The Spiritual Quotient. *Journal of Governance and Regulation*, 12(4), 50–59. <https://doi.org/10.22495/jgrv12i4art5>
3. ACFE. (2024). *Report to the Nations: 2024 Global Study on Occupational Fraud and Abuse*. <https://www.acfe.com/-/media/files/acfe/pdfs/rttn/2024/2024-report-to-the-nations.pdf>



4. Alfian, A., Ritchi, H., & Adrianto, Z. (2023). Fraud analytics practices in public-sector transactions: a systematic review. *Journal of Public Budgeting, Accounting and Financial Management*, 35(5), 685–710. <https://doi.org/10.1108/JPBAFM-11-2022-0175>
5. Alharasis, E. E., Haddad, H., Alhadab, M., Shehadeh, M., & Hasan, E. F. (2025). Integrating forensic accounting in education and practices to detect and prevent fraud and misstatement: case study of Jordanian public sector. *Journal of Financial Reporting and Accounting*, 23(1), 100–127. <https://doi.org/10.1108/JFRA-04-2023-0177>
6. Clavería Navarrete, A., & Carrasco Gallego, A. (2023). Forensic accounting tools for fraud deterrence: a qualitative approach. *Journal of Financial Crime*, 30(3), 840–854. <https://doi.org/10.1108/JFC-03-2022-0068>
7. Hajjat, E., Alzoubi, M., Al-Othman, L., Wedyan, L., & Hayajneh, O. (2024). The Role of Forensic Accounting in Enhancing Financial Transparency and Minimizing Fraud in Jordanian Institutions. *International Journal of Industrial Engineering and Production Research*, 35(3), 207–216. <https://doi.org/10.22068/ijiepr.35.3.2092>
8. Joseph, C., Utami, I., Madi, N., Rahmat, M., Tunga Janang, J., & Omar, N. H. (2021). A Comparison of Online Fraud Prevention Disclosure in Malaysian and Indonesian Public Universities. In *Management And Accounting Review* (Vol. 20).
9. Kabuye, F., Nkundabanyanga, S. K., Kaawaase, T. K., Nalukenge, I., Nakyeeyune, G. K., & Ngoboka, P. (2025). External performance auditing, ethical behaviour and fraud management in the Ugandan public sector. *International Journal of Ethics and Systems*. <https://doi.org/10.1108/IJOES-03-2025-0151>
10. Kartiko Kusumo, W., & Achmad, T. (2022). Effectiveness of Internal Control System as Early Detection Tool in Fraud Prevention of Village Fund Management. *Review of Economics and Finance*, 20, 119–123.
11. Khikmah, S. N., Rohman, A., & Januarti, I. (2023). The Role of Internal Audit and Leadership Style in Increase Of Fraud Prevention: A Stewardship Theory Perspective. *Corporate and Business Strategy Review*, 4(4 Special Issue), 271–278. <https://doi.org/10.22495/cbsrv4i4siart8>
12. Koerniawan, K. A., Triyanto, D. N., Wahyuni, D., & Farida, A. L. (2024). Fraud Deterrence Propellers for Internal Control Quality Improvement. *Quality - Access to Success*, 25(203), 69–82. <https://doi.org/10.47750/QAS/25.203.08>
13. Larasati, R., & Tjaraka, H. (2025). The Strengthening Fraud Prevention in Higher Education: An Empirical Study of Internal Control System and Good University Governance. *Qubahan Academic Journal*, 5, 278–294. <https://doi.org/10.48161/qaj.v5n1a1129>
14. Lastri, S., Fahlevi, H., Diantimala, Y., & Ridwan. (2022). Mediation role of management commitment on improving fraud prevention in primary healthcare: Empirical evidence from Indonesia. *Problems and Perspectives in Management*, 20(1), 488–500. [https://doi.org/10.21511/ppm.20\(1\).2022.39](https://doi.org/10.21511/ppm.20(1).2022.39)
15. Lonto, M. P., Ganis Sukoharsono, E., Baridwan, Z., Yeney, &, & Prihatiningtias, W. (2023). The Effectiveness of Internal Audit for Fraud Prevention. In *AABFJ* (Vol. 17, Issue 3).
16. Lubis, H. Z., Sari, M., Ramadhany, A. A., Ovami, D. C., & Brutu, I. R. (2024). Effect of internal audit, internal control, and audit quality on fraud prevention: Evidence from the public sector in Indonesia. *Problems and Perspectives in Management*, 22(2), 40–50. [https://doi.org/10.21511/ppm.22\(2\).2024.04](https://doi.org/10.21511/ppm.22(2).2024.04)
17. Madi, N., Joseph, C., Rahmat, M., Janang, J. T., & Haji Omar, N. (2021). Fraud prevention disclosure on Malaysian public universities' websites. *Journal of Financial Crime*, 28(3), 841–857. <https://doi.org/10.1108/JFC-09-2020-0193>



18. Nadirsyah, Indriani, M., & Mulyany, R. (2024). Enhancing Fraud Prevention and Internal Control: The Key Role of Internal Audit in Public Sector Governance. *Cogent Business and Management*, 11(1). <https://doi.org/10.1080/23311975.2024.2382389>
19. Periansya, P., Dewata, E., Sopiyan, A. R., Sari, Y., & Basyith, A. (2023). Whistleblowing, fraud prevention, and fraud awareness: Evidence from the Palembang Local Government of Indonesia. *Problems and Perspectives in Management*, 21(2), 556–566. [https://doi.org/10.21511/ppm.21\(2\).2023.51](https://doi.org/10.21511/ppm.21(2).2023.51)
20. Rahayu, S., Yudi, Sofyan, Rahayu, & Jumaili, S. (2025). Enhancing Good Governance and Fraud Prevention for School Performance. *Cogent Business and Management*, 12(1). <https://doi.org/10.1080/23311975.2025.2534097>
21. Silalahi, S., Hanif, R. A., Supriono, S., Hariyani, E., & Wiguna, M. (2023). Determinants Influencing Fraud Prevention In E-Procurement: Empirical Evidence from Indonesia. *Innovative Marketing*, 19, 199–206. [https://doi.org/10.21511/im.19\(4\).2023.16](https://doi.org/10.21511/im.19(4).2023.16)
22. Supriadi, T., Tjakrawala, K., Suryadnyana, N. A., Sjam, J. M. E., & Marota, R. (2025). Fraud Prevention in the Public Sector: The Role of Internal Audit. In *Economic Studies Journal (Ikonicheski Izsledvania)* (Vol. 5, Issue 3). <https://www.researchgate.net/publication/394312837>
23. Transparency International. (2023). *Corruption Perceptions Index 2023*. https://www.transparency.org/en/cpi/2023?utm_source
24. Usman, A., & Sundari, S. (2024). The Influence of Village Financial System (Siskeudes Application), Transparency, and Internal Control on Fraud Prevention. *Public and Municipal Finance*, 13(2), 24–30. [https://doi.org/10.21511/pmf.13\(2\).2024.03](https://doi.org/10.21511/pmf.13(2).2024.03)
25. Wahyuni-TD, I. S., Haron, H., & Fernando, Y. (2021). The Effects of Good Governance and Fraud Prevention on Performance of the Zakat Institutions in Indonesia: a Sharī‘ah Forensic Accounting Perspective. *International Journal of Islamic and Middle Eastern Finance and Management*, 14(4), 692–712. <https://doi.org/10.1108/IMEFM-03-2019-0089>