

Internal Control System and Performance of Listed Money Deposit Bank in Nigeria

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Certification

This is to certify that **Florence Okpoanwan ITA** with the matriculation number **LCU/PG/002230** carried out this research work titled: **Internal Control System and Performance of Listed Money Deposit Bank in Nigeria** in the Department of Management and Accounting Lead City University, Ibadan, Nigeria for the award of Master Degree (M.Sc.) in Accounting and this has not been previously submitted.

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Dedication

This research work is dedicated to God Almighty and my supportive family.

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Acknowledgment

The researcher is grateful to the institution - Lead City University, Ibadan, Oyo State librarian that gave me the access to information I used in this research work.

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“Even though the above-mentioned institutions and persons have assisted in the process of this research work, I alone stand responsible for the errors, if any, found in the work”.

Abstract

The aim of the study is to investigate into the Internal Control System and Performance of Listed Money Deposit Banks in Nigeria, with a particular emphasis on the impact of COSO components of internal control on the performance metrics of bank efficiency, operational performance, and asset safety in Nigerian listed money deposit banks (MDBs). The study was guided by both control theory and agency theory, particularly anchored on agency theory. The study employed a descriptive survey research approach, with a population of 1,502 staff members from all head offices of the eight selected DMBs with international authorization. The sample size for this study was 316, determined using the Taro Yamane sampling size technique. The study focused on all staff members at the head offices of the eight selected DMBs with international authorization. Purposive sampling was utilized to target at least one branch of each of the eight DMBs in, Nigeria that have international permission. Simple percentages, correlation analysis, and regression analysis were used to examine the data gathered. Positive relationships are found between internal control system components and bank efficiency, operational performance, and asset safety ($p < 0.05$). Risk assessment enhances bank efficiency and operational performance, but has little influence on asset safety. The internal control system has a substantial effect on bank efficiency ($F(5, 305) = 36.880, p.001$), operational performance ($F(5, 305) = 29.361, p.001$), and asset safety ($F(5, 305) = 38.998, p.001$). Finally, the internal control system has a significant impact on the performance of Nigerian deposit money banks (DMBs), with the Control Environment, Monitoring Activities, Risk Assessment, Control Activities, and Information and Communication variables all playing important roles in improving bank efficiency. It is advised that DMBs undertake frequent training and development programs, incorporate best and trending evaluation approaches, and create partnership with regulatory agencies to further improve their performance efficiency.

Keywords: Internal Control System, Internal Control Components, Performance, Bank Efficiency, Operational Performance, Asset Safety

Word Count: 300

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List of Acronyms

| Abbreviations | Meaning |
|----------------------|---|
| ARIC | Audit reports implementation committee |
| ANOVA | Analysis of Variance |
| COSO | Committee of Sponsoring Organizations |
| CBN | Central Bank of Nigeria |
| CBE | Commercial Bank of Ethiopia |
| DMBs | Deposit Money Banks |
| FGN | Federal Government of Nigeria |
| GDP | Gross Domestic Product |
| GAAP | Generally Accepted Accounting Principles |
| HAE | Human assets efficiency |
| ICAN | Institute of Chartered Accountants of Nigeria |
| IFRS | International Financial Reporting Standards |
| ICS | Internal Control System |
| NSE | Nairobi Securities Exchange |
| NFPI | Non-Financial Performance Indicators |
| PLS-SEM | Partial Least Square Structural Equation Modeling |
| RG | Revenue Growth |

| | |
|--------|--|
| ROA | Return on Asset |
| ROE | Return on Equity |
| SACCOs | Savings and Credit Cooperative Organizations |
| SPSS | Statistical Package for the Social Sciences |
| SAE | Structural Assets Efficiency |
| TAE | Total Assets Efficiency |
| VAIC | Value Added Intellectual Coefficient |

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Chapter One

Introduction

1.1 Background to the Study

The performance of money deposit banks holds significant importance within the financial sector of any economy. As key players in the economy, these banks are expected to maintain effective internal control systems that ensure the safety of customer deposits, promote transparency, and enhance overall financial performance. Finance sector has become the most important actor with the impact of globalization and technological improvements in last two decades. As a consequence, financial products have increased, operational borders have expanded, and new financial markets have emerged. These developments have increased and diversified the risks that the banking sector has to manage.

Organizational performance is the outcome of a firm's activities and processes, which help to achieve its goals and objectives¹. These outcomes could be financial or non-financial and can be considered while evaluating the performance of any organization. Financial performance is primarily concerned with the firm's wealth and profitability, while non-financial performance relates to how effectively and efficiently an organization utilizes its resources to achieve its objectives^{1,2}. Organizational performance is an essential aspect of any business as it directly impacts the overall success of the enterprise². For any business operating in a competitive environment, organizational performance is critical to continuous success, survival, and growth. The effectiveness of this approach is maximized when internal control plans integrate seamlessly into the organization's system, becoming an indispensable component of the organization's overall success and contributing to continuous performance improvement, ultimately serving as a critical component of the organization's competitive advantage.

In today's globalized economy, financial institutions are playing a critical role in the economic growth and development of countries¹. It is therefore important to ensure that these institutions operate effectively and efficiently to achieve their goals and objectives. In Nigeria, the banking sector plays a major role in the country's economic growth, with the Deposit Money Banks (DMBs) being a significant player. To ensure that these banks operate effectively and efficiently, it is necessary that they have in place an effective internal control system. This is because effective internal control systems are crucial in identifying and preventing fraud, errors, and other irregularities that could negatively affect the performance of these institutions^{2,3}. Additionally, an effective internal control system provides managers with the necessary information to make informed decisions and improve the overall performance of the bank.

The global financial crisis highlighted the importance of well-functioning and healthy banking sector for macro stability³. One of the main reasons of banking failures which results in major financial loss and even bankruptcy is due to high risks taken by the bank management on an excessive scale and inability of controlling them. This pattern of excessive risk-taking has resonated within the Nigerian context as well. Despite efforts to foster prudent banking practices, the Nigerian banking sector has faced its own set of challenges, mirroring the global trends. The impact of inadequate risk management and the repercussions of overextending into risky ventures have not been isolated from the country's banking landscape. It becomes evident that the vulnerability to the risks associated with aggressive banking practices is a phenomenon that transcends borders.

The Nigerian banking industry has undergone tremendous changes in recent years, due to the adoption of various banking reforms aimed at improving organizational performance. With the unrelenting pursuit of profit maximization, it is crucial for Deposit Money Banks (DMBs) to

focus on their performance. However, organizational performance should not be limited to financial aspirations, as the success of a bank depends on not only its monetary return but also its value to customers and investors. Therefore, there is a need for a comprehensive assessment of the organizational performance of Nigerian Deposit Money Banks (DMBs) that incorporates both financial and non-financial metrics, such as efficiency of the bank, operational performance and asset safety.

Financial performance serves as a crucial indicator of an organization's efficiency in generating income and sustaining profitability². It reflects the firm's ability to generate consistent earnings and effectively utilize available capital². Achieving an optimal financial position is vital for navigating competitive markets and requires careful consideration of the firm's policies and operations. Assessing financial performance involves evaluating the profitability and wealth accumulation of the organization, considering both tangible and intangible assets. A strong financial performance not only enhances stakeholders' confidence but also contributes to the long-term sustainability of the firm⁴.

Financial growth depends on bank performance, and economic stability also depends on it^{5,6}. The Central Bank of Nigeria (CBN) has carried out a number of changes over the years on behalf of the Federal Government of Nigeria (FGN) in order to increase the stability and profitability of Nigerian deposit money banks (DMBs). Starting off, deregulation was a part of the 1987–1991 financial sector reforms, along with measures to improve prudential supervision and deal with bank crisis. Second, the CBN increased the required minimum share capital for Nigerian banks five times, from N 50,000,000 in 1991 to N 250,000,000 in 2004⁶. Thus, from 89 in 2004 to 25 in January 2006, fewer DMBs were present in Nigeria. Last but not least, the treasury single account was put into place in 2015, and as a result, in the first quarter of 2017, the FGN was

anticipated to have deposited N 5.7 trillion in DMBs. To improve the stability and profitability of Nigerian DMBs, these modifications are being made generally. The results do not match predictions in other instances, though.

In other words, a company's non-financial performance aids in determining the degree to which an organization is carrying out its total operations effectively⁷. Therefore, the importance of organizational performance in assessing a firm's success cannot be overstated since it helps to ascertain whether or not the organization is fulfilling its goals, effectively using its resources, and successfully operating in a competitive market environment^{7,8}. In order to achieve exceptional performance and identify the most efficient strategies for meeting their requests, it requires firms to carefully examine how they handle customers and other key stakeholders. Recognizing the significance of these stakeholders, firms are required to continuously enhance their service systems, concentrating on raising the quality of their services, accumulating assets, creating value, and maintaining a flexible internal control system that melds with their operational activities. The effectiveness of this strategy is maximized when internal control plans integrate naturally into the organization's system, becoming an essential element of the organization's overall success, assisting in continuous performance improvement, and ultimately playing a crucial role in the organization's competitive advantage.

Performance is viewed in the context of this study as consisting of asset safety, operational performance, and bank efficiency. A bank's capacity to increase output or value while reducing waste and inefficiencies is referred to as bank efficiency. The financial performance and resilience of efficient banks are generally better⁴. Efficiency gains at banks boost their sustainability and competitiveness. The successful and efficient handling of a bank's daily operations is referred to as operational performance. Enhancing operational performance is

essential for competitiveness and long-term growth⁵. Banks that operate well see greater financial results. Financial soundness and stability are guaranteed by the protection of bank assets. Effective risk management and asset protection strategies help banks survive shocks and preserve solvency⁹. The financial stability and interests of stakeholders are preserved through protecting bank assets.

Cases of subpar performance in the financial system, frequently linked to internal personnel and dishonest management, are a growing concern globally⁵. Recent bank failures like those of First Republic Bank, Signature Bank, and Silicon Valley Bank which occurred on May 1, 2023, March 12, 2023, and March 10, 2023, respectively are used as examples of this predicament¹⁰. All of these institutions were afterwards bought by other organizations (source: supplied table). These failures highlight the requirement for strong internal control mechanisms to fend off fraud, bad management, and subpar performance that can cause bank failures. Assisting in resource allocation, risk management, and asset protection are effective internal control systems³. The Nigerian banking system has undergone various revisions as a result of the lack of sufficient internal controls. The failure of banks like Intercontinental Bank Plc and AfriBank Plc has sadly grown frequent. Diamond Bank serves as an example of how recent improvements have not prevented a new catastrophe. Three key things can be held responsible for this failure: a lackluster executive team, weak risk control, and board issues¹¹. The bank's failure has been attributed, in particular, to the board's lack of independence and high turnover rate.

A major threat to the success of the banking industry is the lack of a reliable internal control system or the incidence of serious breakdowns within already-existing internal control systems. The effectiveness of internal control systems in Nigerian banks is raised, which is a serious worry. An internal control system's goal is to provide a reasonable level of assurance that a bank

is operating in compliance with all applicable rules and regulations and that its goals are being achieved. These systems might not be sufficient, though, as seen by the prevalence of fraud and the high number of failing banks. Internal control, as defined by the Committee of Sponsoring Organizations of the Treadway Commission (COSO), is a procedure that is affected by a bank's board of directors, management, and other personnel and is intended to offer reasonable assurance in the areas of operational effectiveness and efficiency, the accuracy of financial reporting, and compliance with laws and regulations¹¹. These actions are a broad category of things that supervisory and front-line staff do all around the company.

Additionally, for added security against potential risks and hazards, businesses must create and maintain a robust internal control system. This system needs to be adaptable and flexible, able to upgrade itself in response to new business requirements as well as changing environmental factors. Internal control techniques become institutionalized in organizational culture and procedures when they are smoothly incorporated into day-to-day operations, ensuring that every action and choice is in line with the organization's strategic goals and objectives.

An organization's competitive edge is considerably increased by integrating internal control plans into its system³. As a result, the company's market position improves and stakeholder trust is fostered. It ensures that the business operates with integrity, dependability, and responsibility. This competitive advantage is reliant on the organization's capacity to consistently meet customer expectations, lower risks, and foster long-term growth, in addition to the goods or services offered. Last but not least, businesses need to consistently improve their service systems while putting the needs of their stakeholders and customers first. By enhancing service quality, investing in assets, creating value, and maintaining a flexible internal control system, organizations can achieve continuous performance improvement and a major competitive

advantage. Internal control plans that are easily incorporated into the organizational structure ensure that performance improvement becomes an integral part of its culture, fostering success and long-term growth in a dynamic business environment⁶.

Any business without an internal control system is often subject to a number of risks that have the potential to bring the organization to its knees quickly or completely⁸. The issue of inaccurate financial statements and the loss of the company's assets are prominent among these risks, as are the stealing and improper management of organizationally important papers, which could be done by an employee to gain unfair advantage. There is also the problem of inaccurate and unreliable financial records, which may result in the loss of organizational integrity; non-implementation of accounting policies consistent with the relevant legislation appropriate in the presentation of financial statements; non-adherence to annual budgets; and non-implementation of planning policies. The soundness of financial institutions, particularly the commercial banks, is said to have a greater impact on the stability of the financial system, according to the Central Bank of Nigeria's Banking Sector Report⁹.

Every bank should have an internal audit department to ensure that internal control systems are implemented, as they are essential in the banking sector. The internal audit division is crucial in ensuring the accuracy and effectiveness of accounting systems for recording and reporting financial transactions, giving management accurate information, and defending the company's assets from theft and fraud⁹. A reliable technique for spotting fraud inside of firms is to use internal control systems. Multiple problems and risks can arise when there is a lack of an efficient internal control system. They could be disagreements over the company's expansion, declining performance, tarnished reputation, employee and customer unhappiness, investment losses, insolvency, and even government involvement^{12,13}.

The internal control system concept and its constituent parts will be examined for this study using the COSO framework. The COSO Framework is made up of the following five elements: the control environment, risk assessment, control activities, information and communication, and monitoring activities¹⁰. In contrast to risk assessment, which seeks to identify and assess potential hazards, the control environment sets a positive corporate tone. While information and communication activities enable the flow of pertinent information, control activities develop policies and procedures for compliance. Through monitoring, the internal control system's effectiveness is evaluated. These elements support each other and help the business achieve its goals while improving operational effectiveness¹¹. They foster effective leadership, a culture of accountability, and shared values, laying a solid foundation for internal control within the organization. In every department of the company, risks are continuously recognized and assessed. In order to address and reduce important risks, control actions and other measures are proactively created. Through established channels, crucial information that is required for risk identification and attaining corporate objectives is shared. Continuous monitoring is conducted of the entire internal control system, and any problems are dealt with right away¹².

Given the significance of internal control systems, efforts have been made to improve the efficiency of services by utilizing the right resources—including staff, equipment, personnel, and insights—to prevent and identify fraudulent actions. In doing so, deposit money banks (DMBs) can fulfill their objectives and ensure that internal control measures are effective in promoting the best performance. However, there is a study vacuum in determining how internal control elements affect particular performance measures including bank efficiency, operational performance, and safety of the asset in deposit money banks (DMBs). By investigating these linkages, this work seeks to close this knowledge gap.

1.2 Statement of the Problem

From the previous discussions, it is evident that the implementation of internal control systems in Nigerian financial institutions has been aimed at enhancing efficiency and reducing fraud. However, Nigeria has been ranked among the countries with the highest levels of economic crime, indicating persistent challenges in this regard⁸. The existing literature highlights the influence of various factors such as weak ethical practices, inadequate management policies, integrity issues, lack of evaluation mechanisms, poor risk assessment, and ineffective information dissemination on increased embezzlement within financial institutions.

Furthermore, The importance of internal factors on banks' profitability has been highlighted in several studies that have examined the variables impacting the profits of enterprises in the banking sector^{7,8,12}. Operational efficiency has been highlighted as a key factor in determining how well banks function in Nigeria¹². Fund theft was discovered to have an effect on the financial performance of deposit-taking savings and credit cooperative organizations (SACCOs) in Kenya¹¹. Similar findings were found in a research on Kenyan SACCOs, which found that liquidity and leverage had a big impact on their financial performance⁹. This study attempts to fill the knowledge gap on the impact of internal control system variables on the financial performance of listed Deposit Money Banks (DMBs) in Nigeria.

However, there is a research gap in understanding the specific impact of these internal control factors on the unique performance metrics of Bank Efficiency, Operational Performance, and Safety of the Asset in Deposit Money Banks (DMBs) in Nigeria. These performance metrics are crucial indicators of a bank's success and stability. Therefore, it is essential to investigate how internal control factors, such as the control environment, monitoring, risk assessment, and information and communication, directly affect these performance metrics. By addressing this

research gap, we can gain insights into the relationship between internal control and the specific performance metrics, leading to informed strategies for enhancing the efficiency, operational performance, and asset safety of the listed Deposit Money Banks (DMBs) in Nigeria.

1.3 Aim and Objectives of the study

The aim of the study is to investigate the internal control system and performance of the listed money deposit bank in Nigeria. The specific objectives are to:

- i. evaluate the influence of internal control systems, including the control environment, monitoring, risk assessment, control activities and information and communication on Bank Efficiency of the listed Nigerian Deposit Money Banks (DMBs)
- ii. investigate the influence of internal control systems, including the control environment, monitoring, risk assessment, control activities and information and communication on operational performance of the listed Nigerian Deposit Money Banks (DMBs)
- iii. examine the influence of internal control systems, including the control environment, monitoring, risk assessment, control activities and information and communication on asset safety of the listed Nigerian Deposit Money Banks (DMBs)

1.4 Research Questions

Based on the stated research objectives, the following research questions were formulated to guide the study:

- i. To what extent does the internal control systems, including the control environment, monitoring, risk assessment, and information and communication influence Bank Efficiency of the listed Nigerian Deposit Money Banks (DMBs)?

- ii. How does the presence of internal control systems, including the control environment, monitoring, risk assessment, and information and communication, affect the operational performance of the listed Nigerian Deposit Money Banks (DMBs)?
- iii. In what ways does internal control systems, including the control environment, monitoring, risk assessment, and information and communication, influence asset safety of the listed Nigerian Deposit Money Banks (DMBs)?

1.5 Hypotheses

For the purpose of this study, the following null hypothesis were formulated :

H₀1: There is no significant influence of internal control systems on Bank Efficiency in the listed Nigerian Deposit Money Banks (DMBs).

H₀2: There is no significant influence of internal control systems on operational performance in the listed Nigerian Deposit Money Banks (DMBs).

H₀3: There is no significant influence of internal control systems on asset safety in the listed Nigerian Deposit Money Banks (DMBs).

1.6 Scope of the Study

The study focuses on the listed deposit money banks in Nigeria that have international authorization. Specifically, it encompasses the following banks: Access Bank Plc, Fidelity Bank Plc, First City Monument Bank Limited, First Bank of Nigeria Plc, Guaranty Trust Bank Plc, Union Bank of Nigeria Plc, United Bank for Africa Plc, and Zenith Bank Plc. The dependent variable of the study is performance, which includes bank efficiency, operational performance, and asset safety as its metrics. The independent variable is the internal control system, which will be measured through the control environment, monitoring, risk assessment, and information and communication. By focusing on these specific deposit money banks and

examining the relationship between the internal control system and various performance metrics, the study aims to provide valuable insights into the effectiveness and impact of internal control in the Nigerian banking sector with international authorization.

1.7 Significance of the Study

The significance of this study is multifaceted and extends to financial institutions, the overall economic development of the nation, as well as regulatory authorities or agencies, policymakers, financial analysts, practitioners, the academic community, and researchers within the field of finance and accounting.

The findings of this study can provide valuable insights to financial institutions, specifically deposit money banks with international authorization in Nigeria. By evaluating the influence of internal control systems on performance metrics such as bank efficiency, operational performance, and asset safety, the study can identify areas for improvement. Financial institutions can use these insights to enhance their internal control practices, leading to improved performance, risk management, and protection of their assets.

The study's findings can contribute to the overall economic development of the nation. Sound internal control systems are crucial for the stability and sustainability of financial institutions. By promoting effective internal control practices, the study can help enhance the overall trust and confidence in the banking sector. This, in turn, can attract more investments, foster economic growth, and contribute to the development of a robust financial system in Nigeria.

Regulatory authorities, such as the Central Bank of Nigeria, have a vested interest in maintaining the stability and integrity of the financial sector. The study's findings can inform these regulatory authorities about the effectiveness of internal control systems in deposit money banks with international authorization. It can provide insights into areas where regulatory frameworks may

need enhancement or where additional guidance may be necessary to ensure that financial institutions have robust internal control systems in place.

Policymakers play a crucial role in shaping regulations and policies related to the banking sector. The findings of this study can provide policymakers with valuable insights into the effectiveness of internal control systems in deposit money banks. Policymakers can utilize these insights to develop or refine regulatory frameworks that enhance internal control practices and promote stability, transparency, and accountability in the financial system.

Financial analysts rely on accurate and reliable information to assess the performance and risk profiles of financial institutions. By investigating the influence of internal control systems on performance metrics, this study can provide financial analysts with a deeper understanding of how internal controls impact the financial performance and safety of deposit money banks. This knowledge can assist financial analysts in making more informed investment decisions and recommendations.

Practitioners within the field of finance, such as tax practitioners and auditors, have a vested interest in understanding the effectiveness of internal control systems. The study's findings can provide practitioners with insights into the key factors that influence bank efficiency, operational performance, and asset safety. This knowledge can guide practitioners in evaluating and improving internal control systems for their clients, ensuring compliance with regulatory requirements and minimizing the risk of financial irregularities.

The academic community and researchers in the fields of finance, accounting, and internal control will find value in this study. The findings can contribute to the existing body of knowledge by providing empirical evidence on the influence of internal control systems on performance metrics in the context of Nigerian deposit money banks. Researchers can build upon

these findings and explore related topics, further advancing the understanding of internal control practices, their effectiveness, and their impact on financial performance.

This study holds significance for policymakers, financial analysts, practitioners such as tax practitioners and auditors, as well as the academic community and researchers. The findings can inform policymaking, assist financial analysts in their assessments, guide practitioners in improving internal control practices, and contribute to the academic understanding of internal control systems in the banking sector.

1.8 Limitations of the Study

This study investigated the internal control system and the performance of listed Deposit Money Banks (DMBs) in Nigeria. Data was collected through a questionnaire distributed to respondents. However, it was observed that due to the sensitive nature of bank operations, certain respondents were initially hesitant to provide the specific information required for the study. Additionally, top managers, who were key participants, faced time constraints and were initially too busy to respond to the questionnaire. However, the researcher demonstrated patience and persistence in persuading them to participate, eventually obtaining their valuable responses to the research instrument. Additionally, in a highly competitive banking industry, some information was considered sensitive in terms of competition or economic implications. Moreover, when using questionnaires, some questions were disregarded or left unanswered by the respondents. These factors were taken into consideration during reliability of the instrument stage and the data collection process.

1.9 Operationalisation of the Research Variables

Dependent Variables:

- i. Bank Efficiency (BE)
- ii. Operational Performance (OP)
- iii. Asset Safety (AS)

Independent Variables:

- i. Control Environment (CE)
- ii. Monitoring (M)
- iii. Risk Assessment (RA)
- iv. Control Activities (CA)
- v. Information and Communication (IC)

The econometric model can be specified as follows:

i. Bank Efficiency Model:

$$BE = \beta_0 + \beta_1(CE) + \beta_2(M) + \beta_3(RA) + \beta_4(CA) + \beta_5(IC) + \epsilon_1$$

ii. Operational Performance Model:

$$OP = \beta_0 + \beta_1(CE) + \beta_2(M) + \beta_3(RA) + \beta_4(CA) + \beta_5(IC) + \epsilon_2$$

iii. Asset Safety Model:

$$AS = \beta_0 + \beta_1(CE) + \beta_2(M) + \beta_3(RA) + \beta_4(CA) + \beta_5(IC) + \epsilon_3$$

In these equations:

- β_0 represents the intercept or constant term.
- β_1 , β_2 , β_3 , β_4 , and β_5 represent the coefficients associated with each independent variable.
- ϵ_1 , ϵ_2 , and ϵ_3 represent the error terms, capturing unexplained variation in the respective dependent variables.

1.10 Operational Definition of the Terms

Asset Safety: Asset safety refers to the protection and preservation of the listed money deposit banks' assets, including financial resources, investments, loans, and physical properties. It involves implementing measures to mitigate risks and prevent losses due to fraud, misappropriation, or other forms of asset impairment.

Bank Efficiency: Bank efficiency is a measure of how effectively listed money deposit banks in Nigeria utilize their resources to generate profits and achieve operational excellence. It involves assessing the bank's ability to optimize processes, reduce costs, and improve productivity.

Control Environment: The control environment refers to the overall attitude, awareness, and actions of management and employees towards internal control within an organization. It encompasses factors such as the integrity and ethical values of management, the commitment to competence and accountability, and the establishment of a positive control culture.

Information and Communication: Information and communication refer to the flow of relevant and timely information within an organization. It involves the collection, analysis, and dissemination of information to support decision-making, ensure effective internal control, and facilitate communication at all levels of the organization. This includes the use of appropriate communication channels and systems to ensure that information is shared accurately and promptly.

Internal Control System: In the context of this study, internal control system refers to the policies, procedures, and mechanisms implemented by listed money deposit banks in Nigeria to ensure the effective management of risks, safeguarding of assets, and promotion of operational efficiency including the control environment, monitoring, risk assessment, and information and communication.

Listed Money Deposit Banks: Listed money deposit banks in Nigeria refer to financial institutions that are publicly listed on a recognized stock exchange in Nigeria and authorized by regulatory bodies such as the Central Bank of Nigeria to accept deposits from the public and provide banking services.

Monitoring: Monitoring refers to the ongoing process of assessing the effectiveness of internal controls within an organization. It involves the regular review and evaluation of control activities to ensure they are operating as intended and to identify any deficiencies or areas for improvement. Monitoring activities may include internal audits, management reviews, and independent assessments.

Operational Performance: Operational performance refers to the effectiveness and efficiency of the core operations and activities carried out by listed money deposit banks in Nigeria. It includes factors such as customer service, transaction processing, risk management, and adherence to regulatory requirements.

Performance: Performance refers to the overall effectiveness and achievement of objectives by listed money deposit banks in Nigeria. It encompasses various metrics, including bank efficiency, operational performance, and asset safety.

Risk Assessment: Risk assessment is the process of identifying, analyzing, and evaluating potential risks that could affect an organization's objectives. It involves assessing both internal

and external factors that may pose risks to the achievement of organizational goals. Risk assessment helps in determining the likelihood and impact of risks and guides the development of control measures to mitigate or manage those risks.

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Chapter Two

Literature Review

2.1 Conceptual Review

2.1.1 Performance of Listed Money Deposit Bank in Nigeria

The concept of performance in listed money deposit banks has been explored by various scholars, who have provided different definitions that capture its multidimensional nature. These definitions shed light on the key aspects and factors associated with bank performance. Performance as the ability of a listed money deposit bank to achieve its strategic objectives, generate profits, and provide satisfactory returns to shareholders^{1,2}. This definition emphasizes the importance of financial outcomes and shareholder value. Performance is reflected in a bank's financial results, market share, customer satisfaction, and overall reputation². This highlights the broader dimensions of performance beyond financial indicators, emphasizing the importance of market positioning and customer-centricity. Performance as the effectiveness and efficiency with which a listed money deposit bank utilizes its resources, manages risks, and delivers value to stakeholders³. The optimization of resource utilization, risk management practices, and stakeholder value creation. Performance as the ability of a listed money deposit bank to achieve superior financial results, maintain stability, and effectively allocate resources for sustainable growth³. Thus, the pursuit of financial excellence, stability, and strategic resource allocation. Furthermore, performance as the degree to which a listed money deposit bank accomplishes its objectives, meets regulatory requirements, manages risks, and creates value for shareholders and customers⁴. This definition emphasizes the multifaceted nature of performance, including regulatory compliance, risk management, and stakeholder value creation. Performance as the

ability of a listed money deposit bank to maintain profitability, liquidity, and solvency while effectively managing risks and adhering to regulatory standards. Importance of financial sustainability and risk management practices. Performance as the overall effectiveness and efficiency of a listed money deposit bank in achieving its financial goals, maximizing returns on assets and equity, and mitigating risks⁴. The achievement of financial objectives and the efficient utilization of resources. These various definitions highlight the multidimensional nature of performance in listed money deposit banks, encompassing financial outcomes, resource utilization, risk management, stakeholder value creation, and regulatory compliance. Understanding and measuring performance through these lenses provides a comprehensive assessment of a bank's effectiveness and success in fulfilling its objectives.

The health of the banking sector is widely acknowledged to be crucial to the overall health of the economy³. Effective and efficient banking industry performance is a pillar of every nation's financial stability⁴. Banks' well-being, on the other hand, is more dependent on their financial performance, which generally reflects a bank's strength and weakness⁵.

Owing to the important role Deposit Money Banks (DMBs) play in the development of any economy, their operations are consistently monitored and reformed to improve performance. A positive performance serves as a reward to investors, thus encouraging additional investments that ultimately lead to economic growth⁶. DMBs are closely monitored due to the crucial role they play in capital formation⁵.

Nigeria, with a GDP of US\$510 billion, ranks as the 26th largest economy in the world and the largest in Africa. The Nigerian financial services sector is one of the largest in Sub-Saharan Africa, second only to South Africa⁶. Over the past two decades, DMBs in Nigeria have encountered various challenges, including undercapitalization, illiquidity, weak corporate

governance, and limited financial intermediation capabilities. These challenges have necessitated monitoring, regulatory reforms, and efforts to improve the performance and stability of DMBs in the country⁴.

Given the significance of DMBs in the Nigerian economy, it is crucial to assess their performance and address any issues hindering their effectiveness. The performance of DMBs has a direct impact on economic growth, investor confidence, and capital formation⁵. Monitoring and implementing reforms in the DMB sector are essential for promoting stability, enhancing corporate governance practices, and improving the overall performance of the Nigerian financial system.

Banking in Nigeria is facing various issues as a result of the country's slowing economy, difficult operating climate, and growing competition intensity. The prolonged epidemic, currency depreciation, and other macroeconomic concerns have exacerbated the sector's woes⁶. To address these concerns, the Central Bank of Nigeria (CBN) has taken quick action, including a stimulus package and lowering the interest rate on intervention facilities from 9% to 5%⁶.

Given the current conditions, now is an excellent time for banks to conduct a thorough review of their efficiency and productivity. Due to the pandemic, steps such as online training, virtual performance management sessions, remote working for particular occupations, and changed operation hours for branches have been required. These changes give potential for Nigerian banks to reduce costs, particularly by rethinking the branch network and coverage model, improving spending efficiency, and embracing end-to-end digitization⁷.

Due to the crucial role Deposit Money Banks (DMBs) play in the economic development of a country, their operations are continuously monitored and reformed to enhance performance. Positive performance serves as a reward for investors, encouraging additional investments and

fostering economic growth. The need for close monitoring of DMBs due to their vital role in capital formation. Nigeria, with a GDP of US\$510 billion, holds the 26th position in the global economy and boasts one of the largest financial services sectors in Sub-Saharan Africa, second only to South Africa⁶.

Over the past two decades, DMBs in Nigeria have faced numerous challenges, including undercapitalization, illiquidity, weak corporate governance, insolvency, and a high number of non-performing loans, posing threats to their existence. Consequently, banking sector reforms have become necessary. These reforms aim to establish a stable and healthy economy. Nigerian banking sector reforms are focused on achieving financial stability and effective financial intermediation^{6,7}. The reforms started with the deregulation of interest rates from 1986 to 1993, allowing for private sector participation and the enhancement of prudential regulations to address bank distress⁷. This led to an increase in the number of banks, from 34 in 1987 to 89 by 2004, as credit allocation quotas were relaxed and entry into the Nigerian banking space became easier.

Profitability is a crucial consideration when evaluating a bank's financial performance. A bank's long-term sustainability depends on having enough income to cover operational costs⁷. Profitability is a crucial determinant of a company's success or failure since firms strive to make the best use of their resources and increase the return on their investments. Shareholders benefit as well from profits since they promote further investment⁸. Commercial banks' primary objective is to maximize profit, and all of their strategies and initiatives are focused on doing just that⁴. Stakeholders must pay particular attention to profitability since it is essential to the continuous operation and expansion of banks.

It is crucial for both individual banks and the economy as a whole to comprehend the relationship between business effectiveness and profitability. Management's capacity to create

revenue and rein in expenses is evaluated by a company's efficiency. By preventing waste of resources, such as time, money, energy, and effort, it exhibits effective management⁷. With effective management, banks may run at lower costs, increasing their profitability⁸. The efficiency of costs and the use of resources are crucial for the financial success of banks. Banks can still make money even with increasing operating costs by passing on costs to depositors and borrowers in the form of reduced deposit rates and bigger lending assets⁷. Efficiency eventually leads to profitability, ensuring the long-term existence and growth of institutions.

For the purposes of this study, the term "performance" refers to three important factors: bank efficiency, operational performance, and asset safety. When assessing a bank's overall performance and stability, each factor is important. The capacity of a bank to increase production or value while reducing waste and inefficiencies in its operations is referred to as bank efficiency. Effective capital allocation, cost control, and resource optimization are all capabilities of efficient banks. Efficient banks typically have higher financial performance and resilience. Institutions may increase their competitiveness, achieve sustainable development, and generate value for their stakeholders through enhancing bank efficiency⁸.

Operational performance is concerned with how well and successfully a bank carries out its regular tasks and procedures. It includes a number of facets, including compliance, risk management, loan origination, and customer service. Improved financial results, customer happiness, and operational excellence are the results of well-performing banks' proficiency in these areas⁸. For banks to be competitive, adjust to shifting market dynamics, and maintain long-term growth, they must improve operational performance.

The protection and maintenance of a bank's assets, such as client deposits, loans, and investments, is referred to as the safety of the asset dimension. It includes strong risk management procedures,

responsible lending guidelines, efficient internal controls, and adherence to legal regulations. In times of economic uncertainty, banks with robust asset safety procedures are better able to resist shocks, reduce potential losses, and sustain solvency^{7,8}. Maintaining financial stability, fostering stakeholder trust, and protecting the interests of depositors and investors all depend on protecting bank assets. This study intends to shed light on the efficacy of internal control systems and how they affect the efficiency, operational performance, and asset safety of listed Nigerian Deposit Money Banks (DMBs) by looking at these three performance facets. The results will aid in the knowledge of the variables that affect banking sector performance and guide initiatives for enhancing overall bank performance, stability, and sustainability.

2.1.1.1 Bank Efficiency

As sound and effective banks are necessary for efficiency resource allocation within an economy, firm efficiency is relevant at both the macro and micro levels⁸. Both allocative efficiency and technical efficiency are frequently evaluated in the context of banking. Allocation that optimizes expected value is referred to as being efficient in terms of allocation. Technical efficiency, on the other hand, aims to produce outputs with the fewest number of inputs feasible⁷. For listed money deposit institutions, inputs may be things like labor, capital, and operational costs, while outputs can be things like loans or the total amount of deposits. Cost efficiency, which refers to employing resources as efficiently as possible to reduce costs, is necessary to achieve both allocative and technical efficiency⁸. Efficiency is important in the banking sector because it guarantees that resources are deployed wisely and that wastage is kept to a minimum. In order to maximize the output or value from their available resources, efficient banks are better prepared, which enhances their capacity to sustainably manage finances. Efficient banks often display superior profitability, a higher return on assets, and greater resilience to external shocks⁸.

Efficiency in listed money deposit banks is crucial for both their internal operations and the smooth running of the whole financial system. Efficiency banks aid in the efficiency distribution of capital within the economy, supporting stability and economic progress. They aid economic growth by facilitating the mobilization of savings, directing money toward profitable investments². One of the most important characteristics of listed money deposit banks is firm efficiency, which includes both allocative and technical efficiency. It guarantees optimum resource use, enhanced financial performance, and efficient capital allocation. By focusing on efficiency, banks may become more competitive, support economic expansion, and play a vital role in the financial system.

When assessing the efficiency of financial institutions, particularly listed money deposit banks, the choice of an acceptable efficiency concept is an important consideration. Cost efficiency, profit efficiency, and alternative profit efficiency are the three main efficiency ideas that are frequently taken into account by researchers³.

Cost efficiency places an emphasis on cost savings and seeks to maximize output from a given set of inputs⁸. It derives from a cost function that takes into account a number of variables, including input prices, quantities of variable outputs, fixed inputs or outputs, environmental conditions, random error, and efficiency⁸. The percentage of expenses or resources that are used efficiency inside the company is shown by the cost efficiency ratio in this situation. The link between input costs, output levels, and the total cost structure must be taken into account when evaluating cost efficiency. The objective is to locate areas where costs may be reduced while output levels are maintained⁵. The mentioned money deposit banks can efficiently control their expenditures and enhance their financial performance by maximizing cost efficiency. Additionally, there are additional methods for evaluating the efficiency of financial institutions,

including profit efficiency and alternative profit efficiency. While alternative profit efficiency gauges how near a bank is to generating maximum profits given its output levels, profit efficiency assesses a bank's potential to create income by adjusting both inputs and outputs⁴. These ideas analyze the organization's capacity for producing income as well as its capacity to maximize profits while taking market circumstances and input costs into consideration. Researchers can evaluate the performance and efficiency of listed money deposit institutions by using these efficiency ideas. Understanding cost, profit, and alternative profit efficiency will help you better understand how these institutions use their resources, create income, and optimize their profits. The choice of the best appropriate efficiency concept relies on the study's particular environment and research goal.

A different method from cost efficiency for gauging the efficiency of financial institutions is standard profit efficiency. It is primarily concerned with assessing performance in light of the bank's capacity to produce revenue by altering inputs and outputs. The percentage of a company's maximum achievable earnings that represents conventional profit efficiency⁷.

Standard profit efficiency, is preferable to cost efficiency because it stresses the significance of both maximizing marginal income and lowering marginal expenses. This method offers a thorough evaluation of a bank's overall performance and efficiency since it takes into account both income production and expense reduction. Cost efficiency models, on the other hand, solely concentrate on input inefficiencies and could not accurately reflect the kind and degree of a bank's efficiency⁸. Standard profit efficiency analysis uses a profit function that takes both input and output inefficiencies into account, providing a more thorough assessment of a bank's efficiency. It understands that when a bank produces too few or subpar products given its inputs and prices, inefficiencies can result. The significance of optimizing production levels and

revenue creation in relation to inputs and market circumstances is highlighted by this component of efficiency, which is not completely captured in cost efficiency models⁸.

Instead of concentrating on output prices, alternative profit efficiency presents a distinct viewpoint by assessing how closely a bank adheres to the maximizing of profits based on its output levels². This idea enables a more thorough assessment of a bank's operation and potential for generating profits. The output prices can change and have an influence on profitability since it uses the same dependent variables as the normal profit function and integrates the same exogenous elements as the cost function⁹. Using the same independent variables as the cost function, the alternative profit efficiency ratio compares the expected actual profits to the projected maximum profits that a best practice bank may achieve⁹. In contrast, the cost-to-income ratio is frequently used to evaluate cost efficiency in the banking sector. This ratio evaluates a bank's overall operational expenses against its revenue. According to international standards, banks with benchmark ratios of 0.6 or below are regarded as efficient¹⁰. Banks with greater values are viewed as inefficient. A bank that has a lower cost-to-income ratio likely manages its costs well and generates more money than it spends. A commonly used metric to assess the cost efficiency of banks is the cost-to-income ratio. It offers information on a bank's capacity to control its spending and produce revenue from its activities. A lower cost-to-income ratio demonstrates improved efficiency and financial performance since the bank can better utilize its resources and increase operational revenue.

An essential part of a bank's operations that directly affects efficiency is the internal control system. The link between the internal control system and bank efficiency has been the subject of several research, providing insight on the various ways in which the internal control system affects the efficiency of banking operations. An overview of the main conclusions and

revelations from earlier studies in this field is given in this literature review. Efficiency risk management within a bank depends heavily on an internal control system that is carefully thought out. According to studies, banks with strong risk management systems and controls operate more efficiently¹⁰. Banks may maximize their operations and lessen the potential impact of unanticipated occurrences on their efficiency and financial performance by recognizing, evaluating, and reducing risks.

For a bank to work well, operational procedures must be efficiency, and the internal control system is crucial in simplifying these operations. Efficiency internal controls are said to increase operational efficiency by lowering mistakes, duplication of work, and delays, according to research⁹. Banks may increase their general efficiency and productivity by establishing clear workflows, delineating roles, and standardizing processes. Internal controls play a critical role in deterring and detecting fraud in banks. Strong internal control systems are essential for preventing fraud attempts and quickly spotting abnormalities⁷. Banks can protect their assets, uphold confidence, and improve operational efficiency by putting controls including segregation of tasks, frequent reconciliations, and monitoring measures in place¹¹.

The internal control system is essential for assuring adherence to legal obligations and professional norms. Internal controls are important for monitoring and enforcing compliance with rules, according to research. Banks may improve their operational efficiency by implementing controls to comply with regulatory requirements and prevent fines, reputational harm, and legal issues.

The credibility of stakeholders in decision-making processes depends on accurate financial reporting. Through controls over data collection, processing, and reporting, the internal control system aids in the correctness and dependability of financial reporting¹⁰. According to studies,

banks with good internal controls have more accurate financial reporting, which increases their efficiency and builds stakeholder trust. The academic literature indicates how important the internal control system is in determining how efficiently a bank operates. The internal control system has an impact on bank efficiency in a number of ways, including efficiency risk management, simplified operating procedures, fraud prevention and detection, compliance with regulatory requirements, and accurate financial reporting. Banks seeking to optimize operations, reduce risks, and improve overall efficiency must comprehend and put in place reliable internal controls. The unique processes and ideal procedures for enhancing the effect of the internal control system on bank efficiency may be explored further in this field¹².

It has been thoroughly researched how the internal control system's components, such as the control environment, monitoring, risk assessment, and information and communication, affect the efficiency of listed Nigerian Deposit Money Banks (DMBs)¹³. The primary results and significant takeaways from earlier studies on the influence of various internal control system components on bank efficiency are summarized in this review of the literature. The tone at the top, ethical standards, and organizational culture all make up the control environment, which has a big impact on how efficiently banks operate. According to research, a strong control environment that is defined by good governance, moral behavior, and risk awareness increases bank productivity¹⁴. An atmosphere that is supportive of controls fosters a culture of responsibility, openness, and prudent risk-taking, which increases the efficiency of banking operations.

The efficiency of the bank and the efficacy of the internal control system are both critically dependent on monitoring measures. According to studies, proper oversight, including routine internal audits, independent assessments, and performance evaluations, increases bank

efficiency¹⁴. Efficiency monitoring aids in finding process flaws, anomalies, and inefficiencies, enabling prompt corrections and process enhancements.

Efficiency risk assessment is necessary to guarantee bank efficiency. According to research, banks that have strong risk assessment frameworks and techniques often operate more efficiently⁸. Efficiency risk assessment aids banks in proactive risk identification, measurement, and management, reducing potential losses and enhancing operational efficiency. The internal control system depends on information and communication networks, which also have a big influence on how efficiently banks operate. According to studies, efficient communication channels, timely information flows, and correct information flows all increase the efficiency of banking operations⁸. Making informed decisions, facilitating cooperation, and supporting efficiency procedures inside banks are all made possible by having access to pertinent and trustworthy information.

It is crucial to remember that the integration and coordination of the internal control system's many components determine how well it will improve bank efficiency. A complete strategy that ensures the alignment and smooth operation of the control environment, monitoring, risk assessment, and information and communication systems boosts bank efficiency⁸. The interdependence of these elements improves the internal control system's overall efficacy and has a beneficial impact on bank efficiency. The literature emphasizes the important impact internal control system elements, such as the control environment, monitoring, risk assessment, and information and communication, have on listed Nigerian Deposit Money Banks' (DMBs') ability to operate efficiently. Improved efficiency in banking operations is a result of strong control environments, efficient monitoring mechanisms, reliable risk assessment procedures, and efficiency information and communication systems. For the internal control system to function at

its best and for banks to operate more efficiently, an integrated strategy that aligns these elements is essential. Specific tactics and best practices for maximizing the impact of these internal control system elements on bank efficiency in the Nigerian banking sector can be explored in further study.

2.1.1.2 Operational Performance

Banks' function as a financial service provider in a country's economy may be viewed as a key resource allocator. They play an important role in transmitting funds from depositors to investors. Aside from serving as a middleman, the functioning of banks has ramifications for national economic growth. Poor banking performance can lead to bank collapse and crises, which can harm economic growth⁸. A country's financial system serves as its backbone and works as a good facilitator for financial institutions. Financial institutions are critical to the country's economic development and success. A strong financial system encourages investment by funding productive businesses, mobilizing savings, allocating resources effectively, and enabling trade operations. Commercial banks' performance is evaluated for a variety of reasons, based on their goals¹⁰. A bank regulator, for example, may need to detect and alert institutions that are having persistent financial issues so that they may be addressed before they spiral out of hand. Commercial banks assess their performance over time to gauge the efficacy and long-term viability of management policies and goals, allowing them to shift course and make changes as needed. Without frequent and routine performance monitoring, underlying issues may go undetected, leading to financial disasters later on.

A study investigated the impact of operational hazards and financial risk management approaches on Nigerian banks in a research¹⁵. The study included a qualitative approach, incorporating interviews with executives from several Nigerian banks. According to the findings,

various types of fraud were prevalent within Nigerian bank operations, including trickery, non-compliance with standards, bank cheating, foreign and domestic operations, compromise, currency market and treasury operations, risk assets, information technology, financial control, clearing, trust transactions, and teller operations. The report advocated using new technologies into the governance structure to improve service delivery.

Furthermore, the Nigerian banking system is progressively implementing Basel III, which intends to assign adequate financial risk capital. However, Nigeria has failed to build a standardized financial risk loss database for its Deposit Money Banks (DMBs). This suggests that financial organizations should reconsider and expand their use of Nigerian banking legislation. According to the report, the regulatory framework should be examined and expanded in order to ensure effective risk management techniques.

The influence of financial risk management on the financial development, economic value contributed, and expansion of financial institutions in Nigeria in another research. The particular information and conclusions of this investigation, however, are not revealed in the context. Nonetheless, it implies that research has been performed to investigate the link between financial risk management and the performance of Nigerian financial institutions¹⁵. These studies emphasize the significance of identifying and managing operational and financial risks in the Nigerian banking system. Financial institutions may improve service delivery, encourage financial growth, and assure economic value contributed by employing rigorous risk management processes and using innovative technology. To ensure sustainable growth and optimize their contribution to the economy, Nigerian banks must handle operational risks, strengthen financial risk management approaches, and implement relevant regulatory measures.

2.1.1.3 Safety of the Asset

Asset safety is a crucial performance indicator for banks, highlighting their ability to protect and maintain the value of their assets¹³. It encompasses various dimensions, including credit risk, market risk, liquidity risk, operational risk, and compliance with legal and regulatory requirements. The concept of asset safety is a vital performance indicator for banks. It refers to the ability of a bank to protect its assets from risks and ensure their preservation over time¹³. Asset safety is crucial for maintaining the financial stability of a bank and safeguarding the interests of stakeholders, including depositors and investors. As a performance indicator, asset safety reflects the effectiveness of a bank's risk management practices, internal control systems, and governance mechanisms. A bank with strong asset safety measures demonstrates its ability to identify, assess, and mitigate risks associated with its assets. This includes ensuring adequate collateralization, conducting regular audits, and implementing robust security protocols.

The concept of asset safety encompasses various dimensions, including credit risk, market risk, liquidity risk, operational risk, and legal and regulatory compliance¹⁵. Banks must adopt prudent lending practices, conduct rigorous due diligence on borrowers, diversify their loan portfolios, and maintain adequate capital buffers to mitigate credit risk. Additionally, managing market risk involves monitoring and hedging against fluctuations in interest rates, exchange rates, and market prices. Liquidity risk management ensures that a bank has sufficient liquid assets to meet its obligations as they arise. Operational risk management involves identifying and mitigating risks arising from internal processes, technology, human factors, and external events^{8,13}. Compliance with legal and regulatory requirements is essential to ensure the protection of assets and maintain the integrity of the banking system.

The safety of bank assets is essential for ensuring financial stability, safeguarding stakeholder interests, and ensuring the long-term viability of the institution¹³. To assess the safety of bank assets, several key factors are considered^{7,8,13}. Firstly, credit risk management practices play a vital role. Banks evaluate the creditworthiness of borrowers and counterparties, implementing rigorous underwriting standards, collateral requirements, and ongoing monitoring to minimize the risk of loan defaults and credit losses. Secondly, market risk is a significant consideration. Banks are exposed to market fluctuations such as interest rate risk, exchange rate risk, and market price risk. Robust risk management strategies, including hedging, diversification, and stress testing, help mitigate these risks and protect the value of bank assets.

The assessment of asset safety as a performance indicator involves evaluating the adequacy and effectiveness of a bank's risk management framework, internal control systems, and compliance procedures^{7,10}. Regulators, investors, and stakeholders closely monitor a bank's asset safety indicators, such as non-performing loan ratios, capital adequacy ratios, liquidity ratios, and compliance with regulatory requirements. A bank that consistently maintains high asset safety standards not only ensures the preservation of its own financial health but also enhances its reputation, trust, and long-term viability in the market.

Asset safety is a critical performance indicator for banks, reflecting their ability to protect and preserve their assets while managing various risks. By ensuring robust risk management practices, strong internal control systems, and compliance with legal and regulatory requirements, banks can enhance their asset safety, maintain financial stability, and instill confidence among stakeholders.

In the literature on asset safety, definitions are introduced to differentiate between safety, liquidity, and money demand. It is important to note that no asset can be considered completely

safe. The term "safe assets" is used to describe financial promises that have no credit risk and ensure certain nominal repayment. Such assets include debts issued or guaranteed by a government that is considered "safe," indicating the presence of an independent central bank, a stable currency, and strong protection of property rights^{8,13}.

The internal control system plays a crucial role in safeguarding a bank's assets and ensuring their safety¹⁴. It serves as a comprehensive framework of policies, procedures, and practices that are designed to protect the bank's assets, ensure regulatory compliance, and facilitate accurate financial reporting. One of the primary functions of the internal control system is to identify and mitigate risks. Banks face various risks, including credit risk, market risk, operational risk, and compliance risk^{7,8,10,13}. By implementing a strong internal control system, banks can effectively identify these risks and implement appropriate controls and measures to mitigate them. This proactive approach helps protect the bank's assets from potential losses and ensures their safety.

Compliance with regulations is another key aspect of asset safety. The internal control system ensures that the bank adheres to applicable laws, regulations, and industry standards. By complying with regulatory requirements, banks minimize the risk of penalties, legal liabilities, and reputational damage. This commitment to compliance preserves the safety of the bank's assets and helps maintain the trust of stakeholders.

Fraud prevention and detection are critical components of asset safety¹⁶. The internal control system includes measures to deter and identify fraudulent activities that could compromise the bank's assets. By implementing segregation of duties, conducting regular reconciliations, and establishing robust monitoring mechanisms, banks can effectively prevent and detect fraud. These efforts contribute to the overall safety of the bank's assets and help protect against financial losses.

Accurate and reliable financial reporting is essential for assessing the true value and safety of a bank's assets¹⁷. The internal control system includes controls over financial data collection, processing, and reporting. These controls ensure the accuracy and integrity of financial statements, allowing stakeholders to make informed decisions. Transparent and reliable financial reporting enhances the overall safety of the bank's assets.

Effectiveness of the internal control system, banks can enhance the safety of their assets and protect against potential risks¹⁰. Regulators, investors, and stakeholders consider the strength of a bank's internal control system when evaluating the bank's performance and risk profile. A robust internal control system not only safeguards the bank's assets but also contributes to the overall financial stability of the institution. The internal control system and asset safety are interrelated performance indicators for banks. A well-designed and effectively implemented internal control system strengthens asset safety by identifying and mitigating risks, ensuring compliance with regulations, preventing fraud, and maintaining accurate financial reporting⁸. By prioritizing asset safety through a robust internal control system, banks can enhance their overall performance and maintain the trust and confidence of stakeholders.

2.1.2 Internal Control System

Internal control is a structured system implemented within a corporation to enhance the efficiency and effectiveness of its activities¹⁶. It serves the purpose of ensuring compliance with laws and regulations and improving the reliability of financial reporting. The internal control system is of vital importance for institutions to achieve their ultimate objectives. By anticipating potential problems that may lead to financial losses, the system helps prevent or minimize such losses. Research on the causes of bank failures consistently highlights the significance of an efficient and effective internal control system in preventing financial costs.

Internal control is a crucial aspect of corporate governance and risk management, aimed at safeguarding assets, promoting accountability, increasing efficiency, and preventing fraudulent behavior¹⁷. The importance of internal controls has been emphasized since the accounting scandals of the early 2000s, leading to regulatory requirements such as the Sarbanes-Oxley Act, which mandates management to design and evaluate the effectiveness of internal controls¹⁸.

Effective internal controls protect company assets and streamline operations, contributing to the overall success of the organization¹⁹. The internal audit department plays a significant role in ensuring the security of corporate assets, despite the lack of explicit provisions in legislation regarding the format of internal audit reports¹⁹.

The Committee of Sponsoring Organizations (COSO) defines the Internal Control System (ICS) as a process implemented by the board of directors and management to provide reasonable assurance regarding the effectiveness and efficiency of operations, reliability of financial reporting, and compliance with management policies⁶. The board of directors retains oversight responsibility for the design, implementation, and conduct of internal control⁶.

Several studies have examined the effectiveness and quality of ICS from various perspectives. Factors such as firm size, beta, material weaknesses, earnings management, lower return-earnings associations, and accruals quality have been considered in assessing the effectiveness or quality of ICS^{2,3,4,11,13,15}.

Internal controls play a critical role in ensuring the integrity of financial information, preventing fraud, and promoting organizational efficiency. Regulatory requirements and the oversight of the board of directors contribute to the establishment and evaluation of effective internal control systems. By adopting best practices and evaluating the effectiveness of internal controls, organizations can enhance their overall governance and risk management practices.

Control, as one of the five main functions of management, is a process that involves monitoring operations to determine whether they are fulfilling their intended functions. If there are any deviations from the planned objectives, the control process identifies the reasons for the deviation and takes the necessary steps to eliminate it. The main purpose of control is to raise awareness of errors and detect points of failure in order to prevent their recurrence. The internal control system can be broadly defined as a system that maintains the company's assets, ensures the accuracy and reliability of accounting information and other operational reports, and increases the effectiveness of operations. It encompasses the assessment and methods used to evaluate the suitability of operations in line with management policies, the implementation of a chart of accounts and reporting system, the specification of duties, authority, and responsibilities, and the organizational plan of the corporation¹⁸. In essence, the internal control system, created and implemented by management and employees, is a process designed to provide reasonable assurance in achieving predetermined objectives.

One of the key objectives of internal control is to ensure the reliability of financial reporting information. This involves establishing processes and procedures to accurately record, summarize, and report financial transactions and events. By implementing internal controls, businesses can enhance the integrity and accuracy of financial reporting, which is essential for making informed decisions and maintaining the trust of stakeholders. Another critical aspect of internal control is compliance with laws and regulations. Internal controls help organizations identify the legal and regulatory requirements applicable to their operations and establish procedures to ensure compliance. By adhering to these requirements, organizations can mitigate legal and regulatory risks, safeguard their reputation, and avoid potential penalties or sanctions.

Internal control is an ongoing process that is never truly finished. It consists of a series of procedures and rules designed to address specific risks and objectives within an organization. The implementation of internal controls involves a cost/benefit analysis, where the potential benefits of control outweigh the associated costs. Judgment, both financial and non-financial, plays a significant role in determining the most effective control measures.

The COSO framework provides a comprehensive understanding of the key components of internal control. These components work together to establish an effective system within an organization.

The first component, the Control Environment, sets the tone for the organization by emphasizing the importance of integrity and ethical values. It encompasses factors such as management's commitment to these principles, the organization's structure, and the assignment of authority and responsibility¹⁸. A strong control environment lays the foundation for effective internal control throughout the organization.

Risk Assessment is the second component, focusing on identifying and assessing risks that could hinder the achievement of organizational objectives. By evaluating potential risks, determining their significance, and developing strategies to manage and mitigate them, organizations can proactively address risks and enhance their control environment.

Effective Information and Communication is crucial for internal control¹⁶. This component ensures that relevant information flows throughout the organization in a timely and accurate manner. It involves the communication of internal and external information to the appropriate individuals within the organization, enabling informed decision-making and facilitating effective control implementation.

Control Activities make up the fourth component and consist of specific policies and procedures that organizations implement to mitigate risks and achieve their objectives. These activities can include segregation of duties, authorization and approval processes, physical safeguards, and technological controls. By implementing control activities, organizations establish a structured approach to risk management and ensure the effectiveness of their internal control system.

The final component, Monitoring, involves ongoing assessments of the effectiveness of internal controls. Regular evaluations, internal audits, and management reviews are conducted to identify any deficiencies, ensure compliance with policies and procedures, and implement necessary corrective actions⁶. Monitoring is essential for maintaining the integrity and effectiveness of the internal control system.

These five components, organizations establish a robust internal control framework⁹. This framework provides reasonable assurance regarding operational efficiency, compliance with laws and regulations, and the reliability of financial reporting. It promotes a culture of accountability, risk management, and continuous improvement within the organization. Ultimately, effective internal control enhances the safety of bank assets and contributes to the overall success and sustainability of the institution.

By integrating these five components, organizations can establish a robust internal control system that provides reasonable assurance over achieving operational efficiency, compliance with laws and regulations, and the reliability of financial reporting. Effective internal control contributes to overall organizational performance, risk management, and the preservation of asset safety.

Internal control is a system or set of mechanisms, rules, and procedures implemented by a company to ensure the integrity of financial and accounting information, promote accountability,

and prevent fraud. The quality and effectiveness of internal control have a significant impact on the financial reporting of organizations. It is crucial for management to ensure that the control measures put in place are strictly adhered to by staff. This can be achieved through proper training and the establishment of penalties for non-compliance¹⁹.

Corporate governance, which involves the relationship between a company's board, shareholders, and other stakeholders, is closely linked to financial reporting quality. Good corporate governance is a product of high financial reporting quality, which reduces fraudulent disclosures in annual financial statements²⁰. Financial reporting quality refers to the accurate and reliable disclosure of a company's financial status in its annual report, instilling confidence in investors' decision-making²⁰. The board of directors plays a key role in utilizing the economic resources of shareholders, while external auditors provide assurance services to confirm the accuracy of financial reports²⁰.

The internal control system is designed and controlled by senior management and the board of directors to provide limited assurance regarding the reliability of financial reporting, the effectiveness and efficiency of operations, and compliance with laws and regulations⁶. It encompasses various components such as the control environment, risk assessment, information and communication, control activities, and monitoring. These components involve a wide range of activities carried out by supervisors and employees throughout the organization⁶.

Internal control activities include segregation of duties, authorization and approval processes, reconciliation and review, and physical security⁶. The goal of internal control is to facilitate efficient operations, safeguard assets, prevent and detect fraud and unlawful acts, ensure the completeness and accuracy of financial records, and enable the timely preparation of financial statements²⁰. Although no control system can be perfect due to the dynamic nature of

organizations and emerging risks, the objective of internal control is to provide reasonable assurance that the organization can achieve its objectives¹⁹. Internal control failures occur when the control system is flawed and unable to prevent or correct material misstatements in financial statements⁴.

The quality of financial reporting is considered high when it exhibits attributes such as transparency, full disclosure, and comparability. Transparency involves the disclosure of information about events, transactions, judgments, and estimates that allows users to understand the implications of decisions and judgments made by preparers. Full disclosure provides all the necessary information for decision-making, while comparability ensures consistency in accounting treatment across companies and over time²¹.

The effectiveness and efficiency of the control system in the financial reporting process can influence the quality of financial reporting. An effective internal control system can moderate or reduce management opportunistic behavior that may affect reporting quality²². The presence of control in an organization benefits management, external auditors, and internal auditors by enhancing the quality of the internal control system²¹.

Internal control put in place and enforced is key to combating the loss of revenue and assets caused by fraud²². Internal control is looked upon more and more as a solution to a variety of potential problems¹⁶. Internal controls are put in place to keep the organization on course towards profitability goals and the achievement of its missions and to minimize surprises along the way⁶.

They promote efficiency, reduce the risk of asset loss, and help to ensure the reliability of financial statements and compliance with laws and regulations. Internal control is a system that comprises a control environment and control procedures²². It includes all the policies and procedures adopted by the directors and management of an entity to assist in achieving their

objectives. The researcher suggested that a good internal control system ensures that functions/duties are properly defined and that duties are properly assigned to qualified staff, and that there is an inbuilt control in the system to ensure feedback, detection and correction of errors in good time. It is the overall good of any organization to ensure its continued existence and growth. They must strive to enhance performance in the ever-competitive finance market and internal control is an institutional strategy for business sustainability.

Internal controls play a crucial role in safeguarding the organization's funds, ensuring efficient asset management, and maintaining the accuracy of financial statements²². While internal controls cannot eliminate all errors and irregularities, they serve as a mechanism to identify and address potential problems before they escalate into significant issues.

The scope of internal control encompasses the organization's overall plan and the coordinated methods and measures adopted to protect its assets, ensure the accuracy of accounting data, promote operational efficiency, and adhere to managerial policies¹⁵. ICAN (Institute of Chartered Accountants of Nigeria) has categorized controls into three major classifications, namely:

Preventive Controls

Preventive controls play a crucial role in identifying and mitigating potential problems before they occur. These controls are designed to prevent errors, omissions, or malicious acts from happening in the first place, thereby reducing the likelihood of negative consequences for the organization. One of the key aspects of preventive controls is the use of well-designed documents to prevent errors. Well-designed documents refer to forms, templates, or standardized formats that are specifically created to guide and facilitate accurate and consistent record-keeping and data entry processes²². By using such documents, organizations can minimize the risk of errors and ensure that information is recorded in a clear and structured manner. For

example, in financial transactions, organizations may use pre-printed forms or electronic templates with fields for capturing essential information such as dates, amounts, and descriptions. These documents provide a structured format that helps users enter data accurately, reducing the chances of errors or omissions.

Additionally, preventive controls may include the implementation of approval processes, where designated individuals review and authorize transactions or activities before they occur. This helps ensure that proper oversight is in place and potential errors or fraudulent acts are detected and prevented. Other examples of preventive controls include segregation of duties, where different individuals are assigned distinct responsibilities to create checks and balances, and physical security measures to safeguard assets from unauthorized access or theft. Preventive controls are essential in promoting accuracy, reliability, and integrity within an organization's processes. By proactively identifying and addressing potential problems before they occur, these controls contribute to the overall effectiveness and efficiency of operations, reducing the likelihood of errors, omissions, or malicious acts that could negatively impact the organization's performance and reputation.

Detective Controls

Detective controls are an important component of an effective internal control system as they help identify and report any errors, omissions, or malicious acts that may have occurred. These controls are designed to detect such occurrences after they have happened, enabling prompt action to be taken to rectify the situation. One example of detective controls is the practice of duplicate checking of calculations. Duplicate checking involves performing a secondary review or verification of calculations to identify any discrepancies or errors. This can be done by comparing the results of the initial calculation with an independently computed calculation or by

having a different individual review the calculations for accuracy. By conducting duplicate checks, organizations can enhance the accuracy and reliability of their calculations, reducing the risk of errors going unnoticed.

Duplicate checking can be particularly valuable in financial calculations, where accuracy is crucial. For instance, in accounting processes, such as reconciling bank statements or verifying the accuracy of financial statements, duplicate checking can help identify errors in data entry, mathematical calculations, or other discrepancies that may impact the accuracy of financial information. In addition to duplicate checking, other examples of detective controls include regular monitoring and review of financial transactions, periodic reconciliations of accounts, and conducting internal audits. These measures are aimed at detecting irregularities, unusual patterns, or anomalies in financial data that may indicate errors or potential fraudulent activities.

Detective controls also involve the establishment of reporting mechanisms and channels for employees to report suspected errors or fraudulent acts. This encourages a culture of transparency and accountability within the organization, enabling early detection and swift action in response to potential issues. By implementing effective detective controls, organizations can improve their ability to identify and address errors or malicious acts in a timely manner. This helps mitigate potential risks and protect the organization's assets, reputation, and financial integrity. Detective controls work in conjunction with preventive controls to provide a comprehensive internal control system that ensures both proactive prevention and reactive detection of risks and vulnerabilities.

Corrective Controls

Corrective controls play a crucial role in mitigating the impact of threats and addressing problems that have been identified through detective controls. These controls aim to identify the root cause of an issue, correct any errors or deficiencies, and implement measures to prevent the problem from recurring. Examples of corrective controls include contingency planning, backup procedures, and rerun procedures. Contingency planning is an essential component of corrective controls, especially in situations where unexpected events or disruptions can occur. It involves developing strategies and procedures to manage and recover from potential threats or crises. By anticipating possible scenarios and establishing predefined response plans, organizations can minimize the impact of disruptions on their operations and quickly restore normal functioning. This could include having backup power systems, alternative work locations, or data recovery mechanisms in place.

Backup procedures are another example of corrective controls. These procedures involve creating duplicate copies of critical data, systems, or processes to ensure their availability in the event of a failure or loss. Regular backups help safeguard important information and enable organizations to restore their systems and operations efficiently. Backup procedures can involve backing up data to offsite locations, using cloud storage, or maintaining redundant systems to ensure business continuity. Rerun procedures are implemented to correct errors or issues that have been identified through detective controls. When an error or discrepancy is detected, rerun procedures involve reprocessing the affected transactions or data using the correct information or procedures. This allows organizations to rectify errors and ensure the accuracy and integrity of

their records and reports. Rerun procedures may include revalidating financial calculations, reentering data, or conducting a re-audit of specific processes or transactions.

Corrective controls also involve implementing measures to modify or improve processes or systems based on lessons learned from identified issues. This could include revising policies and procedures, enhancing training programs, or implementing additional checks and balances to prevent similar problems from recurring. These controls not only help correct errors and deficiencies but also contribute to the continuous improvement of systems and processes. By learning from past incidents and implementing appropriate corrective measures, organizations can strengthen their internal control framework and enhance overall operational efficiency and effectiveness.

The Objectives of an Internal Control System

The objectives and components of an internal control system are critical in ensuring the effectiveness and reliability of an organization's operations, financial reporting, and compliance with laws and regulations. The Committee of Sponsoring Organization of the Treadway Commission (COSO) defines these objectives in their report. An internal control system is considered effective when the board of directors and managers have a clear understanding of the organization's objectives, financial statements are prepared and presented reliably, and compliance with laws and regulations is ensured⁶. To address different aspects of internal control, three categories of objectives are identified:

Operations Objective: The Operations objective of an internal control system is vital for organizations as it aims to ensure the effectiveness and efficiency of their operations⁶. This objective encompasses goals related to both operational and financial performance, with the primary focus being on safeguarding the organization's assets against potential loss. By

implementing appropriate controls and procedures, organizations can optimize their operations and protect their valuable resources from various risks and threats. To achieve the Operations objective, organizations take several measures. They strive to design and implement efficient processes that streamline their operations, eliminate redundancies, and optimize resource allocation. By enhancing process efficiency, organizations can achieve cost savings, improve productivity, and enhance overall performance.

Risk management is another key aspect of the Operations objective. Organizations identify and assess risks associated with their operations and implement strategies to mitigate or control those risks. This involves identifying potential risks, evaluating their potential impact, and implementing measures to minimize or eliminate them. Risk management practices help safeguard assets, minimize losses, and ensure the continuity of operations. Safeguarding assets is crucial within the Operations objective¹⁵. Organizations establish controls and procedures to protect physical and intangible assets, such as inventory, intellectual property, data, and financial resources. This may involve implementing security measures like access controls, surveillance systems, and data encryption to mitigate the risk of theft, fraud, or unauthorized access^{20,21}. Compliance with policies and regulations is another essential aspect of the Operations objective. Organizations adhere to internal policies and external regulations to ensure that their operations are conducted in compliance with industry standards, legal requirements, and internal guidelines. By establishing controls and procedures to monitor compliance, organizations can mitigate legal and reputational risks, ensuring that they operate within the boundaries set by relevant laws and regulations.

Performance measurement and reporting play a significant role in the Operations objective.

Organizations also implement controls and procedures to ensure the accuracy and reliability of non-financial information in their reports. This may include the documentation of non-financial data, such as operational metrics, environmental impact, social responsibility initiatives, and other relevant information. By providing reliable and comprehensive non-financial information, organizations can demonstrate their commitment to transparency and accountability in areas beyond financial performance.

Reporting Objective: To achieve the Reporting objective, organizations may utilize various tools and technologies, such as accounting software, data management systems, and reporting frameworks. These tools help streamline the reporting process, enhance data accuracy and consistency, and facilitate the generation of standardized reports¹⁹. Compliance with reporting standards, such as International Financial Reporting Standards (IFRS) or Generally Accepted Accounting Principles (GAAP), is an important aspect of the Reporting objective²³. Organizations ensure that their financial statements and reports are prepared in accordance with the relevant accounting standards, providing stakeholders with consistent and comparable information. The Reporting objective within an internal control system is crucial for organizations to ensure the reliability, timeliness, transparency, and accuracy of their financial and non-financial reporting. By implementing effective controls and procedures, organizations can enhance the quality of their reports, provide stakeholders with reliable information, and support informed decision-making. Compliance with regulatory requirements and adherence to reporting standards further strengthen the integrity and credibility of the organization's reports.

Compliance Objective: The Compliance objective within an internal control system is of utmost importance for organizations as it ensures that they operate in accordance with relevant laws, regulations, and internal policies²⁴. By focusing on compliance, organizations can uphold their

legal and ethical obligations, protect their reputation, and mitigate potential legal and financial risks.

To achieve the Compliance objective, organizations implement various measures and controls:

Identification of Applicable Laws and Regulations: Organizations identify the laws, regulations, and industry standards that are relevant to their operations. This includes understanding the specific requirements and obligations imposed by regulatory bodies, government agencies, and industry-specific governing bodies.

Establishment of Policies and Procedures: Organizations develop internal policies and procedures that align with legal and regulatory requirements. These policies provide guidance to employees on how to conduct their activities in compliance with applicable laws and regulations. They address various areas, such as data privacy, financial reporting, anti-corruption, and employee conduct.

Risk Assessment and Mitigation: Organizations conduct regular risk assessments to identify potential compliance risks. This involves evaluating the likelihood and impact of non-compliance and implementing measures to mitigate these risks. Risk mitigation strategies may include implementing internal controls, conducting employee training, and monitoring processes to ensure compliance.

Monitoring and Oversight: Organizations establish monitoring processes to assess compliance with laws, regulations, and internal policies. This may involve conducting internal audits, periodic reviews, and evaluations to identify any compliance gaps or violations. Monitoring mechanisms help detect non-compliance issues early on and enable organizations to take corrective actions.

Training and Awareness Programs: Organizations provide training and awareness programs to educate employees about their compliance obligations. These programs ensure that employees are aware of the relevant laws and regulations, understand their responsibilities, and are equipped with the knowledge to make informed decisions that align with compliance requirements.

Reporting and Investigation: Organizations establish reporting mechanisms, such as whistleblower hotlines or ethics reporting channels, to encourage the reporting of potential compliance violations. They also have processes in place to investigate reported incidents and take appropriate action. Prioritizing compliance, organizations demonstrate their commitment to ethical conduct, protect themselves from legal and reputational risks, and foster trust with stakeholders. Strong internal controls, including policies, procedures, monitoring, and training, play a crucial role in achieving compliance objectives and ensuring that the organization operates within the boundaries set by laws and regulations. Compliance contributes to the long-term sustainability and success of the organization in a rapidly evolving regulatory landscape.

Internal Control and its Roles in Banks

A well-structured internal control system plays a crucial role in the management of banks, serving as a foundation for their safe and sound operations²⁴. It provides a framework of policies, procedures, and practices that help ensure the attainment of the bank's goals and objectives. By implementing strong internal controls, banks can work towards meeting long-term profitability targets and maintaining reliable financial and managerial reporting. One of the key functions of internal control is to ensure that the bank operates in compliance with laws, regulations, and internal policies. It helps the bank adhere to strategies, plans, and internal rules and procedures, reducing the risk of non-compliance and potential legal and regulatory consequences.

Compliance with these requirements is essential for maintaining the bank's reputation and safeguarding against unexpected losses.

Internal control also serves as a risk management tool, helping banks identify and mitigate risks that could affect their performance and reputation¹⁷. By implementing control measures and monitoring processes, banks can proactively address risks and minimize the likelihood of unexpected losses. This risk reduction contributes to the overall stability and resilience of the bank.

The COSO (Committee of Sponsoring Organizations) Framework plays a significant role in driving effective internal controls in banks^{6,10}. It provides guidance and standards for designing, implementing, and assessing internal control systems. The framework promotes a comprehensive understanding of the goals and objectives that internal controls aim to achieve. It helps banks enhance their performance, governance, and risk management practices by aligning them with the principles outlined in the COSO Framework. Internal control is a fundamental component of bank management, contributing to the safe and sound operations of banking organizations. It enables banks to meet their specific goals and objectives, ensure compliance with laws and regulations, and minimize the risk of unexpected losses or damage to their reputation. The COSO Framework plays a vital role in driving effective internal controls and improving banks' performance and governance¹⁰. By implementing and maintaining a robust internal control system, banks can enhance their overall operational efficiency and maintain the trust and confidence of stakeholders.

The main objective of an internal control system for banks is to ensure that all banking applications and operations adhere to international auditing standards, banking laws, regulations, and rules. By continuously tracking compliance and addressing any issues that arise, banks can

mitigate risks and maintain regulatory compliance. This objective is crucial for promoting transparency, accountability, and trust in the banking sector.

An effective internal control system plays a vital role in preventing and detecting erroneous, fraudulent transactions, and irregularities within the banking sector. It establishes processes and controls that reduce the likelihood of such occurrences by implementing checks and balances, segregation of duties, and other preventive measures. By ensuring the integrity of financial transactions and operational processes, banks can safeguard their assets, protect against financial losses, and maintain the confidence of customers and stakeholders²⁵. Furthermore, a well-designed and consistently enforced system of operational and financial internal control enables the board of directors and management of a bank to safeguard the bank's resources. It provides a framework for ensuring the accuracy and reliability of financial reporting, which is essential for informed decision-making and maintaining trust among stakeholders²⁵. Effective internal control also promotes compliance with laws and regulations, reducing the risk of legal and regulatory penalties.

In addition to preventing errors and irregularities, an effective internal control system aids in the timely detection of significant issues when they do occur. By implementing monitoring mechanisms, internal audits, and regular reviews, banks can identify and address potential issues before they escalate into more significant problems. Timely detection enables prompt corrective actions, minimizing the impact on the bank's operations and reputation. A properly designed and diligently enforced internal control system is crucial for banks to safeguard their resources, produce reliable financial reports, and comply with laws and regulations. It helps prevent errors, irregularities, and fraudulent activities, while also facilitating their timely detection¹². By

prioritizing effective internal controls, banks can enhance their operational efficiency, minimize risks, and maintain the trust and confidence of customers and stakeholders in the banking sector²⁶.

Components of Internal Control

The Committee of Sponsoring Organizations (COSO) identified five components that are crucial in evaluating the effectiveness of an internal control system^{6,10}. These components play a significant role in understanding an entity's internal controls and assessing the risks of material misstatements. The five components are as follows: control environment, risk assessment, information and communication, control activities, and monitoring. The control environment represents the overall principles, values, and operating culture within an organization. It includes management's commitment to integrity, the assignment of authority and responsibility, the organization's structure, and the development of personnel. The governing body provides direction and guidance, while the personnel of the entity exhibit integrity, ethical values, and professional competencies.

Risk assessment involves the identification and analysis of risks that may impact the organization's objectives. It is a systematic process that integrates professional judgment to assess the likelihood of financial and non-financial losses resulting from adverse conditions or events¹¹. By understanding the risks, organizations can develop strategies to mitigate and address them effectively.

Control activities are the policies and procedures implemented to ensure that management's directives are carried out and risks to the organization's objectives are addressed²⁶. These activities occur at all levels and functions of the entity and include approvals, authorizations, verifications, reconciliations, review of operating performance, asset security, and segregation of duties. Information and communication involve the identification, capture, and effective

communication of important information within the organization²⁶. It is essential to establish both upward and downward communication channels to ensure that employees understand management's expectations and that management has a clear understanding of employee interests. Effective communication enables timely decision-making and promotes alignment towards organizational objectives. Monitoring activities involve ongoing assessments to evaluate the performance of the internal control system over time. Monitoring aims to identify and mitigate risks that may compromise the effectiveness of internal controls in meeting operational, reporting, and legal/regulatory objectives. It includes activities such as internal audits, reviews, and evaluations.

According to the COSO framework, these components collectively contribute to the effectiveness of an internal control system. They help organizations establish a strong control environment, assess and mitigate risks, implement control activities, facilitate information and communication, and continuously monitor the performance of the internal control system²⁶. By paying attention to these components, organizations can enhance their overall control framework and ensure the achievement of their objectives.

2.1.2.1 Control Environment

Control environment refers to management's creation of a pleasant environment that has an influence on its workers' control awareness³. Control environment components include ethical principles, competences, and the integrity of the people that comprise an entity, which serves as the foundation for the creation of other internal control aspects by providing the structure and discipline within which the company functions²¹. The control environment sets the tone for the company and influences employee awareness; it is the basis for all other components of the internal control system. The control environment includes all workers' attitudes, integrity,

awareness, and ethical standards, as well as the actions of management and directors, as well as those in charge of governance, about the entity's internal controls and their relevance inside the institution⁵.

According to another research, the control environment includes all of the characteristics that are successful in determining policy efficacy, techniques, and procedures specific to a process.

An organization's attitude toward issues, problem-solving technique, and moral beliefs are all evidence of how the firm's senior management has established a control environment⁶. Elements of the control environment include, but are not limited to, the following: style of operation and corporate philosophy; ethical values, management, and employee integrity; existence and implementation of a code of conduct; financial attitudes; level of emphasis on meeting performance targets; organizational structure of the company; procedure for allocating duty and authority; human resource policy and practices; commitment of the entity to competence through training⁶.

An effective internal control system requires a stable control environment. The board of directors and top management must emphasize the necessity of internal control via their actions and words. This incorporates management's ethical values in their commercial activities, both within and outside the firm. The integrity, ethics, and other control culture characteristics of the organization are heavily influenced by senior management and the board of directors⁶. Internal control is a shared duty that has varying degrees of impact on everyone in a firm. Almost every employee helps the internal control system by giving information or doing other tasks. As an essential component of a strong internal control system, all employees must recognize the importance of performing their responsibilities effectively and communicating to the appropriate level of management any problems in operations, instances of noncompliance with the code of conduct,

or any other policy violations or illegal actions that are observed. When promoting ethical standards, businesses should avoid rules and procedures that may inadvertently provide incentives for unethical conduct. Some examples of such policies and practices include an emphasis on short-term success while neglecting long-term consequences. Others include remuneration systems that put too much focus on short-term performance, a lack of effective job segregation or other controls that might enable resource misappropriation or concealment, and punishments for misbehavior that are either minor or unduly onerous⁷.

It is the board's responsibility to regularly approve and review the company's overall business strategies and significant policies, to understand the major risks that the company faces, to set acceptable levels for these risks, and to ensure that senior management takes the necessary steps to identify, measure, monitor, and control these risks⁸. In addition, the board should approve the organizational structure and guarantee that top management monitors its efficacy. The board of directors governs, guides, and supervises senior management. It is in charge of examining and approving the overall business plans and major policies of the corporation, as well as the organizational structure. The board of directors must create and maintain an effective system of internal control. Board members must be curious, competent, and objective, as well as have understanding or experience in the firm's operations. Those nations where it is practicable should have a board of directors with members who are not involved in the company's day-to-day operations⁹. A powerful board with an engaged membership and effective communication channels up the corporate ladder, as well as competent financial, legal, and internal audit functions, is one of the most important mechanisms for ensuring that problems that could impair internal control system effectiveness are corrected.

Many corporations throughout the globe appoint an independent audit committee to help the board of directors in carrying out its responsibilities. By forming an audit committee, information and reports may be properly scrutinized without using all of the directors' time. Internal control and financial reporting are typically the audit committee's duties. As part of this duty, the audit committee is often in charge of managing the activities of the company's internal audit department as well as serving as the primary point of contact for the company's external auditors.

The control environment represents the overall principles, values, and operating culture within an organization. It includes management's commitment to integrity, the assignment of authority and responsibility, the organization's structure, and the development of personnel²⁷. The governing body provides direction and guidance, while the personnel of the entity exhibit integrity, ethical values, and professional competencies.

The control environment is a fundamental component of an effective internal control system and sets the tone for the organization's overall control consciousness. It encompasses the principles, values, and operating culture that shape the organization's approach to internal control.

At the heart of the control environment is management's commitment to integrity and ethical behavior. Management plays a pivotal role in establishing a culture of honesty, transparency, and accountability throughout the organization²⁸. By demonstrating a strong commitment to ethical conduct, management sets the standard for employees to follow, creating an environment where ethical behavior is expected and valued.

Another crucial aspect of the control environment is the assignment of authority and responsibility. Management ensures that roles and responsibilities are clearly defined and delegated appropriately within the organization. By establishing a clear hierarchy of authority

and accountability, management ensures that employees understand their roles and responsibilities and are empowered to carry out their duties effectively. The structure of the organization also influences the control environment. An organization's structure should be designed to facilitate effective internal control by ensuring that appropriate lines of authority and reporting are in place. This includes establishing clear reporting relationships, segregating duties, and promoting accountability at all levels.

Furthermore, the development of personnel is essential for creating a strong control environment. Management invests in the training, development, and ongoing education of employees to enhance their skills, knowledge, and understanding of internal control principles. By nurturing a competent and knowledgeable workforce, management ensures that employees are equipped to fulfill their roles effectively and contribute to a robust control environment. The governing body, such as the board of directors, plays a critical role in providing direction and guidance for the control environment. The governing body sets policies and strategic objectives, oversees management's activities, and ensures that internal control processes are in place and functioning effectively. Their leadership and oversight contribute to the establishment of a strong control environment.

Finally, the control environment emphasizes the importance of integrity, ethical values, and professional competencies among the personnel of the organization²⁸. Employees are expected to demonstrate integrity, adhere to ethical standards, and possess the necessary professional skills and competencies to fulfill their responsibilities. By promoting a culture of integrity and professionalism, the control environment fosters an environment where ethical behavior is valued, and employees are committed to upholding the organization's control objectives. The control environment is a crucial component of an internal control system. It encompasses

management's commitment to integrity, the assignment of authority and responsibility, the organization's structure, and the development of personnel. By establishing a strong control environment, organizations foster a culture of integrity, accountability, and ethical behavior, which lays the foundation for effective internal control throughout the organization.

2.1.2.2 Risk Assessment

Risk assessment is an important component of an organization's internal control system because it allows for the identification and study of potential hazards that may impede goal attainment²⁸. It is a systematic and continuing process that involves examining multiple aspects to determine the possibility and potential impact of risks on the financial and non-financial performance of the company. The identification of risks is the first stage in risk assessment. This entails identifying probable events, conditions, or circumstances that could jeopardize the organization's goals. Internal procedures, external causes, legislative changes, technological improvements, or economic situations can all pose risks²⁹. Organizations can acquire a clear picture of the potential risks they face by performing a rigorous risk identification exercise.

Once hazards have been identified, they must be analyzed and evaluated. This entails determining the possibility of hazards occurring and the potential impact on the organization. Risks are assessed using professional judgment and knowledge based on historical data, industry trends, benchmarking, and other pertinent information. The analysis aids in risk prioritization based on significance and probable repercussions. Organizations adopt strategies to mitigate and address risks after assessing them. This includes creating risk response strategies and putting controls in place to decrease the chance or effect of recognized hazards. Implementing preventive measures, improving monitoring operations, developing contingency plans,

transferring risks through insurance, or accepting certain risks within acceptable tolerance levels are all examples of risk mitigation strategies^{22,29,30}.

Risk assessment is an ongoing process that should be examined and modified on a frequent basis as the organization's risk profile evolves. Continuous monitoring and evaluation of the effectiveness of risk reduction measures is required. Organizations may adapt their strategies to new and emerging risks by periodically reassessing risks, ensuring that they stay resilient and adaptable to changing situations. Risk assessment that is effective offers organizations with useful information and allows them to make educated decisions. It assists management in successfully allocating resources, prioritizing risk management activities, and optimizing risk-reward trade-offs³⁰. Furthermore, risk assessment aids regulatory compliance by ensuring that risks are identified and addressed in accordance with applicable laws, regulations, and industry standards. Risk assessment is an essential component of the internal control system because it helps businesses to identify, analyze, and manage risks that may jeopardize their objectives. Organizations can improve their ability to achieve their goals and sustain their performance by identifying the risks they face and developing effective strategies to minimize and address these risks.

If a company wants to fulfill its objectives without running into roadblocks, it must have an effective internal control system in place. This risk assessment should cover all potential risks to the company. If new or previously controlled dangers develop, internal controls may need to be updated. As a result, as part of an organization's internal control system, detecting and monitoring these risks is critical⁷. From the standpoint of internal control, a risk assessment should identify and evaluate the internal and external components that may have a negative impact on the manufacturing organization's performance, information, and compliance objectives.

To be successful, this technique must address all of the company's risks and be implemented at all levels. There are differences between this technique and the risk management process, which frequently focuses on the assessment of business strategies meant to optimize risk/reward trade-offs across the company's various departments⁷. Internal and external variables (such as technological advancements, industry changes, and changing economic conditions) can all have a negative impact on a firm's ability to meet its objectives, and a good risk assessment takes all of these into account when identifying and analyzing those elements. One of the internal control components is risk assessment. The attainment of goals is jeopardized by risks. The risk assessment process of a company detects and responds to business hazards in order to identify and address them. Risk Assessment identifies potential errors and develops methods, rules, and controls to identify and prevent those errors¹⁰. Risk assessment is also the process of identifying and assessing potential threats to goal achievement. It can be summed up as follows: Risk assessment refers to the process of discovering, evaluating, and preparing for the items listed above. At any level, external and internal risks can disrupt an organization's aims. Each organization, whether private or public, large or little, has external and internal risks that must be assessed, according to the COSO framework. As a result, management is responsible for mitigating these risks. Even yet, management may be powerless to prevent a tragedy. In some circumstances, management must decide whether to accept the risk, reduce it to a bearable level, or avoid it altogether⁶. A company develops an early warning system to detect and mitigate low-probability dangers. Organizations should examine the risk assessment principles listed below¹²: Changes that have the potential to have a significant impact on the organization's internal control system should be identified and examined. Control operations encompass a wide range of responsibilities. These activities result in physical controls (such as determining whether or not

necessary measures are being taken to reach assets and records), performance evaluation (to compare actual operations with the company's objectives), information processing controls, assessments of changes in leadership, assessments of modifications to the business model, and assessments of modifications to internal controls (for example, custody assets and registration procedures)¹². ii. When considering potential risks to achieving its goals, the organization should include the possibility of fraud. The organization's goals should be clearly defined in order to facilitate the identification and assessment of risks associated with those goals. The organization should assess risk tolerance and the degree of precision/materiality required to achieve compliance with externally imposed standards and frameworks, as well as rules and regulations. The decisions, actions, operations, and financial performance targets made by management serve as the framework for allocating resources. It should also cover fraud kinds, risk factors, incentives and pressures, opportunities, and attitudes and rationalizations²². iii. Identifying and assessing threats to the organization's goals across the board should serve as a starting point for identifying how to minimize such risks. This can be accomplished by including suitable management levels, such as divisions, subsidiaries, functional levels, and operational units; examining both external and internal factors; and then deciding how to react to risks and determining their magnitude.

iv. The firm acknowledges and evaluates risks by explicitly describing them in relation to its aims. A number of factors must be considered, including risk tolerance and the required level of precision/materiality. External standards and frameworks, rules and regulations, management decisions, entity activities, and operational and financial performance goals are also factors to consider²².

A successful risk assessment takes into account both quantifiable and non-quantifiable threats, as well as the costs and advantages they give. To establish which threats are controlled and which are not, the company must conduct a risk assessment¹¹. Controllable risks need a firm assessing the benefits of tolerating such risks against the cost of creating mechanisms to reduce those risks to an acceptable level. The corporation must determine whether to embrace the risks associated with possible commercial activities. Internal control can only be successful if risk assessment and, by extension, the internal control system are regularly assessed and adjusted in response to changing conditions. If any new or previously controlled hazards develop, internal controls may need to be revised¹¹. Firms must consider the risks associated with new financial instruments and market activities that emerge as a result of financial innovation.

2.1.2.3 Monitoring Activities

Monitoring activities are critical to ensure that an organization's internal control system remains effective. These actions include conducting frequent assessments and reviews to track the effectiveness of internal controls over time. It is critical to monitor the overall effectiveness of the company's internal controls. Internal audit and business lines should do frequent risk assessments, and the company should also conduct periodic evaluations. Monitoring is a method that analyzes the quality of the internal control system's functioning over time¹⁸. Only the outcomes of adequate monitoring can establish how effective the management's internal controls system is. Monitoring occurs when the control is reviewed, rather than when normal management and supervisory controls and other statutory activities are performed¹⁸.

Continuous monitoring, independent evaluations, or a mix of the two may be used to assess and detect faults in internal control systems over time. The internal control system of a corporation and how it implements controls change over time. In some circumstances, this is due to new

personnel, procedures or supervision that aren't being implemented as efficiently as they should be, or time and resource constraints. The purpose of an observation is to determine if internal control is operating as planned, is being applied successfully, and is suitably designed¹. For internal control to be regarded sufficient in design and execution, all five internal control components (Control Environment, Control Activities, Information and Communication, Risk Assessment, and Monitoring) must be present and functioning well. Changes inside the company and among individuals may cause dangers, therefore internal controls must be in place while simultaneously monitoring for continuity. Management should concentrate on monitoring internal control efforts and outcomes. Monitoring should be done on a regular basis in order to analyze the design and operational actions and controls to be implemented¹⁹. This includes evaluating the quality of internal controls. To accomplish corporate objectives, it is vital to monitor the internal control system and identify any deviations. Aside from that, keep an eye on internal controls to determine whether they need to be modified or if they are functioning properly. In order for monitoring activities to be successful, it is essential for employees to have a thorough understanding of the organization's objectives, purpose, and their own personal risk tolerance levels. This knowledge serves as the foundation for effective monitoring, aligning the activities with the organization's goals and objectives.

To enhance the effectiveness of monitoring, organizations should consider certain attributes:

Firstly, organizations should create and execute separate assessments that evaluate the presence and functionality of internal controls. This can be achieved by customizing the scope and frequency of assessments to suit the organization's needs¹⁸. Objectivity is crucial, ensuring that assessments are conducted without bias or favoritism. It is also important to connect the evaluations with business processes to identify areas where controls may be lacking or require

improvement. Hiring experienced individuals to conduct the assessments and considering the pace of change within the organization are also key factors to be taken into account.

Additionally, it is vital to swiftly review and communicate any identified internal control deficiencies to the relevant individuals responsible for taking remedial action, such as senior management and the board of directors. This involves evaluating the outcomes of monitoring activities, pinpointing shortcomings, and promptly disclosing them to management¹⁸. By reporting deficiencies to top management and the board of directors, corrective actions can be taken in a timely manner. Timely reviews and effective communication enable management to promptly address any identified deficiencies, mitigate risks, and ensure that the organization operates in alignment with its objectives. It is important to assign monitoring responsibilities to experienced individuals who possess the necessary knowledge and skills to assess internal controls effectively. Furthermore, organizations should consider the pace of change in the business environment and adjust monitoring activities accordingly. As the organization evolves and adapts to new challenges, monitoring practices should be flexible and adaptable.

2.1.2.4 Information and Communication

Identification, capture, and effective communication of essential information within the firm are all part of information and communication²³. Establishing upward and downward communication channels is critical to ensuring that employees understand management expectations and that management understands employees' interests. Achieving business goals is made easier by good communication, which allows for quick decision-making.

It is critical to establish effective upstream and downstream communication channels inside a company to ensure the seamless flow of information. It acts as a critical link between management and employees, allowing for the timely and efficient distribution of important

messages, expectations, and feedback. Employees can transmit their complaints, thoughts, and suggestions to management through upstream communication channels^{22,30}. Organizations establish an environment that values employee input and stimulates innovation by offering a forum for employees to express their thoughts and share useful insights. This not only enhances employee morale and engagement, but it also allows management to obtain a full insight of their workforce's difficulties, needs, and aspirations¹.

Downward communication channels, on the other hand, allow management to effectively communicate their expectations, strategic decisions, and organizational goals to employees. Management's clear and straightforward communication ensures that employees understand their roles, responsibilities, and the direction of the firm. Organizations empower their workforce to connect their efforts with business objectives and make educated decisions by providing them with the required information and direction.

Quick decision-making is facilitated by effective communication within an organization. Decision-makers can obtain relevant facts, insights, and views when information flows seamlessly between management and staff members. Organizations must make timely decisions in order to capitalize on opportunities, address issues, and adapt to changing market conditions. Effective communication ensures that decision-makers have timely access to the information they require, allowing them to respond quickly and effectively.

Furthermore, good communication improves coordination and collaboration within the organization's many teams and divisions. It promotes knowledge exchange, best practices, and lessons learned, building a culture of continual learning and improvement¹². Employees can operate more efficiently, harness their combined expertise, and achieve business goals more effectively when they have access to the correct information at the right time. Establishing

upstream and downward communication routes within a company is critical for promoting effective communication. It informs employees about management expectations and offers management with information about employees' interests. Effective communication promotes timely decision-making, aligns efforts with corporate goals, improves collaboration, and empowers people to make important contributions to the organization's success. Organizations may establish a transparent, collaborative, and high-performing work environment by promoting good communication.

The internal control system (ICS) must obtain information horizontally and vertically while maintaining communication. This is only possible if the management information system is set up in a logical and flexible manner¹³. Effective communication should involve all employees at all levels of the organization. Information and communication emphasizes the reports required to properly transmit this information, as well as the quality and character of the information required for successful control. Financial and operational data, as well as regulatory compliance information, are incorporated in reports generated by information systems. It is necessary to communicate effectively with consumers, suppliers, regulators, and shareholders.

An effective internal control system must have access to compliance, operational, and internal financial information, as well as external market knowledge regarding critical events and conditions. It is critical to deliver information that is accurate, timely, accessible, and consistent. To function well, an internal control system requires adequate information and effective communication. To be valuable in the manufacturing industry, information must be all of the following: relevant, trustworthy, timely, and comprehensive. Information includes financial, operational, and compliance data from within the organization, as well as information from the outside market concerning current events and circumstances that are critical to decision making¹⁴.

Internal information, as well as set rules for record preservation, should be incorporated in a record-keeping procedure.

Establishing and maintaining management information systems that cover all aspects of a corporate operation is critical. This data is frequently offered in both electronic and non-electric formats¹¹. For processing information in electronic form, organizational and internal control requirements, as well as the need for a full audit trail, are required. Poorly designed and controlled systems that offer erroneous or misleading information can impair management's capacity to make effective decisions. Businesses must effectively manage the risk associated with the use of information technology and electronic information systems if they are to avoid disruptions in operations and substantial losses. To keep up with the increase of mission-critical corporate activities, distributed systems, which have a broader range of security issues, have replaced mainframe computer environments. General and application controls should be included in controls over information systems and technologies. Companies that lack proper management of information systems and technology risk losing data and programs owing to inadequate physical and electronic security measures, equipment or system failure, and insufficient internal backup and recovery methods. Another inherent risk is the likelihood that services will be lost or significantly disrupted due to events beyond an organization's control. If something goes wrong, corporate and customer service delivery, reputation management, and other essential firm operations may all be jeopardized⁶.

All employees must understand and follow the policies and procedures that govern their jobs, and any extra pertinent information must be delivered to the appropriate staff through effective channels of communication. This is a critical requirement for an effective internal control system. If information cannot be communicated effectively, it is of little use. Businesses' senior

management sets the tone and builds communication channels that provide the right information to the right people⁶. This data refers to an organization's operational methods and rules, as well as specifics on its actual operational outcomes. The organizational structure of a corporation should promote communication both within and outside of the organization, as well as throughout the entire business. Information should flow upwards from the board of directors and top management via procedures that allow this. Lower-level management and operational personnel are informed about the company's goals, strategies, expectations, and established rules and processes as knowledge travels down the organization. This information exchange is critical if the organization is to make a concerted effort to attain its goals².

2.1.2.5 Control Activities

Control activities are a fundamental component of an effective internal control system. They refer to the policies, procedures, and practices implemented within an organization to ensure that management's directives are carried out and risks are addressed. Control activities play a crucial role in safeguarding assets, promoting operational efficiency, and ensuring the accuracy and reliability of financial reporting. The concept of control activities encompasses a range of actions that occur at all levels and functions of the organization. These activities serve as the mechanisms through which management establishes and maintains control over the organization's operations. They provide a framework for mitigating risks and preventing or detecting errors, fraud, or other irregularities. Regular monitoring and evaluation of control activities are essential to ensure their ongoing effectiveness. This includes conducting internal audits, reviews, and evaluations to assess the design and operating effectiveness of the control activities. Any deficiencies or weaknesses identified should be promptly addressed and remediated to maintain a strong internal control system. Control activities are a critical element

of an organization's internal control system. They provide the structure and framework necessary to achieve the organization's objectives, manage risks, and promote accountability. By implementing robust control activities, organizations can enhance their operational efficiency, protect their assets, and ensure compliance with laws and regulations.

Performance reviews (comparison of actual performance with budgets, forecasts, and prior period performance), information processing (needed to verify accuracy, completeness, and authorization of transactions), physical controls (needed to provide security over both records and other assets), and segregation of duties (no one person should handle all aspects of a transaction from beginning to end) are the main controls activities in an organization. The actions taken by a company to guarantee that management's instructions are followed are known as control activities. The three categories of goals to which these tasks relate—operations, financial reporting, and compliance—are often used to categorize these activities³¹. They add that these control activities include a variety of distinct tasks such as authorizations, verifications, reconciliations, assessments of operational performance, asset security, and separation of functions.

The division of tasks, job rotation, and internal audits are more precise actions³³. The division of tasks is one of the basic ideas of internal control, according to the same authors. They assert that it is also a key internal control element in the fight against employee fraud. Segregation of responsibilities is described as "dividing tasks among various individuals, making it possible to reduce the risk of error and fraud." Separation aids in the checks and balances of an organization. It entails separating the responsibilities for asset custody, record keeping, authorization, and reconciliation in each business process. No one individual should ideally be in charge of more than one action related to the aforementioned tasks inside a particular process. Implementing

segregation discourages and avoids employee fraud. Segregation cannot be imposed, compensating measures should be applied³³. A third party should take the necessary corrective action. This refers to a person who oversees the procedure but is not involved in its custody, record-keeping, or reconciling duties. Rotation of positions, is a control to spot fraud and mistakes. No one is assigned a specific work for an indeterminate period of time to provide him the security to monopolize the duties of that job long enough to allow him the chance to conduct fraud³³. Research has shown that job rotation may provide advantages that offset the expenses associated with preparing workers for a variety of professions¹⁵. Giving someone excessive privileges increases the chance of fraud. Rotation of responsibilities decreases privilege distribution as well as employee cooperation, which lowers fraud²³. Job rotation also benefits workers by providing cross-training opportunities while boosting security. Mandatory vacation is mentioned as an additional component of work rotation by the same source. Mandatory leave might reveal covert operations if another employee fills that same position.

Control activities play a crucial role in an effective internal control system, encompassing the development of control procedures and policies, as well as the verification of compliance with these controls⁶. These activities involve the entire workforce of a company, from senior executives to entry-level employees, as they contribute to the organization's overall control environment¹⁰. Control activities include top-level reviews, activity controls, physical controls, compliance with exposure limits, approvals and authorizations, and verification and reconciliations³⁴. However, for control activities to be most effective, it is important that management and employees view them as an integral part of daily operations, rather than as separate tasks⁶. When controls are perceived as add-ons, they may be overlooked or neglected when time constraints arise³⁰.

To ensure the effectiveness of control activities, it is crucial to establish a clear separation of duties and avoid overlapping responsibilities among employees³². This includes identifying and minimizing conflicts of interest and implementing strict independent oversight procedures³². Inadequate segregation of duties is often identified as a key factor leading to major losses caused by weak internal controls³². When one person has conflicting duties and access to valuable assets, there is an increased risk of financial data manipulation or misappropriation of assets³². The separation of roles is not limited to situations where one person is responsible for both front and back-office operations. It extends to other areas where conflicts of interest can arise, such as handling transactions in the trading books, customer and proprietary accounts, disbursing funds, providing unofficial information to customers, and other critical aspects³⁴. To mitigate these risks, tasks should be distributed among multiple individuals, reducing the potential for improper actions and enhancing accountability³⁵. To ensure ongoing effectiveness, areas of potential conflict should be closely monitored by a neutral third party³⁶. Regular reviews of key individuals' roles and functions should be conducted to identify any improper actions or attempts to conceal them³⁷. By maintaining a clear understanding of potential conflicts and monitoring them closely, organizations can strengthen their control activities and minimize the risk of fraudulent activities or improper actions³⁵.

Control activities are a vital component of an internal control system. They involve the development of control procedures and policies, as well as the verification of compliance with these controls. It is essential for management and employees to view control activities as integral to daily operations. Establishing a clear separation of duties, identifying and minimizing conflicts of interest, and regularly reviewing key individuals' roles and functions are critical steps in ensuring the effectiveness of control activities. By implementing these measures, organizations

can enhance their internal control systems and reduce the risk of fraudulent activities or improper actions.

2.2 Theoretical Framework

This study drew upon the framework of Control Theory and complemented it with Agency Theory.

2.2.1 The Control Theory

The Control Theory is a sociological concept that focuses on understanding and explaining human behavior in relation to the systems of social control that influence individuals' actions. It proposes that individuals are inherently motivated to engage in deviant behavior, but they are controlled by various mechanisms to conform to societal norms and values. This study was grounded in the framework of Control Theory. It was proposed that individuals who deviate from established control systems will face exclusion from the collaborative process³⁶. The perceived level of control versus external factors shapes individuals' understanding of their daily activities³⁶

Those with an internal locus of control believe that outcomes are a result of their own actions, while those with an external locus of control attribute events to external environmental factors or chance. In recent years, institutional theory has gained prominence as an alternative perspective on the development of new control structures and practices within organizations. Institutional theory has been recognized as a significant theoretical framework in organizational theory and accounting³⁷. This theory challenges the notion that technical and economic reasons alone can fully explain company management and the structures implemented and adopted within institutions.

Internal control systems are not solely based on rational economic cost-benefit analysis, but they encompass various aspects that shape the design, structure, and processes of an organization. Institutions are characterized by stability but are subject to both incremental and discontinuous processes of change. Institutional and neo-institutional theory suggest that organizations appropriate practices and environmental arrangements through three coercive forces: regulative, normative, and mimetic pressures. These forces contribute to organizational homogeneity as organizations adopt similar strategic activities³⁸. Therefore, in the context of this study, the Control Theory and institutional theory provide a theoretical foundation to understand the development and impact of internal control systems in organizations. The Control Theory emphasizes individual beliefs and perceptions of control, while institutional theory highlights the pressures and forces that shape organizational practices and structures. By incorporating these theories, the study aims to analyze how internal control systems influence organizational behavior, decision-making processes, and overall performance.

According to the Control Theory, individuals have both inner controls (self-control) and outer controls (external constraints). Inner controls include a person's beliefs, values, and conscience, while outer controls consist of formal and informal social controls, such as laws, rules, family, peers, and institutions. These controls work together to prevent individuals from deviating from socially accepted behaviors.

In the context of the study on internal control systems and the performance of listed money deposit banks in Nigeria, the Control Theory provides a framework to examine how internal control mechanisms influence the behavior and performance of banks. Internal control systems are designed to ensure compliance with laws, regulations, and ethical standards, as well as to safeguard assets, manage risks, and promote reliable financial reporting. The Control Theory

emphasizes that effective internal control systems act as external constraints on the behavior of bank employees and management. These systems establish procedures, policies, and mechanisms to guide and monitor activities, reducing the likelihood of fraudulent behavior, errors, and operational inefficiencies. By implementing strong internal controls, banks can create an environment that discourages deviant behaviors and promotes accountability and transparency^{37,39}.

Critics of the Control Theory argue that it oversimplifies human behavior by solely focusing on the control mechanisms and neglecting other motivational factors. They contend that individuals are not solely driven by the fear of external controls but also by their personal values, aspirations, and internal drives. Additionally, critics highlight that the theory does not adequately account for cultural and contextual variations in the effectiveness of control mechanisms⁴⁰.

However, despite these criticisms, the Control Theory remains relevant and applicable to the study of internal control systems and the performance of listed money deposit banks in Nigeria. The theory helps researchers and practitioners understand how internal control mechanisms influence the behavior of bank employees, shape organizational culture, and impact overall performance.

By examining the effectiveness of internal control systems in Nigerian banks, researchers can identify the strengths and weaknesses of these systems, highlight areas for improvement, and propose recommendations to enhance performance. The study can also explore the role of internal controls in preventing financial fraud, ensuring compliance with regulatory requirements, and promoting sound corporate governance practices.

Practically, the findings of the study can inform bank management and policymakers about the importance of investing in robust internal control systems and establishing a culture of control

and accountability within financial institutions³⁹. It can guide the development and implementation of policies and procedures that enhance internal controls and ultimately contribute to the overall stability, efficiency, and trustworthiness of the Nigerian banking sector.

The Control Theory provides a theoretical lens to understand the influence of internal control systems on the performance of listed money deposit banks in Nigeria. While acknowledging its limitations, the theory offers valuable insights into the role of control mechanisms in shaping behaviors, promoting compliance, and mitigating risks within financial institutions. The study can contribute to the ongoing efforts to strengthen internal controls and enhance the performance of Nigerian banks.

2.2.2 Agency Theory

Agency Theory is a theoretical perspective that can significantly contribute to the investigation of the internal control system and performance of listed money deposit banks in Nigeria. Developed in 1976 by economists Michael Jensen and William Meckling, this theory focuses on the principal-agent relationship, which is relevant to your study as it pertains to the relationship between the shareholders (principals) and the managers (agents) of the Nigerian Deposit Money Banks (DMBs)⁴¹. The theory gives an analysis of the association between the managers and investors. The principal (investors) agrees to compensate the agent (manager) for doing specific responsibilities. The agency theory maintains that a firm is a collection of contracts between the owners (principal) and managers (agent) of economic resources who are in charge of exploiting and controlling those resources⁴².

At its core, Agency Theory acknowledges the potential conflicts of interest that may arise between principals and agents and seeks to understand how these conflicts can be minimized. It recognizes the presence of information asymmetry, where agents possess more information about

their actions and performance than the principals. This information asymmetry can lead to adverse behavior by agents, such as shirking responsibilities or pursuing self-interests, which can negatively impact bank efficiency, operational performance, and asset safety. The theory posited that, to ensure that the interests of the principal and the agent are aligned, a complete contract should be drafted to fulfill the needs of both parties. The link between the principal and the agent is reinforced when the principal uses the services of an expert and systems to monitor the agent²². The theory acknowledges that any information regarding an agent's interest, relationship, or work performance that is missing is a potential moral hazard. Moral hazard and adverse selection have a negative impact on their output, because the agent lacks necessary knowledge about what should be done and because they do not do their duties exactly as assigned⁴².

Critics of Agency Theory highlight its simplistic assumptions, arguing that it oversimplifies human motivations and behaviors by assuming individuals are solely driven by self-interest and opportunism. Additionally, critics point out that the theory neglects the social and relational aspects that may influence behavior and decision-making, and it lacks prescriptive guidance for designing effective control systems or resolving agency problems.

However, despite these criticisms, Agency Theory offers valuable benefits and remains highly relevant to your study. It provides a framework for analyzing internal control systems, including the control environment, monitoring, risk assessment, and information and communication. By understanding how these systems can be designed to align the interests of principals and agents, you can identify ways to reduce agency costs and enhance bank efficiency, operational performance, and asset safety.

Internal control is one of numerous techniques used by organizations to handle the agency problem by reducing agency expenses, which influence both the overall performance of the

partnership and the principal's benefits. Internal control improves the principal's (shareholder's) access to more knowledge about the agent's (management's) actions, eliminates information asymmetry, and lowers investor risk and revenue⁴¹. Furthermore, Agency Theory allows for an examination of incentive structures and governance mechanisms that motivate agents to act in the best interests of the principals. It helps in identifying the agency costs incurred by principals in monitoring and controlling agent behavior, which can be mitigated through effective control mechanisms. This understanding contributes to the development of practical recommendations for improving the internal control systems of Nigerian Deposit Money Banks. Thus, Agency Theory offers a relevant and valuable theoretical perspective for investigating the internal control system and performance of listed money deposit banks in Nigeria. By gaining the insights into the influence of internal control systems on bank efficiency, operational performance, and asset safety within the principal-agent relationship.

2.3 Review of Empirical Studies

Several research papers have thoroughly investigated the link between internal control and financial performance. It is critical to review some of these research in the context of this current study in order to identify linkages and highlight any differences.

From 2015 to 2021, the study looked at the influence of knowledge assets on the profitability and market value of Nigerian listed deposit money banks (DMBs). The study contains 91 firm-years from thirteen publicly traded DMBs with reporting currency in Naira. Multiple regression analysis was a critical tool in the investigation. To select the optimum regression model, the Chow and Hausman tests were utilized. The Value Added Intellectual Coefficient (VAIC) influenced the market value and profitability of DMBs in Nigeria, according to the study's findings. Individual VAIC components, specifically human assets efficiency (HAE) and

structural assets efficiency (SAE), were found to have a positive impact. Total asset efficiency (TAE) reduces the market value of Nigerian deposit money institutions. Furthermore, VAIC was proven to have a positive impact on these banks' profitability. When the individual components were taken into account, both HAE and SAE had a positive impact on return on assets (ROA) and return on equity (ROE), but a negative impact on revenue growth (RG). TAE, on the other hand, had a negative impact on ROA and ROE while having a positive impact on the RG of Nigerian DMBs⁴³.

Another Nigerian study aimed to determine the relationship between internal control efforts and business financial reporting. Agency theory and stakeholder theory were the theoretical frameworks employed in the literature review. The study employed an exploratory research strategy, gathering secondary data from journals, the internet, and relevant publications. The study themes included the relationship between internal control and quality reporting, the impact of board size on financial reporting, and the distinction between internal control and financial reporting. The research found a strong relationship between internal control and financial reporting quality. The paper argued for additional research into the effects of internal controls on financial reporting, emphasized the necessity of checks and balances in financial transactions, and proposed a secure network to decrease theft and protect life and property. It was also proposed that personnel be trained on control mechanisms on a regular basis⁴⁴.

Mansur and Muhammad (2020) conducted a separate study in which they examined the financial reporting quality and internal control system of 15 Lotus Islamic Index enterprises between 2012 and 2016. The study employed regression and correlation analysis to analyze the relationship between variables across the specified time period. The key finding of the study showed that the

control environment, control activities, and monitoring aspects of the internal control system were all strongly related to financial reporting quality⁴⁵.

A study was also conducted to explore the effect of monitoring and control activities on the financial performance of Kenyan Savings and Credit Cooperative Societies (SACCOs). The research methodology employed a hybrid strategy, with 175 SACCOs targeted and 875 participants, including chief executive officers, financial managers, risk managers, information communication technology managers, and internal auditors. Data was gathered from both primary and secondary sources using questionnaires and documentary studies. Descriptive and inferential statistics were employed to analyze the data. Monitoring and control activities were discovered to have a significant positive relationship with financial performance, accounting for 43.0% of financial performance variance⁴⁶.

An examination of a few banks' internal control systems in Asaba, Delta State, focused on managerial oversight, risk awareness and assessment, and control culture. Fidelity Bank Plc employs 80 people. as well as First Bank Plc. were chosen using standard random sampling procedures. The data was evaluated using the statistical chi-square method. The study indicated that managerial oversight and activity inspection should occur on a regular basis to ensure that employees are giving their all. This is due to the banking industry's management control and activity inspection being insufficient for spotting abnormalities and misappropriations. To reduce centralization, clerical errors, and foreign manipulations³⁹, duties and authority should be divided.

A study in Kericho County, Kenya, looked at internal control systems and firm performance to investigate if improving internal accounting control systems could be linked to better banking organization performance. The research was founded on theories of agency and contingency. In

order to verify whether the hypotheses were valid, the study investigated whether there was a relationship between internal audits and bank performance, whether test checks affected performance, and whether internal audits affected bank performance at the tier one level. A sample of 141 employees from tier one banks participated in the poll in Kericho town. Questionnaires were used to collect data, which was then analyzed using descriptive statistics and multiple regression. The findings revealed a link between the efficiency of the internal accounting control system and the performance of tier (1) one institutions. The study recommended that Tier (1) one bank management tighten their internal accounting control systems because it had a substantial impact on their results. This includes internal audits as well as test inspections. The survey found that Tier (1) one banks fared better when they have robust and efficient internal check procedures in place to monitor their activities. Tier (1) 1 colleges with good internal audits outperformed others⁴⁰, according to the analysis⁴⁷.

The major goal of this study was to evaluate internal cash control at Commercial Bank of Ethiopia (CBE) Sebeta cluster branches. The researcher employed both quantitative and qualitative methodologies for this investigation. A total of 117 samples were chosen for this investigation, which included both closed-ended and open-ended questionnaires. To choose samples from the overall staff, the operational staffs utilized a basic random sampling approach, while the middle and upper staffs explored judgemental sampling strategies. The questionnaire was distributed to these respondents, and 96.6 percent (113 respondents) completed it. Cronbach's alpha was used to assess the questionnaire's reliability when five Likert scales were employed. The alpha value of 0.83 shows that the questionnaire was trustworthy. Based on the mean score, the empirical result shows that the majority of respondents agree on the segregation of duties and responsibilities in the area of cash and cash-related activities, that transactions are

recorded in a timely manner, that the current cash management system protects cash from misappropriation, and that CBE uses sequentially pre-numbered or computer-generated receipt forms to establish accountability for each cash transaction. According to the majority of respondents, there is task division, a check and balance system for cash transactions, dual control of cash vaults, a trustworthy and robust internal control system, and each transaction is signed by the chief cashier and the teller. Cash shortages, non-continuous surprise checks, and a lack of managing cash holding limitations are the key flaws in CBE's internal cash control. The majority of respondents believe that the cash management method, which assists the CBE in controlling cash abuse, is important. Based on the empirical findings, the researcher proposes that CBE create surprise checks on internal control over cash on a regular basis and evaluate cash holding limitations that may have a detrimental impact on its day-to-day operations when cash shortage occurs⁴⁸.

Health Sciences The University of Golestan's financial affairs personnel investigated the relationship between the internal control system and financial performance. Medical Sciences University of Golestan's financial performance and internal control system were compared. 86 of the 112 participants in the study who work in financial institutions in the city of Gorgan were chosen at random using Cochran's approach. A two-part questionnaire was used to collect data for the study. According to the results, the questionnaire has a Cronbach's alpha reliability score of 0.88. The study's analysis approaches included descriptive, frequency, and mean statistics, as well as statistical tests such as the t-test and Pearson's correlation coefficient. According to university financial staff, the internal control system at Medical Sciences University of Golestan and financial performance are positively and significantly correlated and internal audit, the control environment, and control activities are related to financial performance⁴⁹.

The impact of internal control systems on financial performance in public higher education institutions was investigated in Nairobi City County, Kenya, with the goal of finding the impact of internal control systems on financial performance in public higher education institutions. The study's particular aims were to examine the financial performance of Nairobi City County's institutions of higher learning as well as the effects of risk assessment, control environment, information and communication, and monitoring. The study employed agency theory, stewardship theory, positive accounting theory, and attribution theory. In this study, a descriptive research design was used. Using a sample research approach, the study's target demography comprised of various sorts of employees in various departments of Public Institutions of Higher Learning in Nairobi City County, Kenya. There are 96 workers in the test group. Primary data from the sample population was collected using open-ended and closed-ended questionnaires. After analyzing the data with descriptive statistics, the information was presented in statistical formats. Multiple linear regression was used to investigate the relationship between the dependent and independent variables. According to the study, the control environment, risk assessment, control activities, information, and communication as indicators of internal control systems had a substantial impact on the financial performance of Nairobi City County's higher education institutions. The factors explained 99.1% of the variance in the financial performance of the institutions. The study advises that institutions enhance their internal control systems and hold organizational resources accountable⁵⁰.

It was researched how the Nairobi Securities Exchange's internal control environment affects the financial performance of the companies listed there. The study's (NSE) purpose was to determine how internal control systems influenced the performance of companies listed on the Nairobi Securities Exchange. To achieve its objectives, the study's researchers focused on the control

environment, internal audit, risk management, and internal control activities, as well as the effect of corporate governance controls on the financial performance of Kenyan publicly traded enterprises. A survey research methodology was used in this work. All 62 NSE-listed companies participated in the survey. The researchers selected 38 companies for the study from a pool of 62 NSE-listed companies. The sample was chosen using a technique known as stratified random sampling. The study utilized both primary and secondary data. While standardized questionnaires provided main data, audited yearly reports, publications, and document analysis provided secondary data. The data was analyzed using both descriptive and inferential statistics. Correlation analysis, chi-square analysis, and ANOVA were used to test the hypotheses. In addition, frequency tables and averages were established. The data was examined using SPSS version 21.0, a statistical tool for social scientists. The study found a significant link between the internal control environment and financial performance⁵¹.

To establish the relationship between internal audit and financial performance, ex-post facto analysis was utilized to examine the financial performance of Nigerian microfinance institutions. Ordinary least squares was used to examine data from primary and secondary sources. Because the estimated coefficient of the regression parameters is positive, the outcomes of this inquiry validate our a priori hypothesis. As a result of this symbol, the Return on Asset, Profit Margin, and Return on Equity variables all have a positive impact on the internal audit proxy for fraud. According to research findings, the value of fraud is closely connected with Return on Asset, Profit Margin, and Return on Equity. In order to successfully detect and prevent fraud in microfinance institutions, bank management should guarantee that internal audit is correctly understood and developed in all areas, according to the study's findings. The recommendation

goes on to say that the microfinance bank's internal audit department head should only be chosen if they are qualified and experienced accountants⁵².

Kenyan commercial banks' financial performance was evaluated to understand how internal controls affected it. Internal controls were examined using the five-element Treadway Commission framework, and financial performance was assessed using the historical average of Return on Equity. The selection of a descriptive research method was influenced by its ability to explain the relationship between internal controls and financial performance. The research involved 43 Kenyan commercial banks. A structured questionnaire was used to collect first-hand information. We employed regression analysis, correlation, and descriptive statistics. The study's findings indicated that high financial performance in the banking industry is due in part to the implementation and maintenance of effective internal controls. The highly regulated and organized environment that exists in the banking sector results in effective internal control. Due to the riskiness of the banking sector and its impact on financial performance, the report advised institutions to build and maintain robust internal controls⁵³.

A quantitative study utilizing a descriptive research technique was done to assess how internal control system processes affected the performance of money transfer companies in Mogadishu, Somalia. The study's sample included 15 remittance businesses operating in the Bakara market. These companies employed a total of 402 people. Surveys were used to collect primary data, which was then analyzed using SPSS version 23. Improving the control environment, risk assessment, and control activity of remittance enterprises in Mogadishu, according to the study, increased organizational performance⁵⁵.

Ghanaian health facilities were utilized as case studies to investigate how internal control methods affect financial performance. A sample size of fifty (50) respondents was used in the

investigation. An ordered logistic regression model was used to calculate the influence of internal control on financial performance at health facilities in the area. The ordered logistic regression model results revealed a link between health facilities' internal controls and their financial performance. The effectiveness and efficiency of internal controls are used to evaluate financial performance. This implies that increasing the independent variables clearly influenced the finances of healthcare facilities to rise. All five internal control variables investigated revealed a positive correlation (i.e., a link that is beneficial to financial success). Only three internal control factors (control environment, information and communication, and information and communication) were found to have a significant positive relationship with financial performance (p-values less than 5%), while the other two (control environment and information and communication) had no effect. Internal controls have a considerable impact on the financial performance of Ghanaian health facilities, according to the study's findings. The controlling board of the institution shall audit the internal control systems of healthcare institutions on a regular basis, maybe with the support of the audit reports implementation committee (ARIC)⁵⁶.

The conclusions of the study on the relationship between internal control and corporate financial performance were inconclusive. The majority of internal control research focuses on specific organizations or firms that have distinguishing features or visible shortcomings in their internal control systems. Prior research has mostly focused on risk assessment, monitoring, information and communication, and information and communication as proxies for gauging internal control, with little attention paid to control actions and the control environment. Since most studies have been unable to determine the influence of these activities, this study will employ monitoring and control activities as proxies to fill in the gaps^{57,58}.

2.4 Conceptual Model

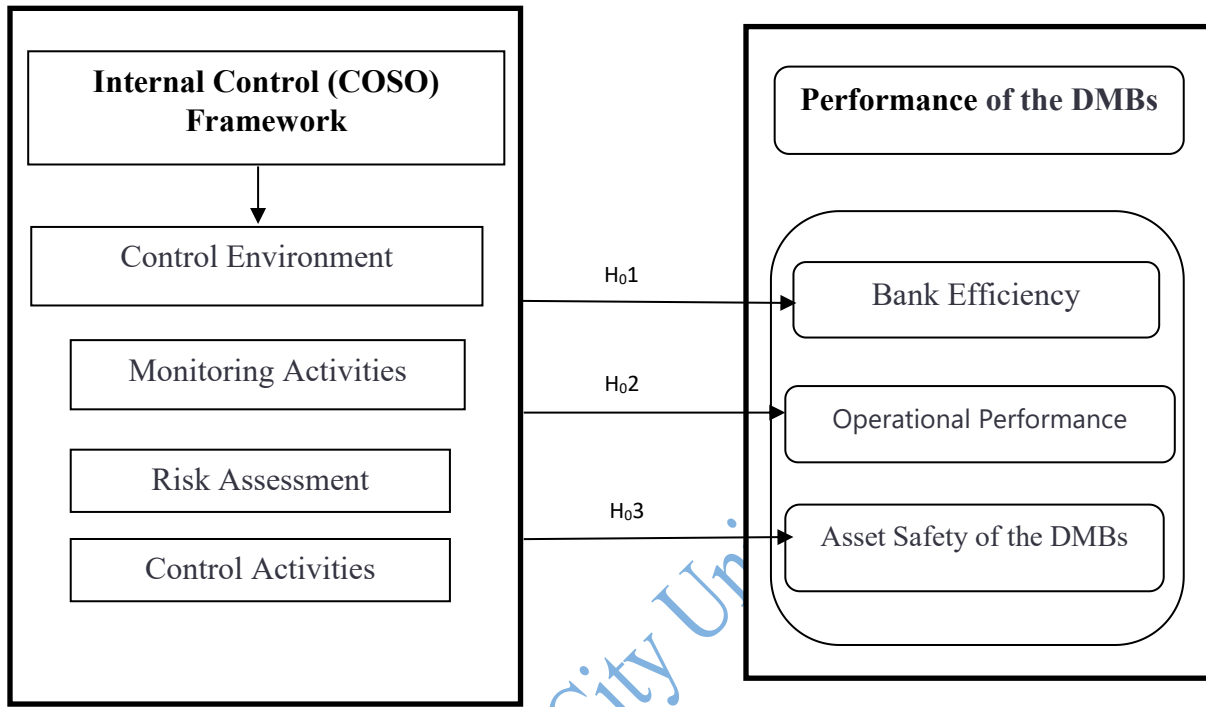


Fig 2.1: Conceptual Framework Model of Internal Control System and Performance

At the core of the framework is the internal control system, which encompasses various components such as the control environment, monitoring, risk assessment, and information and communication. The foundation for guaranteeing effective and efficient operations inside the listed money deposit institutions is formed by these elements taken together. The internal control system has a variety of effects on bank performance. First, it has an effect on a bank's ability to maximize production while requiring the least amount of resources, which is known as bank efficiency. The control environment sets the tone for the business, encouraging moral conduct and cultivating a compliance culture. Mechanisms for monitoring make sure that tasks are carried out correctly and that deviations are quickly found and fixed. A risk assessment aids in locating potential dangers and putting precautionary measures in place. Systems of information

and communication that are effective make sure that decision-makers have access to pertinent information so they can make educated decisions. These internal control elements work together to improve bank effectiveness.

Second, operational performance—which includes a variety of factors like revenue generation, cost management, and service provision—is impacted by the internal control system. Banks can promote openness, responsibility, and integrity in their business practices by creating a strong control environment. Monitoring operations make it possible to spot operational flaws or inefficiencies, enabling prompt corrective action. Risk management and operational resilience are improved with the use of risk assessment. Effective decision-making and strategic planning are made possible by information and communication technologies, which guarantee the availability of accurate and timely data. These elements work together to affect how well the listed money deposit banks function operationally.

Finally, a key factor in guaranteeing the security of assets is the internal control system. Using the safe environment promoting a culture of risk assessment and compliance By recognizing possible dangers, banks can put the right safeguards in place to protect their assets from risks like theft and fraud. Monitoring activities provide for the quick intervention by permitting the discovery of any unauthorized or irregular activity. Systems of information and communication make it easier to share pertinent information about asset security with the appropriate parties. These internal control elements can help the listed money deposit banks properly safeguard their assets.

We may further improve our comprehension of the relationship between the internal control system and the performance of listed money deposit banks in Nigeria by adapting Control Theory and Agency Theory to the conceptual framework. Within this context, control theory

highlights the importance of feedback and control systems in accomplishing organizational objectives. It implies that the internal control system, which includes elements like the control environment, monitoring, risk assessment, and information and communication, serves as a mechanism to direct and govern employees' behavior within banks. According to the control theory, banks can better manage resource allocation, align operations with organizational goals, and improve performance by putting in place efficient control mechanisms.

The framework acknowledges the principal-agent relationship between the shareholders (principals) and the managers (agents) of the listed money deposit banks by incorporating Agency Theory. Due to knowledge asymmetry and self-interest, Agency Theory emphasizes the possible conflicts of interest that could develop between principals and agents. It implies that an efficient internal control system, including the control environment, monitoring, risk assessment, and information and communication, can aid in the mitigation of agency issues by bringing the interests of principals and agents into alignment. The agency costs related to moral hazard and bad behavior can be reduced by putting in place the right control mechanisms, such as performance-based incentives and accountability systems, which will improve the banks' overall performance.

The framework's integration of Control Theory and Agency Theory enables us to comprehend how the internal control system affects bank productivity, operational effectiveness, and asset safety while taking principal-agent dynamics into account. While Agency Theory addresses the difficulties arising from the principal-agent relationship and offers insights into the design and efficacy of control mechanisms to align the interests of principals and agents, Control Theory emphasizes the role of feedback and control mechanisms in achieving organizational goals.

Overall, the conceptual framework places an emphasis on how Nigeria's listed money deposit banks' performance and their internal control system interact. The control environment, monitoring, risk assessment, information, and communication all have an impact on the effectiveness of the bank's operations and the security of its assets. This framework offers a starting point for additional investigation and analysis to improve the comprehension and use of efficient internal control systems within the Nigerian banking industry.

2.5 Summary of Gap in Literature Reviewed

The conceptual literature explores the fundamental concepts and principles underlying the internal control system and its impact on bank performance. It highlights the components of the internal control system, including the control environment, monitoring, risk assessment, and information and communication. The conceptual literature emphasizes the role of the internal control system in enhancing bank efficiency, operational performance, and asset safety. It provides a foundation for further research and analysis by defining the key variables and their interrelationships.

The theoretical literature draws upon various theories to explain the relationship between the internal control system and bank performance. Agency Theory is a prominent theoretical framework that focuses on the principal-agent relationship and explores how internal control mechanisms can mitigate agency problems. It highlights the alignment of interests between shareholders (principals) and managers (agents) to improve bank efficiency, operational performance, and asset safety. Control Theory is also relevant, emphasizing the role of feedback and control mechanisms in achieving organizational goals. By incorporating these theories, the theoretical literature enhances our understanding of the mechanisms through which the internal control system influences bank performance.

The empirical literature comprises studies that have investigated the relationship between the internal control system and the performance of listed money deposit banks in Nigeria. These studies have utilized various research methodologies, including regression analysis, to examine the influence of specific control system components on bank efficiency, operational performance, and asset safety. The empirical findings consistently indicate that a robust internal control system positively affects bank performance, leading to improved efficiency, operational effectiveness, and asset protection. Specific components, such as the control environment, monitoring activities, risk assessment, and information and communication systems, have been found to significantly contribute to bank performance in different studies.

The literature review highlights the importance of the internal control system in enhancing the performance of listed money deposit banks in Nigeria. It provides a conceptual understanding of the key components and principles of the internal control system, integrates relevant theoretical frameworks, and presents empirical evidence supporting the positive impact of an effective internal control system on bank performance. This synthesis of conceptual, theoretical, and empirical literature serves as a foundation for the current study, guiding the investigation of the internal control system and its influence on bank performance in the Nigerian context.

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Chapter Three

Methodology

This chapter focuses on the methodology and procedures employed to collect data, enabling the achievement of both the general and specific objectives of the study. It encompasses several key aspects, including the research design, population under study, determination of sample size, sampling technique employed, description of the research instrument utilized, assessment of research instrument validity, reliability testing, specification of the model used, and the methodology adopted for data analysis. By outlining these elements, this chapter establishes a robust framework for gathering and analyzing data to address the research objectives effectively.

3.1 Research Design

For this study, a descriptive survey research design was employed, as it offers a suitable approach for accurately describing the phenomena and methods under investigation. This design has been selected due to its effectiveness in evaluating the interactions and effects of multiple variables, including both dependent and independent variables. Furthermore, the descriptive research design is crucial in this study as it allows for a thorough description of the desired characteristics of the sample under investigation, without introducing any influence on the variables being studied.

3.2 Population of the Study

The target population for this study consists of Deposit Money Banks (DMBs) that are registered and operational in Nigeria. Specifically, the focus is on staff of DMBs with international authorization. The Central Bank of Nigeria (CBN) recognizes eight DMBs that have obtained approval to conduct international transactions within Nigeria. These banks are Access Bank Plc,

Fidelity Bank Plc, First City Monument Bank Limited, First Bank of Nigeria Plc, Guaranty Trust Bank Plc, Union Bank of Nigeria Plc, United Bank for Africa Plc, and Zenith Bank Plc.

The selection of DMBs with international authorization is based on their global experience and the scope of their operations. These banks have demonstrated a broader reach and involvement in international transactions, making them particularly relevant for examining the internal control system and its impact on performance. By focusing on DMBs with international authorization, this study aims to gain insights from banks with extensive exposure to global banking practices and operations. However, study focus on all the staff at the head office of each of the selected eight DMBs with international authorization. The population of their staff were distributed below:

Table 3.1: Target Population

| Category | Population |
|----------------------------------|-------------------|
| Access Bank Plc | 232 |
| Fidelity Bank Plc | 132 |
| First City Monument Bank Limited | 136 |
| First Bank of Nigeria Plc | 249 |
| Guaranty Trust Bank Plc | 193 |
| Union Bank of Nigeria Plc | 139 |
| United Bank for Africa Plc | 167 |
| Zenith Bank Plc. | 254 |
| Total | 1502 |

Source: Attendance data for all head office employees in 2023, from the HR Department

3.3 Sample size and Sampling Technique

This study involved a sample size of 316, determined using Taro Yamane's sampling size technique. The selection of participants utilized the purposive sampling technique, specifically focusing on eight Deposit Money Banks (DMBs) with international authorization. The study's respondents were drawn from the staff of these selected banks. This sampling formula was used to derive a sample size for this study. The formula is as follows:

$$n = \frac{N}{1 + N(e)^2} \dots\dots\dots(\text{formula 1})$$

Where n is the sample size, N is the population size, and e is the level of precision. The level of precision is also the level of significance which is 0.05.

The sample size will be calculated

thus:

$$\text{Sample size formula} = n = \frac{N}{1 + N(e)^2}$$

n is sample size

N is total number of population (1502)

e² is precision level (0.05)²

$$n = 1502 / (1 + 1502 (0.05^2))$$

$$n = 1502 / (1 + 1502 (0.0025))$$

$$n = 1502 / (1 + 3.755)$$

$$n = 1502 / 4.755$$

$$n = 315.8$$

$$n \approx 316$$

Therefore, a sample size of around 316 would be appropriate for the study. The respondents as sample size for the study were distributed below:

Table 3.1: Target Population

| Category | Population (a) | Taro Yamane (b) | Sample Size ($a \cdot b / 1502$) |
|----------------------------------|----------------|-----------------|---------------------------------------|
| Access Bank Plc | 232 | | 49 |
| Fidelity Bank Plc | 132 | | 28 |
| First City Monument Bank Limited | 136 | | 29 |
| First Bank of Nigeria Plc | 249 | | 52 |
| Guaranty Trust Bank Plc | 193 | 316 | 41 |
| Union Bank of Nigeria Plc | 139 | | 29 |
| United Bank for Africa Plc | 167 | | 35 |
| Zenith Bank Plc. | 254 | | 53 |
| Total | 1502 | | 316 |

Source: Attendance Data for all Head Office Employees in 2023, from the HR Department

3.4 Description of the Research Instrument

To facilitate this study, a modified structured questionnaire was developed by utilizing various scales from prior research that were pertinent to the variables used in this study. To gather data from the participants of the study, a structured closed-ended questionnaire was employed. The

questionnaire, titled "Internal Control and Performance of Listed DMBs in Nigeria," consisted of two sections: Section A and Section B.

Section A of the questionnaire focused on capturing essential personal characteristics of the respondents. This section aimed to gather demographic information and other relevant details about the participants.

Section B of the questionnaire concentrated on assessing the internal control practices and the performance of the listed deposit money banks (DMBs) in Nigeria. Each question in this section utilized a Likert Scale, requiring respondents to rate their responses on a scale of 1 to 5. The scale options ranged from "Not At All" (coded as 1) to "Minor Extent" (coded as 2), "Some Extent" (coded as 3), "Large Extent" (coded as 4), and "Very Large Extent" (coded as 5).

The choice of a questionnaire as the research instrument was based on several factors. Firstly, questionnaires are cost-effective, making them a practical choice for collecting data in this study. Additionally, questionnaires allow respondents to provide their answers at their convenience, reducing the pressure for immediate response. This aspect provides participants with sufficient time to provide accurate and reliable information, enhancing the quality of the data collected.

By utilizing a structured closed-ended questionnaire, the study aimed to efficiently collect data on the personal characteristics of the respondents, as well as their perceptions of internal control and the performance of the listed DMBs in Nigeria.

Model Specification

To investigate the internal control system and performance of listed money deposit banks in Nigeria, we can build an econometric model that addresses the specific objectives of the study.

The model will explore the influence of internal control systems on bank efficiency, operational performance, and asset safety.

Let's define the following variables for the model:

Dependent Variables:

- i. Bank Efficiency (BE)
- ii. Operational Performance (OP)
- iii. Asset Safety (AS)

Independent Variables:

- i. Control Environment (CE)
- ii. Monitoring (M)
- iii. Risk Assessment (RA)
- iv. Control Activities (CA)
- v. Information and Communication (IC)

The econometric model can be specified as follows:

i. Bank Efficiency Model:

$$BE = \beta_0 + \beta_1(CE) + \beta_2(M) + \beta_3(RA) + \beta_4(CA) + \beta_5(IC) + \epsilon_1$$

ii. Operational Performance Model:

$$OP = \beta_0 + \beta_1(CE) + \beta_2(M) + \beta_3(RA) + \beta_4(CA) + \beta_5(IC) + \epsilon_2$$

iii. Asset Safety Model:

$$AS = \beta_0 + \beta_1(CE) + \beta_2(M) + \beta_3(RA) + \beta_4(CA) + \beta_5(IC) + \varepsilon_3$$

In these equations:

- β_0 represents the intercept or constant term.
- $\beta_1, \beta_2, \beta_3, \beta_4,$ and β_5 represent the coefficients associated with each independent variable.
- $\varepsilon_1, \varepsilon_2,$ and ε_3 represent the error terms, capturing unexplained variation in the respective dependent variables.

The coefficients in the model reflect the impact of the control environment, monitoring, risk assessment, control activities, and information and communication on bank efficiency, operational performance, and asset safety. These coefficients indicate the magnitude and direction of the influence.

3.5 Validity of Research Instrument

To investigate the internal control system and performance of listed money deposit banks in Nigeria, the study instrument was developed and validated to ensure its accuracy and appropriateness for capturing relevant information. The validation process focused on face and content validity.

Face validity was employed to assess the instrument's ability to measure the intended constructs effectively. The questionnaire was presented to a supervisor and other experts in the field of accounting, specifically those knowledgeable about the internal control system and performance

of money deposit banks. Their input and feedback were sought to ensure the questionnaire was clear, meaningful, and aligned with the research objectives.

Content validity was established by seeking the opinions of professionals experienced in the banking with full knowledge of internal control systems and the performance. These experts provided insights on the questionnaire's adequacy in capturing the desired aspects. Factors such as meaningfulness, clarity, ambiguity, and potential offense were assessed. To ensure the questionnaire's quality and appropriateness, any challenges or issues encountered during the pilot study were addressed under the guidance of the research supervisors. The questionnaire was refined and tailored based on their suggestions and opinions to enhance its content validity.

3.6 Reliability of the Research Instrument

In measuring the reliability of the research instrument for this study, the questionnaire was first subjected to a pilot test. To ensure that the questionnaire was efficient and effective, 5% of the sample size was pilot studied and tested. Reliability was conducted on the questionnaire fully completed by thirty-six (36) randomly chosen respondents who are were not part of the sample size for this study. The most widely used measure of reliability in both social and management sciences is Cronbach α (alpha), which refers to the internal consistency coefficient⁵. For this study therefore, the Cronbach Alpha will be used for internal consistency of all the items in the questionnaire. Cronbach α which will be used in measuring the reliability of the instrument will be computed using the following formula:

$$\alpha = \frac{N}{N-1} \left(1 - \frac{\sum_i^N 1\sigma_{yi}^2}{\sigma_X^2} \right)$$

where N is the number of components (items), σ_x^2 is the variance of the observed total test scores, and $\sigma_{Y_i}^2$ is the variance of component i . The acceptability criteria of Cronbach's alpha (α) for the study will be considered excellent if it is greater than or equal to 0.9, good if it is between 0.7 to less than 0.9, acceptable if between 0.6 to less than 0.7, poor if between 0.5 to less than 0.6 and will not be acceptable if less than 0.5. Table 3.3 shows the reliability results. All the statements were reliable since the Cronbach alpha was above 0.7 which was used as a cut-off of reliability for the study. The results of the test reveal the alpha coefficient is all above 0.7 and therefore all the statements were reliable since the reliability threshold is 0.7. The reliability coefficients for each variable are as indicated in the table below:

Table 3.3: Reliability Coefficient

| | Metrics and sub variables of the Study | Cronbach's Alpha |
|---|---|-------------------------|
| 1 | Bank Efficiency | .819 |
| 2 | Operational Performance | .878 |
| 3 | Asset Safety | .793 |
| 4 | Control Environment | .811 |
| 5 | Monitoring | .892 |
| 6 | Risk Assessment | .819 |
| 7 | Control Activities | .792 |
| 8 | Information and Communication | .789 |
| | Overall | .824 |

Source: Researcher, 2023

All these coefficients are above the generally accepted threshold of .70, and the overall Cronbach's alpha coefficient for all the variables is .824, indicating good internal consistency and reliability of the measures used in the study. Therefore, the internal consistency reliability of the measure was excellent. This indicates that the data was reliable since an alpha coefficient for the overall results was 0.824 higher than 0.70 signifies that the collected data has a comparatively high internal reliability and can be assumed to mirror the respondent's views on the study problem. The Cronbach's Alpha results will be analysed using the Statistical Package for Social Sciences SPSS.

3.7 Data Collection

A letter of introduction was collected from the Department of Management and Accounting, Faculty of Management and Social Sciences, Lead City University, Ibadan, Oyo State, Nigeria, to obtain permission to conduct the research. Two research assistants were hired to aid in administering the instrument. The researcher introduced the research assistants to the essential information relevant to the investigation. The instrument was expected to be disseminated within a span of two (2) weeks for administration, and the data collected from the field were accurately scored, coded, and subsequently subjected to data analysis.

3.8 Data Analysis

The collected data were subjected to statistical analysis. Biographical data were analyzed using simple percentages. Descriptive statistics, including simple percentages and a decision mean of 2.5, as well as correlation analysis, were employed to interpret research questions. Furthermore,

inferential analysis was conducted to examine the relationship between internal control systems and the performance of listed Nigerian Deposit Money Banks (DMBs). Correlation and regression analyses were utilized to test the hypotheses at a significance level of 0.05. The Statistical Package for Social Science (SPSS) version 25 was utilized to ensure accurate data analysis for this study.

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Endnotes

1. G.E. Oyedokun. *Research methodology for social and management students*. **Aaron & Hur Publishing** 30, 2018.
2. *Nigeria: Number of bank employees by position*. 2022. Statista. <https://www.statista.com/statistics/1175373/number-of-bank-employees-in-nigeria-by-position>
3. Y. Taro. *Statistics, An Introductory Analysis*, 2nd Ed., **New York:** Harper and Row, 1967.

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Chapter Four

Results and Discussion of Findings

4.0 Preamble

The Results and Discussion of Findings of the investigation are presented in this chapter. The findings were based on the research questions and hypotheses that were raised in accordance with the study's objective.

4.1 Presentation of Data

Table 4.1 Demographic Data

| Variable | Frequency | Percentage |
|-------------------------|------------|----------------|
| Gender | | |
| Male | 150 | 48.08% |
| Female | 162 | 51.92% |
| Total | 312 | 100.0% |
| Marital Status | | |
| Single | 75 | 24.04% |
| Married | 220 | 70.51% |
| Divorced | 9 | 2.88% |
| Separated | 8 | 2.57% |
| Total | 312 | 100.00% |
| Academic Qualifications | | |
| NCE/OND | 80 | 25.64% |
| HND/B.Sc | 100 | 32.05% |
| M.Ed/M.Sc | 60 | 19.23% |
| PhD | 72 | 23.08% |
| Total | 312 | 100.00% |
| Others | | |

| Professional Qualification | | |
|---|------------|----------------|
| ACA/ANAN/ACCA | 145 | 46.47% |
| CIBN | 50 | 16.03% |
| CITN | 70 | 22.44% |
| NIM | 47 | 15.06% |
| Total | 312 | 100.00% |
| Others | | |
| Work Experience | | |
| Less than 5 years | 65 | 20.83% |
| 5-10 years | 75 | 24.04% |
| 11-15 years | 57 | 18.27% |
| 16-20 years | 60 | 19.23% |
| 20 years and above | 55 | 17.63% |
| Total | 312 | 100.00% |
| Years of Experience in the banking industry | | |
| Less than 1 year | 40 | 12.82% |
| 1 year - 3 years | 70 | 22.44% |
| 3 years - 5 years | 65 | 20.83% |
| 5 years - 10 years | 87 | 27.88% |
| More than 10 years | 50 | 16.03% |
| Total | 312 | 100.00% |

Source: Field Survey Report, 2023

Table 4.1 presents the distribution of respondents based on various demographic and professional characteristics. Regarding gender, out of the total respondents, 150 (48.08%) identified as male, while 162 (51.92%) identified as female. This shows a relatively balanced representation of both genders in the study. When examining marital status, the results indicate that the participants had varying marital statuses. Among them, 75 (24.04%) were single, 220 (70.51%) were married, 9 (2.88%) were divorced, and 8 (2.57%) were separated. These findings

reflect a range of marital situations among the respondents, allowing for a comprehensive analysis of the data. In terms of academic qualifications, the participants possessed different educational backgrounds. Specifically, 80 (25.64%) had NCE/OND qualifications, 100 (32.05%) held HND/B.Sc degrees, 60 (19.23%) had M.Ed/M.Sc degrees, and 72 (23.08%) had obtained a Ph.D. This distribution demonstrates a diverse range of academic qualifications among the respondents, providing a breadth of perspectives for the study. The respondents also reported their professional qualifications. Among them, 145 (46.47%) had professional certifications such as ACA/ANAN/ACCA, 50 (16.03%) were affiliated with CIBN, 70 (22.44%) had certifications from CITN, and 47 (15.06%) were associated with NIM. This shows a varied representation of professional qualifications within the sample. When considering work experience, the respondents had different levels of industry experience. Specifically, 65 (20.83%) had less than 5 years of experience, 75 (24.04%) had 5-10 years of experience, 57 (18.27%) had 11-15 years of experience, 60 (19.23%) had 16-20 years of experience, and 55 (17.63%) had more than 20 years of experience. This distribution represents a wide range of work experience among the participants. Lastly, the respondents reported the number of years of experience in the banking industry. The data shows that 40 (12.82%) had less than 1 year of experience, 70 (22.44%) had 1-3 years of experience, 65 (20.83%) had 3-5 years of experience, 87 (27.88%) had 5-10 years of experience, and 50 (16.03%) had more than 10 years of experience.

4.2 Presentation of Data

4.2 Descriptive Statistics of the Variables – Performance of DMBs

| | Bank Efficiency | Operational Performance | Asset Safety |
|--------------------|-----------------|-------------------------|--------------|
| N | 312 | 312 | 312 |
| Missing | 0 | 0 | 0 |
| Mean | 3.92 | 3.95 | 3.86 |
| Median | 3.83 | 3.64 | 3.50 |
| Standard deviation | 0.14 | 0.15 | 0.12 |
| Minimum | 1.00 | 1.00 | 1.00 |
| Maximum | 5.00 | 5.00 | 5.00 |

Source: Field Survey Report, 2023

Table 4.2 provides descriptive statistics for the variables related to the performance of Deposit Money Banks (DMBs). For Bank Efficiency, the sample size (N) is 312, indicating the number of valid responses received for this variable. There are no missing values, meaning that all participants provided data for Bank Efficiency. The mean value of Bank Efficiency is 3.92, indicating that, on average, the DMBs in the sample scored relatively high on bank efficiency. The median value is 3.83, which suggests that the distribution of responses is slightly skewed towards higher efficiency ratings. The standard deviation is 0.14, which implies that there is a moderate amount of variability in the responses for Bank Efficiency. Similarly, for Operational Performance, the sample size is also 312, and there are no missing values. The mean value for

Operational Performance is 3.95, indicating a relatively high average rating. The median value of 3.64 suggests that the distribution of responses is slightly skewed towards higher performance ratings. The standard deviation is 0.15, indicating a moderate amount of variability in the responses for Operational Performance. For Asset Safety, the sample size is again 312, with no missing values. The mean value for Asset Safety is 3.86, indicating a relatively high average rating. The median value of 3.50 suggests that the distribution of responses is slightly skewed towards higher safety ratings. The standard deviation is 0.12, indicating a moderate amount of variability in the responses for Asset Safety.

4.3 Descriptive Statistics of the Variables – Internal Control System

| | Control Environment | Monitoring Risk Assessment | Control Activities | Information & Communication |
|--------------------|----------------------------|-----------------------------------|---------------------------|--|
| N | 312 | 312 | 312 | 312 |
| Missing | 0 | 0 | 0 | 0 |
| Mean | 3.85 | 4.02 | 3.93 | 3.91 |
| Median | 3.70 | 3.82 | 3.79 | 3.90 |
| Standard deviation | 0.84 | 0.32 | 0.16 | 0.16 |
| Minimum | 1.00 | 1.00 | 1.00 | 1.00 |
| Maximum | 5.00 | 5.00 | 5.00 | 5.00 |

Source: Field Survey Report, 2023

Table 4.3 presents descriptive statistics for the variables related to the internal control system. For Control Environment, the sample size (N) is 312, indicating the number of valid responses received for this variable. There are no missing values, meaning that all participants provided

data for Control Environment. The mean value of Control Environment is 3.85, suggesting a moderate average rating. The median value is 3.70, indicating that the distribution of responses is slightly skewed towards lower ratings. The standard deviation is 0.84, which implies a relatively high degree of variability in the responses for Control Environment. The minimum score recorded is 1.00, representing the lowest rating, while the maximum score is 5.00, representing the highest rating for Control Environment in the sample. Similarly, for Monitoring, the sample size is also 312, with no missing values. The mean value for Monitoring is 4.02, indicating a relatively high average rating. The median value of 3.82 suggests that the distribution of responses is slightly skewed towards higher ratings. The standard deviation is 0.32, indicating a moderate amount of variability in the responses for Monitoring.

Correlational Analysis

4.4 Correlation Analysis of the Internal Control indices and Performance of DMBs

| | BE | OP | AS | CE | M | RA | CA | IC |
|----|--------|--------|---------|--------|--------|-------|------|----|
| BE | 1 | | | | | | | |
| OP | .881 | 1 | | | | | | |
| AS | .901 | -.876 | 1 | | | | | |
| CE | .744** | .612** | 0.761** | 1 | | | | |
| M | .689** | .416** | .657** | .614* | 1 | | | |
| RA | .645** | .504** | -.597** | .219** | .553* | 1 | | |
| CA | .572** | .568** | .419* | .429** | .227 | -.334 | 1 | |
| IC | .580** | .635** | .622** | .225** | .499** | .883 | .667 | 1 |

** Significant at 0.01 & * significant at 0.05

Source: Field Survey Report, 2023

The table provided presents a correlation matrix showing the relationships between various variables in the context of a study on bank efficiency, operational performance, and asset safety. Control Environment (CE) shows significant positive correlations with all three dependent variables. The correlation coefficients are 0.744 with Bank Efficiency (BE), 0.612 with Operational Performance (OP), and 0.761 with Asset Safety (AS). These results indicate that a strong control environment is positively related to bank efficiency, operational performance, and asset safety. Monitoring (M) also demonstrates significant positive correlations with Bank Efficiency (BE), Operational Performance (OP), and Asset Safety (AS), with correlation coefficients of 0.689, 0.416, and 0.657, respectively. This suggests that effective monitoring processes positively impact these three variables. Risk Assessment (RA) shows mixed results. It has a positive correlation of 0.645 with Bank Efficiency (BE) and a positive correlation of 0.504 with Operational Performance (OP). However, it exhibits a negative correlation of -0.597 with Asset Safety (AS). These findings suggest that while risk assessment may have a positive influence on bank efficiency and operational performance, it may have a detrimental effect on asset safety. Control Activities (CA) and Information and Communication (IC) both demonstrate positive correlations with Bank Efficiency (BE) and Operational Performance (OP). Control Activities (CA) also shows a positive correlation with Asset Safety (AS). These findings indicate that effective control activities and information and communication systems are associated with higher levels of bank efficiency, operational performance, and asset safety. The correlation matrix provides insights into the relationships between the variables studied. The results suggest that a strong control environment, effective monitoring, control activities, and information and communication systems are positively associated with bank efficiency, operational performance,

and asset safety. Risk assessment appears to have a positive influence on bank efficiency and operational performance but may have a negative impact on asset safety.

4.3 Testing of Hypotheses

H₀₁: There is no significant influence of internal control systems on Bank Efficiency in the listed Nigerian Deposit Money Banks (DMBs).

Table 4.5 ANOVA of test of Impact of Internal Control System on Bank Efficiency of DMBs in Nigeria

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|-------|------------|----------------|-----|-------------|--------|-------------------|
| 1 | Regression | 43.283 | 5 | 43.283 | 36.880 | .000 ^b |
| | Residual | 103.611 | 305 | .846 | | |
| | Total | 146.894 | 310 | | | |

a. Dependent Variable: Bank Efficiency of Deposit Money Banks

b. Predictors: (Constant), Control Environment, Monitoring, Risk Assessment, Control Activities, Information and Communication.

Table 4.6 Test of Influence of Internal Control System on Bank Efficiency of DMBs in Nigeria

| Model | | Coefficients ^a | | | | | Collinearity Statistics | | |
|-------|-----------------------------|-----------------------------|------------|---------------------------|--|-------|-------------------------|-----------|-------|
| | | Unstandardized Coefficients | | Standardized Coefficients | | t | Sig. | Tolerance | VIF |
| | | B | Std. Error | Beta | | | | | |
| 1 | (Constant) | -.121 | .098 | | | -3.31 | .041 | | |
| | Control Environment | .415 | .100 | .403 | | 4.109 | .000 | 1.000 | 1.000 |
| | Monitoring Activities | .327 | .119 | .264 | | 3.112 | .002 | 1.000 | 1.000 |
| | Risk Assessment | .390 | .097 | .390 | | 4.019 | .000 | 1.000 | 1.000 |
| | Control Activities | .327 | .133 | .284 | | 3.742 | .001 | 1.000 | 1.000 |
| | Information & Communication | .327 | .103 | .226 | | 2.994 | .006 | 1.000 | 1.000 |

a. Dependent Variable: Bank Efficiency of Deposit Money Banks

Source: Fieldwork, (2023)

The results of the ANOVA test, as shown in Table 4.5, indicate a significant impact of the internal control system on the bank efficiency of Deposit Money Banks (DMBs) in Nigeria ($F(5, 305) = 36.880, p < .001$). The regression model explains a substantial proportion of the variance in bank efficiency, as indicated by the regression sum of squares (43.283) and the mean square (43.283).

The coefficients presented in Table 4.6 provide insights into the individual contributions of the predictors (Control Environment, Monitoring Activities, Risk Assessment, Control Activities, and Information and Communication) in relation to the bank efficiency of DMBs in Nigeria. The standardized coefficients (Beta) indicate the relative importance of each predictor in influencing bank efficiency.

The Control Environment variable exhibits a significant positive relationship with bank efficiency, as indicated by the regression coefficient ($B = 0.415, p < .001, \text{Beta} = 0.403$). This suggests that a conducive control environment within listed money deposit banks in Nigeria contributes to higher levels of bank efficiency. A well-established control environment, which includes strong governance structures, ethical standards, and a positive corporate culture, can enhance the overall efficiency of the banks by promoting effective internal control practices and minimizing risks.

Similarly, the results reveal that Monitoring Activities are positively associated with bank efficiency ($B = 0.327, p = .002, \text{Beta} = 0.264$). This implies that regular monitoring of internal control systems, processes, and operations within the banks contributes to improved efficiency. Effective monitoring enables timely identification and resolution of control weaknesses or deviations, leading to enhanced operational efficiency and performance.

The variable of Risk Assessment also demonstrates a positive relationship with bank efficiency ($B = 0.390$, $p < .001$, $Beta = 0.390$). This finding suggests that robust risk assessment practices, such as identifying and evaluating potential risks and their impact on the bank's operations, play a crucial role in achieving higher levels of efficiency. By effectively managing and mitigating risks, banks can optimize their resource allocation, streamline processes, and improve overall operational efficiency.

Control Activities, another aspect of the internal control system, exhibit a positive association with bank efficiency ($B = 0.327$, $p = .001$, $Beta = 0.284$). This indicates that the implementation of control activities, such as segregation of duties, authorization procedures, and internal checks, contributes to improved efficiency. Well-designed and properly executed control activities ensure adherence to established policies and procedures, thereby minimizing errors, fraud, and inefficiencies in the bank's operations.

Furthermore, Information and Communication show a positive relationship with bank efficiency ($B = 0.327$, $p = .006$, $Beta = 0.226$). Effective information and communication channels within the internal control system facilitate the flow of timely and accurate information across the organization. This enables efficient decision-making, coordination, and control, leading to enhanced bank efficiency.

The constant term ($B = -0.121$, $p = .041$) represents the expected bank efficiency when all predictors are held at zero. The statistical significance of the constant term indicates that there are other factors, not included in the model, that contribute to bank efficiency.

The collinearity statistics (Tolerance and VIF) are all equal to 1, indicating no significant multicollinearity issues among the predictors. This suggests that the predictors in the model are relatively independent and contribute unique information to explain bank efficiency.

In summary, the results suggest that the internal control system, including the Control Environment, Monitoring Activities, Risk Assessment, Control Activities, and Information and Communication, significantly influence the bank efficiency of DMBs in Nigeria. These findings highlight the importance of a robust internal control system in enhancing the efficiency of deposit money banks.

Hypothesis Two

H₀₂: There is no significant influence of internal control systems on operational performance in the listed Nigerian Deposit Money Banks (DMBs).

Table 4.7 ANOVA of test of Impact of Internal Control System on Operational Performance of DMBs in Nigeria

| ANOVA ^a | | | | | | |
|--------------------|------------|----------------|-----|-------------|--------|-------------------|
| Model | | Sum of Squares | Df | Mean Square | F | Sig. |
| 1 | Regression | 38.320 | 5 | 38.320 | 29.361 | .000 ^b |
| | Residual | 103.611 | 305 | .924 | | |
| | Total | 87.893 | 310 | | | |

a. Dependent Variable: Operational Performance of Deposit Money Banks

b. Predictors: (Constant), Control Environment, Monitoring, Risk Assessment, Control Activities, Information and Communication.

Table 4.8 Test of Influence of Internal Control System on Operational Performance of DMBs in Nigeria

| Coefficients ^a | | | | | | | | |
|---------------------------|-----------------------------|-----------------------------|------------|---------------------------|-------|-------------------------|-----------|-------|
| Model | | Unstandardized Coefficients | | Standardized Coefficients | | Collinearity Statistics | | |
| | | B | Std. Error | Beta | t | Sig. | Tolerance | VIF |
| | | 1 | (Constant) | .091 | .111 | | 2.670 | .047 |
| | Control Environment | .422 | .113 | .410 | 4.356 | .000 | 1.000 | 1.000 |
| | Monitoring Activities | .305 | .116 | .248 | 2.713 | .002 | 1.000 | 1.000 |
| | Risk Assessment | .375 | .104 | .376 | 3.605 | .000 | 1.000 | 1.000 |
| | Control Activities | .317 | .129 | .274 | 3.742 | .001 | 1.000 | 1.000 |
| | Information & Communication | .296 | .109 | .226 | 3.548 | .003 | 1.000 | 1.000 |

a. Dependent Variable: Operational Performance of Deposit Money Banks

Source: Fieldwork, (2023)

The results of the ANOVA test, as presented in Table 4.7, reveal a significant impact of the internal control system on the operational performance of Deposit Money Banks (DMBs) in Nigeria ($F(5, 305) = 29.361, p < .001$). The regression model accounts for a considerable amount of the variance in operational performance, as evidenced by the regression sum of squares (38.320) and the mean square (38.320).

Table 4.8 provides insights into the individual contributions of the predictors (Control Environment, Monitoring Activities, Risk Assessment, Control Activities, and Information and Communication) in relation to the operational performance of DMBs in Nigeria. The standardized coefficients (Beta) indicate the relative importance of each predictor in influencing operational performance.

The Control Environment variable exhibits a significant positive relationship with operational performance, as indicated by the regression coefficient ($B = 0.422, p < .001, \text{Beta} = 0.410$). This suggests that a conducive control environment within listed money deposit banks in Nigeria contributes to higher levels of operational performance. A well-established control environment, characterized by strong governance, ethical standards, and a positive corporate culture, fosters an environment that supports efficient and effective operations, leading to improved overall performance.

Similarly, the results indicate that Monitoring Activities are positively associated with operational performance ($B = 0.305, p = .002, \text{Beta} = 0.248$). This suggests that regular monitoring of internal control systems, processes, and activities within the banks positively influences operational performance. Effective monitoring ensures compliance with established procedures, identifies operational inefficiencies or risks, and facilitates timely corrective actions, thereby enhancing overall operational performance.

The variable of Risk Assessment also demonstrates a positive relationship with operational performance ($B = 0.375$, $p < .001$, $Beta = 0.376$). This finding indicates that robust risk assessment practices, such as identifying and evaluating potential risks and their impact on operations, contribute to improved operational performance. By effectively managing risks, banks can optimize resource allocation, enhance process efficiency, and ultimately achieve higher levels of operational performance.

Control Activities, another component of the internal control system, exhibit a positive association with operational performance ($B = 0.317$, $p = .001$, $Beta = 0.274$). This suggests that the implementation of control activities, including segregation of duties, authorization procedures, and internal checks, positively influences operational performance. Well-designed control activities ensure adherence to established policies and procedures, minimize errors or fraudulent activities, and enhance operational efficiency, resulting in improved overall performance.

Furthermore, Information and Communication show a positive relationship with operational performance ($B = 0.296$, $p = .003$, $Beta = 0.226$). Effective information and communication channels within the internal control system facilitate the flow of timely and accurate information across the organization, enabling efficient decision-making, coordination, and control. This, in turn, positively impacts operational performance by ensuring effective communication, collaboration, and alignment of activities towards common goals.

The constant term ($B = 0.091$, $p = .047$) represents the expected operational performance when all predictors are held at zero. The statistical significance of the constant term suggests that there are other factors, not included in the model, that contribute to operational performance.

The collinearity statistics (Tolerance and VIF) are all equal to 1, indicating no significant multicollinearity issues among the predictors. This suggests that the predictors in the model are relatively independent and provide unique information to explain operational performance.

In conclusion, the findings indicate that the internal control system, including the Control Environment, Monitoring Activities, Risk Assessment, Control Activities, and Information and Communication, significantly influence the operational performance of DMBs in Nigeria. These results emphasize the importance of a robust internal control system in enhancing the operational performance of deposit money banks.

Hypothesis Three

H₀₃: There is no significant influence of internal control systems on asset safety in the listed Nigerian Deposit Money Banks (DMBs).

Table 4.9 ANOVA of test of Impact of Internal Control System on Asset Safety of DMBs in Nigeria

| | | ANOVA ^a | | | | |
|-------|------------|--------------------|-----|-------------|--------|-------------------|
| Model | | Sum of Squares | df | Mean Square | F | Sig. |
| 1 | Regression | 40.131 | 5 | 40.131 | 38.998 | .000 ^b |
| | Residual | 103.611 | 305 | .811 | | |
| | Total | 143.742 | 310 | | | |

a. Dependent Variable: Asset Safety of Deposit Money Banks

b. Predictors: (Constant), Control Environment, Monitoring, Risk Assessment, Control Activities, Information and Communication.

Table 4.10 Test of Influence of Internal Control System on performance of DMBs in Nigeria

| Model | | Coefficients ^a | | | | Collinearity Statistics | | |
|-------|-----------------------------|-----------------------------|------------|---------------------------|--------|-------------------------|-----------|-------|
| | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. | Tolerance | VIF |
| | | B | Std. Error | Beta | | | | |
| 1 | (Constant) | -.221 | .098 | | -4.301 | .000 | | |
| | Control Environment | .115 | .100 | .403 | 3.889 | .000 | 1.000 | 1.000 |
| | Monitoring Activities | .126 | .119 | .264 | 3.902 | .000 | 1.000 | 1.000 |
| | Risk Assessment | .160 | .097 | .390 | 2.019 | .082 | 1.000 | 1.000 |
| | Control Activities | .124 | .133 | .284 | 3.742 | .001 | 1.000 | 1.000 |
| | Information & Communication | .217 | .103 | .226 | 3.792 | .000 | 1.000 | 1.000 |

a. Dependent Variable: Asset Safety Money Banks

Source: Fieldwork, (2023)

The ANOVA results presented in Table 4.9 indicate a significant impact of the internal control system on the asset safety of Deposit Money Banks (DMBs) in Nigeria ($F(5, 305) = 38.998, p < .001$). The regression model accounts for a substantial amount of the variance in asset safety, as evidenced by the regression sum of squares (40.131) and the mean square (40.131).

Table 4.10 provides insights into the individual contributions of the predictors (Control Environment, Monitoring Activities, Risk Assessment, Control Activities, and Information and Communication) in relation to the asset safety of DMBs in Nigeria. The standardized coefficients (Beta) indicate the relative importance of each predictor in influencing asset safety.

The Control Environment variable exhibits a significant positive relationship with asset safety ($B = 0.115, p < .001, \text{Beta} = 0.403$). This implies that a favorable control environment within the listed money deposit banks in Nigeria contributes to higher levels of asset safety. A well-

established control environment, encompassing factors such as strong governance, ethical standards, and a positive corporate culture, creates a foundation for effective risk management and safeguards the bank's assets from potential threats.

Similarly, the results indicate that Monitoring Activities are positively associated with asset safety ($B = 0.126$, $p < .001$, $Beta = 0.264$). This suggests that regular monitoring of internal control systems, processes, and activities plays a crucial role in enhancing asset safety. Effective monitoring ensures timely detection of any deviations or weaknesses in the control system, allowing for prompt corrective actions to mitigate risks and protect the bank's assets.

Control Activities also demonstrate a positive relationship with asset safety ($B = 0.124$, $p = .001$, $Beta = 0.284$). This finding suggests that the implementation of control activities, such as segregation of duties, authorization procedures, and internal checks, contributes to maintaining the safety of the bank's assets. Well-designed control activities help prevent unauthorized access, minimize the risk of misappropriation or loss of assets, and ensure the integrity and reliability of financial information.

Furthermore, Information and Communication show a positive relationship with asset safety ($B = 0.217$, $p < .001$, $Beta = 0.226$). Effective information and communication channels within the internal control system facilitate the flow of timely and accurate information related to asset management. Clear communication of policies, procedures, and guidelines ensures that employees are aware of their responsibilities and the necessary controls to protect the bank's assets.

However, the coefficient for Risk Assessment ($B = 0.160$, $p = .082$, $Beta = 0.390$) is not statistically significant at the conventional significance level of .05. This suggests that the

influence of Risk Assessment on asset safety may be more nuanced and requires further exploration. It is possible that the specific factors considered within the Risk Assessment variable may not have a direct impact on asset safety, or there may be other factors not accounted for in the current study that play a more substantial role.

The constant term ($B = -0.221, p < .001$) represents the expected asset safety when all predictors are held at zero. The statistical significance of the constant term indicates that there are other factors, not included in the model, that contribute to asset safety.

The collinearity statistics (Tolerance and VIF) are all equal to 1, indicating no significant multicollinearity issues among the predictors. This suggests that the predictors in the model are relatively independent and provide unique information to explain asset safety.

In conclusion, the findings indicate that the internal control system, including the Control Environment, Monitoring Activities, Control Activities, and Information and Communication, significantly influence the asset safety of DMBs in Nigeria. These results underscore the importance of a robust internal control system in ensuring the safety of the assets held by deposit money banks.

4.4 Discussion of Findings

The result from objective one suggest that the internal control system, including the Control Environment, Monitoring Activities, Risk Assessment, Control Activities, and Information and Communication, significantly influence the bank efficiency of DMBs in Nigeria. These findings highlight the importance of a robust internal control system in enhancing the efficiency of deposit money banks. The correlation matrix provides insights into the relationships between the variables studied. The results suggest that a strong control environment, effective monitoring,

control activities, and information and communication systems are positively associated with bank efficiency. The findings of this study align with previous research that has examined the relationship between the internal control system and bank efficiency.

Several studies have highlighted the positive influence of a robust internal control system on the efficiency of deposit money banks, which supports the findings of this study. An effective control environment and comprehensive control activities are associated with improved bank efficiency; a study examines the effect of electronic banking service quality and internal control systems on the performance of selected deposit money banks in Nigeria¹. The result shows that E-banking service quality and internal control system has a significant effect on the organizational performance of DMBs in Nigeria. This study concluded that there was a statistically significant effect of E-banking service quality (E-banking service efficiency, safety, and transaction support) and internal control system (control environment, control activities, and risk assessment) on each of the measures of organizational performance which include customer satisfaction, operational efficiency.

Hence, the study recommended that management effort is required to continue to give assurance to bank customers that E-banking platforms are safe, also the management of DMBs in Nigeria should continue to adopt up-to-date control systems using innovative technology and as much, as improve their control environment to ensure operational efficiency., also, a study investigated the relationship between internal control process and organizational financial and non-financial performance of selected deposit money banks in Nigeria Each has a positive and significant impact on financial, non financial and overall organizational performance DMBs in Nigeria. Based on the findings, it is concluded that internal control mechanism is a significant predictor of organization financial and non-financial performance and that effective internal control systems

must incorporate the effects of risk assessment and control activities to enhance organizational performance of DMBs^{1,2,4}.

While the current study supports the existing body of research that emphasizes the importance of a robust internal control system in enhancing bank efficiency, it is important to note that some studies have reported contrasting findings. A study found that certain control activities may have a limited impact on bank efficiency, suggesting that the influence of specific internal control components may vary across different organizational and contextual factors⁹. The findings of this study is in line with the result of some related studies. A study focusing on the association of risk management practices and bank financial performance in Nigeria using secondary data for a period of 4 years progressive annual reports and financial statements of 10 banks and adopting a panel data estimation technique. The study found a significant relationship between banks performance and risk management and therefore recommended that banks should practice prudent risks management in order to protect the interests of investors.

Another study which investigated the impact of credit risk management on the performance of deposit money banks in Nigeria used five banks that had highest asset base. The researcher data set for the period 2000–2014 collated from the annual reports and financial statement of the selected deposit money banks. It was discovered from the study that credit risk management had a positive and non-significant impact on total loans and advances, the ROA, ROE of the selected deposit money banks in Nigeria. However, it is important to note that there are also studies that have reported contrasting findings or mixed results. Commercial banks found a significant negative relationship between internal control and bank performance⁵. These divergent findings could be attributed to variations in research methodologies, sample characteristics, and specific contextual factors.

The current study adds to this body of literature by providing evidence from the Nigerian banking sector. By focusing on listed money deposit banks in Nigeria, the study offers insights into a specific context that may have unique characteristics and challenges. This contributes to a more comprehensive understanding of the relationship between the internal control system and bank efficiency across different geographical locations and regulatory environments⁶.

Furthermore, the findings of this study provide valuable insights for practitioners and policymakers in the Nigerian banking sector. The positive association between the control environment, monitoring activities, risk assessment, control activities, information and communication systems, and bank efficiency suggests that efforts to strengthen and optimize these internal control components can lead to improved performance and efficiency in deposit money banks. This aligns with the recommendations of previous studies that have emphasized the importance of enhancing internal control mechanisms to drive bank performance⁷. Similarly, a study by some scholars examining the effect of risk management practices on Jordanian commercial banks' performance⁸. The study utilized a quantitative approach by obtaining survey data from risk managers and employees in risk management departments of commercial banks. A partial least squares structural equation modeling (PLS-SEM) was applied on the data and the results showed that the components of risk management practices had positive and significant impacts on the performance of banks. The result also supported the findings of a scholar who examined the effect of risk evaluation on the performance of financial institutions⁹.

The result from objective two indicate that the internal control system, including the Control Environment, Monitoring Activities, Risk Assessment, Control Activities, and Information and Communication, significantly influence the operational performance of DMBs in Nigeria. These results emphasize the importance of a robust internal control system in enhancing the operational

performance of deposit money banks. The correlation matrix provides insights into the relationships between the variables studied. The results suggest that a strong control environment, effective monitoring, control activities, and information and communication systems are positively associated with operational performance.

The study's main finding was that the control environment, control activities, and monitoring features of the internal control system were all significantly connected to the quality of financial reporting. This is in line with a study that examined the effect of non-financial performance indicators, based on balanced scorecard model, on operational efficiency of Deposit Money Banks (DMBs) in Nigeria with a view of evaluating the impact of the drivers of operational efficiency^{3,10}. Emphasis, from prior studies, on measuring operational efficiency have been on financial performance indicators with little or no consideration for the contributions of non-financial performance indicators (NFPIs) that drive the financial indicators. The study found out that internal control and business process, customer satisfaction and learning and growth of employees individually have significant effect on operational efficiency of DMBs in Nigeria. The study concluded that NFPIs have positive relationship with, have significant effect on operational efficiency of DMBs in Nigeria and explain about 56.9% variations in operational efficiency. Another study, showed a significant relationship between the efficiency of the internal accounting control system and the performance of tier (1) one banks.

The study discovered that the company's internal controls are successful in implementing internal components, the company under study has clear codes of conduct, the management of the company regularly reviews policies and procedures, the company under study has clear objectives that are communicated to all employees for risk assessment guidance, and the company under study has an adequate and strong internal control system⁴. The study's findings

led to the conclusion that although if the bank has a facility for developing human resources, it still has to be strengthened and should take precedence over all other commercial considerations.

The findings of this study support and align with previous research that has examined the relationship between the internal control system and operational performance of banks. Several studies have highlighted the positive influence of a robust internal control system on operational performance in various banking contexts. Banks found that a strong control environment, effective monitoring activities, and control activities positively influenced operational performance¹¹. Similarly, a study on commercial banks revealed a significant positive relationship between internal control mechanisms and operational performance¹². These previous studies, along with the current study, emphasize the significance of a well-functioning internal control system in enhancing operational performance in deposit money banks. The control environment, which encompasses the organizational culture, ethical values, and management philosophy, plays a crucial role in establishing the foundation for effective internal controls. Effective monitoring activities ensure the ongoing evaluation of internal controls and timely detection of any deviations. Control activities, such as the implementation of policies and procedures, help ensure adherence to established controls. Lastly, information and communication systems facilitate the flow of relevant information and promote effective decision-making.

The result from objective three findings indicate that the internal control system, including the Control Environment, Monitoring Activities, Control Activities, and Information and Communication, significantly influence the asset safety of DMBs in Nigeria. These results underscore the importance of a robust internal control system in ensuring the safety of the assets

held by deposit money banks. The correlation matrix provides insights into the relationships between the variables studied. The results suggest that a strong control environment, effective monitoring, control activities, and information and communication systems are positively associated with asset safety. Risk assessment appears to have a positive influence on bank efficiency and operational performance but may have a negative impact on asset safety. The growing and increased awareness of the important role played by asset quality for banking efficiency has attracted more empirical validation all over the world.

The concept of efficiency in banking research has been confounding as reported by various scholars and researchers due to vagaries of the environmental factors which banks are operationally subjected to. This study examined the effect of asset quality on the operational efficiency of banks (DMBs) in Nigeria. Panel data was collected for 10 years from 2007-2016 for all the 15 deposit money banks (DMBs) in Nigeria operational as at 31st December, 2016. Quantitative research design employed with the aid of descriptive and inferential statistics to confirm the reliability and suitability of the results obtained. Panel least square regression was employed to analyze the panel data sourced from the bank financial statements and Central Bank Statistical bulletins. Findings revealed that asset quality has a positive significant effect on operational efficiency ratio of the banks with 0.035¹³.

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Chapter Five

Conclusion

5.1 Summary of Findings

The results shows that correlational analysis suggest that a strong control environment, effective monitoring, control activities, and information and communication systems are positively associated with bank efficiency, operational performance, and asset safety. Risk assessment appears to have a positive influence on bank efficiency and operational performance but may have a negative impact on asset safety.

The Control Environment variable shows a significant positive relationship with bank efficiency ($B = 0.415$, $p < .001$, $Beta = 0.403$). Similarly, Monitoring Activities ($B = 0.327$, $p = .002$, $Beta = 0.264$), Risk Assessment ($B = 0.390$, $p < .001$, $Beta = 0.390$), Control Activities ($B = 0.327$, $p = .001$, $Beta = 0.284$), and Information and Communication ($B = 0.327$, $p = .006$, $Beta = 0.226$) also demonstrate positive relationships with bank efficiency. The results of the ANOVA test, as shown in Table 4.5, indicate a significant impact of the internal control system on the bank efficiency of Deposit Money Banks (DMBs) in Nigeria ($F(5, 305) = 36.880$, $p < .001$).

The Control Environment variable shows a significant positive relationship with operational performance ($B = 0.422$, $p < .001$, $Beta = 0.410$). Similarly, Monitoring Activities ($B = 0.305$, $p = .002$, $Beta = 0.248$), Risk Assessment ($B = 0.375$, $p < .001$, $Beta = 0.376$), Control Activities ($B = 0.317$, $p = .001$, $Beta = 0.274$), and Information and Communication ($B = 0.296$, $p = .003$, $Beta = 0.226$) also demonstrate positive relationships with operational performance. The results of the ANOVA test, as presented in Table 4.7, reveal a significant impact of the internal control system on the operational performance of Deposit Money Banks (DMBs) in Nigeria ($F(5, 305) = 29.361$, $p < .001$)

The Control Environment variable shows a significant positive relationship with asset safety ($B = 0.115$, $p < .001$, $Beta = 0.403$). Similarly, Monitoring Activities ($B = 0.126$, $p < .001$, $Beta = 0.264$), Control Activities ($B = 0.124$, $p = .001$, $Beta = 0.284$), and Information and Communication ($B = 0.217$, $p < .001$, $Beta = 0.226$) also demonstrate positive relationships with asset safety. However, the coefficient for Risk Assessment ($B = 0.160$, $p = .082$, $Beta = 0.390$) is not statistically significant at the conventional significance level of .05. This suggests that the influence of Risk Assessment on asset safety may be more nuanced and warrants further investigation. The ANOVA results presented in Table 4.9 indicate a significant impact of the internal control system on the asset safety of Deposit Money Banks (DMBs) in Nigeria ($F(5, 305) = 38.998$, $p < .001$).

5.2 Conclusion

Based on the findings of the study, it can be concluded that the internal control system plays a significant role in influencing the performance of deposit money banks (DMBs) in Nigeria. The results from objective one indicate that the variables related to the internal control system, including the Control Environment, Monitoring Activities, Risk Assessment, Control Activities, and Information and Communication, have a significant positive impact on bank efficiency. This highlights the importance of establishing a robust internal control system to enhance the efficiency of DMBs.

Similarly, the results from objective two reveal that the variables related to the internal control system significantly influence the operational performance of DMBs. A strong control environment, effective monitoring, control activities, and information and communication systems are found to be positively associated with operational performance. This emphasizes the

need for DMBs to focus on implementing and maintaining an effective internal control system to improve their operational performance.

Furthermore, the results from objective three demonstrate that the internal control system significantly influences the asset safety of DMBs. A strong control environment, effective monitoring, control activities, and information and communication systems are positively associated with asset safety. However, it is important to note that the variable of Risk Assessment may have a different impact on different aspects of DMBs' performance. While it appears to positively influence bank efficiency and operational performance, it may have a negative impact on asset safety. This highlights the need for DMBs to carefully assess and manage risks to ensure the safety of their assets.

The findings of this study underscore the importance of a robust internal control system in enhancing the performance of DMBs in Nigeria. The results provide valuable insights into the relationships between the variables studied and emphasize the significance of specific components of the internal control system in driving bank efficiency, operational performance, and asset safety. These findings can guide DMBs in implementing effective internal control measures to improve their overall performance and ensure the safety and efficiency of their operations.

5.3 Recommendations

Based on the findings of the study, the following recommendations are made:

- i. **Strengthen the Control Environment:** DMBs should focus on creating a strong control environment by establishing a culture of ethics, integrity, and accountability. This can be achieved through regular training programs, workshops, and seminars for

- employees to enhance their understanding of internal controls and their role in ensuring operational effectiveness.
- ii. **Enhance Monitoring Activities:** DMBs should implement robust monitoring activities to continuously assess and evaluate the effectiveness of internal control systems. Regular internal audits, risk assessments, and performance evaluations should be conducted to identify any weaknesses or gaps in the control processes and take corrective actions accordingly.
 - iii. **Improve Risk Assessment Processes:** It is important for DMBs to enhance their risk assessment processes to effectively identify, analyze, and mitigate risks. This can be achieved through comprehensive risk assessment frameworks and the use of advanced risk management tools and techniques. Regular updates to risk assessment procedures should be made to address emerging risks and changing regulatory requirements.
 - iv. **Foster Effective Control Activities:** DMBs should establish and enforce control activities that are designed to prevent, detect, and correct errors and irregularities. This can include implementing segregation of duties, implementing effective internal controls over financial reporting, and ensuring proper documentation and authorization processes are in place.
 - v. **Enhance Information and Communication Systems:** DMBs should invest in robust information and communication systems to facilitate the timely and accurate flow of information throughout the organization. This can include implementing advanced technology solutions, such as enterprise resource planning (ERP) systems, that integrate various functions and departments within the organization.

- vi. **Regular Training and Development:** Continuous training and development programs should be provided to employees to enhance their understanding of internal control systems and their responsibilities in maintaining effective controls. This will help create a culture of awareness and compliance with internal control policies and procedures.
- vii. **Collaboration with Regulatory Authorities:** DMBs should collaborate with regulatory authorities to stay updated on the latest regulatory requirements and best practices in internal control systems. This will ensure compliance with regulatory standards and enhance the effectiveness of internal control measures.
- viii. **Ongoing Monitoring and Evaluation:** It is crucial for DMBs to establish mechanisms for ongoing monitoring and evaluation of the internal control system's effectiveness. Regular reviews and assessments should be conducted to identify any shortcomings or areas for improvement and take timely corrective actions.

5.4 Contribution to Knowledge

The study's contributions to knowledge lie in its comprehensive analysis of the internal control system's impact on bank performance, its integration of conceptual, theoretical frameworks, empirical and its practical implications for policy-makers and practitioners in the banking industry.

- The study contributes to the conceptual understanding of the internal control system and its impact on the performance of listed money deposit banks in Nigeria. By examining the control environment, monitoring activities, risk assessment, control activities, and information and communication, the study provides a comprehensive and unique framework

for analyzing the internal control system's influence on bank efficiency, operational performance, and asset safety.

- The study makes a significant theoretical contribution by incorporating Control Theory and Agency Theory as frameworks to analyze the relationship between the internal control system and bank performance. Control Theory provides a theoretical lens to understand how internal controls can enhance efficiency, reduce errors, and ensure compliance within organizations. It explains the mechanisms through which internal controls promote effective organizational functioning. Additionally, the study draws on Agency Theory, which examines the relationship between principals (shareholders) and agents (bank managers). Agency Theory emphasizes the importance of effective internal controls in mitigating agency conflicts and aligning the interests of principals and agents. By incorporating Agency Theory, the study highlights the role of internal controls in addressing the inherent conflicts of interest that may arise between different stakeholders in the banking sector. Moreover, the study fills a research gap by specifically focusing on the internal control system and its influence on the performance of listed money deposit banks in Nigeria. By narrowing down the scope to this specific context, the study provides valuable insights and empirical evidence that contribute to the existing body of knowledge. It enhances our understanding of the relationship between internal controls and bank performance within the Nigerian banking sector. By integrating Control Theory and Agency Theory, the study strengthens the theoretical foundations and expands our understanding of internal control mechanisms. It demonstrates the applicability and relevance of these theoretical frameworks in the context of listed money deposit banks in Nigeria. This theoretical contribution advances our knowledge

and provides a solid foundation for future research in the field of internal control systems and their impact on bank performance.

- The study significantly enhances our understanding of the internal control system's impact on the performance of listed money deposit banks in Nigeria. Empirical evidence from the study confirms the positive influence of the control environment, monitoring activities, risk assessment, control activities, and information and communication systems on bank efficiency. These internal control components play a crucial role in improving overall efficiency, driving operational excellence, and safeguarding the assets held by deposit money banks. Furthermore, the study sheds light on the nuanced relationship between risk assessment and different performance dimensions. While risk assessment demonstrates a positive influence on bank efficiency and operational performance, the findings suggest a potential negative impact on asset safety. This finding provides a more comprehensive understanding of the intricate relationship between risk assessment and various performance indicators in the banking sector. The empirical findings of this study make a significant contribution to the existing knowledge on the internal control system and performance of listed money deposit banks in Nigeria. The study offers valuable insights and evidence-based recommendations for practitioners, policymakers, and researchers to enhance the effectiveness of internal control systems and improve the overall performance of the banking sector. These findings serve as a guide for stakeholders in implementing strategies to strengthen internal controls, optimize efficiency, and ensure the safety of bank assets.
- The study offers practical implications for policymakers and practitioners in the banking industry. The findings emphasize the significance of a robust internal control system in enhancing bank efficiency, operational performance, and asset safety. The recommended

strategies, such as strengthening the control environment, enhancing monitoring activities, improving risk assessment processes, fostering effective control activities, and enhancing information and communication systems, provide actionable insights for banks to enhance their internal control practices. The study provides policymakers with evidence-based insights to develop and enhance regulations and policies related to the internal control system in the banking sector. The findings highlight the importance of regulatory oversight and collaboration between banks and regulatory authorities to ensure compliance with internal control standards. Policymakers can utilize these insights to develop guidelines and frameworks that promote sound internal control practices and safeguard the interests of depositors and stakeholders.

5.5 Suggested Areas for Further Research

Based on the findings and contributions of this study, several areas for future research can be suggested:

Comparative Analysis: Conduct a comparative analysis of the internal control systems and performance of money deposit banks in Nigeria with those in other countries or regions. This would provide insights into the similarities and differences in internal control practices and their impact on bank performance across different contexts.

Longitudinal Study: Conduct a longitudinal study to examine the long-term effects of the internal control system on bank performance. This would involve analyzing data over an extended period to assess the sustainability and effectiveness of internal controls in driving performance outcomes.

Qualitative Research: Conduct qualitative research to gain deeper insights into the perceptions, experiences, and challenges faced by bank management and employees regarding the

implementation and effectiveness of internal control systems. This would provide a more nuanced understanding of the factors influencing the internal control system and its impact on bank performance.

External Factors: Investigate the influence of external factors, such as regulatory changes, economic conditions, and technological advancements, on the relationship between the internal control system and bank performance. Understanding how external factors interact with internal controls can provide valuable insights for improving the effectiveness of internal control systems in dynamic and evolving environments.

Risk Management: Explore the role of risk management practices within the internal control system and their impact on bank performance. Investigate how risk assessment, risk mitigation strategies, and risk monitoring contribute to improved performance outcomes and asset safety within money deposit banks.

Governance and Compliance: Examine the role of corporate governance structures, regulatory compliance frameworks, and ethical practices in enhancing the effectiveness of internal control systems and improving overall bank performance. Investigate the interplay between governance mechanisms, internal controls, and performance outcomes.

Stakeholder Perspectives: Incorporate the perspectives of various stakeholders, such as shareholders, customers, and regulatory authorities, in assessing the effectiveness and impact of the internal control system on bank performance. Consider their perceptions, expectations, and evaluations of internal controls in shaping performance outcomes.

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Appendices

Questionnaire

Research Questionnaire on the Relationship between Internal Control and Organizational Performance of Deposit Money Banks in Nigeria

Dear Sir/Madam,

I am a postgraduate student of the Department of Accounting in the Faculty of Management and Social Sciences at Lead City University, Ibadan. Currently, I am conducting research on the relationship between internal control and organizational performance of deposit money banks in Nigeria. The purpose of this questionnaire is to gather relevant information in this regard.

I kindly request your assistance and cooperation in completing the questionnaire as objectively as possible. The information you provide will be treated with strict confidentiality and will be used solely for academic purposes. Your name will not be included in the final research report. Your participation and cooperation are greatly appreciated.

Yours faithfully,

SECTION A (Personal Data)

Please supply the information as requested and tick (✓) as applicable in the spaces provided.

Gender: Male () Female ()
Marital Status: Single () Married () Divorced () Separated ()
Academic Qualifications: NCE/OND () HND/B.Sc () M.Ed/M.Sc () PhD ()
Others ().....
Professional Qualification: ACA/ANAN/ACCA () CIBN () CITN () NIM ()
Others ().....
Work experience: Less than 5years () 5-10years () 11-15years () 16-20years ()
20years and above ()
Years of Experience in the banking industry: Less than 1 year () 1 year – 3 year ()
3 years - 5 years () 5 years – 10 years () More than 10
years ()

Course Studied in University: -----

SECTION B

There are five options: Very Large Extent (VLE), Large Extent (LE), Some Extent (SE), Minor Extent (ME) and Not At All (NAA), please indicate the extent to which you agree or disagree with the following statements by ticking (√) the appropriate cell.

| SN | Statements | V L E | L E | SE | ME | NAA |
|----|--|-------------|--------|----|----|-----|
| | Control Environment | | | | | |
| | Control environment positively affects performance. | | | | | |
| | Control environment enhances efficiency and effectiveness. | | | | | |
| | Control environment promotes compliance and ethical behavior. | | | | | |
| | Control environment supports goal achievement. | | | | | |
| | Control environment addresses risks, improving performance. | | | | | |
| | Monitoring | | | | | |
| | Monitoring positively impacts performance. | | | | | |
| | Monitoring ensures timely detection and correction. | | | | | |
| | Monitoring promotes accountability and transparency. | | | | | |
| | Monitoring facilitates risk management and mitigation. | | | | | |
| | Monitoring provides valuable insights for decision-making. | | | | | |
| | Risk Assessment | | | | | |
| | Risk assessment enhances proactive risk management. | | | | | |
| | Risk assessment identifies and evaluates risks effectively. | | | | | |
| | Risk assessment establishes appropriate mitigation strategies. | | | | | |
| | Risk assessment promotes risk-awareness and informed decision-making. | | | | | |
| | Risk assessment ensures compliance with regulations. | | | | | |
| | Control Activities | | | | | |
| | Control activities enhance operational efficiency. | | | | | |
| | Control activities ensure adherence to policies and procedures. | | | | | |
| | Control activities mitigate errors, fraud, and irregularities. | | | | | |
| | Control activities promote accurate financial reporting. | | | | | |
| | Control activities safeguard assets and resources. | | | | | |
| | Information And Communication | | | | | |
| | Information and communication positively contribute to performance. | | | | | |
| | Information and communication enable timely and accurate dissemination. | | | | | |
| | Information and communication facilitate coordination and collaboration. | | | | | |

| | | | | | | |
|--|--|--|--|--|--|--|
| | Information and communication support informed decision-making. | | | | | |
| | Information and communication ensure availability and accessibility. | | | | | |
| | Bank Efficiency | | | | | |
| | The listed Nigerian Deposit Money Banks (DMBs) demonstrate high levels of efficiency in their banking operations. | | | | | |
| | The listed Nigerian Deposit Money Banks (DMBs) effectively utilize resources to maximize operational efficiency. | | | | | |
| | The listed Nigerian Deposit Money Banks (DMBs) provide efficient and timely customer service. | | | | | |
| | The listed Nigerian Deposit Money Banks (DMBs) exhibit efficient management of financial transactions. | | | | | |
| | The listed Nigerian Deposit Money Banks (DMBs) continuously improve their operational processes to enhance efficiency. | | | | | |
| | Operational Performance | | | | | |
| | The listed Nigerian Deposit Money Banks (DMBs) consistently achieve high levels of operational performance. | | | | | |
| | The listed Nigerian Deposit Money Banks (DMBs) effectively implement operational policies and procedures. | | | | | |
| | The listed Nigerian Deposit Money Banks (DMBs) demonstrate strong risk management practices in their operations. | | | | | |
| | The listed Nigerian Deposit Money Banks (DMBs) deliver reliable and accurate financial reporting. | | | | | |
| | The listed Nigerian Deposit Money Banks (DMBs) continuously strive to enhance their operational performance. | | | | | |
| | Asset Safety | | | | | |
| | The listed Nigerian Deposit Money Banks (DMBs) prioritize the safety and protection of customer assets. | | | | | |
| | The listed Nigerian Deposit Money Banks (DMBs) maintain robust internal control systems to safeguard assets. | | | | | |
| | The listed Nigerian Deposit Money Banks (DMBs) adhere to industry regulations to ensure asset safety. | | | | | |
| | The listed Nigerian Deposit Money Banks (DMBs) have effective measures in place to detect and prevent fraudulent activities. | | | | | |
| | The listed Nigerian Deposit Money Banks (DMBs) consistently demonstrate a strong commitment to asset safety and security. | | | | | |

Bio-data

A. Personal Data

1. **Name :** Florence Okpoanwan ITA
2. **Address:** No 2, Olupoyi-Bembo Road, Off Apata Ibadan
3. **Email Address:** itaflorence92@gmail.com
4. **Phone Numbers:** 0813-833-9686
5. **Date of Birth:** 18th June 1984
6. **Place of Birth:** Calabar
7. **Nationality:** Nigerian
8. **Marital Status:** Single
9. **Name & Address of Next of Kin:** Mrs Victoria Ededem ITA
No 2, Olupoyi-Bembo Road, Off Apata Ibadan

B. Educational Background

Educational Institutions Attended with Dates and Qualification:

- | | | |
|-------|--|-----------|
| i. | Hill-Side International School, Calabar | 1991-1995 |
| ii. | Community Grammar School Ring Road Ibadan | 1999-2001 |
| iii. | National Examination Council | 2005 |
| iv. | West African Examination Council | 2006 |
| v. | The Polytechnic, Ibadan(OND Accountancy) | 2002-2005 |
| vi. | The Polytechnic Ibadan(HND Accountancy) | 2007-2010 |
| vii. | Lead City University, Ibadan (B.Sc Accounting) | 2018-2020 |
| viii. | Lead City University, Ibadan (M.Sc Accounting) | In-View |

Other Academic/Professional Qualifications:

- i. Institute of Chartered Accountant of Nigeria (ICAN) 2018
- ii. Chartered Institute of Taxation of Nigeria (CITN) 2020

C. Work Experience and Position with Dates:

- Investment Officer, MAJESTONO COMPANY LTD 2018-till date
- Account Officer: RECI PROPERTIES LTD 2014-2016
- NATIONAL YOUTH SERVICE CORPS (NYSC) 2010-2011
- 1 YEAR INDUSTRIAL TRAINING AFTER NATIONAL DIPLOMA
- Account Department (NIHORT IBADAN) 2005-2006

D. Awards and Fellowships (if any): Nil

E. Membership of Academic Professional Bodies:

- Institute of Personality Development and Customer relationship Management
Graduate member Sept. 2020
- Portfolio Management Institute (Chartered)
Associate Member Nov. 2015
- Idea Konsult Limited
Proficiency Certificate in Information Management Feb. 2013
- Institute of Strategic Management, Nigeria
Associate Member June 2011
-
- Nigerian Institute of Management (Chartered)
Graduate Certificate Associate May 2011

- Nigerian Institute of Management (Chartered)
Proficiency Certificate March 2011
- The Institute of Chartered Accountants of Nigeria (ICAN)
Association of Accounting Technicians West Africa
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F. Publications, if any: (In-View)

Creative Work: Nil

G. Major Conferences/Workshops Attended:

- Academic & Industry EDGE(II)
Lead City University Ibadan June 2023
- Research Methods and Academic Writing
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- Academic & Industry EDGE
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Muyesther Global Consult March 2021
- Strategic Portfolio Management in Enhancing Economic
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H. Referees

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3. Pastor Jepson B. Emmanuel

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Oluyole Extension,

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08033248293

I. Extra-Curricular Activities:

Travelling, Reading, Meeting people and Participating in charity/community development projects.

.....

Signature

.....

Date

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The University Compliance Certification

This is to certify that this thesis was written by **Florence Okpoanwan ITA** with matriculation number **LCU/PG/002230** in the Department of Management and Accounting, Faculty of Management and Social Sciences, Lead City University, Ibadan, is in full compliance with the University Format and Style of Theses.

.....

Signature

.....

Date

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