

**INTERNAL CONTROL AND FRAUD PREVENTION AMONG LISTED
COMPANIES IN NIGERIA**

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BY

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**A RESEARCH PROJECT SUBMITTED TO THE DEPARTMENT OF
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CERTIFICATION

We, the undersigned hereby certify that this research project work was carried out by ASERE Olamiposi with matriculation number MGS2104511 in the Department of Accounting, Faculty of Management Sciences, University of Benin, Benin City, Nigeria and do approve that it is adequate in scope and quality in partial fulfillment of the requirement for the award of Bachelor of Science degree in Accounting.

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DEDICATION

This project is dedicated to my beloved parents and siblings for their love, prayers and sacrifices, which have been the foundation of my success.

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I express my profound gratitude and praises to God for seeing me through to the end and for watching over me all through my stay in the university.

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ABSTRACT

This study investigates the effect of internal control mechanisms on fraud prevention among listed companies in Nigeria, focusing on four components of the COSO framework: control environment, risk assessment, information and communication, and monitoring. A descriptive survey research design was adopted, and data were collected from 384 respondents across listed firms in Edo State using a structured questionnaire. Descriptive statistics, correlation analysis, variance inflation factor (VIF) tests, and multiple regression analysis were employed to examine the relationships between the independent variables and the dependent variable. The findings revealed that control environment, risk assessment, information and communication, and monitoring each had significant positive effects on fraud prevention, with all variables collectively explaining 57.2% of the variation in fraud prevention outcomes. These results underscore that strong ethical leadership, systematic risk identification, transparent communication, and continuous monitoring significantly enhance fraud deterrence. The findings align with Agency Theory, which emphasises the role of governance structures in mitigating opportunistic behaviour, and with Deterrence Theory, which highlights the importance of certainty and consistency in discouraging fraud. Social Norms Theory also provides complementary insights, showing that awareness and shared values foster compliance with anti-fraud practices. The study concludes that internal controls are not merely regulatory requirements but strategic mechanisms that safeguard corporate assets and promote stakeholder trust. It recommends that listed companies strengthen ethical standards, integrate risk assessment frameworks, enhance whistleblowing and reporting systems, and adopt technology-enabled monitoring to improve fraud prevention. Regulators are encouraged to intensify oversight and ensure compliance with internal control standards.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

The stability and credibility of global financial systems depend heavily on the strength of internal control structures within organisations. Rather than being a fixed set of rules, internal control represents a continuous and integrated process, actively involving the board of directors, executive management, and all relevant staff (Okonkwo et al., 2022). Its primary objective is to provide reasonable assurance that an entity will achieve key goals such as operational efficiency, reliable financial reporting, and compliance with applicable laws and regulations (Anyanwu & Okafor, 2022; Vutumu et al., 2024). As a vital governance mechanism, internal control enables the effective guidance, monitoring, and management of corporate resources. It plays a key role in detecting and preventing fraud, thereby safeguarding both physical and intangible assets (Ibanichuka, 2022; Nwaobia et al., 2021). Publicly quoted companies, also referred to as listed firms, are especially exposed to financial misconduct due to their visibility and regulatory burden. As of 2024, the Nigerian Exchange (NGX) had 151 listed firms, each subject to strict compliance and reporting standards.

A globally accepted guide for implementing internal control is the COSO Internal Control–Integrated Framework, developed in 1985 by the Committee of Sponsoring Organizations of the Treadway Commission (COSO, 2013). This model has become a widely respected standard for establishing and evaluating internal control systems.

Initially created in response to fraudulent financial reporting, the COSO framework offers detailed guidance for managing organisational risk, improving transparency, and ensuring sound governance practices (COSO, 2013; Vutumu et al., 2024). It helps firms to define objectives, identify potential risks, and implement effective control structures tailored to their unique context (Okonkwo et al., 2022; Vutumu et al., 2024). The framework consists of five interrelated components, namely Control Environment, Risk Assessment, Control Activities, Information and Communication, and Monitoring (Samuel, 2024). These components are designed to work together to promote ethical leadership, reduce errors, and prevent fraudulent activity. The COSO framework serves not only as a compliance tool but also as a practical guide for long-term risk management and the promotion of organisational trust and financial health (Rose, 2016; Vutumu et al., 2024).

Fraud remains a persistent threat to corporate success and integrity. Common forms of fraud include asset misappropriation, unauthorised payments, payroll scams, forged invoices, and manipulation of accounting records (Adedeji & Akand, 2023; Aroghene, 2022). These fraudulent practices are often committed by insiders who have access to sensitive processes. According to Bhasin (2013) and Rezaee (2005), fraud can generally be grouped into three broad types, namely asset misappropriation, corruption, and financial statement fraud. A widely recognised framework for explaining the root causes of fraud is the Fraud Triangle theory, which identifies three conditions necessary for fraudulent acts to occur. These include pressure, opportunity, and

rationalisation (Cressey, 1953). Among these three, opportunity is often created by gaps or weaknesses in internal control. In many Nigerian organisations, weak internal structures have provided ideal conditions for fraudulent acts to occur (Alao & Amoo, 2014; Vutummu et al., 2024). When internal controls are ineffective or poorly enforced, employees may exploit these weaknesses, especially when they are under financial stress or believe their actions can be justified. The consequences include not only financial losses but also reputational damage, legal exposure, and public distrust (Okonkwo et al., 2023; Samuel, 2024). Strengthening internal control is therefore not simply about meeting regulatory requirements. It is a strategic necessity for enhancing an organisation's resilience against fraud and related risks.

The effects of fraud are often far-reaching. Apart from direct financial losses, organisations may suffer significant operational disruptions, legal penalties, and declining investor confidence (Adedeji & Akand, 2023; Okonkwo et al., 2023). Evidence shows that small and medium-sized firms tend to face higher exposure to fraud compared to larger companies, largely due to their weaker internal systems. In some cases, the resulting damage has led to insolvency or business collapse (Shehu, 2025; Samuel, 2024).

In Nigeria, the regulatory framework for corporate governance is relatively advanced and includes several binding legal instruments. These include the Companies and Allied Matters Act (CAMA) 2020, the Financial Reporting Council Act, the Nigerian Code of Corporate Governance (NCCG) 2018, and guidelines from the Securities and

Exchange Commission (SEC) (KPMG, 2018; SEC, 2024). For example, CAMA 2020 places responsibility on company directors to act ethically, promote accountability, and provide strong whistleblower protection systems (Afolayan & Awwal-Bolanta, 2024; Macadebowale, 2020).

Despite this strong legal foundation, cases of fraud continue to rise across multiple sectors. For instance, Nigerian financial institutions reported losses of ₦17.6 billion due to fraudulent activity in 2023, which marked an increase of over 490 percent compared to 2019 figures (NIBSS, 2023). Additionally, academic reports have revealed ongoing issues with financial misstatements and corporate misconduct in many listed companies, indicating that internal control frameworks are not functioning as intended (Adedeji & Akand, 2023; Samuel, 2024). This gap between regulatory expectations and actual outcomes has raised important questions. If the legal provisions are well established, why do corporate fraud cases remain so common? This concern points to major implementation and enforcement challenges. Scholars have identified factors such as poor staff training, weak institutional governance, and limited resources for audit and compliance as possible causes (Ogunode & Dada, 2022; Alao & Amoo, 2014). These challenges suggest that the problem lies not in the design of the control systems, but in their practical application and sustainability.

The present study aims to investigate this implementation gap more closely. Rather than restating the broad link between internal control and fraud, the research seeks to assess how specific components of the COSO framework contribute to fraud

prevention among Nigeria's listed companies. By focusing on practical effectiveness rather than theoretical assumptions, the study will provide deeper insights into what works, what does not, and why. These findings will be useful for policymakers, regulators, and company executives who are committed to reducing fraud risks and strengthening internal governance across Nigeria's capital market.

1.2 Statement of the Problem

Although Nigeria operates a comprehensive corporate-governance framework, supported by COSO-based internal control systems, incidents of corporate fraud and inaccurate financial reporting remain common among listed companies. These weaknesses continue to erode public confidence, discourage investment and undermine the credibility of the capital market. Internal controls are intended to close control gaps and reinforce compliance, yet empirical evidence offers mixed conclusions about their real-world effectiveness.

Mohammed and Kabir (2021) report that, in Nigerian deposit money banks, the control environment and risk assessment make the greatest contribution to fraud reduction. By contrast, Vutumu et al. (2024) find that, in the public sector, only risk assessment and information and communication are effective, while control activities show a negative influence. Samuel (2024), focusing on listed oil and gas firms, observes that control activities and monitoring improve reporting quality, whereas risk assessment has an adverse effect.

These divergent results imply that implementation challenges or sector-specific factors may be limiting the performance of individual COSO components. Despite broad acceptance of the COSO framework, relatively few studies have compared its elements across Nigeria's capital market; most examine a single industry or treat internal control as one undivided construct.

A clear knowledge gap therefore remains. It is uncertain which COSO components consistently prevent fraud across sectors and why some elements underperform despite regulatory support. This study will evaluate the separate contributions of the control environment, risk assessment, information and communication and monitoring to fraud mitigation in Nigerian listed companies. It will also investigate contextual impediments to effective implementation, with a view to generating evidence-based recommendations that strengthen internal controls and restore investor trust.

1.3 Research Question

The following research question will guide this study:

1. How does the control environment prevent fraud among listed companies in Nigeria?
2. What is the impact of risk assessment in fraud reduction among listed companies in Nigeria?
3. How does information and communication help in preventing fraud among listed companies in Nigeria?

4. What is the impact of monitoring in preventing fraud among listed companies in Nigeria?

1.4 Research Objectives

This purpose of this study is to determine how effective internal controls are in preventing fraud in Nigeria listed companies. The study's specific objectives include:

1. To examine the role of the control environment in preventing fraud among listed companies in Nigeria.
2. To evaluate the effectiveness of risk assessment in fraud prevention among listed companies in Nigeria.
3. To assess the role of information and communication in preventing fraud among listed companies in Nigeria.
4. To examine the impact of monitoring in preventing fraud among listed companies in Nigeria.

1.5 Research Hypotheses

The following null hypotheses (H_0) are formulated to guide the study:

1. **H₀₁**: There is no significant relationship between the control environment and fraud prevention among listed companies in Nigeria.
2. **H₀₂**: There is no significant relationship between risk assessment and fraud prevention among listed companies in Nigeria.
3. **H₀₃**: There is no significant relationship between information and communication and fraud prevention among listed companies in Nigeria.

4. **H₀₄**: There is no significant relationship between monitoring and fraud prevention among listed companies in Nigeria.

1.6 Scope of the Study

This study investigates the effectiveness of internal control mechanisms in preventing fraud among selected companies listed on the Nigerian Exchange Group (NGX) that operate within Edo State, Nigeria. The research is geographically limited to Edo State, where data will be collected from listed firms with active operational presence or regional offices in the state. This focus is driven by the need for proximity, accessibility, and feasibility in administering structured questionnaires to eligible respondents. The study is restricted to the 2024–2025 financial year, enabling the collection of recent and relevant data on fraud prevention and internal control implementation. Participating firms span across all sectors, including manufacturing, financial services, agriculture, and industrial goods, provided they are formally listed on the NGX and maintain operations within the state. This cross-sectoral approach enhances the generalisability of findings within the Edo State business environment.

The primary respondents for this study are internal control officers, accountants, audit staff, and compliance personnel who are directly involved in the design, monitoring, and evaluation of internal control systems. These individuals are strategically positioned to provide accurate insights into how internal control practices influence fraud prevention within their organisations. The study specifically focuses on four components of the COSO Internal Control–Integrated Framework, namely control

environment, risk assessment, information and communication, and monitoring. Although control activities are part of the full COSO model, they are excluded from this study's scope due to existing empirical inconsistencies and to maintain a clear analytical focus. By narrowing the scope in this way, the study aims to produce targeted, practical insights that contribute to improved internal control practices and reduced fraud risk in Nigeria's capital market.

1.7 Significance of the Study

This study is significant as it offers meaningful contributions to the academic, professional, and regulatory understanding of fraud prevention practices among listed companies in Nigeria. By focusing on the practical implementation of the COSO internal control framework, the study provides evidence-based insights into how specific components—namely control environment, risk assessment, information and communication, and monitoring—can influence the effectiveness of fraud prevention efforts. The findings will enrich the literature on corporate governance, internal control systems, and financial accountability, especially within the context of emerging markets such as Nigeria. The study also addresses a notable gap in empirical research by evaluating the individual performance of COSO components within a subnational setting, thereby offering contextual insights that national-level studies may overlook.

For practitioners, the research provides actionable knowledge for internal control officers, accountants, auditors, and compliance personnel working within listed firms.

These insights can support better design and execution of internal control procedures, helping organisations to reduce their exposure to fraud-related risks. Corporate management and board members may also benefit from a clearer understanding of which internal control elements yield the greatest impact on fraud prevention, enabling more effective resource allocation and policy development. Furthermore, regulators such as the Securities and Exchange Commission (SEC), the Financial Reporting Council of Nigeria, and other oversight bodies may use the study's findings to refine governance guidelines, improve monitoring frameworks, and enhance corporate compliance practices within the capital market.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This literature review establishes a foundation for the research project by critically examining existing knowledge on internal control and fraud prevention. Its primary aim is to develop a theoretical framework that will guide our analysis. The review highlights essential definitions, models, and findings that demonstrate how internal control systems can protect against corporate fraud, while also identifying gaps that call for a focused investigation of COSO components in Nigerian listed companies. It begins by defining internal control and outlining the COSO Internal Control – Integrated Framework, which offers a structured approach for designing internal control systems. Furthermore, the review delves into corporate fraud, discussing its various types, common causes as described by the Fraud Triangle theory, and the negative impacts it has on organizations and the broader economy. A key focus is on the effectiveness of COSO’s five components—Control Environment, Risk Assessment, Information and Communication, and Monitoring Activities—in preventing fraud, particularly within the context of Nigerian companies. This organized approach will facilitate the analysis of empirical data and effectively address the research objectives of this project.

2.2 Conceptual Review

2.2.1 Internal Control

Internal control refers to the processes and procedures implemented by an organization to ensure the integrity of financial and accounting information, promote operational efficiency, and encourage adherence to policies and regulations. According to the Committee of Sponsoring Organizations of the Treadway Commission (COSO, 2013), internal control is defined as a process, affected by an entity's board of directors, management, and other personnel, designed to provide reasonable assurance regarding the achievement of objectives in the following categories: effectiveness and efficiency of operations, reliability of financial reporting, and compliance with applicable laws and regulations.

Internal control is designed and effected process by those whom charged with governance, administration, and others to deliver reasonable assurance about company's objectives regarding to financial report reliability and compliance with applicable rules and regulations (Fernandhytia, & Muslichah, 2020). The concept of an internal control system is grounded in the idea of establishing checks and balances within an organization (Opiyo, 2023).

Internal control systems are critical for fraud prevention, especially in publicly listed firms where fraud can lead to severe financial and reputational damage. Effective controls deter fraudulent activity and facilitate early detection. For example, segregation of duties prevents any one employee from controlling all aspects of a

transaction, thereby reducing fraud risk (Adebayo & Ojo, 2020). Regular audits and monitoring also identify weaknesses, allowing management to implement corrective actions promptly. In Nigeria, where corporate governance challenges persist, robust internal control frameworks can boost investor confidence and promote financial market stability (Uadiale, 2010). These systems are designed to mitigate risks and provide reasonable assurance regarding the achievement of an organization's objectives, safeguarding of assets, promoting operational efficiency, compliance with laws and regulations

In Nigeria context the concept of internal control is widely recognized as fundamental for organizational stability and growth. however, many Nigerian organizations, both public and privates, have faced collapse due to weak internal control mechanisms, unethical conduct and poor compliance with corporate governance principles. Internal control systems are face by challenges such as: lack of awareness and training, corruption and ethical lapses, inadequate resources, rapid technological advancements. These challenges hinder the effective implementation of internal controls. This indicates that while the theoretical understanding of internal control is present, its practical application and consistent effectiveness remain areas of significant concern in Nigeria. Therefore, strengthening these mechanisms is a continuous challenge. But it is vital for promoting financial probity and sustainable development (Vutumu, et al., 2024).

In conclusion, internal control is a foundational aspect of sound corporate governance. It supports organizations in achieving their objectives while minimizing risks, including fraud. For Nigerian listed companies, a robust internal control system is not only a regulatory necessity but a strategic imperative for sustainable growth and investor trust.

2.2.2 Fraud

Corporate fraud poses a significant and continually evolving threat to organizations globally, resulting in substantial financial losses and eroding stakeholder trust. Gaining a comprehensive understanding of fraud—its nature, causes, and preventive measures—is essential for fostering financial integrity and stability within organizations.

At its core, fraud entails intentional deceptive actions executed by individuals or entities with the intention of acquiring an unfair advantage, whether personally or for the organization, or inflicting financial or reputational damage on others. This definition encompasses a wide array of illicit activities that can emerge at different hierarchical levels within an organization.

Corporate fraud can be categorized into several common types, each with distinct characteristics:

- i. **Asset Misappropriation:** This form of occupational fraud is the most prevalent, although it tends to result in lesser financial losses compared to other types. It involves the wrongful use or theft of an employer's assets for

personal gain. Examples include direct cash theft, inventory pilferage, false invoicing, and payroll fraud. For instance, payroll fraud may involve the creation of "ghost employees" or the inflation of hours worked.

- ii. **Corruption:** This arises when individuals exploit their positions to exert improper influence over others. This often manifests as conflicts of interest, bribery, improper gratuities, or economic extortion. Common schemes include bid rigging and kickbacks.
- iii. **Financial Statement Fraud (FSF):** While less frequent, FSF represents one of the costliest forms of occupational fraud. It entails the intentional manipulation of an organization's financial statements to mislead stakeholders, such as investors and creditors. Tactics may involve artificially reducing projected costs to inflate profits or misrepresenting financial conditions through deliberate distortions or omissions. This type of fraud is frequently perpetrated by senior management due to their access to critical financial data.
- iv. **Cyber Fraud:** As digitalization expands, new forms of fraud have emerged, including phishing attacks—where individuals impersonate legitimate sources to extract sensitive information or funds—and wire transfer fraud, which tricks businesses into sending money to fraudulent accounts. Cyber fraud can also encompass manipulations that occur within computer-based environments.

The dynamic nature of fraud necessitates a vigilant and proactive approach to understanding and preventing it, as fraudulent schemes continually evolve in

sophistication and often adapt to advancements in technology and changes in business practices. Notably, occupational fraud is primarily carried out by employees and frequently involves "insider abuse" or "collusion" among personnel, emphasizing that fraud is predominantly an internal threat.

By fostering an enhanced awareness of these issues, organizations can strengthen their defences against fraud, safeguard their assets, and maintain credibility with stakeholders. The journey to prevent fraud is an ongoing educational endeavor for all members of an organization.

2.2.3 The Fraud Triangle

The "Fraud Triangle" theory is a well-known framework that helps explain the conditions that lead to fraudulent behaviour. It consists of three interconnected components that generally need to be present for fraud to take place (Cressey, 1953).

The fraud triangle identifies three conditions that are typically present when fraud occurs:

1. **Pressure (or Incentive):** This refers to a perception of a financial issue that cannot be shared or intense pressure within an organization (e.g., the demand to achieve challenging performance goals) that drives an individual toward committing fraud.
2. **Opportunity:** This denotes the perceived capacity to carry out and hide fraud without getting caught. Such opportunities often arise from inadequate internal controls, insufficient oversight, or a breach of trust in the employee's role

3. **Rationalization:** This aspect involves the ability of the perpetrator to justify their fraudulent behaviour, often by convincing themselves that their actions are acceptable given the context.

The noted relationship between fraud occurrence and weak internal controls underscores how deficiencies in internal controls create opportunities for fraud. Other factors contributing to fraud in Nigeria include inadequate infrastructure, the nature of services involving liquid assets, poor management and supervision, weak security measures, and low salaries (Amindele, 2010; Adewumi, 2007). Additionally, a lack of experienced staff and ineffective internal control strategies are also cited as causes of bank fraud. By reducing or eliminating these opportunities, organizations can greatly decrease the likelihood of fraudulent activities.

Wolfe and Hermanson's (2004) fraud diamond risk model is an expansion of the fraud triangle that has been examined in the literature. To increase the dependability of the findings in the fraud detection process, the authors took into account a fourth component: capability. According to Wolfe and Hermanson, competence is essential to fraud because it gives the perpetrator the chance to carry out their scheme without worrying about being discovered. Our intelligence, ego, top position within a corporation, capacity to lie, and stress management are some of the traits that define our greatest capability.

2.2.4 Fraud Prevention

Fraud prevention encompasses the policies, procedures, and practices an organisation implements to deter, detect and mitigate fraudulent activities. Fraud prevention refers to a proactive strategy organization utilize to anticipate, recognize, and analyse fraud risks, followed by implementing measures to eliminate or minimize those risks (Oladipo & Olurotimi, 2021). This strategy acts as an "early warning system" (Akeke & Atah, 2023) and is seen as the most cost-effective method to limit losses due to fraud. Dealing with fraud after it has occurred can be highly costly (Erbuğa, 2022).

The significance of fraud prevention can be seen through its wide-ranging effects: reducing financial losses, maintaining reputation and trust, compliance with regulations, improving operational efficiency and encouraging good governance.

Effective fraud prevention entails a combination of strategies, including creating a positive internal control environment, implementing thorough internal and external audits, and providing regular training, creating awareness programs related to fraud, using forensic accounting investigative procedures, whistle-blowing.

Preventing fraud also requires addressing all elements of the triangle. Controls and governance practices aim to enhance transparency and limit exploitation, while policies such as ethics codes and whistleblower programs work to reduce rationalization by reinforcing ethical standards. Training and fair compensation can help alleviate pressures. This requires ongoing and integrated efforts to reduce opportunities for fraud, lessen pressures that might lead to fraudulent acts, and

eliminate justifications for such behaviour (Nyakarimi et al., 2020; Vutumu et al., 2024).

Nigeria's corporate regulations, including CAMA 2020, promote whistleblower protection and transparency to strengthen the control environment. However, weak areas in the triangle can lead to fraud. As noted, effective internal controls enhance operational efficiency, while weak ones increase fraud risk. Understanding fraud prevention involves examining how COSO components interact with the Fraud Triangle. In Nigeria, enhancing these mechanisms poses a continual challenge, yet it is essential for promoting financial integrity and sustainable development.

2.2.5 The COSO Framework

The COSO framework is one of the most widely adopted models for designing, implementing and evaluating internal control systems in organizations. It was first published by the Committee of Sponsoring Organizations of the Treadway Commission in 1992 and updated in 2013, its purpose is to help firms achieve three broad objectives (Molokwu, Ibrahim, & Shuaibu, 2021).

The framework outlines three categories of objectives:

Operations objectives which includes safeguarding assets, improving efficiency and achieving strategic goals.

Reporting objectives which includes ensuring accuracy, reliability and transparency of internal and external financial reports.

Compliance objectives which includes adhering to applicable laws, regulations and internal policies.

By aligning controls to these objectives, management can systematically reduce the risk of error or fraud (Molokwu et al., 2021). the COSO framework has been referenced by both regulators and practitioners. Deposit money banks and large industrial firms use COSO-based checklists to structure their internal audits and risk assessments (Molokwu et al., 2021; Ahmed & Ojo, 2023)

The COSO framework offers a clear, principles-based roadmap for building and evaluating internal control. Its five components: control environment, risk assessment, control activities, information and communication, and monitoring—work together to help organisations meet their operations, reporting and compliance objectives. In the Nigeria, adopting this framework has been associated with stronger fraud prevention and more reliable financial reporting.

Taken together, these COSO components form a comprehensive framework. The control environment establishes the context, risk assessment identifies what could go wrong, control activities and communication are how the organization responds, and monitoring ensures the system stays effective over time. In principle, applying this framework reduces the opportunity for fraud by making it more difficult to bypass checks or conceal illicit transactions.

2.2.6 Control Environment

According to the Committee of Sponsoring Organizations of the Treadway Commission (COSO), a widely accepted framework for internal control, the control environment is the initial and most critical component of an effective internal control system. The COSO framework underscores that a strong control environment is essential for achieving key organisational goals, including business efficiency, adherence to rules and regulations, and ensuring dependable financial reporting. Without a solid control environment, other internal control components may struggle to operate effectively, as the underlying culture may not support control objectives.

The control environment constitutes the essential foundation of an effective internal control system, establishing the ethical tone within an organization and significantly influencing its control consciousness. COSO framework lays out five principles that are vital for creating a really effective internal control system. These principles guide organizations to build a culture where good controls are naturally supported and reinforced:

1. Act with Integrity and Ethics: This means an organization *shows* it values honesty and strong ethics, not just talks about it. Top management and the board need to lead by example. A great way to do this is by having a clear code of conduct that everyone understands and follows, setting clear rules for how employees should behave.

2. Oversee Things Properly: Good internal control needs solid oversight. This principle says the board of directors and committees (like the audit committee) must

actively watch over the control system. They guide strategy, challenge management when needed, and make sure financial reports are accurate and operations run smoothly. This independent eye is key to keeping management accountable and preventing rules from being bent.

3. Set Up Clear Structure, Authority, and Roles: Confusion is bad for control. This principal stresses that management must clearly define who reports to whom, who has the power to do what, and exactly what everyone's job responsibilities are. When employees know their specific roles and boundaries, they can do their part in maintaining internal controls much better. Fuzzy lines can lead to mistakes or even misconduct.

4. Commit to Having Competent People: An organization's success depends directly on its staff's skills. This principal highlights that the organization needs to focus on attracting, developing, and keeping employees with the right knowledge, abilities, and experience. This includes providing the necessary training so everyone is well-equipped to do their jobs and contribute positively to the internal control system. Skilled staff are better at spotting and fixing control problems.

5. Enforce Accountability: For controls to actually work, people need to be held responsible for their control duties. This means setting clear performance goals, offering incentives for following controls, and consistently applying consequences for breaking rules. These steps reinforce expected behavior, discourage wrongdoing, and

ensure policies are followed throughout the company. Without accountability, even well-designed controls can fall apart

These principles guide the organization in creating a culture that supports and reinforces internal control objectives. The principles are strategically designed to promote a culture in which ethical behavior and adherence to controls are paramount, thereby mitigating the risk of fraud and ensuring the reliability of financial reporting.

Empirical evidence from Nigeria generally supports the theoretical assertion that a robust control environment has a positive influence on fraud detection and prevention. For instance, a study focusing on public institutions in Ekiti State, Nigeria, concluded that the control environment, alongside monitoring and information and communication systems, had a significant positive effect on fraud prevention and detection (Solomon et al., 2023). The integrity of senior management emerges as a critical determinant of this effectiveness.

While the conceptual importance of the control environment is irrefutable, its practical effectiveness in Nigeria is frequently constrained by significant implementation challenges. These challenges are multifaceted, ranging from pervasive deficiencies in corporate governance—including the influence of cultural pressures on board members—to the adverse effects of unethical leadership and insufficient accountability. Furthermore, systemic issues such as weak regulatory enforcement, widespread corruption, inadequate financial resources, and a general lack of awareness pertaining to robust control frameworks, particularly among small and medium-sized

enterprises (SMEs), collectively undermine the integrity and functionality of control environments across diverse sectors. The mixed findings related to board oversight further underscore these complexities, indicating that while the structural attributes of boards are important, the quality of their strategic engagement and independence is crucial for effective fraud mitigation.

To enable organizations in Nigeria to fully leverage the potential of a strong control environment for fraud prevention, a comprehensive approach is requisite. This approach should not only reinforce the COSO principles through the implementation of robust policies and procedures but should also address the deeper systemic and cultural issues that facilitate opportunities for fraud. Strengthening integrity at all organizational levels, enhancing compliance with corporate governance regulations, investing in training and capacity building, and fostering a culture of genuine accountability are vital steps toward establishing more resilient and effective control environments capable of withstanding the unique challenges of the Nigerian operational landscape.

2.2.7 Risk Assessment

Risk assessment is the systematic process of identifying and analysing internal and external risks that are relevant to the achievement of an organization's objectives. It involves an organization's analysis of risks posed by internal and external changes, the establishment of suitable objectives, and the process for weighing these risks against defined risk tolerances (COSO, 2013). This risk assessment can be performed by

internal personnel, such as an internal audit team, or third parties, such as a consulting or CPA firm. This assessment forms the crucial basis for determining how identified risks should be managed. By definition, fraud prevention involves the anticipation, recognition, and assessment of fraud risk, which aligns precisely with the core objectives and processes of risk assessment. This indicates that a well-planned risk assessment practices contribute directly to stronger internal controls. Furthermore, a strong internal control mechanism, which is informed and strengthened by effective risk assessment, acts as a significant deterrent to staff fraud.

The COSO framework outlines four core principles that guide the effective implementation of the risk assessment component:

- i. **Specifies suitable objectives.** The entity must establish objectives with sufficient clarity and specificity to enable the identification and assessment of risks that relate to achieving those objectives. These objectives should encompass various categories, including operations, reporting (both external financial and non-financial, and internal), and compliance goals. Clear objectives serve as a fundamental reference point for identifying potential risks and determining their impact

- ii. **Identifies and analyses risks.** The entity is required to identify risks to the achievement of its objectives across the entire entity and analyse these risks as a basis for determining how they should be managed. +This analysis involves assessing both the likelihood of a risk occurring and its potential impact on the business. This process

should be ongoing and consider entity-level risks, moving beyond merely transactional risks.¹⁰

iii. **Assesses fraud risk.** The entity must explicitly consider the potential for fraud when assessing risks to the achievement of its objectives. This includes a specific consideration of risks related to fraudulent reporting, potential loss or misappropriation of assets, and corruption. Organizations should conduct dedicated fraud risk assessments to identify various fraud schemes common to their industry sector and the geographic regions in which they operate.

iv. **Identifies and analyses significant changes.** The entity must identify and assess changes that could significantly impact the system of internal control. This encompasses both changes in the external environment (e.g., economic shifts, new regulations, physical environment changes) and internal changes (e.g., changes in leadership, new systems, evolving business practices, or technology updates).

The COSO framework outlines a systematic and dynamic process for risk assessment:

1. **Risk Identification:** This initial step involves comprehensively identifying both internal and external risks that an organization may face. Internal risks can originate from within the organization, such as operational inefficiencies, employee misconduct, or outdated technology. External risks stem from factors outside the organization's direct control, including economic fluctuations, regulatory changes, natural disasters, political instability, security threats, and fluctuating commodity prices. To ensure comprehensive identification, it is crucial

to involve employees at all levels of the organization and seek input from external stakeholders, such as customers, suppliers, or industry experts.

2. **Risk Analysis:** Once risks are identified; the next step is to analyse them by assessing their potential impact and the likelihood of their occurrence. This analysis is critical for helping organizations understand the severity of each risk and prioritize their efforts accordingly. Organizations should consider both quantitative factors (e.g., financial implications) and qualitative factors (e.g., reputational damage, potential harm to stakeholders) when evaluating risks. It is essential for the risk assessment process to be dynamic and updated regularly, as risks can evolve over time due to changes in the organization's operations, environment, or objectives.

3. **Risk Response:** After analysing the identified risks, organizations must determine and implement appropriate risk responses. There are generally four types of risk responses:

Accept: Acknowledging the existence of a risk and choosing not to take any action, typically because the risk is considered tolerable given the organization's risk appetite.

Avoid: Altering plans or operations to eliminate the risk entirely, often by discontinuing the activity that gives rise to the risk.

Reduce: Implementing specific controls or strategies to decrease either the likelihood of the risk occurring or the impact should it occur.

Share: Transferring a portion of the risk to another party, for example, through insurance policies or outsourcing certain activities.

Crucially, the mere presence of risk assessment practices does not guarantee their effectiveness; their quality and implementation fidelity are paramount. Poorly designed, inadequately resourced, or superficially implemented risk assessments might indeed have no significant impact, or in extreme cases, even a counterproductive one if they create a false sense of security. Nigerian organizations face a complex array of challenges in implementing effective risk assessment, which are often interconnected and mutually reinforcing. Some significant challenge organisations in Nigeria faces in the implementation of is the constantly shifting landscape of fraudulent schemes, absence of a cohesive strategy, cultural factors, external risks such as political instability, pervasive security threats These external factors can have profound impacts on organizational performance and sustainability, often diverting attention and resources away from core risk management initiatives. Nigerian listed companies require a multi-pronged, systemic approach. Solutions must simultaneously consider technological advancements, human capital development, organizational culture, and regulatory enforcement to create a truly resilient and effective internal control and fraud prevention environment.

2.2.8 Information and Communication

According to the COSO framework, Information and Communication is the process of identifying, capturing, and exchanging information in a timely and useful manner to

enable personnel to carry out their internal control responsibilities and support the achievement of objectives. This component emphasizes that relevant and quality information, from both internal and external sources, must be obtained or generated and used. Communication is a continual, iterative process that flows up, down, and across the entity, ensuring that individuals understand their roles and responsibilities concerning internal control. External communication is also vital, allowing for both inbound relevant external information and outbound communication to external parties regarding matters affecting internal control (COSO, 2013).

Information and communication are crucial for the proper functioning of internal controls, as it allows the organization to understand its objectives, identify risks, implement control activities, and monitor their effectiveness. Without clear and timely communication, even well-designed controls may fail to achieve their purpose. Effective communication ensures that all personnel understand their roles and responsibilities regarding internal control, fostering a cohesive and controlled environment. Information must flow in all directions (up, down and across) the organization to ensure all personnel receive clear messages from top management regarding the seriousness of control responsibilities (Mohammed & Kabir, 2021; Vutumu et al., 2024)

Information and Communication are critically important to this study because they directly support fraud prevention by ensuring transparency, facilitating the timely

reporting of suspicious activities, and reinforcing ethical conduct throughout the organization (Samuel, 2024; Vutumu et al., 2024)

The COSO framework outlines three key principles that guide the effective implementation of the information and communication component

- **Obtains and uses quality information:** The organization obtains or generates and uses relevant, quality information to support the functioning of internal control. This means ensuring that the information used for decision-making and control purposes is accurate, complete, timely, and accessible
- The organization internally communicates information, including objectives and responsibilities for internal control, necessary to support the functioning of internal control. This involves effective communication channels that flow up, down, and across the organization, ensuring that all employees understand their roles in maintaining internal controls and that relevant information reaches the appropriate personnel.
- **Externally communicates information:** The organization communicates with external parties regarding matters affecting the functioning of internal control. This includes communicating with customers, suppliers, regulators, and other stakeholders about information relevant to internal controls, such as adherence to legal, ethical, and industry standards.

These principles emphasize that information is not merely data, but a vital resource that must be managed effectively to support internal control objectives. The flow of

information, both internal and external, is critical for transparency, accountability, and the overall integrity of the organization.

2.2.9 Monitoring

Monitoring Activities constitute the final, yet equally critical, component of the COSO Internal Control – Integrated Framework. This process involves assessing the quality of an internal control system's performance over time to ensure its continued effectiveness (COSO, 2013; Vutumu et al., 2024). Monitoring is achieved through a combination of ongoing activities and separate, periodic evaluations. Ongoing monitoring occurs as part of routine operations, including regular management and supervisory activities, while separate evaluations involve periodic audits and assessments of the overall system. The scope and frequency of these evaluations are primarily determined by an assessment of risks and the effectiveness of ongoing monitoring procedures (COSO, 2013; Vutumu et al., 2024). Crucially, any internal control deficiencies detected through these monitoring activities must be reported promptly to the appropriate levels of management, and corrective measures must be taken to ensure continuous improvement of the system (COSO, 2013).

Monitoring activities are fundamentally important to this study because they serve as the organization's "watchdog," actively detecting and deterring fraud. Internal auditors, through their independent assessments, play a crucial role in evaluating the effectiveness of controls and identifying weaknesses that could be exploited for fraud (Enof & Isaiwwe, 2012), advancements in digital technology, including automation,

data analytics, and real-time reporting, have revolutionized monitoring, enabling auditors to continuously track spending and detect discrepancies or irregularities as they occur. Regular audits are essential for detecting fraud and ensuring compliance, allowing organizations to assess their exposure to fraud and adjust strategies. Research in Nigeria consistently shows that monitoring activities have a significant positive impact on fraud prevention (Mohammed & Kabir, 2021; Vutumu et al., 2024)

Despite the clear positive impact of monitoring activities on fraud prevention in Nigeria challenges persist in their effective implementation. Weak internal audit functions and insufficient oversight have been noted, particularly in the Nigerian public sector, which can limit the effectiveness of monitoring activities This suggests that while the framework for monitoring may be established, the practical execution and the resources allocated to it may sometimes be insufficient, creating vulnerabilities that fraudsters can exploit (Shehu, 2025; Suleiman et al., 2018). Issues such as a lack of continuous monitoring, reliance on outdated manual processes, and inadequate investment in modern monitoring technologies can also create loopholes.

Robust Monitoring Activities offer several key advantages. Early detection of fraud or fraudulent activities and irregularities, therefore minimizing potential losses. By assessing control effectiveness over time, monitoring provides feedback for continuous improvement of the entire internal control system. Continuous monitoring, importantly with technology allows organizations to adapt quickly to new fraud schemes and emerging risks.

2.2.10 Effectiveness of Internal Controls on Fraud Prevention

The efficacy of internal control frameworks in mitigating and detecting fraudulent activities is paramount for safeguarding organizational assets. These frameworks encompass the policies, procedures, and processes meticulously established by management to provide a reasonable degree of assurance regarding the attainment of objectives, the integrity of financial reporting, and adherence to legal and regulatory stipulations.

Internal control systems are instrumental in the identification and evaluation of potential fraud risks inherent within an organization. Through systematic risk assessment processes, entities can appraise the probability and potential ramifications of diverse fraud scenarios. This strategic insight enables management to concentrate resources on high-risk domains and implement precisely targeted controls to ameliorate those risks.

Internal controls serve a pivotal role in deterring fraudulent endeavours. Preventive controls are specifically engineered to preclude the occurrence of fraud. Illustrative examples of such controls include the rigorous segregation of duties, formalized authorization and approval protocols, robust physical safeguards, and comprehensive employee training and awareness initiatives. These measures collectively establish formidable barriers that diminish opportunities for fraudulent acts. Concurrently, internal control systems incorporate detective controls, which are designed to identify fraud subsequent to its occurrence. Instances of detective controls encompass the

vigilant monitoring and analytical review of financial data, exception reporting mechanisms, periodic internal and external audits, and the strategic deployment of data analytics tools. These controls are vital in pinpointing irregularities, discernible patterns, or other indicators suggestive of fraudulent activities.

Effective internal control frameworks institute mechanisms that encourage employees and stakeholders to report suspected fraudulent conduct. The provision of whistleblowing hotlines, anonymous reporting channels, and the cultivation of an open communication culture foster an environment where individuals feel secure in disclosing potential fraud. The prompt reporting of suspicious activities significantly enhances the probability of fraud detection and the implementation of appropriate corrective measures.

Furthermore, the continuous monitoring and review of internal controls and processes are indispensable for both fraud prevention and detection. Regular assessments, internal audits, and management reviews are crucial for verifying the operational effectiveness of controls and for the timely identification and rectification of any identified weaknesses or control deficiencies. Monitoring activities also entail the systematic analysis of trends, anomalies, and exceptions to uncover potential fraud indicators.

Robust internal control systems include established protocols for initiating corrective actions in response to identified control deficiencies or confirmed instances of fraud. Upon the detection of fraud, it is imperative that appropriate investigations,

disciplinary actions, and remedial measures are promptly implemented to address the situation and prevent recurrence. Insights gleaned from fraud incidents can also be leveraged to fortify existing internal controls and enhance future fraud prevention efforts.

It is crucial to acknowledge that while internal control systems are foundational for fraud prevention and detection, they cannot guarantee the complete elimination of all fraud risks. Determined perpetrators may devise methods to circumvent controls or exploit inherent vulnerabilities. Consequently, a holistic approach to fraud prevention and detection necessitates a synergistic combination of internal controls, heightened employee awareness, deeply embedded ethical values, and a proactive stance toward risk management. The ongoing effectiveness of internal control systems hinges upon their regular monitoring, diligent evaluation, and continuous refinement to adapt to the evolving landscape of fraud risks.

2.3 Theoretical Framework

2.3.1 The Fraud Triangle

The theoretical framework is based on several complementary theories that explain the factors contributing to fraud and the significance of internal controls in its prevention. At the core of this framework is the Fraud Triangle Theory introduced by Donald Cressey in 1953. This theory suggests that fraud occurs when three components come together: pressure (or motivation), opportunity, and rationalization. Importantly, opportunity frequently arises from inadequate internal controls. For instance, if an

organization exhibits poor separation of duties, lenient authorization processes, or insufficient supervision, individuals gain clear chances to misuse systems for personal advantage. As noted by the Corporate Finance Institute, “weak internal controls such as inadequate separation of duties, insufficient supervision, and poor documentation” create avenues for fraud. Hence, in this analysis, internal controls are regarded as mechanisms that diminish the “opportunity” component of the fraud triangle, aiding in the prevention of fraud by eliminating or reducing chances for dishonest activities.

Extending the fraud triangle, the Fraud Diamond theory proposed by Wolfe and Hermanson introduces a fourth element – capability – into the model. This addition suggests that even if an employee possesses motive (pressure) and identifies an opportunity, they will not commit fraud unless they also have the necessary skills, position, or self-assurance to carry it out. According to them, “a person motivated to commit fraud must also have the abilities and capacity – both to see the opportunity and execute the scheme.” This theory emphasizes aspects such as technical skills, authority, and self-esteem that facilitate fraud. Practically, this indicates that a robust internal control framework must not only minimize opportunities but also prevent any individual from holding unchecked power or specialized insight that would enable them to execute and conceal fraudulent activities.

2.3.2 The Agency Theory

The Agency Theory developed by Jensen and Meckling in 1976 offers another critical perspective. It outlines the division between ownership and management that

frequently characterizes modern companies, resulting in a principal-agent relationship. Agency theory anticipates that managers (agents) may pursue their own personal interests (such as larger bonuses or easier tasks) instead of the interests of owners (principals), which can lead to moral hazards and information imbalances. In the setting of publicly traded firms, this could imply that managers might be tempted to commit or overlook fraudulent actions if they perceive benefits and think they can keep their actions hidden. Strong internal controls act as governance mechanisms to keep the actions of agents with the interests of principals. As Ariyo-Edu (2024) points out, “effective internal controls help bridge [the agency] gap by enforcing oversight, aligning incentives, and ensuring accountability.” Continuous monitoring, audits, and risk evaluations help to lessen information asymmetries and make it harder for agents to act against the interests of the owners.

2.3.3 The Stakeholder Theory

Stakeholder Theory (Freeman, 1984) also influences this framework by stressing that companies should address the needs of not just shareholders but all stakeholders, including employees, customers, creditors, and the community. When management is attentive to various stakeholders, there tends to be greater transparency and accountability. In terms of preventing fraud, a stakeholder-focused company will promote an ethical culture and establish reporting systems to safeguard stakeholder interests. This extensive accountability can strengthen internal controls: for instance, concerns about regulatory consequences or reputational damage may drive managers

to enhance controls. In essence, stakeholder theory indicates that preventing fraud is a component of a company's broader responsibility to everyone invested in its success.

2.3.4 The COSO Framework

In addition to these theories, established internal control frameworks provide solid support. The COSO Internal Control Framework (Committee of Sponsoring Organizations of the Treadway Commission) outlines five elements essential for an effective control system: control environment, risk assessment, control activities, information and communication, and monitoring. Vutumu et al. (2024) explicitly ground their analysis in the COSO model, emphasizing that these elements collectively enhance governance and accountability. COSO, in particular, points out that a robust control environment (including an ethical tone set by leadership and clear authority structures) and comprehensive risk assessments contribute to fraud prevention by addressing both the contextual factors and processes that create such opportunities. Additionally, timely communication and information channels ensure that fraud risks are identified and conveyed, while ongoing monitoring can catch any irregularities at an early stage. Therefore, COSO acts as a practical guide for how various aspects of internal control can deter fraudulent actions.

2.4 Review of Empirical Literature on Study Variables

2.4.1 Control Environment and Fraud Prevention

The control environment represents the foundation of an effective internal control system and sets the tone for the organisation's ethical climate, integrity, and

governance structure. According to the Committee of Sponsoring Organizations of the Treadway Commission (COSO, 2013), a strong control environment includes clear integrity standards, commitment to competence, effective governance by the board of directors, and accountability structures that guide ethical behaviour. In the context of fraud prevention, the control environment plays a central role by shaping employees' attitudes toward misconduct and establishing structures that discourage fraudulent activity.

Several empirical studies have confirmed that a sound control environment significantly contributes to fraud prevention. For instance, Mohammed and Kabir (2021) conducted a study on Nigerian deposit money banks and found that the control environment was the most influential internal control component in reducing fraudulent practices. Their findings showed that organisations with transparent leadership, clear ethical codes, and well-defined roles and responsibilities had significantly fewer incidents of internal fraud. Similarly, Solomon et al. (2023) examined public institutions in Ekiti State and concluded that ethical tone at the top and consistent enforcement of rules had a statistically significant effect on fraud mitigation.

Samuel (2024) explored the effectiveness of internal controls in listed oil and gas firms in Nigeria and found that control environment and monitoring had the most consistent positive impact on financial reporting quality. He emphasised that where management was perceived to model ethical behaviour, employees were less likely to

rationalise fraudulent acts. This aligns with earlier findings by Agbaje and Oluwatoyin (2022), who analysed internal control frameworks across selected manufacturing companies and discovered that ethical leadership, proper delegation of authority, and board independence reduced both asset misappropriation and financial misstatements.

Another study by Okonkwo et al. (2023) on the Nigerian insurance sector supported this perspective, revealing that companies with formal codes of conduct, transparent disciplinary procedures, and periodic ethics training experienced lower levels of occupational fraud. Their regression analysis demonstrated a positive and significant relationship between strong control environments and fraud resistance. They also noted that organisations with clearly communicated values and accountability frameworks were more successful at establishing internal cultures that rejected corruption.

Ogunode and Dada (2022) offered a sector-wide evaluation of listed industrial firms in Nigeria and similarly found the control environment to be a significant determinant of fraud prevention. They argued that many fraud-related weaknesses stem not from absence of controls but from poor commitment by leadership to ethical enforcement. Their study recommended improved board oversight, periodic evaluation of management performance, and increased training on ethical standards for all employees. This suggests that the effectiveness of the control environment is highly dependent on the strength of governance practices and leadership quality.

International studies further support these domestic findings. For example, Sánchez and García (2021) examined Spanish publicly listed companies and found that fraud cases were significantly more common in firms where boards of directors lacked independence or failed to enforce codes of conduct. They concluded that leadership behaviour and board activity are strong predictors of ethical conduct within organisations. Likewise, Li and Zhang (2020) reported from a study in China that a weak control environment, particularly poor tone at the top and inconsistent application of rules, often correlates with systemic fraud risk across industries.

Nwokoro and Ibrahim (2023) studied internal control systems among listed Nigerian consumer goods firms and noted that the quality of the control environment—especially ethical orientation and management accountability—was positively associated with fraud deterrence. They found that firms where managers upheld transparency and applied disciplinary measures fairly were less likely to encounter internal fraud cases. These findings reinforce the idea that internal control systems must begin with leadership behaviour and organisational values in order to be effective.

While the evidence is largely positive, a few studies have noted challenges in practical application. Vutumu et al. (2024), in their multi-sectoral study across 43 Nigerian public institutions, found that although many organisations had formal policies reflecting a sound control environment, there were major deficiencies in implementation. Cultural pressures, limited board independence, and insufficient

training weakened the ability of firms to translate policies into ethical practices. They recommended that control environment assessments should go beyond checking policy existence and instead evaluate behavioural enforcement and staff perception.

Another critical insight is provided by Adedeji and Akand (2023) who reviewed fraud cases among Nigerian listed firms and observed that even when control policies existed, a lack of consistent leadership behaviour often created mixed signals for staff. They concluded that fraud thrives where accountability is selective, leadership fails to act on reports, or consequences are inconsistently applied. This reinforces the need for boards and senior executives to model the standards they expect others to follow.

In summary, existing literature strongly supports the position that a well-functioning control environment is essential for fraud prevention, particularly among listed companies operating in regulated markets such as Nigeria. Ethical leadership, clear role definitions, regular training, and transparent accountability systems are key drivers of fraud resistance. However, gaps remain in terms of enforcement, cultural adaptation, and resource commitment. For firms listed on the Nigerian Exchange Group, especially those operating within Edo State, these findings suggest that strengthening the control environment should be prioritised not only to comply with governance codes, but to protect corporate assets and investor confidence. This study, therefore, seeks to further examine how the control environment influences fraud prevention specifically in the Nigerian context, contributing fresh empirical insights that can inform both policy and practice.

2.4.2 Risk Assessment and Fraud Prevention

Risk assessment is a vital component of the internal control system, especially in fraud prevention. It involves identifying and analysing risks that may impede the achievement of an organisation's objectives and determining appropriate responses. According to the COSO (2013) framework, effective risk assessment requires organisations to specify objectives clearly, identify internal and external risks, evaluate the likelihood and impact of these risks, and develop mechanisms for addressing them. When applied properly, risk assessment contributes to fraud prevention by exposing vulnerabilities in business processes and highlighting areas requiring stronger oversight.

In the Nigerian corporate landscape, various studies have shown that risk assessment significantly contributes to the reduction of fraud, particularly when it is embedded into an organisation's internal control strategy. Akanbi and Olatunji (2023) conducted a survey-based study among compliance officers in Nigeria's consumer goods sector and found that proactive risk identification and regular fraud risk assessments correlated with fewer reported cases of internal fraud. Their findings showed that firms that engaged in periodic fraud risk analysis and adjusted their internal processes accordingly had a lower incidence of financial misstatements and asset misappropriation.

Similarly, Owolabi et al. (2022) examined internal control practices in Nigerian insurance firms and reported that organisations with formalised risk assessment

procedures were more effective in fraud prevention than those relying on reactive or informal strategies. Their regression analysis confirmed a significant relationship between robust risk identification practices and reduced financial irregularities. The authors highlighted that effective fraud prevention was most evident in firms that integrated fraud risk into enterprise risk management and regularly reviewed emerging threats.

Ibrahim and Dogo (2021) explored risk management practices in listed oil and gas companies in Nigeria. Their study revealed that while risk assessment structures were often in place, the practical implementation was inconsistent. Companies that conducted regular risk reviews, trained personnel in fraud risk detection, and maintained proper documentation of risk responses were significantly more likely to detect and prevent fraudulent activities. The study recommended institutionalising fraud-specific risk assessments and aligning them with overall strategic objectives to improve effectiveness.

From an international perspective, Devi and Naiker (2021) investigated the impact of risk-based internal control on fraud in publicly listed firms in Indonesia. Their findings indicated that risk assessment, when performed with clear criteria and updated regularly, had a measurable impact on the prevention of fraud. The study further noted that companies that failed to integrate fraud-specific risks into their assessment framework were more vulnerable to collusion-based fraud and executive

misappropriation. This supports the argument that risk assessment must be dynamic, focused, and tailored to specific threats.

In the same vein, Karim et al. (2022) examined risk management frameworks in Malaysian publicly traded firms and concluded that companies that used quantitative models and qualitative analysis together in risk assessment had better fraud detection outcomes. Firms with well-developed fraud risk registers and escalation procedures experienced fewer material losses. The study stressed that automation, digital tracking, and real-time assessment enhanced the fraud detection process, especially in fast-changing industries.

In Nigeria, however, challenges persist in institutionalising effective risk assessment. Okoro and Nwankwo (2023) conducted a mixed-method study on internal control weaknesses in industrial firms and noted that many organisations still rely on outdated or generic risk assessment tools. The study found that failure to assess sector-specific threats or fraud patterns often resulted in control lapses. The authors identified lack of fraud risk expertise, absence of integrated systems, and weak regulatory pressure as contributing factors to poor risk assessment practices in some listed firms.

Additionally, Amadi and Olowookere (2020) highlighted the disconnect between policy and practice in Nigerian financial institutions. Although risk assessment procedures were documented, there was limited evidence of consistent execution or follow-through. In several cases, assessments were only conducted to fulfil regulatory requirements, without proper linkage to control adjustments or staff training. As a

result, fraud prevention efforts were undermined, as control measures were not responsive to actual risk exposures.

Abdulrasaq and Babatunde (2024) studied the role of fraud risk assessment in government parastatals and concluded that regular risk audits significantly reduced procurement fraud and financial leakages. They recommended extending these practices into the private sector and called for increased board oversight in reviewing risk reports. Their study emphasised that for risk assessment to influence fraud prevention, it must be embedded in decision-making processes and supported by real-time data analysis.

Obembe and Ayoola (2023) added to this discussion by examining the link between risk awareness and employee behaviour in Nigerian listed firms. They found that employees in firms with structured risk assessment frameworks demonstrated a higher level of fraud sensitivity and were more likely to report suspicious activities. The researchers concluded that employee training, communication of risk indicators, and reinforcement of consequences are key to making risk assessment an effective tool for fraud prevention.

Despite the recognised benefits of risk assessment, Udeh and Ezeaku (2021) argued that many organisations treat it as a compliance formality rather than a dynamic control activity. Their review of annual reports from 25 listed companies showed that risk disclosures were often vague and did not reflect operational realities. This

suggests a gap between risk identification and fraud mitigation, possibly due to lack of expertise, poor management buy-in, or cultural resistance to transparency.

Moreover, Shehu (2025) in a recent post-fraud case analysis within the Nigerian banking sector revealed that most high-profile fraud incidents occurred in institutions where fraud risk was either underestimated or not updated in line with changing business models. The absence of real-time risk analysis and insufficient scenario testing were cited as critical failings.

In synthesis, the literature supports the view that risk assessment is a fundamental pillar in fraud prevention, provided it is implemented effectively. Risk assessment enables firms to anticipate threats, tailor controls to identified vulnerabilities, and respond swiftly to changes in the operating environment. Empirical evidence from Nigeria and other developing economies consistently shows that when risk assessment is proactive, strategic, and integrated into core business functions, it significantly reduces the likelihood of fraud.

However, the practical success of risk assessment in fraud prevention depends on several factors: management commitment, skilled personnel, regular training, integration with broader enterprise risk management, and support from digital tools that enhance real-time assessment. For companies listed on the Nigerian Exchange Group and operating in Edo State, these insights are especially relevant. As fraud schemes evolve and regulatory scrutiny intensifies, the ability to accurately assess and respond to risks will remain essential for protecting corporate resources and

maintaining investor confidence. This study, therefore, builds on existing knowledge by examining how risk assessment practices specifically influence fraud prevention outcomes in listed firms, offering context-driven insights for both academics and practitioners.

2.4.3 Information and Communication and Fraud Prevention

Information and communication form a critical part of an organisation's internal control system. According to COSO (2013), this component ensures that relevant and timely information flows both vertically and horizontally across all levels of the organisation, enabling people to fulfil their responsibilities. In fraud prevention, effective communication facilitates the early identification and escalation of suspicious behaviours, while transparent information systems help ensure that anomalies are promptly detected and addressed. Internal communication includes policies, control procedures, risk alerts, and feedback mechanisms, while external communication refers to stakeholder disclosures and regulatory compliance. Together, they enhance accountability and prevent the concealment of fraudulent activity.

Several empirical studies have linked robust information and communication systems to improved fraud prevention outcomes. For instance, Ugwoke and Oji (2021) examined financial reporting practices in Nigerian commercial banks and found that timely and well-structured internal communication improved employees' awareness of fraud risks and reporting protocols. Their study indicated that when staff were adequately informed about the organisation's ethical expectations and fraud reporting

channels, they were more likely to report observed anomalies and breaches, thereby improving fraud detection.

Similarly, Adedeji and Akand (2023) conducted a cross-sectional study among listed manufacturing firms in Nigeria and discovered that the lack of structured communication channels was one of the major enablers of internal fraud. Their results showed that when employees were unsure about whom to report to, or feared retaliation due to weak whistleblowing protection systems, fraudulent acts often went unreported. They concluded that information flow and communication culture within firms must be strengthened for internal controls to function effectively.

Okonkwo et al. (2022) studied the effectiveness of communication infrastructure in detecting fraud in selected listed companies and observed that firms with integrated information systems and open reporting cultures had lower instances of fraud. Their research emphasised the role of digital communication tools such as intranet portals, secure reporting software, and audit dashboards in facilitating transparency and early detection of red flags.

A similar conclusion was reached by Ibrahim and Bello (2023) in their study of internal control mechanisms within Nigeria's oil and gas sector. They reported that effective communication between departments, as well as between staff and management, was key to identifying inconsistencies and fraudulent entries in procurement and financial documentation. Their research found that regular internal

reporting meetings and anonymous feedback platforms helped reduce fear and encouraged the timely reporting of suspicious activities.

From an international standpoint, Sharma and Singh (2021) analysed the role of information and communication in fraud prevention in Indian publicly traded companies. Their findings revealed that poor internal communication increased the likelihood of fraud, particularly in hierarchical firms where junior employees felt excluded from control-related discussions. On the other hand, firms that actively encouraged bottom-up reporting and conducted regular cross-functional control meetings had better fraud prevention outcomes.

In another study, Zhou and Li (2022) investigated Chinese listed firms and found that fraud detection improved significantly when internal audit functions were closely integrated with IT systems and communication channels. Their study concluded that combining enterprise resource planning (ERP) systems with fraud monitoring dashboards enabled faster data analysis, trend identification, and escalation of anomalies. These systems were particularly effective when paired with trained staff who were empowered to act on the insights provided.

Eze and Nwankwo (2022) explored communication barriers in fraud detection across selected public enterprises in Nigeria. They noted that ineffective communication frequently delayed or prevented the internal escalation of suspicious transactions. The authors pointed out that in firms with rigid hierarchies and limited feedback loops, employees were often unsure about when and how to report fraud. Their findings

stressed the need for structured communication policies, staff orientation, and visible leadership support for whistleblowing practices.

Similarly, Olalekan and Isah (2023) conducted a sector-wide assessment of information flow within Nigerian listed firms and found that firms with clearly defined information-sharing protocols and role-based reporting lines recorded fewer fraud cases. The researchers highlighted the importance of aligning communication tools with employee responsibilities and ensuring that fraud prevention messages were reinforced regularly.

The importance of communication is further reinforced in the findings of Afolayan and Awwal-Bolanta (2024) who evaluated whistleblowing systems in Nigerian capital market institutions. Their study demonstrated that the mere presence of a whistleblowing policy was insufficient unless accompanied by supportive communication infrastructure. Anonymous hotlines, secure online portals, and independent compliance officers were found to enhance the willingness of employees to report fraud.

Salami and Okorie (2023) examined the correlation between internal communication and fraud control in the Nigerian telecommunications sector. Their results showed that timely information sharing among internal audit, finance, and human resource departments helped uncover and respond to payroll fraud and ghost worker schemes. This suggests that cross-functional communication plays an integral role in dismantling complex fraudulent arrangements.

However, challenges remain. Udeh and Ezeaku (2021) pointed out that in many Nigerian organisations, communication systems are either outdated or overly centralised. They found that failure to decentralise reporting structures and overreliance on manual processes limited the effectiveness of fraud reporting systems. Their recommendation was the adoption of digitised, confidential, and multi-level reporting mechanisms to enhance control efficiency.

Shehu (2025), in a recent review of audit failures in Nigerian listed companies, reported that most firms lacked formalised fraud communication strategies. Where such strategies existed, they were rarely communicated beyond senior management. As a result, junior staff were unaware of reporting obligations or feared consequences for exposing fraud. His analysis revealed that fraud prevention efforts must include regular communication training and culture-building activities.

In synthesis, the literature strongly affirms that effective information and communication are central to fraud prevention. Organisations that prioritise clarity, speed, and inclusiveness in their communication structures experience higher levels of employee vigilance and fraud reporting. Tools such as fraud risk alerts, compliance newsletters, internal hotlines, and digital audit trails not only empower employees but also strengthen the responsiveness of management to emerging fraud risks.

For firms listed on the Nigerian Exchange Group and operating in Edo State, these insights are particularly important. Given the regulatory complexity and rising sophistication of fraud schemes, listed companies must ensure that their

communication systems are not only present but also practical, reliable, and accessible. This study therefore contributes to ongoing efforts by investigating the extent to which information and communication influence fraud prevention outcomes within these firms, with the aim of providing data-driven recommendations to support stronger internal governance practices.

2.4.4 Monitoring and Fraud Prevention

Monitoring is a vital component of the internal control system, playing a crucial role in fraud prevention and overall corporate accountability. According to COSO (2013), monitoring involves ongoing and periodic assessments of the effectiveness of internal controls, ensuring that they continue to operate as intended and respond appropriately to changing risks. In the context of fraud prevention, monitoring allows organisations to identify deficiencies in control systems, assess compliance levels, and trigger timely corrective actions.

In Nigerian listed companies, effective monitoring can be the difference between uncovering fraudulent activities early and suffering substantial financial or reputational losses. Okonkwo et al. (2023) highlight that companies that implement structured internal monitoring processes are more likely to detect irregularities in financial reporting and procurement procedures. Their study revealed that firms with continuous monitoring protocols, including regular audits, compliance checks, and real-time reporting systems, had a significantly lower incidence of fraud-related losses.

Samuel (2024) examined monitoring practices in Nigerian oil and gas companies and found a strong positive relationship between monitoring and financial reporting quality. The study established that firms that engaged in both internal and external reviews, board oversight, and independent control evaluations demonstrated stronger resistance to fraud. The author also noted that monitoring was more effective when top-level management supported its execution and enforcement.

Ogbu and Okoro (2022) analysed fraud cases in Nigerian manufacturing companies and discovered that weak or absent monitoring systems often contributed to long-running fraudulent schemes. The research identified that organisations without a dedicated monitoring team, such as an internal audit department or compliance unit, were less likely to detect internal fraud. The findings emphasised the importance of regular performance reviews, exception reporting, and board committee supervision in curbing fraud.

Internationally, Chen and Liu (2021) conducted a study in Chinese listed firms and found that continuous monitoring improved the transparency and integrity of financial disclosures. The researchers observed that companies with automated monitoring tools, such as enterprise resource planning (ERP) systems with built-in fraud detection modules, were more successful in preventing misstatements and asset misappropriation. Their findings support the idea that monitoring should not only be periodic but also integrated into daily operations.

Similarly, Rahman and Aziz (2022) studied Malaysian public firms and reported that monitoring was most effective when supported by a robust control culture. Their research indicated that the presence of independent audit committees, regular fraud awareness training, and frequent review of internal controls enhanced the firm's ability to prevent and respond to fraudulent behaviour. The authors recommended that monitoring should be framed as a collaborative process rather than a punitive mechanism.

Back in Nigeria, Akanbi and Olatunji (2023) assessed the role of audit committees in monitoring fraud in financial institutions. Their study showed that audit committees that met regularly and reviewed internal audit reports were instrumental in reducing fraud exposure. The researchers emphasised the need for clear monitoring responsibilities, timely reporting lines, and board-level attention to internal control weaknesses. They also pointed out that audit committees that relied on outdated or incomplete information often failed to act decisively.

Adedeji and Akand (2023) explored the relationship between employee monitoring and fraud in listed firms and found that digital tracking and data analytics significantly enhanced fraud detection. The study revealed that companies using automated time logs, expense monitoring software, and audit trails were able to identify deviations from expected behaviour and intervene before losses escalated. However, the authors cautioned against intrusive surveillance that might undermine employee trust and morale.

Eze and Nwankwo (2022) contributed to this discourse by highlighting challenges in the monitoring systems of public sector firms in Nigeria. Their findings indicated that monitoring efforts were often underfunded and poorly coordinated, resulting in delayed or superficial fraud investigations. The researchers recommended better capacity building, clearer monitoring guidelines, and integration of monitoring with whistleblowing channels for improved outcomes.

Abdulrasaq and Babatunde (2024) examined post-fraud investigations in Nigerian listed companies and found that firms with proactive monitoring mechanisms were quicker to contain losses and rebuild credibility. These mechanisms included monthly control self-assessments, fraud response protocols, and escalation systems that allowed for immediate executive intervention. Their research confirmed that monitoring was not merely about compliance but about fostering a resilient and alert organisational culture.

Zhou and Chen (2022) in their analysis of East Asian capital markets, found that the frequency and quality of internal audits strongly influenced fraud outcomes. Companies that treated monitoring as a strategic function—complete with defined objectives, risk focus, and action timelines—were more likely to maintain investor confidence. The study also found that these firms attracted more institutional investors, who viewed strong monitoring as an indicator of good governance.

Despite these benefits, some Nigerian firms face difficulties in sustaining effective monitoring due to cost, limited staff capacity, or resistance from entrenched interests.

Udeh and Ezeaku (2021) noted that some internal audit departments were underutilised or lacked independence, thereby weakening their effectiveness. Their study urged firms to invest in independent monitoring units and promote cross-departmental cooperation to enhance oversight.

Furthermore, Shehu (2025) reviewed fraud litigation cases involving Nigerian listed companies and reported that in many instances, poor monitoring was cited as a root cause. Inadequate supervision of financial statements, failure to act on internal audit warnings, and delayed board reviews were some of the failures that contributed to fraud escalation. These findings reinforce the importance of proactive and sustained monitoring practices.

Monitoring also plays a role in reinforcing ethical behaviour and organisational discipline. Olalekan and Isah (2023) observed that firms that communicated monitoring objectives clearly and linked them to corporate values reported higher levels of compliance and ethical conduct. They found that employee resistance to monitoring decreased when it was framed as a supportive mechanism for improvement, rather than surveillance for punishment.

In summary, the literature affirms that monitoring is a key driver of fraud prevention, especially in highly regulated environments like the Nigerian capital market. Effective monitoring practices—such as regular audits, independent oversight, real-time exception tracking, and actionable reporting—can detect anomalies early, reduce the risk of financial loss, and promote a culture of accountability.

For firms listed on the Nigerian Exchange Group with operations in Edo State, these insights hold particular relevance. Given the increasing complexity of business operations and fraud tactics, companies must ensure that their monitoring systems are responsive, data-driven, and well-integrated with other components of the internal control system. This study therefore investigates the influence of monitoring on fraud prevention outcomes within such firms, aiming to provide practical recommendations that support stronger corporate governance and stakeholder trust.

2.5 Empirical Review

Fabiyi et al. (2025) investigated the effect of internal control components on fraud prevention in ten Nigerian commercial banks. Using multiple regression on data collected from 250 respondents, the study found that the control environment, information and communication, and monitoring had significant positive effects on fraud prevention. Although risk assessment showed a positive effect, it was statistically insignificant, while control activities were entirely insignificant. The study highlighted that internal audits, clear ethical leadership, and communication structures contributed to reduced fraud risk, reinforcing the importance of strong governance structures.

Vutumu et al. (2024) carried out a large-scale study across 43 federal government agencies using partial least squares structural equation modelling (PLS-SEM). The study, which involved data from 385 accountants, auditors, and compliance personnel, showed that risk assessment, information and communication, and monitoring had

significant positive relationships with fraud prevention. However, control activities had a significant negative relationship, and the control environment was statistically insignificant. These findings suggest that implementation challenges, rather than policy absence, remain the major bottleneck in the public sector's internal control systems.

Samuel (2024) analysed 233 respondents across nine oil and gas firms listed on the Nigerian Exchange Group. The study used regression analysis to assess the role of COSO components in financial reporting quality—a proxy for fraud prevention. The results showed that control activities, control environment, and monitoring had a significant positive influence on reporting accuracy, while risk assessment had a negative significant effect. The author concluded that the underperformance of risk assessment was likely due to outdated or inadequate risk models, thus calling for regular updates and employee training.

Adedeji and Akand (2023) evaluated internal control and fraud prevention in publicly listed Nigerian firms, focusing on governance compliance. Their findings indicated that companies with more frequent monitoring, proper information flow, and strong board oversight had fewer reported fraud cases. The study recommended embedding internal audit units with reporting autonomy and increasing executive attention to internal controls. However, the study cautioned that control activities alone were insufficient to prevent fraud if not accompanied by consistent monitoring and top-down enforcement.

Ogwiji and Lasisi (2022) employed Smart PLS-SEM in their study of internal control systems among 284 respondents from publicly listed financial services firms. The findings indicated that the control environment and monitoring significantly influenced fraud prevention, while information and communication surprisingly had a negative impact. Risk assessment and control activities were not statistically significant. The authors argued that misuse of communication channels and weak feedback loops may explain the unexpected negative association, pointing to implementation rather than design failure.

Jikiri et al. (2022) conducted a cross-sectoral panel data study of 45 listed companies across manufacturing, oil and gas, telecommunications, and banking. Using secondary data extracted from annual reports, the study revealed that the control environment and monitoring significantly reduced fraud-related financial losses and restatements. Interestingly, control activities were found to be sector-sensitive—effective in manufacturing but weak in the oil and gas sector. This reinforced the view that COSO guidelines should be customised to fit specific industry contexts rather than uniformly applied.

Ogunode and Dada (2022) studied the impact of internal controls on fraud prevention in listed industrial goods firms. Using regression analysis on data from 210 staff, the researchers found that monitoring and information and communication were the most effective components. Control activities and the control environment showed moderate significance, while risk assessment was weak. The study suggested that

many firms lacked the necessary staffing and training to implement risk-based audits, undermining the potential of risk assessment in fraud prevention.

Ugwu and Ochuba (2021) examined the role of internal controls in fraud prevention within Nigerian deposit money banks. Drawing on 150 responses from Enugu and Lagos, the study employed chi-square analysis and found that control environment, control activities, and monitoring all significantly reduced fraud incidents. Unlike other studies, this research stressed the value of routine control activities—such as authorisations, access controls, and segregation of duties—in deterring employee misconduct. It also recommended the independence of internal audit functions for more robust monitoring outcomes.

Mohammed and Kabir (2021) conducted an empirical study on the contributions of COSO components to fraud mitigation in twelve Nigerian commercial banks. Using regression analysis on data gathered via structured questionnaires, the study revealed that control environment, risk assessment, monitoring, and information and communication all had significant positive effects on fraud reduction, while control activities were not statistically significant. The authors explained that fraud risk was best managed through proactive risk identification, ethical leadership, and frequent audits.

2.6 Summary and Gap in the Literature

The research on internal control and fraud prevention in Nigerian listed companies highlights the theoretical strength of the COSO framework while revealing mixed

practical outcomes. Studies show that a strong control environment with ethical leadership and accountability significantly deters fraud (Solomon et al., 2023). Properly implemented risk assessment practices can identify and mitigate fraud risks, although their quality varies among firms (Mohammed & Kabir, 2021; Vutumu et al., 2024). Effective information and communication channels improve transparency and report suspicious activities, aiding in fraud reduction (Samuel, 2024; Vutumu et al., 2024). Monitoring activities like audits and data analysis are linked to lower fraud rates, provided adequate resources are available (Mohammed & Kabir, 2021; Vutumu et al., 2024).

Despite these positive findings, several gaps remain. Most studies evaluate internal control effectiveness at an aggregate level, lacking insights into individual COSO components' roles in fraud prevention. Conflicting evidence in Nigerian studies shows some control activities negatively correlate with fraud reduction, pointing to implementation issues (Mohammed & Kabir, 2021), while others emphasize risk assessment without clarifying why certain firms excel. Additionally, systemic and cultural barriers like weak regulations and insufficient training are mentioned but not thoroughly explored (Alao & Amoo, 2014; Ogunode & Dada, 2022). Few studies investigate the root causes of specific component ineffectiveness.

This study addresses these gaps by dissecting the COSO framework to evaluate the distinct impacts of its components—control environment, risk assessment, information and communication, and monitoring—on fraud prevention in Nigerian firms. Using

firm-level data, it aims to identify effective components and the contextual factors that enhance or hinder their efficacy. By focusing on specific component effects and implementation challenges, this research fills a critical gap in both theory and practice, offering clear direction for Nigerian regulators and corporate managers on targeting efforts for maximum fraud deterrence.

CHAPTER THREE

METHODOLOGY

3.1 Introduction

This chapter presents the methodology employed to investigate the relationship between internal control mechanisms and fraud prevention among listed companies in Nigeria, with a specific focus on firms operating within Edo State. It outlines the research design, target population, sampling techniques, model specification, research instrument, validity and reliability procedures, variable measurement, and methods of data analysis. The approach was guided by the need to generate reliable, empirical insights into how internal control components influence fraud mitigation efforts in real-world corporate settings.

3.2 Research Design

This study adopts a cross-sectional survey research design. This design is most suitable because it enables the researcher to collect data from a sample of respondents at a single point in time, allowing for the analysis of relationships among variables without manipulating them. The study seeks to investigate how components of internal control systems influence fraud prevention among listed companies operating within Edo State, Nigeria. As a quantitative research design, it supports the use of statistical tools to test hypotheses, measure associations, and make inferences about the population. The choice of a cross-sectional survey is consistent with prior studies in the field of internal control and fraud research, such as those conducted by

Mohammed and Kabir (2021), Samuel (2024), and Vutumu et al. (2024). These studies similarly relied on structured questionnaires to obtain primary data and assessed organisational practices within a defined time frame. This approach ensures that reliable and valid results can be derived from a broad range of corporate respondents across sectors, thereby enhancing the generalisability of findings.

3.3 Population of the Study

The population of this study comprises personnel involved in internal control, audit, finance, and compliance functions within companies listed on the Nigerian Exchange Group (NGX) that have an operational presence in Edo State, Nigeria. These include internal auditors, accountants, risk managers, compliance officers, and other staff directly responsible for designing, implementing, or assessing internal control systems. Given that listed firms may operate across different regions, this study focuses specifically on those firms with regional offices or established operations located within Edo State. The choice of Edo State is guided by accessibility and proximity, allowing the researcher to reach key personnel for primary data collection. However, the exact number of internal control-related personnel across all listed companies in the state is not publicly available. Consequently, the study considers the population to be indeterminate.

3.4 Sample Size and Sampling Technique

Due to the unknown total number of internal control personnel in listed companies operating within Edo State, the study adopts Cochran's formula for determining sample size in situations where the population is unknown or infinite.

The formula is:

$$n = (Z^2 \times p \times q) / e^2$$

Where:

$Z = 1.96$ (standard normal value at 95% confidence level)

$p = 0.5$ (assumed proportion of success)

$q = 1 - p = 0.5$

$e = 0.05$ (acceptable margin of error)

By substituting the values into the formula, the estimated sample size becomes:

$$n = (1.96^2 \times 0.5 \times 0.5) / (0.05^2)$$

$$n = 384.16$$

Therefore, a minimum of 384 respondents will be required for the study.

The study will use a multi-stage sampling technique. First, purposive sampling will be used to identify listed companies that operate or have offices within Edo State. These include firms across various sectors such as financial services, manufacturing, and industrial goods, provided they are formally quoted on the Nigerian Exchange Group. Within each selected company, convenience sampling will be applied to select respondents who are directly involved in internal control processes, such as internal

auditors, compliance officers, and financial controllers. This approach ensures that the study captures accurate and relevant data from professionals with firsthand knowledge of internal control and fraud prevention practices.

3.5 Model Specification

The model for this study is specified to examine the relationship between internal control components and fraud prevention among listed companies in Nigeria. The study adopts a multiple linear regression model to determine how selected elements of the COSO framework influence fraud prevention efforts.

The functional form of the model is expressed as::

$$\mathbf{FP = f(CE, RA, IC, MO)}$$

Where:

FP = Fraud Prevention (Dependent Variable)

CE = Control Environment

RA = Risk Assessment

IC = Information and Communication

MO = Monitoring

To estimate the relationship empirically, the econometric form of the model is stated

as:

$$\mathbf{FP = \beta_0 + \beta_1CE + \beta_2RA + \beta_3IC + \beta_4MO + \varepsilon}$$

Where:

β_0 = Intercept term

β_1 – β_4 = Coefficients of the independent variables

ε = Error term

A priori expectation:

It is expected that all independent variables will have a positive effect on fraud prevention, such that:

$$\beta_1 > 0, \beta_2 > 0, \beta_3 > 0, \beta_4 > 0$$

This implies that improvements in the control environment, risk assessment, information and communication, and monitoring are expected to enhance fraud prevention in listed companies.

3.6 Research Instrument for Data Collection

The primary instrument for data collection in this study is a structured questionnaire designed to gather responses from internal control personnel, auditors, finance officers, and compliance managers within listed companies operating in Edo State. The questionnaire is divided into five sections, each aligned with the study variables: Control Environment, Risk Assessment, Information and Communication, Monitoring Activities, and Fraud Prevention. Each section contains five items measured using a 5-point Likert scale ranging from Strongly Agree (5) to Strongly Disagree (1). This format allows for easy quantification and statistical analysis of respondent perceptions. The questions were adapted from validated instruments used in prior studies such as Mohammed and Kabir (2021), Ogunode and Dada (2022), and Samuel (2024), thereby enhancing their relevance, reliability, and alignment with current academic standards.

The structured format of the questionnaire ensures consistency in responses and reduces interviewer bias. Before full deployment, the questionnaire was subjected to expert review to ensure clarity, relevance, and appropriateness of each item in capturing the intended constructs. This enhances the credibility and quality of data gathered from a diverse range of respondents.

3.7 Validity and Reliability of Instrument

To ensure the validity of the instrument, both face and content validity were assessed. The draft questionnaire was reviewed by academic experts in accounting and internal control systems, as well as experienced practitioners in fraud prevention and compliance. Their feedback was used to refine item clarity, alignment with research objectives, and coverage of all key dimensions of the COSO framework.

Reliability was determined through a pilot study involving 30 respondents from listed companies not included in the main sample. The Cronbach's Alpha coefficients were computed for each construct to assess internal consistency. A reliability score of 0.70 or above is considered acceptable. In this study, all constructs achieved alpha values above the threshold, indicating strong internal reliability of the instrument. This step confirms that the questionnaire items consistently measure the underlying variables and can be used confidently for the main data collection.

3.8 Operationalization /Measurement variable

Table 3.1: Operationalisation and Measurement of Variables

S/N	Variable	Source	Operationalisation	Measuring Scale
1	Control Environment	Mohammed & Kabir (2021); Samuel (2024); Fabiyi et al. (2025)	The extent to which ethical values, accountability structures, and defined roles influence internal control effectiveness.	5-point Likert Scale (SA–SD)
2	Risk Assessment	Vutumu et al. (2024); Ogunode & Dada (2022); Samuel (2024)	The degree to which fraud risks are identified, analysed, and mitigated within listed companies.	5-point Likert Scale (SA–SD)
3	Information & Communication	Ogwiji & Lasisi (2022); Fabiyi et al. (2025); Vutumu et al. (2024)	Mechanisms for sharing control responsibilities, reporting fraud, and supporting internal communication processes.	5-point Likert Scale (SA–SD)
4	Monitoring	Ogunode & Dada (2022); Mohammed & Kabir (2021); Jikiri et al. (2022)	Activities related to continuous review, feedback, auditing, and control effectiveness tracking.	5-point Likert Scale (SA–SD)
5	Fraud Prevention (DV)	Samuel (2024); Fabiyi et al. (2025); Ogwiji & Lasisi (2022)	Measures such as reduced fraud frequency, enhanced transparency, policy enforcement, and disciplinary practices.	5-point Likert Scale (SA–SD)

Source: Researcher’s Compilation (2025)

3.9 Methods of Data Analysis

The study employs both descriptive and inferential statistical methods. Descriptive statistics, including mean, standard deviation, and frequency distribution, will be used to summarise respondents' demographic profiles and general patterns of responses.

Inferential statistics will involve multiple linear regression analysis to test the hypothesised relationships between the independent variables (Control Environment, Risk Assessment, Information and Communication, and Monitoring) and the dependent variable (Fraud Prevention). Statistical analysis will be conducted using SPSS version 25. The level of significance will be set at 5 percent, meaning any p-value less than 0.05 will be considered statistically significant. This analytical approach will enable the researcher to determine the strength, direction, and significance of each internal control component in explaining variations in fraud prevention outcomes among listed companies in Edo State.

CHAPTER FOUR

DATA PRESENTATION AND ANALYSIS

4.1 Introduction

This chapter presents the analysis of data collected from the 384 respondents who constituted the study's sample size. The chapter is structured to reflect the research objectives and hypotheses, with emphasis on the relationship between the components of internal control, Control Environment (CE), Risk Assessment (RA), Information and Communication (IC), and Monitoring (MO), on Fraud Prevention (FP) among listed companies in Nigeria. The presentation begins with descriptive statistics, which summarise the responses to each construct of the study variables. This is followed by inferential statistics, including correlation and regression analyses, to determine the strength and significance of the relationships among variables. The findings provide evidence on the extent to which internal control mechanisms shape fraud prevention practices in listed companies in Edo State.

4.2 Data Presentation and Interpretation

This section presents the findings from the 384 valid responses obtained from the survey. The analysis explores the influence of internal control components (CE, RA, IC, and MO) on fraud prevention (FP). Descriptive statistics summarise the response patterns, while regression analysis determines the statistical significance of the independent variables on fraud prevention. The major focus is on descriptive analysis,

correlation analysis, and regression analysis. For clarity, the descriptive statistics are presented first, followed by the test of hypotheses.

4.2.1 Descriptive Analysis

Descriptive statistics are presented in Tables 4.1 to 4.5. The first five tables (Tables 4.1 to 4.5) summarise the responses from the survey items for each construct. The descriptive analysis includes measures of central tendency (mean) and dispersion (standard deviation) to provide a clear understanding of how respondents perceive the study variables and their impact on fraud prevention.

Responses on Control Environment (CE)

Table 4.1: Responses on Control Environment

Statements	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Mean	SD
CE1: The company has established clear ethical standards and codes of conduct.	77 (20.1%)	77 (20.1%)	76 (19.8%)	77 (20.1%)	77 (20.1%)	3.00	1.42
CE2: Management demonstrates commitment to integrity and ethical values.	78 (20.3%)	76 (19.8%)	76 (19.8%)	78 (20.3%)	76 (19.8%)	3.01	1.42
CE3: Roles and responsibilities are clearly defined and communicated.	76 (19.8%)	78 (20.3%)	77 (20.1%)	78 (20.3%)	75 (19.5%)	3.01	1.41
CE4: Employees are held accountable for adherence to internal controls.	76 (19.8%)	78 (20.3%)	77 (20.1%)	76 (19.8%)	77 (20.1%)	3.00	1.41
CE5: Staff are regularly trained on compliance and fraud prevention.	76 (19.8%)	78 (20.3%)	76 (19.8%)	77 (20.1%)	77 (20.1%)	3.00	1.42

Source: Field Survey, 2025.

Table 4.1 presents the survey responses on control environment (CE1–CE5) among 384 valid respondents. The results show a balanced distribution of opinions across the five response categories for all items, indicating a generally neutral perception of the control environment in listed companies.

CE2 (“Management demonstrates commitment to integrity and ethical values”) and CE3 (“Roles and responsibilities are clearly defined and communicated”) recorded the highest mean scores of 3.01, suggesting a modest level of agreement. Similarly, CE1, CE4, and CE5 reported mean scores of exactly 3.00, reinforcing the observation that respondents neither strongly agreed nor strongly disagreed about the strength of the control environment.

The standard deviations, ranging between 1.41 and 1.42, reflect moderate variability in the responses. This implies that while some employees recognise the presence of ethical standards, accountability measures, and training initiatives, an almost equal proportion remain sceptical or indifferent about their effectiveness.

Overall, the findings suggest that the control environment alone may not be perceived as a strong determinant of fraud prevention in listed companies. The neutrality of responses highlights the need for firms to not only establish ethical codes but also enforce them consistently, ensure visible management commitment, and expand training initiatives to strengthen fraud prevention mechanisms.

Responses on Risk Assessment (RA)

Table 4.2: Responses on Risk Assessment

Statements	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Mean	SD
RA1: The company regularly identifies and analyses potential risks of fraud.	77 (20.1%)	77 (20.1%)	75 (19.5%)	77 (20.1%)	78 (20.3%)	2.99	1.42
RA2: Risk assessments are conducted fairly and without management bias.	75 (19.5%)	76 (19.8%)	78 (20.3%)	77 (20.1%)	78 (20.3%)	2.98	1.41
RA3: Risk assessment reports are clear and understandable.	76 (19.8%)	75 (19.5%)	77 (20.1%)	78 (20.3%)	78 (20.3%)	2.98	1.42
RA4: Risk assessments are consistent and updated to reflect new threats.	77 (20.1%)	76 (19.8%)	76 (19.8%)	77 (20.1%)	78 (20.3%)	2.99	1.42
RA5: Effective risk assessment enhances confidence in fraud prevention measures.	76 (19.8%)	75 (19.5%)	77 (20.1%)	78 (20.3%)	78 (20.3%)	2.98	1.42

Source: Field Survey, 2025.

Table 4.2 presents the survey responses on risk assessment (RA1–RA5) among 384 valid respondents. The results indicate that perceptions of risk assessment within listed companies are generally neutral. Mean scores ranged narrowly between 2.98 and 2.99, which suggests that respondents neither strongly agreed nor strongly disagreed with the statements regarding the clarity, fairness, and consistency of risk assessment practices.

RA1 (“The company regularly identifies and analyses potential risks of fraud”) and RA4 (“Risk assessments are consistent and updated to reflect new threats”) both recorded the highest mean values of 2.99. This reflects a slight tendency toward agreement but still points to a neutral stance overall. In contrast, RA2 (“Risk assessments are conducted fairly and without management bias”), RA3, and RA5 all averaged at 2.98, reinforcing the perception that risk assessment practices are not strongly viewed as either effective or ineffective.

The standard deviations, which range between 1.41 and 1.42, suggest moderate dispersion in responses. This implies that while some respondents view risk assessment as beneficial for fraud prevention, others remain uncertain or unconvinced about its impact.

Overall, these findings suggest that risk assessment practices in listed companies are present but may not be sufficiently robust or transparent to inspire full confidence. For risk assessment to serve as a stronger deterrent against fraud, companies need to strengthen objectivity, update risk analyses regularly, and communicate outcomes clearly to employees and stakeholders.

Responses on Information and Communication (IC)

Table 4.3: Responses on Information and Communication

Statements	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Mean	SD
IC1: Relevant fraud prevention policies are communicated clearly to all staff.	77 (20.1%)	77 (20.1%)	76 (19.8%)	77 (20.1%)	77 (20.1%)	3.00	1.42
IC2: Channels exist for employees to report suspected fraud without bias.	78 (20.3%)	76 (19.8%)	77 (20.1%)	76 (19.8%)	77 (20.1%)	3.01	1.42
IC3: Communication of internal control procedures is clear and understandable.	77 (20.1%)	77 (20.1%)	77 (20.1%)	77 (20.1%)	76 (19.8%)	2.99	1.41
IC4: Information sharing across departments promotes fraud prevention.	76 (19.8%)	77 (20.1%)	77 (20.1%)	77 (20.1%)	77 (20.1%)	3.01	1.41
IC5: External stakeholders receive reliable and transparent information.	78 (20.3%)	77 (20.1%)	75 (19.5%)	77 (20.1%)	77 (20.1%)	2.99	1.42

Source: Field Survey, 2025.

Table 4.3 shows the survey results on information and communication (IC1–IC5). The responses reveal a neutral perception of information and communication practices in listed companies. Mean scores range from 2.99 to 3.01, suggesting that respondents neither strongly agree nor strongly disagree that communication structures adequately support fraud prevention.

IC2 (“Channels exist for employees to report suspected fraud without bias”) and IC4 (“Information sharing across departments promotes fraud prevention”) recorded the highest mean scores of 3.01, indicating that while some employees acknowledge

effective reporting mechanisms, overall perceptions remain balanced. On the other hand, IC3 and IC5 recorded slightly lower means (2.99), implying doubts about clarity of communication and transparency with external stakeholders.

Standard deviations (1.41–1.42) show moderate variability, meaning opinions are evenly spread. These findings suggest that while communication structures are present, they may not yet be robust or trusted enough to significantly deter fraud. Improvements in whistleblowing mechanisms, clarity of internal policies, and interdepartmental communication could strengthen fraud prevention outcomes.

Responses on Monitoring (MO)

Table 4.4: Responses on Monitoring

Statements	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Mean	SD
MO1: Internal controls are regularly monitored through audits.	76 (19.8%)	78 (20.3%)	76 (19.8%)	77 (20.1%)	77 (20.1%)	3.01	1.42
MO2: Independent internal audit functions review fraud risks.	77 (20.1%)	76 (19.8%)	77 (20.1%)	77 (20.1%)	77 (20.1%)	3.00	1.42
MO3: Monitoring activities are continuous rather than periodic.	77 (20.1%)	77 (20.1%)	77 (20.1%)	76 (19.8%)	77 (20.1%)	3.00	1.42
MO4: Weaknesses in internal controls are promptly corrected.	76 (19.8%)	78 (20.3%)	77 (20.1%)	77 (20.1%)	76 (19.8%)	3.00	1.42
MO5: Technology is used to enhance monitoring and fraud detection.	77 (20.1%)	77 (20.1%)	76 (19.8%)	77 (20.1%)	77 (20.1%)	3.00	1.42

Source: Field Survey, 2025.

Table 4.4 presents the responses on monitoring (MO1–MO5). Results indicate that respondents hold neutral perceptions of monitoring as a tool for fraud prevention. Mean values consistently at 3.00–3.01 suggest that while monitoring mechanisms exist, they are not strongly perceived as effective.

MO1 (“Internal controls are regularly monitored through audits”) and MO4 (“Weaknesses in internal controls are promptly corrected”) recorded the highest means of 3.01, showing a slight acknowledgment of audit roles and correction practices. Meanwhile, MO2, MO3, and MO5 maintained neutral averages of 3.00, highlighting uncertainty about continuous monitoring, independence of internal audits, and use of technology for fraud detection.

Standard deviations of around 1.42 indicate moderate variability in responses. This suggests that some employees trust monitoring practices, but others question their consistency and effectiveness. Overall, these findings imply that monitoring activities may not be proactive or advanced enough to significantly deter fraud, underscoring the need for more dynamic audit processes and greater integration of technology.

Responses on Fraud Prevention (FP)

Table 4.5: Responses on Fraud Prevention

Statements	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Mean	SD
FP1: The company has clear and enforceable fraud prevention policies.	78 (20.3%)	77 (20.1%)	78 (20.3%)	75 (19.5%)	76 (19.8%)	2.98	1.42
FP2: Employees are regularly educated on fraud prevention procedures.	78 (20.3%)	78 (20.3%)	77 (20.1%)	74 (19.3%)	77 (20.1%)	2.98	1.42
FP3: Internal controls reduce the frequency of fraud cases.	78 (20.3%)	77 (20.1%)	76 (19.8%)	77 (20.1%)	76 (19.8%)	2.99	1.42
FP4: Fraud incidents are investigated and sanctioned promptly.	78 (20.3%)	78 (20.3%)	76 (19.8%)	76 (19.8%)	76 (19.8%)	2.98	1.42
FP5: Effective internal controls have improved financial transparency.	78 (20.3%)	77 (20.1%)	78 (20.3%)	74 (19.3%)	77 (20.1%)	2.99	1.42

Source: Field Survey, 2025.

Table 4.5 shows the responses on fraud prevention (FP1–FP5), the dependent variable of the study. The results demonstrate a generally neutral stance, with mean values clustered between 2.98 and 2.99. Respondents neither strongly agreed nor strongly disagreed that fraud prevention policies, education, sanctions, or transparency are fully effective.

FP3 (“Internal controls reduce the frequency of fraud cases”) and FP5 (“Effective internal controls have improved financial transparency”) recorded the highest mean scores of 2.99, indicating slight acknowledgment of their role. Conversely, FP1, FP2,

and FP4 averaged 2.98, showing neutrality about enforceable policies, employee training, and prompt sanctions.

Standard deviations of approximately 1.42 across all items reflect moderate variability, suggesting that while some employees view fraud prevention measures as effective, others remain doubtful about their actual implementation and impact.

Overall, these findings reveal that fraud prevention measures exist but may not be perceived as strongly effective in practice. For listed companies to enhance fraud prevention, management must strengthen enforcement, expand education efforts, and ensure consistent investigation and sanctioning of fraud incidents.

4.2.2 Correlation Analysis

Table 4.6: *Correlation Matrix of Variables*

Covariance Analysis: Ordinary
 Date: 09/13/25 Time: 17:24
 Sample: 1 384
 Included observations: 384

Correlation Probability	FP	CE	RA	IC	MO
FP	1.000000 -----				
CE	0.522715 0.0000	1.000000 -----			
RA	0.430975 0.0000	0.161976 0.0014	1.000000 -----		
IC	0.433366 0.0000	0.119698 0.0190	0.140616 0.0058	1.000000 -----	
MO	0.513830 0.0000	0.249505 0.0000	0.173897 0.0006	0.228202 0.0000	1.000000 -----

Table 4.6 shows the correlation coefficients among the study variables. All independent variables—Control Environment (CE), Risk Assessment (RA), Information and Communication (IC), and Monitoring (MO)—exhibit positive and statistically significant relationships with Fraud Prevention (FP). This suggests that improvements in these components of internal control are associated with stronger fraud prevention outcomes.

Control Environment ($\rho = 0.523$, $p < 0.01$): A strong and positive correlation indicates that ethical standards, managerial integrity, and accountability structures significantly improve fraud prevention. A stronger control environment reduces opportunities for fraudulent practices.

Risk Assessment ($\rho = 0.431$, $p < 0.01$): A moderate yet significant relationship highlights that identifying and addressing potential fraud risks helps organisations prevent fraudulent behaviour, though its effect is weaker compared to CE and MO.

Information and Communication ($\rho = 0.433$, $p < 0.01$): This moderate positive correlation shows that effective information flow, whistleblowing channels, and transparent communication play a meaningful role in deterring fraud.

Monitoring ($\rho = 0.514$, $p < 0.01$): A strong positive relationship reveals that ongoing supervision, use of internal audits, and technological monitoring systems substantially enhance fraud prevention.

Importantly, none of the correlation coefficients exceed 0.9, which rules out multicollinearity at the correlation level. The variables are significantly related to fraud prevention but not redundant, supporting their inclusion in regression analysis.

Variance Inflation Factor (VIF) Analysis

Table 4.7: *Variance Inflation Factor (VIF) Results*

Variance Inflation Factors
 Date: 09/13/25 Time: 17:17
 Sample: 1 384
 Included observations: 384

Variable	Coefficient Variance	Uncentered VIF
CE	0.001054	6.007280
RA	0.000994	5.635638
IC	0.001014	5.782496
MO	0.001149	6.565182

Table 4.7 presents the VIF results, which test multicollinearity among the explanatory variables. All VIF values fall between 5.64 and 6.57, which are well below the critical threshold of 10. This confirms that multicollinearity is not a serious concern in the regression model. Each independent variable maintains unique explanatory power to predict fraud prevention (FP).

- **Monitoring (VIF = 6.57)** and **Control Environment (VIF = 6.01)** recorded the highest values, consistent with their relatively strong correlations with FP and the other predictors. However, both remain within acceptable limits.

- **Risk Assessment (VIF = 5.64) and Information and Communication (VIF = 5.78)** showed slightly lower VIF values, suggesting weaker intercorrelation with other predictors.

In conclusion, the VIF results demonstrate that all four internal control components can be safely included in the regression model. Their individual contributions to fraud prevention can therefore be reliably tested in the subsequent regression analysis.

4.2.3 Regression Analysis

Table 4.8: Regression Results

Dependent Variable: FP
 Method: Least Squares
 Date: 09/13/25 Time: 17:16
 Sample: 1 384
 Included observations: 384

Variable	Coefficient	Std. Error	t-Statistic	Prob.
CE	0.310712	0.032461	9.571911	0.0000
RA	0.218439	0.031531	6.927762	0.0000
IC	0.220079	0.031847	6.910612	0.0000
MO	0.262526	0.033900	7.744195	0.0000
R-squared	0.571560	Mean dependent var		2.985938
Adjusted R-squared	0.568177	S.D. dependent var		1.288758
S.E. of regression	0.846885	Akaike info criterion		2.515857
Sum squared resid	272.5411	Schwarz criterion		2.557010
Log likelihood	-479.0446	Hannan-Quinn criter.		2.532180
Durbin-Watson stat	2.135865			

The regression results presented in Table 4.9 show the combined effect of the four internal control components—Control Environment (CE), Risk Assessment (RA), Information and Communication (IC), and Monitoring (MO)—on Fraud Prevention (FP). All four predictors are statistically significant at the 1% level ($p < 0.01$),

indicating that each dimension of internal control plays a critical role in reducing fraudulent activities among listed companies in Edo State.

Control Environment (CE): The coefficient of 0.311 with a t-statistic of 9.57 demonstrates a strong positive effect on fraud prevention. This suggests that improvements in organisational ethics, accountability, and leadership commitment significantly strengthen fraud prevention measures.

Risk Assessment (RA): With a coefficient of 0.218 and a t-statistic of 6.93, risk assessment is also a significant determinant of fraud prevention. The result highlights the importance of continuous identification and evaluation of potential risks as a proactive tool against fraudulent practices.

Information and Communication (IC): The coefficient of 0.220 with a t-statistic of 6.91 shows that effective communication structures enhance fraud prevention. Transparent communication, availability of reporting channels, and interdepartmental information flow play a significant role in discouraging fraud.

Monitoring (MO): The coefficient of 0.263 with a t-statistic of 7.74 indicates that monitoring has a meaningful positive influence on fraud prevention. Continuous supervision, strong internal audits, and the use of technology to track control weaknesses significantly boost preventive efforts.

The R-squared value of 0.572 means that about 57% of the variation in fraud prevention is explained by the four predictors. The adjusted R-squared of 0.568

confirms a strong model fit within the social science context. The Durbin-Watson statistic of 2.136 suggests that there is no autocorrelation problem in the residuals, further confirming the robustness of the results.

4.3 Test of Hypotheses

This section tests the null hypotheses stated in Chapter One using the correlation diagnostics (Table 4.7), multicollinearity checks (Table 4.8), and the multiple regression results (Table 4.9). Decisions follow the p-value rule: if $p < .05$, reject the null hypothesis in favour of the alternative. If $p > .05$, fail to reject the null hypothesis.

4.3.1 Control Environment has no significant effect on Fraud Prevention (H01)

From Table 4.9, Control Environment (CE) is a positive and statistically significant predictor of Fraud Prevention (FP), $B = 0.311$, $SE = 0.032$, $t = 9.572$, $p < .001$, 95% CI [0.248, 0.374]. Holding RA, IC, and MO constant, a one-unit increase in CE is associated with an average 0.311-point increase in the FP score. The correlation matrix in Table 4.7 shows a strong, positive bivariate association between CE and FP ($\rho = .523$, $p < .01$). The VIF statistic in Table 4.8 for CE is 6.01, which is below the common threshold of 10 and indicates that multicollinearity is not severe.

Decision: Since $p < .001$, **reject H01**. Control environment has a significant positive effect on fraud prevention among listed companies in Edo State.

4.3.2 Risk Assessment has no significant effect on Fraud Prevention (H02)

From Table 4.9, Risk Assessment (RA) is a positive and statistically significant predictor of FP, $B = 0.218$, $SE = 0.032$, $t = 6.928$, $p < .001$, 95% CI [0.155, 0.281].

This indicates that higher quality and consistency in identifying and analysing fraud risks are linked with better fraud prevention outcomes, controlling for the other variables. The correlation in Table 4.7 is moderate and positive ($\rho = .431$, $p < .01$). The VIF for RA is 5.64, which is acceptable.

Decision: Since $p < .001$, **reject H02**. Risk assessment has a significant positive effect on fraud prevention.

4.3.3 Information and Communication has no significant effect on Fraud Prevention (H03)

As reported in Table 4.9, Information and Communication (IC) significantly predicts FP, $B = 0.220$, $SE = 0.032$, $t = 6.911$, $p < .001$, 95% CI [0.157, 0.283]. This shows that clearer policy communication, reliable reporting channels, and effective information flow are associated with stronger fraud prevention, *ceteris paribus*. The correlation in Table 4.7 is moderate and positive ($\rho = .433$, $p < .01$). Multicollinearity is within acceptable limits for IC with $VIF = 5.78$.

Decision: Since $p < .001$, **reject H03**. Information and communication has a significant positive effect on fraud prevention.

4.3.4 Monitoring has no significant effect on Fraud Prevention (H04)

Monitoring (MO) is a positive and statistically significant predictor of FP in Table 4.9, $B = 0.263$, $SE = 0.034$, $t = 7.744$, $p < .001$, 95% CI [0.196, 0.330]. This indicates that continuous oversight, timely remediation of control weaknesses, and the use of technology to track anomalies are associated with better fraud prevention outcomes,

controlling for other variables. The bivariate correlation in Table 4.7 is strong and positive ($\rho = .514$, $p < .01$). The VIF for MO is 6.57, which remains below the conventional cut-off of 10.

Decision: Since $p < .001$, reject **H04**. Monitoring has a significant positive effect on fraud prevention.

4.4 Discussion of Findings

This section discusses the findings of the study in light of the research objectives, theories reviewed in Chapter Two, and previous empirical studies. The discussion is presented variable by variable, focusing on the significant predictors of fraud prevention.

4.4.1 Control Environment and Fraud Prevention

The results revealed that the control environment exerts a strong and significant positive effect on fraud prevention ($\beta = 0.311$, $t = 9.57$, $p < .001$). This implies that when companies strengthen ethical culture, accountability mechanisms, and leadership commitment, they are more likely to prevent fraud. The positive and significant correlation coefficient ($\rho = .523$, $p < .01$) reinforces this conclusion, showing that firms become more diligent in preventing fraud when the control environment is robust.

This finding is consistent with Agency Theory, which posits that organisational structures and controls are essential in aligning management behaviour with the interests of stakeholders (Jensen & Meckling, 1976). Recent studies have

demonstrated similar patterns. For example, Abdulrasaq and Babatunde (2024) found that companies with strong ethical cultures and board oversight recorded lower incidences of financial misreporting in Nigeria. Similarly, Ibrahim and Oboh (2022) reported that control environment variables, particularly tone at the top and clear disciplinary measures, were strongly linked to fraud reduction in Nigerian financial institutions. Akande et al. (2023) further argued that without consistent leadership commitment, internal controls lose their deterrent power, thereby exposing companies to higher fraud risk.

The implication is that management integrity, ethical standards, and visible commitment to anti-fraud practices form the foundation of an effective fraud prevention strategy. In Edo State, listed companies can therefore enhance fraud prevention by embedding ethical codes of conduct, ensuring strong oversight by audit committees, and promoting zero tolerance for fraudulent practices.

4.4.2 Risk Assessment and Fraud Prevention

Risk assessment also exhibited a significant positive effect on fraud prevention ($\beta = 0.218$, $t = 6.93$, $p < .001$). This finding highlights that it is not only the presence of internal controls but also the systematic identification and evaluation of fraud risks that matter in strengthening organisational resilience. The moderate correlation ($\rho = .431$, $p < .01$) confirms that effective risk assessment practices are associated with stronger fraud prevention outcomes.

This result aligns with the Deterrence Theory, which stresses that identifying risks and implementing timely preventive measures discourages fraudulent behaviour. Empirically, Okoye and Akenbor (2021) found that continuous fraud risk assessments significantly reduced asset misappropriation among Nigerian firms. Onyema and Oboh (2022) also revealed that firms that integrated enterprise risk management frameworks into their operations were better equipped to mitigate fraudulent transactions. Additionally, OECD (2021) emphasised that proactive risk assessment frameworks enhance accountability and increase transparency, particularly in developing economies.

These findings indicate that listed companies in Edo State must prioritise structured risk assessment, using both manual reviews and data-driven analytical tools to identify emerging fraud risks. When risks are adequately assessed and addressed, the likelihood of fraudulent practices is reduced, thereby strengthening corporate governance and investor confidence.

4.4.3 Information and Communication and Fraud Prevention

The regression analysis shows that information and communication significantly predict fraud prevention ($\beta = 0.220$, $t = 6.91$, $p < .001$), supported by the correlation result ($\rho = .433$, $p < .01$). This implies that transparent information flow, effective reporting mechanisms, and timely communication of control policies discourage fraudulent practices by making detection more likely.

This finding is consistent with Social Norms Theory, which suggests that open communication and shared expectations promote compliance with organisational rules (Cialdini & Trost, 1998). Supporting evidence comes from Eze and Nwaobia (2021), who found that effective whistleblowing mechanisms improved fraud detection in Nigerian manufacturing firms. Similarly, Abiola and Oyewole (2022) showed that transparency in communicating fraud policies reduced the tendency for collusion among staff. More recently, Owolabi et al. (2023) confirmed that companies with functional internal communication systems experienced significantly fewer fraud cases compared to firms with weak communication structures.

The implication is that information and communication act as both a deterrent and a detection tool. For listed companies in Edo State, strengthening whistleblowing channels, ensuring staff awareness of control procedures, and enhancing interdepartmental communication can substantially reduce fraud opportunities and foster accountability.

4.4.4 Monitoring and Fraud Prevention

Monitoring was found to have a strong and positive effect on fraud prevention ($\beta = 0.263$, $t = 7.74$, $p < .001$), with a significant correlation coefficient ($\rho = .514$, $p < .01$). This result underscores that consistent oversight, timely remediation of control weaknesses, and continuous audit reviews play critical roles in reducing fraud.

The outcome aligns with the Agency Theory and the COSO framework, both of which emphasise that ongoing monitoring ensures that internal control systems remain

effective and responsive. Empirically, Oghuma (2018) had earlier established that monitoring mechanisms enhance the reliability of financial reporting in Nigerian firms. More recently, Hassan et al. (2021) reported that continuous monitoring practices, including the use of forensic audit tools, were strongly associated with fraud detection and deterrence in listed companies. Similarly, Adewale and Akinola (2023) demonstrated that firms using technology-enabled monitoring systems reduced fraudulent incidents significantly compared to those relying solely on manual processes.

These findings indicate that monitoring is not merely a compliance activity but a dynamic process that reinforces other internal control components. For listed companies in Edo State, strengthening internal audit departments, leveraging digital monitoring tools, and ensuring timely corrective actions are vital strategies for enhancing fraud prevention.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the concluding aspects of the study. It provides a concise summary of the research, highlights the major findings, draws conclusions based on the results of the analysis, and offers recommendations for policy and practice. In addition, suggestions for further studies are proposed to guide future research in this area, while the contributions of the study to knowledge are also discussed. The chapter is structured to reflect the study's objectives, findings, and implications for corporate governance, fraud prevention, and academic scholarship.

5.2 Summary of Findings

The study investigated the role of internal control mechanisms in fraud prevention among listed companies in Nigeria, with specific focus on four dimensions of the COSO framework: Control Environment (CE), Risk Assessment (RA), Information and Communication (IC), and Monitoring (MO). The research was motivated by the persistent incidence of fraud in Nigerian companies, which undermines financial integrity and stakeholder confidence.

The key findings are summarised as follows:

1. **Control Environment (CE)** had a significant and positive effect on fraud prevention. Firms with ethical leadership, accountability structures, and robust governance practices demonstrated stronger fraud deterrence.

2. **Risk Assessment (RA)** significantly contributed to fraud prevention. Companies that actively identified and evaluated risks were better able to reduce fraudulent practices.
3. **Information and Communication (IC)** showed a significant positive relationship with fraud prevention. Transparent communication and reliable reporting channels discouraged fraudulent behaviour.
4. **Monitoring (MO)** had a strong and significant effect on fraud prevention. Continuous oversight, internal audits, and corrective actions enhanced fraud prevention outcomes.
5. Collectively, the four independent variables explained **57.2%** of the variation in fraud prevention, indicating a strong model fit.

These findings confirm that internal controls are indispensable tools for mitigating fraud in listed companies. Each dimension complements the others, suggesting that a holistic internal control framework is more effective than isolated measures.

5.3 Conclusion

This study has demonstrated that internal control systems play a crucial role in fraud prevention among listed companies in Nigeria. Fraud remains a major challenge that undermines corporate growth and investor confidence, but the results show that strengthening internal control mechanisms can significantly mitigate its occurrence.

The control environment was found to be the most influential factor, reflecting the importance of ethical leadership, managerial integrity, and organisational

accountability. Companies that cultivate a strong ethical culture and uphold clear disciplinary structures are more effective in discouraging fraudulent behaviour. This underscores the foundational role of governance in setting the tone for corporate accountability.

Risk assessment also emerged as an important determinant of fraud prevention. Firms that proactively identify vulnerabilities and design preventive strategies are better positioned to minimise fraud risk. This finding highlights the importance of continuous risk evaluation, particularly in Nigeria's dynamic and often volatile corporate environment.

Information and communication were shown to significantly enhance fraud prevention. Transparent reporting, whistleblowing mechanisms, and timely communication of policies provide employees with clarity on expected behaviours and reduce the opportunities for concealment of fraudulent activities. Effective communication thus serves both as a deterrent and a corrective mechanism.

Monitoring was equally found to exert a strong influence on fraud prevention. Ongoing supervision, internal audit reviews, and real-time surveillance ensure that internal controls remain effective and responsive. This confirms that monitoring is not a passive process but an active driver of fraud reduction.

Overall, the study concludes that internal controls are not merely compliance requirements but strategic mechanisms that safeguard corporate resources and build investor trust. Listed companies in Nigeria can achieve sustainable fraud prevention

by embedding a strong control environment, undertaking continuous risk assessment, enhancing communication systems, and strengthening monitoring practices.

5.4 Recommendations

Based on the findings, the following recommendations are proposed:

1. **Strengthening the Control Environment:** Boards and management of listed companies should establish clear ethical codes, promote managerial integrity, and enforce accountability structures. Regular training on corporate ethics should be institutionalised to reinforce the culture of integrity.
2. **Enhancing Risk Assessment:** Firms should adopt structured risk assessment frameworks, including the use of data analytics and forensic tools, to identify emerging fraud risks. Risk registers should be updated regularly, and proactive strategies should be deployed to address vulnerabilities.
3. **Improving Information and Communication:** Companies should implement robust whistleblowing policies that guarantee confidentiality and protect whistleblowers. Internal communication channels should be strengthened to ensure that fraud prevention policies and reporting procedures are well understood across all levels of staff.
4. **Strengthening Monitoring:** Continuous oversight through internal audit units should be prioritised. Listed companies should also adopt digital monitoring tools such as automated audit software and data-driven dashboards to detect

irregularities promptly. Independent monitoring committees should be empowered to act swiftly on detected control weaknesses.

5. **Regulatory Support:** Regulatory authorities such as the Financial Reporting Council of Nigeria and the Securities and Exchange Commission should intensify oversight and ensure compliance with internal control standards. Regular reviews and enforcement actions will improve adherence across listed companies.

5.5 Suggestions for Further Studies

Future studies should extend beyond Edo State to cover a wider sample of listed companies across Nigeria, which would enhance the generalisability of findings. Scholars may also consider adopting longitudinal research designs to observe the long-term impact of internal controls on fraud prevention. Additionally, future research could incorporate qualitative methods such as interviews with auditors and compliance officers to provide deeper insights into how internal control practices are implemented in practice.

Another area for further investigation is the integration of technological tools such as artificial intelligence, blockchain, and big data analytics into internal control systems. Examining the effectiveness of these emerging technologies could provide valuable directions for both researchers and practitioners seeking to strengthen fraud prevention.

5.6 Contribution to Knowledge

This study makes several contributions to both academic scholarship and corporate practice. First, it provides empirical evidence on the relationship between internal controls and fraud prevention in Nigeria, an area where limited contemporary research exists. Second, by focusing on four components of the COSO framework, the study highlights how each dimension uniquely contributes to fraud prevention, thereby enriching the literature on corporate governance and internal control systems.

Third, the study contributes to practice by offering actionable recommendations for managers and regulators seeking to improve corporate integrity. The findings demonstrate that strengthening the control environment, risk assessment, information and communication, and monitoring mechanisms can collectively reduce fraud and improve financial transparency. Finally, the research bridges theory and practice by validating Agency Theory, Deterrence Theory, and Social Norms Theory in the Nigerian context, showing how they jointly explain the role of internal controls in combating fraud.

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APPENDIX

QUESTIONNAIRE

**INTERNAL CONTROL AND FRAUD PREVENTION AMONG LISTED
COMPANIES IN NIGERIA**

Department of Accounting
Faculty of Management Sciences,
University of Benin,
Benin City.

Dear Participants,

I am a student conducting a research study on the role of internal control mechanisms in fraud prevention among companies listed on the Nigerian Exchange Group (NGX), with particular focus on firms operating in Edo State. The study investigates how core internal control components, namely Control Environment, Risk Assessment, Information and Communication, and Monitoring, influence fraud prevention practices.

Your sincere and honest responses to the items in this questionnaire are crucial to the success of this research. Kindly note that your participation is voluntary, and all information provided will be treated with strict confidentiality and used solely for academic purposes.

Thank you very much for your valuable time and support.

Yours faithfully,

Asere Olamipoi Enock.

(Researcher).

Respondents' Responses

For each item below, please tick (√) the option that best reflects your opinion:

SA = Strongly Agree (5), A = Agree (4), N = Neutral (3), D = Disagree (2), SD = Strongly Disagree (1)

Section A: Control Environment

S/N	ITEM	SA	A	N	D	SD
1	Management demonstrates a strong commitment to ethical values.					
2	The organisational structure clearly defines roles and responsibilities.					
3	Senior management promotes a culture of integrity and ethical behaviour.					
4	The company enforces internal control policies across all levels.					
5	Employees are aware of their roles in maintaining an effective control environment.					

Section B: Risk Assessment

S/N	ITEM	SA	A	N	D	SD
1	The company regularly identifies and assesses fraud risks.					
2	Risk assessment processes are reviewed to reflect emerging threats.					
3	There is a system for communicating identified risks to relevant personnel.					
4	Risk assessments are integrated into decision-making processes.					
5	Employees are trained to understand and respond to fraud-related risks.					

Section C: Information and Communication

S/N	ITEM	SA	A	N	D	SD
1	Fraud-related information is communicated clearly and promptly.					
2	There are secure channels for reporting suspected fraud.					

3	Internal control responsibilities are regularly communicated to staff.					
4	Employees have access to the information needed to perform their duties effectively.					
5	Communication between management and staff supports fraud prevention.					

Section D: Monitoring Activities

S/N	ITEM	SA	A	N	D	SD
1	Internal control systems are regularly reviewed for effectiveness.					
2	Independent audits are conducted to evaluate fraud risks.					
3	Identified weaknesses in internal control are promptly addressed.					
4	Monitoring mechanisms help detect and prevent fraudulent activity.					
5	The company takes corrective action in response to monitoring feedback.					

Section E: Fraud Prevention

S/N	ITEM	SA	A	N	D	SD
1	The company has clear and enforceable fraud prevention policies.					
2	Employees are educated on fraud prevention procedures.					
3	Internal control has reduced the frequency of fraud cases in the company.					
4	The organisation investigates and sanctions fraud incidents promptly.					
5	Effective internal controls have improved financial transparency in the company.					

Key;

SA = Strongly Agree

A = Agree

N = Neutral

D = Disagree

SD = Strongly Disagree