
Mitigating Procurement Fraud through Strengthening Internal Control Systems and Risk-Based Audits

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Abstract

This conceptualization paper proposes an integrated framework to mitigate fraud in government procurement by strengthening the Internal Control System and Risk-Based Audit. This framework is built on the Fraud Triangle Theory, which emphasizes that fraud can occur due to pressure, opportunity, and rationalization, with a primary focus on reducing the opportunity factor through effective control and oversight mechanisms. This contextual framework was developed to address gaps in the literature that generally discuss Fraud, Internal Control Systems, and Risk-Based Audits separately without explaining the synergistic relationship between the three in the context of government procurement. In the proposed framework, the Internal Control System is positioned as a preventive control mechanism aimed at reducing the opportunity for Fraud to occur, while Risk-Based Audit functions as a detection and corrective control mechanism that ensures the effectiveness of controls and the organization's ability to respond to emerging risks. The synergy between these two mechanisms is expected to strengthen procurement fraud mitigation, increase transparency, accountability, integrity, effectiveness, and efficiency in public resource management. This conceptual framework provides a theoretical contribution by integrating the Fraud Triangle Theory with public sector control and oversight practices, while offering practical insights for Government Internal Supervisory Apparatus (APIP), internal auditors, procurement managers, and policymakers in designing more proactive and sustainable fraud prevention strategies. Furthermore, the proposed framework can serve as a basis for future empirical research.

Keywords: *Procurement Fraud, Internal Control System, Risk-Based Audit, Fraud Triangle Theory, Government Procurement of Goods and Services, Public Sector Governance*

INTRODUCTION

Government procurement of goods and services is a strategic function in governance because it is directly related to the use of public funds, the provision of services to the public, and the achievement of national development goals. As a key instrument in state financial management, government procurement is required to be implemented effectively, efficiently, transparently, openly, competitively, fairly, and accountably. However, the high transaction value and complexity of the procurement process make this sector vulnerable to various forms of irregularities, including fraud, corruption, collusion, conflicts of interest, and abuse of authority (Thai, 2009; OECD, 2023).

Fraud in government procurement of goods and services is one of the most significant risks in the public sector because it can cause state financial losses, reduce the quality of procurement outcomes, and undermine public trust in government institutions. According to the Organisation for Economic Co-operation and Development (OECD, 2023), public procurement is one of the government activities with the highest level of corruption risk because it involves interaction between the public and private sectors in the process of using public funds. Various studies have shown that weak governance, lack of transparency, and weak oversight are key

factors increasing the likelihood of fraud in the procurement process (Søreide, 2014; Fazekas & Sánchez, 2021).

To address these risks, an Internal Control System (ISC) is a crucial tool to ensure that the entire procurement process is implemented in accordance with regulations and organizational objectives. Based on the Committee of Sponsoring Organizations of the Treadway Commission (COSO) framework, an internal control system consists of the control environment, risk assessment, control activities, information and communication, and monitoring activities, all integrated to support the achievement of organizational objectives (COSO, 2013). Research shows that effective internal controls can reduce the likelihood of fraud by strengthening mechanisms for preventing, detecting, and correcting various deviations that may occur in an organization's operational processes (Rae et al., 2017; Eulerich et al., 2022).

In addition to strengthening internal controls, risk-based auditing is increasingly viewed as an effective approach to supporting government procurement oversight. A risk-based audit is an audit method that focuses attention on areas that pose the highest risk to the achievement of organizational objectives. This approach enables auditors to allocate oversight resources more efficiently and provide more relevant recommendations regarding existing risk controls (IIA, 2020). In the context of government procurement, risk-based audits can help identify critical points vulnerable to fraud, improve oversight effectiveness, and strengthen accountability in public budget management (Arena & Azzone, 2009; Drogalas et al., 2017).

The growing literature shows that internal control systems and risk-based audits have complementary roles in supporting good public sector governance. Internal control systems serve as the first line of defense to prevent irregularities, while risk-based audits serve as an independent evaluation mechanism to ensure the effectiveness of these controls (IIA, 2020). However, most research still addresses internal control and risk-based audits separately. Studies integrating these two approaches specifically in the context of mitigating fraud in government procurement are relatively limited.

This research gap highlights the need to develop a conceptual framework explaining how the integration of internal control systems and risk-based audits can strengthen fraud mitigation efforts in government procurement. A more comprehensive understanding of the relationship between these two mechanisms is expected to assist public sector organizations in improving oversight effectiveness, strengthening accountability, and achieving transparent and integrated procurement governance.

Based on this background, this article proposes a conceptual framework that integrates internal control systems and risk-based audits as a fraud mitigation strategy in government procurement. Theoretically, this article is expected to enrich the literature on public sector auditing, internal control, and government procurement governance. Practically, the proposed framework can serve as a reference for government internal auditors, government internal supervisory officers (APIP), procurement managers, and policy makers in designing more effective oversight systems to prevent and detect fraud in public procurement.

RESEARCH METHODS

This study uses a qualitative approach with conceptual research methods. The aim is to develop a framework for mitigating fraud in government procurement of goods and services through strengthening Internal Control Systems and Risk-Based Audits. This approach was chosen because the research focuses on concept development, theoretical synthesis, and the integration of various perspectives in the literature, rather than on hypothesis testing through empirical data collection. The research design is descriptive-analytical, systematically examining key concepts related to the Fraud Triangle Theory, Internal Control Systems, Risk-Based Audits, and fraud mitigation in the public sector (Tsvetkov, 2014).

As a theoretical foundation, this study utilizes the Fraud Triangle Theory, which explains that fraud occurs due to pressure, opportunity, and rationalization (Cressey, 1953). The primary focus in this study is on the opportunity factor, as it can be minimized by strengthening organizational control and oversight mechanisms. Furthermore, the COSO Internal Control System framework (2013) is used to explain how organizations can build an effective control environment to prevent fraud. Meanwhile, the Risk-Based Audit concept is used to explain the audit function's role in identifying, evaluating, and mitigating fraud risks in the government procurement process.

The data used in this study is secondary data obtained through a literature review. Data sources include reputable national and international journal articles, academic books, reports from international institutions, auditing professional standards, government procurement regulations, and official documents related to internal control, risk-based auditing, and fraud prevention in the public sector. Sources were selected selectively, considering their relevance to the research topic, publication quality, source credibility, and the freshness of the information used as the basis for developing the conceptual framework.

Data analysis was conducted using content analysis and comparative conceptual analysis. The analysis began by identifying key concepts related to procurement fraud, Internal Control Systems, and Risk-Based Audits. Next, comparisons were made between various models and approaches used in the literature to explain fraud prevention and oversight mechanisms in the public sector. The study results were then synthesized to identify conceptual relationships between variables and identify existing research gaps in the literature (Järvinen & Mik-Meyer, 2020).

Based on this synthesis, this study developed a conceptual framework explaining how Internal Control Systems and Risk-Based Audits can function synergistically to reduce opportunity factors, which are considered one of the primary causes of fraud according to the Fraud Triangle Theory. The proposed framework positions Internal Control Systems as a preventive control mechanism, while Risk-Based Audits serve as a detection and evaluation mechanism (detective and corrective control) that supports the effectiveness of organizational controls in government procurement processes (Gaber, 2020).

To ensure conceptual validity and reliability, this study applied literature source triangulation by comparing findings from various scientific journals, professional standards, and relevant regulations. Furthermore, the study utilized widely recognized theories and frameworks in the fields of auditing, internal control, and fraud prevention, such as the Fraud Triangle Theory, the COSO Internal Control Framework, and the Risk-Based Auditing Framework (Maxwell & Chmiel, 2014). This approach was taken to ensure that the resulting conceptual

framework has a strong theoretical foundation and is relevant to the context of government procurement of goods and services.

The output of this research is a conceptual framework for procurement fraud mitigation that integrates the Fraud Triangle Theory, Internal Control Systems, and Risk-Based Audits. This framework is expected to provide a theoretical contribution to enriching the literature on public procurement governance and serve as a practical reference for Government Internal Supervisory Apparatus (APIP), internal auditors, procurement managers, and policymakers in designing more effective, transparent, and sustainable fraud prevention and oversight strategies.

RESULTS AND DISCUSSION

Internal Control System

The Internal Control System (ISC) is a key component in the proposed conceptual framework for mitigating fraud in government procurement. Based on the COSO (2013) framework, the ISC comprises five main components: the control environment, risk assessment, control activities, information and communication, and monitoring activities. These five components form a system designed to provide reasonable assurance that organizational objectives are achieved effectively, efficiently, and in accordance with applicable regulations.

From the perspective of the Fraud Triangle Theory, the ISC plays a strategic role in reducing opportunity factors, one of the main factors driving fraud. Opportunities arise when there are control weaknesses, inadequate oversight, or gaps in organizational procedures that allow individuals to commit irregularities without detection. Therefore, strengthening the ISC is a crucial step in limiting the opportunity for fraud at every stage of procurement, from planning and supplier selection to contract execution and the payment process.

However, the numerous cases of ongoing procurement fraud demonstrate that the existence of an ISC alone is insufficient if it is not supported by consistent implementation and an organizational culture that upholds integrity. In many public sector organizations, control weaknesses often arise from a lack of segregation of functions, weak risk assessments, poor monitoring quality, and limited human resource competency. These conditions contribute to the potential for fraud, even though formal control procedures are in place.

In the proposed conceptual framework, SPI is positioned as a preventive control mechanism that serves to establish an initial defense system against fraud risks. Strong controls will reduce the potential for irregularities, thereby increasing transparency, accountability, and integrity in the government procurement process.

Risk-Based Audit

A Risk-Based Audit is the second component of the conceptual framework, complementing the role of the Internal Control System. Unlike traditional audit approaches that focus more on administrative compliance, a Risk-Based Audit places risk at the heart of audit planning and implementation. This approach allows auditors to prioritize areas with the highest level of fraud vulnerability, resulting in more effective and efficient oversight.

In government procurement of goods and services, high-risk areas generally include the preparation of technical specifications, the bid evaluation process, contract amendments, payment for work, and vendor management. Each of these stages has the potential for irregularities, such as bid fixing, specification manipulation to favor certain suppliers, price markups, fictitious work, and conflicts of interest. Through a Risk-Based Audit, auditors can

identify critical points that could potentially lead to fraud and evaluate the effectiveness of the organization's controls.

From the perspective of the Fraud Triangle Theory, a Risk-Based Audit plays a crucial role in reducing opportunity factors, one of the primary causes of fraud. Opportunities for fraud tend to arise when oversight is ineffective, control weaknesses go undetected, or the organization fails to identify high-risk areas. By focusing on activities most vulnerable to irregularities, Risk-Based Audits can narrow the scope for fraudsters and increase the likelihood of early detection. This creates a deterrent effect because individuals involved in the procurement process are aware that high-risk activities will receive greater supervisory attention.

In addition to functioning as a detection tool, Risk-Based Audits also serve as an evaluation and improvement mechanism. Audit results can be used to provide strategic recommendations regarding strengthening internal controls, enhancing risk management, and improving procurement governance. Auditors not only identify existing weaknesses but also evaluate the root causes of problems and provide solutions to prevent future irregularities. Thus, audits directly contribute to organizational learning and continuous improvement.

In an increasingly complex public sector environment, Risk-Based Audits also support the effectiveness of the Government Internal Audit Apparatus (APIP) in overseeing the use of state funds. Limited audit resources often prevent all organizational activities from being fully audited. Therefore, a risk-based approach allows the APIP to focus oversight resources on areas with the highest impact and probability of risk. This approach not only improves the quality of audit results but also provides added value to the organization through more strategic, risk-management-oriented recommendations.

Furthermore, Risk-Based Audits serve as a link between the risk management process and organizational governance. Information generated from the audit process can be used by management to update risk profiles, strengthen weak controls, and improve decision-making. In the context of government procurement of goods and services, this information is crucial to ensuring that the procurement process not only meets regulatory requirements but also results in effective, efficient, and accountable budget utilization.

Within this conceptual framework, Risk-Based Audits are positioned as detective and corrective controls, ensuring the effectiveness of the Internal Control System in accordance with organizational objectives. The Internal Control System serves as the first line of defense in preventing fraud, while Risk-Based Audits act as an independent evaluation mechanism that tests the effectiveness of these controls. The synergy between the two forms a comprehensive oversight system that reduces the opportunity for fraud at all stages of procurement.

With a risk-oriented approach, the audit function is able to provide greater added value than an audit approach that focuses solely on compliance. Audits are no longer merely a means of finding administrative errors, but rather a strategic instrument that helps organizations manage risks, strengthen internal controls, increase accountability, and ultimately support the creation of government procurement of goods and services that is transparent, has integrity, and is free from fraud.

Procurement Fraud Mitigation as an Outcome of Good Governance

Fraud mitigation is the primary objective of the integration of the Internal Control System and Risk-Based Audit in this study. Fraud mitigation focuses not only on preventing state financial losses but also includes efforts to create a transparent, accountable, effective, and integrity-based procurement process.

In the context of government procurement, effective fraud mitigation will yield various governance benefits. First, increased transparency because the entire procurement process is systematically monitored and controlled. Second, increased accountability because every decision and budget utilization can be accounted for. Third, increased organizational integrity because the opportunity for conflicts of interest, collusion, and abuse of authority is reduced. Fourth, increased efficiency and effectiveness of public budget use because resources can be utilized according to their intended purpose.

From the perspective of the Fraud Triangle Theory, the success of fraud mitigation is primarily determined by the organization's ability to reduce opportunity factors that allow for irregularities. The Internal Control System plays a role in establishing various control mechanisms that limit the opportunity for fraud, while the Risk-Based Audit ensures that these mechanisms operate effectively and are able to respond to changes in risk. When the opportunity for fraud is reduced, the likelihood of irregularities occurring in the procurement process also decreases significantly.

Effective fraud mitigation also contributes to improving the quality of organizational risk management. Organizations that are able to continuously identify, assess, and control fraud risks will be better prepared to face the challenges of an increasingly complex procurement environment. In such conditions, internal control and auditing serve not only as oversight tools but also as management instruments that support more informed, risk-based decision-making.

Furthermore, successful fraud mitigation has a positive impact on public trust. Government procurement of goods and services is one of the most highly scrutinized government activities because it involves the use of significant public funds. When procurement processes are carried out transparently, accountably, and free from irregularities, public trust in government institutions increases. Conversely, failure to control fraud can result in financial losses, diminish government legitimacy, and undermine public confidence in public sector governance.

In the proposed conceptual framework, fraud mitigation is positioned as a direct outcome of the synergy between the Internal Control System and Risk-Based Audits. These two mechanisms form an integrated oversight system, where internal control serves as a preventive control mechanism, while risk-based audits serve as a detection and corrective mechanism. This integration creates a stronger control environment, allowing for more effective fraud risk management.

Ultimately, procurement fraud mitigation serves as the foundation for realizing the principles of good governance. Fraud-free procurement will promote transparency, accountability, participation, effectiveness, efficiency, and integrity in the management of public resources. Therefore, strengthening the Internal Control System and Risk-Based Audit not only provides benefits in terms of oversight and control but also contributes to improving the overall quality of governance.

Therefore, the proposed conceptual framework emphasizes that fraud mitigation is not merely an operational objective in the procurement process but rather a strategic outcome that reflects the successful implementation of good governance. The more effectively the Internal Control System and Risk-Based Audit are implemented, the greater the opportunity for public sector organizations to achieve clean, transparent, accountable, and public-interest-oriented government procurement.

CONCLUSION

Based on the literature synthesis and conceptual discussion, it can be concluded that strengthening the Internal Control System and Risk-Based Audit play a crucial role in mitigating fraud in government procurement. Through the implementation of effective controls and risk-oriented oversight, public organizations can reduce the opportunity for fraud, increase transparency, strengthen accountability, and support more efficient and integrated procurement management.

This conceptual paper proposes a framework that integrates the Fraud Triangle Theory, Internal Control Systems, and Risk-Based Audits to explain how reducing opportunity factors can reduce fraud risk in the government procurement process. This framework demonstrates that successful fraud mitigation depends not only on the existence of control procedures but also on the effectiveness of the audit function in evaluating, monitoring, and correcting existing control weaknesses.

Overall, this study confirms that procurement fraud mitigation can be achieved through synergy between an integrated Internal Control System and Risk-Based Audits. This synergy can create a robust control environment, improve the quality of procurement governance, and promote transparency, accountability, effectiveness, and integrity in the use of public resources. The resulting conceptual framework is expected to serve as a reference for Government Internal Supervisory Apparatus (APIP), internal auditors, procurement managers, and policy makers in developing more proactive and sustainable fraud prevention strategies, as well as being a basis for future empirical research.

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