Assessing the Effectiveness of Internal Control Systems in Ghana’s Energy Sector: A Study on the Electricity Company of Ghana

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A DISSERTATION

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DECLARATION

I hereby declare that this work, titled "ASSESSING THE EFFECTIVENESS OF INTERNAL CONTROL SYSTEMS IN GHANA'S ENERGY SECTOR: A STUDY ON THE ELECTRICITY COMPANY OF GHANA", submitted to Selinus University, Faculty of Business & Media, for the award of a Doctor of Philosophy in Accounting, is my original research and has not been presented by anyone for any academic award at this or any other university. All references used in this work have been fully acknowledged.

Date: 11/02/2025

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DEDICATION

I dedicate this research work to my lovely family.

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I am eternally grateful to almighty God for guiding me, strengthening me, and granting me wisdom in my academic life. His constant encouragement has been my driving force and determination, and I have been successful in completing this work in spite of encountering obstacles.

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ABSTRACT

The study aimed to assess the effectiveness of internal control systems in the Electricity Company of Ghana (ECG). The study adopted a qualitative design, and an interview guide was used to collect data from 15 respondents in ECG. Thematic analysis was used to analyze data, and this allowed for an in-depth scrutiny of operational, financial, and compliance dimensions of ECG’s internal control systems. The study found that internal control systems in ECG are framed by ethical values, risk assessment, control activities, information dissemination, and monitoring, in line with best corporate governance practices. However, communication issues slow down decision-making and implementation of corrective actions. The study also revealed that ECG’s internal controls significantly enhance operational efficiency, financial stability, and regulatory compliance by allowing workflow streamlining, optimizing resource allocation, and enhancing accountability through segregation of duties and regular audits. Further, technological innovation and regulatory development were confirmed to have a significant impact on the effectiveness of ECG’s internal controls, with automation enhancing efficiency and financial transparency, while regulatory changes ensured compliance. The stakeholders perceived ECG’s internal controls as critical for governance, risk management, and performance enhancement, with technology-enabled oversight mechanisms entrenching corporate integrity. However, the study also found that there are significant challenges such as fragmented technological integration, resistance to change, and resource constraints that compromise ECG’s control effectiveness. Therefore, the study recommended that ECG needs to prioritize the full integration of digital systems to allow real-time monitoring, financial reporting accuracy, and streamlining of control activities, thereby enhancing governance, operational efficiency, and regulatory compliance.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Internal control entails a series of processes embraced and implemented by an organisation's board of directors and its management, with a view to offering a fair assurance of objective accomplishment in operational effectiveness, financial reporting integrity, and compliance with laws and legislation (Committee of Sponsoring Organizations of the Treadway Commission [COSO], 2013). Internal control is a principal concept in both risk management and corporate governance, and a prerequisite for an organisation's operations being conducted in a manner in harmony with its objectives, its financial statements being reliable and correct, and its operations being conducted in compliance with applicable laws and legislation. Effective internal controls are paramount, and in a direct way, affect an organisation's ability for managing risks and maximizing operations, and in the process, safeguarding assets and maximizing shareholder value (Arena & Azzone, 2009). Besides, in today's complex and changing environment, an organisation's role in managing traditional financial reporting is no longer its sole role, but extends to such concerns such as cybersecurity, operational integrity, and compliance with changing regimes of legislation and laws. That expansion is a reflection of a need for strong internal controls that can adapt and respond to changing operational, technological, and legislative concerns of organisations in today's environment (Chen et al., 2014). Effective internal controls, therefore, represent not a compliance necessity but a strategic necessity that maximizes an organisation's performance, promotes transparency, and builds trust with its stakeholders.

In the case of public and government entities worldwide, the role of internal controls is both important and complex, and one that stands as a pillar for achieving operational effectiveness, financial accountability, and compliance with governance and legislation requirements. Public sector entities have certain concerns, including stewardship of public property, transparency with stakeholders, and complexity in environments with regulators, that make effective internal controls a governance and public issue (Safina, 2018). Efficient public sector internal controls go a long distance in fraud and abuse avoidance and detection, and in effective use of public funds and for its purpose, respectively (Emmanuel et al., 2013). In an era of increased scrutiny of government spending and performance, the role of internal controls extends beyond financial management to include performance management and accountability aspects, mapping operational actions with strategic objectives in a search for delivering public value (OECD, 2014). In its broad outlook, therefore, effective and strong, flexible, and adaptable internal controls frameworks become a necessity for dealing with emerging and evolving challenges and opportunities in public entities, including technological breakthroughs and changing requirements for compliance and governance.

In Ghana, development in its economy is supported through its energy sector, with Electricity Company of Ghana (ECG) at its nucleus. Effective internal controls in such companies such as ECG are important in sustaining operational efficiency, financial integrity, and compliance with laws and legislation. As argued by Arena and Azzone (2009), effective internal controls in utility companies, such as ECG, are important in controlling risks, and its value in utility companies, whose failure can have a profound impact at a national level, cannot be overestimated. Besides, Anthoni et al (2023) confirm that such controls in companies such as ECG evolve and develop with technological and legislative advancement, and hence, constant evaluation is important in safeguarding assets and offering reliable financial reporting.

The problems faced by organizations in the energy industry, including financial mismanagement, inefficiencies in operations, and complexities introduced by technological advancement, call for an examination of internal controls within an organization. Widyaningsih (2016) examine the relationship between financial accountability and internal control systems, and argue that weaknesses in these controls can significantly affect the performance and governance of an entity. Similarly, Izza and Aslami (2022) examine the effectiveness of internal controls in organizations in the public sector, and argue that operational and financial inefficiencies in these controls can have significant effects on an entity.

In the case of Ghana's utility sector, ECG's working environment is worsened by emerging economies' unique challenges such as infrastructure vulnerabilities and incoherent regulation. Abd Aziz et al. (2015) research into the role played by internal controls in defining performance in developing countries' public sector entities throws such challenges into limelight, with Owusu-Ansah (2019) specifically addressing the need for effective internal controls in utility companies in Ghana in a search for efficiency and accountability.

Technological advancements and regulatory development both represent opportunity and challenge for controls in the energy sector. Application of new technology can make financial and operational management easier but require updating and transforming existing controls in order to cover new forms of risk. In its analysis of technology and its impact on controls, the work of Moorthy et al. (2011) identifies the necessity for developing such controls in coordination with technological development, an observation with which Norman et al. (2017) concur in discussing utility companies' technological and regulatory challenge.

The strategic importance of the energy sector to the economy of Ghana and its key role in it played by the ECG make a review of its internal controls both timely and a necessity. In an attempt to bridge gaps in existing literature through a critical analysis of effectiveness, strengths, and weaknesses of such controls and offering actionable recommendations for reform, this study aims at contributing towards a broader discussion of enhancing governance, transparency, and efficiency in the energy sector and providing a useful tool for regulators, policymakers, and practitioners in the energy sector.

1.2 Statement of the Problem

The effectiveness of internal controls in the energy sector, and in developing countries like Ghana, is a pertinent field of investigation with significant ramifications for operational efficiency, financial integrity, and compliance with regulators. Notwithstanding its salience, a considerable lacuna in the literature concerns the environment in and through which such investigations have taken place. Much of the work in the field of internal controls has focused in developed economies with mature financial and regulative environments (Alshaiti, 2023; Hamed, 2023). Such studies, beneficial in and of themselves, hardly value the specific challenge and operational realities in developing countries. In Ghana, in particular, little work has been conducted in relation to internal controls in the energy sector, a lacuna that is particularly unfortunate in consideration of the sector's key role in national development (Agyei-Mensah, 2018; Oppong et al., 2023).

Furthermore, the methodologies utilized in present studies opt for quantitative approaches, which, despite providing useful statistics, cannot necessarily capture the full range of dynamics and complexities involved in companies' internal control structures, such as Electricity Company of Ghana (ECG). Quantitative studies such as Alshaiti (2023) and Abiodun (2020) have done a lot in describing the effectiveness of internal controls, but in most cases, overlook deeper, qualitative aspects of such controls—such as cultural, behavior, and organizational factors—that affect effectiveness. This methodological flaw underlines the imperative for qualitative studies that can explore such dimensions in detail, providing a deeper, fuller picture of internal controls in the Ghanaian energy sector.

Another critical failure in current literature is a failure to make allowance for changing character of risks and threats posed to internal controls through technological and regulative change. As significant as technology's role in internal controls (e.g., Cao et al., 2017; Chen et al., 2014) have been, little allowance has been made for specifically investigating in detail how such systems adapt and assimilate new technology and new compliance requirements in the specific context of Ghana's energy sector. That such allowance is not made is significant, in consideration of high pace of technological change and changing compliance requirements in Ghana, and in consideration of opportunity and challenge for effective use of such controls posed in both instances.

Additionally, there is a considerable scarcity of studies concerning stakeholder perceptions and its contribution towards effective performance of internal controls in the energy sector. Stakeholder perceptions, such as regulators, management, and workers, have to be understood in an attempt to assess effective working and practice of such a system in real life. Ahmed et al. (2018) and Convery et al. (2022) studies focused on the role played by stakeholders in developing and implementing in practice internal controls in other industries, and in consideration of that, similar studies in the energy sector, and even in developing countries such as Ghana, can be suggested.

Against this backdrop, this research seeks to fill these gaps by way of a consideration of the Ghanaian context, an exploration of the qualitative nature of investigating the dynamics of ECG's internal control systems, and an examination of these systems' responsiveness to technological and regulatory changes, and an assessment of the contribution of stakeholder perceptions. In this respect, therefore, this research seeks to contribute meaningfully to the existing literature on internal control systems in developing nations' energy industries, and provide a foundation for subsequent studies and practice development in the area.

1.3 Research Objective/Aim

The main objective of this study is to assess the effectiveness of internal control systems within the Electricity Company of Ghana (ECG).

1.3.1 Specific Objectives

i. To evaluate the current state of internal control systems within the Electricity Company of Ghana (ECG) in the context of Ghana's energy sector.

ii. To explore the effectiveness of these internal control systems using a qualitative approach to gain in-depth insights into operational, financial, and compliance-related processes.

iii. To assess the impact of technological advancements and regulatory changes on the effectiveness of internal control systems within the ECG.

iv. To understand stakeholder perceptions regarding the effectiveness of internal control systems in the ECG and their impact on organizational performance and governance.

v. To determine the challenges associated with internal control systems at Electricity Company of Ghana (ECG).

1.4 Research Questions

i. What is the current state of internal control systems within the Electricity Company of Ghana, and how do they align with the broader requirements of Ghana's energy sector?

ii. How do internal control systems within the ECG address operational efficiency, financial integrity, and regulatory compliance?

iii. What are the challenges and opportunities presented by technological advancements and regulatory changes for internal control systems in the ECG?

iv. How do various stakeholders (e.g., employees, management, regulators) perceive the effectiveness of internal control systems within the ECG, and what impact do these perceptions have on organizational performance and governance?

v. What are the challenges associated with internal control systems at Electricity Company of Ghana (ECG)?

1.5 Significance of the Study

The study of effectiveness of internal control systems in Electricity Company of Ghana (ECG) is a contribution to academic work, enriching the pool of information in terms of internal controls in a specific environment in the case of Ghana's energy sector. By bridging the gap of inadequate qualitative studies in developing economies in terms of internal control systems, the work introduces deeper insights beyond quantitative information that characterizes most studies in such a field. It enriches the level of awareness in terms of working of internal control systems in alternative environments and operational settings, particularly in a developing economy. Academic contribution opens doors for future studies, providing avenues for deeper investigation in terms of the working of internal control systems in alternative environments and industries, and enriching the pool of information in such a field.

Practically, the findings of this study have significant implications for managing the ECG and possibly for other companies in the energy sector and beyond. Identification of strengths and weaknesses in current internal controls helps in actionable improvement in operational effectiveness, financial integrity, and compliance with regulators. The study highlights technological and regulatory development impacts on such systems, offering companies a basis for altering strategies for enhancing governance and managing risks. All such pragmatic information is of significant value to decision-makers who desire to make their internal controls not only effective but in harmony with their organizational aims, and therefore, contribute to overall performance and viability.

On a policy front, such findings can inform and influence the formulation and enhancement of regulatory frameworks and guidelines for effective internal controls in Ghana's energy sector and in key industries at large. By casting a brighter light on the status of existing internal controls, the challenges faced, and the perceptions of key stakeholders, such a study facilitates evidence-based policy formulation. This, in turn, can help in formulating policies that not only enforce compliance but encourage best practice in internal controls that address technological and regulative realities, such that the energy sector can play an even greater role towards national development and fiscal robustness. By such contribution, such a study reiterates the need for strengthening internal controls for enhancement in practice, in literature, and in policy, in harmony with evolving requirements and challenges in Ghana's energy sector.

1.6 Scope of the Study

The study is designed with a specific purpose to evaluate ECG's internal controls, a critical player in Ghana's energy sector. By specifically targeting ECG, the study will undertake a critical analysis of current controls, measuring efficiency in delivering operational effectiveness, financial integrity, and compliance with relevant laws and legislation. Analysis is critical, in consideration of ECG's critical role in powering Ghana and its specific challenge in a dynamically changing energy environment. In its analysis, the study will undertake a range of dimensions in ECG's controls, including but not limited to, processes for evaluating risk, controls, information and communications technology, and processes for monitoring. By taking a general, expansive view, the study will seek to discern strengths, pinpoint weaknesses, and make actionable recommendations for enhancing ECG's controls, contributing in turn to general discussion in the field of corporate governance and accountability in public sector organisations.

In addition, its scope involves an awareness of how external pressures such as technological development, changes in legislation, and market factors impact the effectiveness of ECG's internal control systems. Positioning the study in the energy sector in Ghana enables the study to appreciate the nexus between external pressures and internal control systems, and the necessity for resilient and adaptable controls. Qualitative in its orientation, this study will draw its information sources from primary sources to present a rich picture of the internal control environment. Targeted at ECG, its output is expected to make insightful observations regarding governance in other public utility companies in Ghana and similar entities in other parts of the world, and a basis for comparative analysis and policy development in strengthening ECG's and similar entities' internal controls in the public sector.

1.7 Organisation of the Study

The organization of the work is sequentially organized in six chapters, one following in a logical sequence, in a manner such that a coherent analysis of ECG's inbuilt controls and its overall implications is assured.

Chapter One is a background chapter, and it introduces the stage for the entire study. It introduces background, stating the significance of the study in terms of the overall energy sector in Ghana and, in general, in terms of ECG specifically. It introduces problem of study, objectives, research questions, and study scope. It aims at providing a proper picture to the reader regarding objectives of the study and its contribution towards the present pool of information concerning internal controls in public sector organisations.

Chapter Two, Literature Review, carries out a critical review of academic work pertaining to internal control systems. It addresses a review of theoretical work, frameworks, and empirical studies in relation to internal controls, with a specific consideration for use in public utility companies like the ECG. Not only does this chapter consolidate ongoing research but, through gaps analysis, identifies gaps that will be addressed through this study, and in the process, validates the research question and establishes theoretical underpinnings for the study.

Chapter Three, Methodology, describes the research design, approaches, and techniques utilized in collecting and analyzing information. It describes the qualitative methodologies utilized, participant selection, collection techniques, and analysis processes adopted in creating a reliable and valid result. The chapter provides an outline of how the study proceeded, enhancing transparency and replicability.

Chapter Four, Analysis and Results, reveals the findings of the study. It closely looks at information gathered, describing ECG's operational effectiveness, financial integrity, and compliance processes of its inbuilt controls. In this chapter, a variety of analysis techniques have been adopted in describing information, with a purpose of having a robust analysis and one that is relevant to questions and aims of the study.

Chapter Five, the Discussion, places the findings in the broader context of the literature examined in Chapter Two. It compares and contrasts them with present studies and reflects on the implications of them. Chapter Five also deals with the pragmatic implications of the study, providing insights into the effectiveness of controls in the ECG and providing avenues for future studies.

Chapter Six ends with a Conclusion and Recommendations. In a concise manner, it summarizes most significant findings and describes their implications and contribution to existing knowledge base. It also puts forward pragmatic recommendations for ECG, policymakers, and future studies. In conclusion, the concluding chapter aims at crystallizing the contribution of the study and at putting forward avenues for application of its findings and for future studies in the field.

1.8 Chapter Summary

Chapter one sets the stage for the study, specifically defining the background of internal controls and its key role in Electricity Company of Ghana (ECG). It identifies its key role in supporting operational effectiveness, financial integrity, and compliance with regulators, specifically in the ever-evolving environment of the Ghanaian energy sector. By defining a pertinent gap in the literature with regard to the effectiveness of internal controls in developing countries, the chapter sets out for an in-depth investigation and formulates the problem for investigation. Clear objectives and research questions are posed, with a view towards providing an overall picture of ECG's internal controls, an appraisal of its effectiveness, and an analysis of its impact through factors such as technological innovation and regulatory transformations. The value of the study is emphasized, with a view towards its contribution towards academic and pragmatic application in ECG and similar companies' management. Finally, the chapter sets out the study structure, describing how each of the six chapters with an interrelated theme contributes towards a logical and organized investigation of the objectives of the study, and, in the process, providing a sound basis for investigation.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter presents a written report on the literature review that was done as part of conducting this research. This literature review was done in the context of the research problem of this study, in order to achieve the objectives of the study. In view of that, the study reviewed books, reports, journals as well as other publications on the effectiveness of internal control systems in organisations. As such, literatures on concepts and theories were reviewed as part of the review process to gain insight on ideas put forth by previous scholars on the issue relating to internal control systems in organisation. Under this chapter, the study literature review has been categorized into concept review, theoretical review and empirical review.

2.2 Concept Review

A conceptual review characterizes the researcher's synthesis of the literature on how to explain a phenomenon. It maps out the actions required in the course of the study, given his previous knowledge of other researchers' point of view and his observations on the subject of research (Regoniel, 2015). Under this section, various concepts underpinning this study have been discussed.

2.2.1 The Concept of Internal Control

The concept of internal control has developed vastly, both in its origin and its present form, in a reflection of changing regimes and environments in terms of both laws and regulations and business. Historically, traditional controls concentrated almost wholly in assets protection and fraud avoidance. With the passage of times, objectives have augmented in terms of range, including efficiency in operations, accuracy in financial reporting, and compliance with laws and regulations. All such development in terms of objectives and its documentation in academic work can be seen in a reflection of a transition towards a whole and integral integration of internal control in governance and risk management in an organisation (Cooper, Dacin, & Palmer, 2013; Power, 2004).

The expansion of the role of internal controls reflects trends in the global business environment, including increased regulatory scrutiny, technological improvements, and increased concern for governance in business entities. It can be witnessed in the establishment of many global regulatory frameworks, including America's Sarbanes-Oxley Act, that pinpoint a key role for internal controls in safeguarding companies against financial misreporting and fraud (Lin & Wu, 2010; Skaife, Veenman, & Wangerin, 2013). Not only have such legislation heightened awareness regarding the important role played by internal controls, but they have encouraged a codified and organized form in both implementing them and assessing them.

Although there is global consensus regarding the importance of internal controls, their application and quality vary significantly across different organizational environments and industries. Studies have confirmed that internal control effectiveness is influenced by a plethora of factors, from organizational culture to management risk attitude and business process complexity (Ashbaugh-Skaife, Collins, Kinney, & LaFond, 2009; Baxter & Cotter, 2009). These observations highlight the need for a nuanced appreciation of internal controls beyond prescriptive frameworks and models, given an organization's unique attributes and challenges.

In addition to considerations at an organizational level, technological trends have both characterized and operated in a profound manner in terms of the character and operations of controls at an internal level. Information technology and use of the internet have introduced new forms of vulnerabilities and types of risks, and new controls in terms of electronic and cybesecurity-related controls (Gordon, Loeb, & Tseng, 2009). This technological development extended controls for traditional financial and operational concerns to include information integrity, cybersecurity, and protection of data (Gordon, Loeb, & Tseng, 2009; Turel, Yuan, & Connelly, 2008).

The critical role played by internal controls in ensuring operational efficiency, compliance with legislation, and financial integrity is most critical in the public sector. In developing countries, in whose governments transparency and accountability are frequently an issue, effective internal controls can become a critical role in underpinning public trust and governance (Agyei-Mensah, 2019). The Electricity Company of Ghana (ECG) case in Ghana best portrays both challenge and opportunity in instating effective internal controls in the public sector, with a strong focus placed on contextual and cultural factors (Agyei-Mensah, 2019).

In short, the evolution of the concept of internal controls has shifted from a fraud-focussed, narrow, and assets protection orientation towards a model at the heart of governance and risk management in organisations. That development reflects broader trends in the international environment, such as in relation to changing regulation, technology, and changing governance conventions in companies. Appreciating background, problem, and contextual factors impacting effectiveness in internal controls is key in developing and rolling out effective controls with a view to changing with an ever-changing environment. Evolving of internal controls continues to be guided both by external factors and internal control dynamics, with ongoing study and discussion key in overcoming future impediments.

2.2.2 Internal Controls Models and Frameworks

Internal control frameworks and models serve as a basis for creating, implementing, and testing an organization's internal controls. Perhaps one of the most effective and most utilized frameworks is the Committee of Sponsoring Organizations of the Treadway Commission (COSO) Internal Control—Integrated Framework, first developed in 1992 and subsequently updated in 2013. The model of COSO is renowned for its in-depth approach, with five interrelated parts—control environment, risk assessment, control activities, information and communication, and monitoring activities—that build effective internal controls. Despite its prevalent use, a number of critics have criticized that the model of COSO can become cumbersome and complex to implement in its entirety, and even for small companies (Moeller, 2007; Power, 2004).

Another prominent model is the Control Objectives for Information and Related Technologies (COBIT), developed specifically for IT governance and control. ISACA designed COBIT, a governance model mapping IT objectives with business objectives, with a technology-intensive orientation in contrast to COSO. COBIT, with its accolade for its detail and information technology controls, is criticized for its over-emphasis in IT, possibly not addressing overall organizational controls and the human factors involved in effective controls (De Haes & Van Grembergen, 2009; Chapman & Kihn, 2009).

Within academia, there remains controversy regarding whether and how these frameworks operate and can be applied (Arena, Arnaboldi, & Azzone, 2010; Sarens, Christopher, & Zaman, 2013). Others commend COSO for its strength in supporting an overall culture of controls that work to enable strategic objectives but fault it for not addressing dynamic enough risk management in evolving environments (Arena, Arnaboldi, & Azzone, 2010; Sarens, Christopher, & Zaman, 2013). Similarly, COBIT's detail in objectives for controls is a plus for IT governance but, with its limited scope, can render it inappropriate for businesses seeking a general-purpose internal controls approach (Chapman & Kihn, 2009).

The Basel Committee for Banking Supervision's effective risk reporting and aggregation of risk data principles, Basel Accords, is yet another model that, although not specifically focused on internal control, complements discussion through its examination of high-quality information value and its contribution to financial institution risk management. Critics of the Basel frameworks state that although financial stability and risk management rely on them, their prescriptivity could not extend to all types of organisations and could engender a compliance over a risk orientation in internal control (Tarullo, 2008; Barnes, 2019).

Despite the criticism, having such frameworks in place is an important development in the practice of internal control in providing structured methodologies that can be tailor-made to an entity's specific needs. Empirical tests confirming a positive association between such frameworks' use and operational performance, risk management, and compliance enhancements (Gordon, Loeb, & Tseng, 2009) go a long way in supporting the utility of such frameworks.

However, the transforming environment in business, with its rapid technological advances, heightened worldwide integration, and changing regimes, creates a demand for continuous improvement and updating of frameworks of internal controls. Scholars such as Mikes and Kaplan (2014) postulate a flexible and adaptable position in controls that can move in harmony with changing dimensions of risk and organizational transformation. Under such a view, frameworks in use at present constitute a sound platform but rely for effectiveness on an adaptability and responsiveness to new obstacles and new opportunities arising in an environment in constant flux.

The above discussion confirms that, both frameworks and models including COSO and COBIT have an important role in guiding companies in creating and employing effective controls in an entity's environment. Comparatively with each other, both frameworks have beneficial information and tools for controlling and minimizing risk and enhancing environments for controls. Scholars' critique and strengths confirm that a balanced and flexible model with consideration of an entity's specific environment and impediments is critical. As a changing environment for business, so must frameworks and models for assuring integrity, efficiency, and adaptability in controls follow suit.

2.2.3 Internal Control Systems Components

The elements of internal control, as elaborated in detail by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in its Integrated Framework, are the major determinants that underlie effective governance, risk management, and controls in an organization. These elements, specifically Control Activities, Control Environment, Information and Communication, Risk Management, and Monitoring, are highly interrelated, and each of them plays a crucial role in ensuring the integrity, efficiency, and responsiveness of the internal control system. These components collectively form a complete picture that assists an organization in achieving its objectives in operations, reporting, and compliance (Committee of Sponsoring Organizations of the Treadway Commission [COSO], 2013). This overall picture depicts the interrelated and dynamic nature of internal control systems, with the need for continuous awareness and adjustment for new risks and regulatory demands. All these components have been explained below.

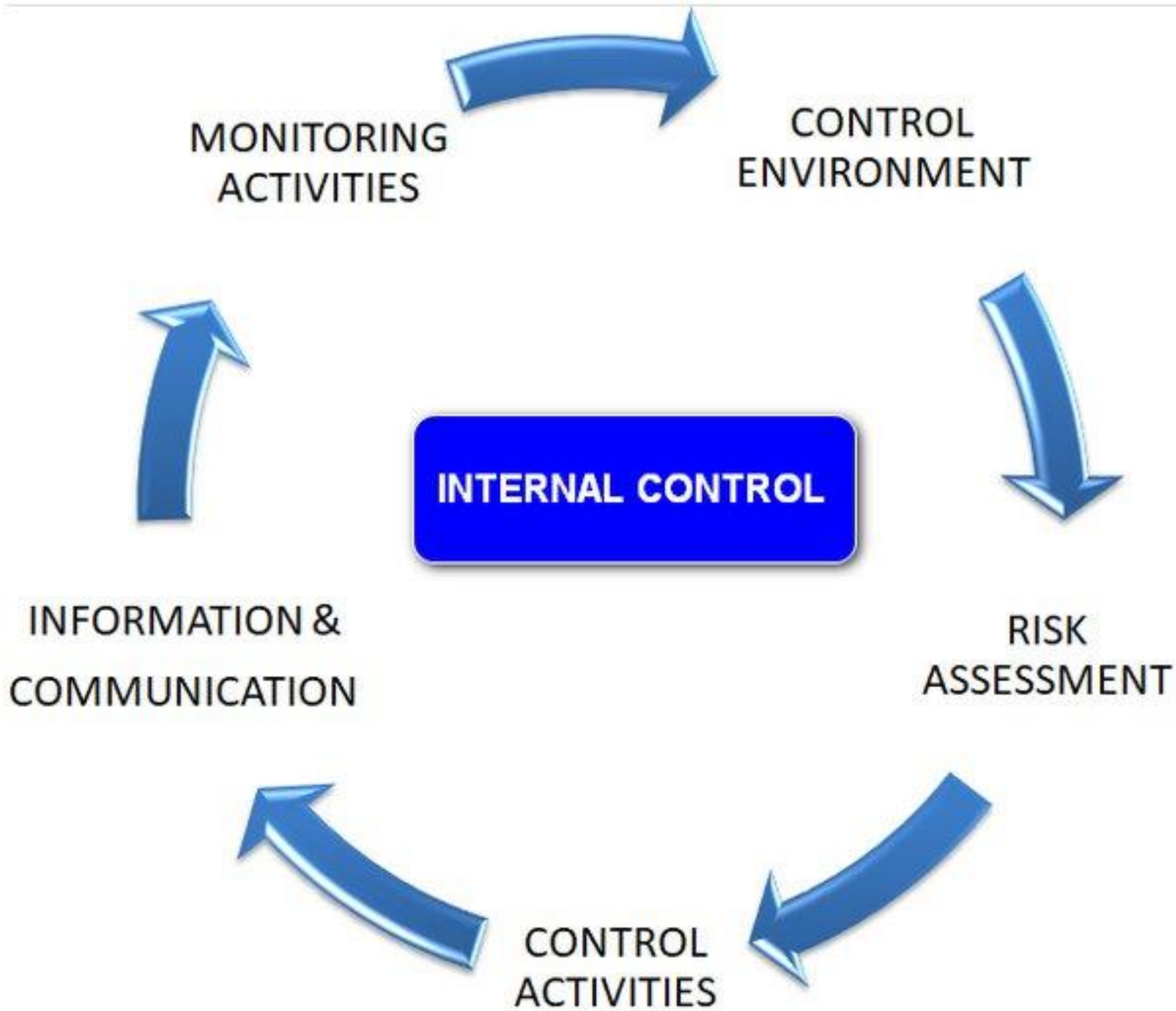

Figure 1: Components of Internal Control by COSO (2013)

2.2.3.1 Control Environment

The Control Environment, at the root of any effective system of internal controls, sets an entity's tone, and its impact extends to its people's awareness of its importance in terms of internal controls. It entails integrity, ethics, and competence of an entity's people; values and operations style of its management; delegation of accountability and authority and development and organization of its people through its management; and concern and guidance of its board of directors (Committee of Sponsoring Organizations of the Treadway Commission [COSO], 2013). There can be no effective control environment, and it is important in that it creates a basis for form and discipline, in which control activities can effectively be designed and executed (Beasley, Carcello, Hermanson, & Neal, 2009; COSO, 2013).

The significance of a strong control environment in organisations cannot be over-emphasised. It will have a direct impact on an organisation's ability to achieve its objectives through its contribution towards providing an environment for use for other segments of an organisation's internal controls. A strong control environment will make workers understand and value their contribution towards an organisation's internal controls and value following policies and processes that will mitigate potential risks. Empirical studies have established a positive relation between a strong control environment and an effective overall internal control system (Beasley et al., 2009; Sarens & Christopher, 2018). That relation recognizes an important contribution played by a strong control environment towards not only fraud prevention and fraud detection but towards financial reporting accuracy and assurance as well.

Furthermore, the environment of control helps in creating an integrity and ethics-related organizational culture. Leadership creates a tone at the top, and its contribution is critical in defining an ethical environment in an organization. Leadership ethics and integrity, conveyed and displayed effectively, creates trust and a behavior benchmark that transmits through all levels in an organization (Pfister, 2009). That ethical foundation is critical in defining decision-making processes and actions, most particularly when faced with an ethical problem or an opportunity for fraud.

The contribution of the governing board or board of directors towards establishing and sustaining the control environment is equally important. Their role in establishing values, governance structures, and accountability mechanisms provides a governance environment that is supportive of achieving strategic goals (Michelon et al., 2015; K Chong & Sudarso, 2016). Active boards make active contributions towards establishing the ethical tone of an entity, whereby management oversees adherence to processes and policies in alignment with values and goals of an entity (Michelon et al., 2015; K Chong & Sudarso, 2016). Active board involvement and oversight in this way become essential in the presence of a strong control environment in an entity.

In addition to establishing a tone of integrity and ethical conduct, the control environment incorporates both delegation of responsibility and authority and organizational structure. Having an effective organizational structure with definite channels of authority and accountability promotes effective communications and effective decision processes. It is also critical in fraud and error avoidance through creation of reporting channels and accountability (Pickett, 2010; COSO, 2013). Well-designed, this section of the control environment helps policies and procedures to consistently be performed in the entity, and financial reporting and operational effectiveness become dependable.

The development, competency, and empowerment of an organisation's workforce are other aspects of the control environment that must be taken into consideration. Organizations with training and development programs in place send a message about a desire for high standards of competency and performance. By providing a working environment in which workers can develop and build competency and expertise, organisations can become increasingly effective at recognizing and acting in a timely manner in regard to emerging risks. Not only do competency and workers' empowerment contribute towards operational aims, but such organisations can become effective at innovation and adaptability in regard to changes in the external environment (Hermalin & Weisbach, 2012; Kaplan & Mikes, 2014).

2.2.3.2 Control Activities

Control activities are the particular actions of an organization taken to address risks and accomplish its objectives. They include a broad array of policies and procedures that influence different levels of the entity, ranging from general company policies to individual tasks. Control activities form the core of an organization's internal control system, and they are the mechanisms through which risk response strategies are implemented. Control activities are meant to prevent, detect, and correct errors or fraud in operations, financial, and compliance processes, and thus protect assets and ensure the accuracy of financial reporting and adherence to laws and regulations (Committee of Sponsoring Organizations of the Treadway Commission [COSO], 2013; Ejoh & Ejom, 2014).

The effectiveness of controls will depend both on their suitability in terms of purpose of controls and integration with processes in an entity. Controls can function in a preventive manner or a detective manner. Preventive controls try to discourage an unplanned incident, and detective controls try to detect fraud and errors when and if they have occurred. There must be an effective balancing between preventive and detective controls, and it can have a considerable impact on an entity's efficiency and effectiveness in its management of risk (Fourie & Ackermann, 2013; Länsiluoto et al., 2016).

Control activities differ and can include such items as approvals, authorizations, and verifications, reconciliations, and review of operational performance, asset security, and segregation of duties. Segregation of duties, in particular, plays a role in fraud and error prevention in that no one will have access to all phases of a transaction or activity (Arens, Elder, & Mark, 2012; COSO, 2013). The principle is significant in protecting financial and operational processes and is oftentimes discussed in terms of a critical part of an effective system of controls (Spira & Page, 2003).

The implementation and maintenance of controls require ongoing evaluation and updating in an environment of emerging risks and operational complexity in order for them to become effective. Emerging technological improvements, for instance, have posed new risks and new opportunities, and controls have to respond in counteracting computer-related and information security-related threats (Gordon et al., 2009; Turel et al., 2008). Organizations have to review and update controls regularly in order for them to become effective in countering emerging risks and effectively integrate them in an organization's technological environment.

Despite their significant contribution to governance and risk management, control activities have not been free of problems. Implementation and design can be costly and complex, particularly in larger and complex organisations. Overreliance in control activities with no consideration for the overall internal control environment can lead to inefficiencies and controls gaps (Mikes, 2009). With a sound control environment and processes for assessments of risks, supported with well-designed and appropriately coordinated, effective control activities can be attained.

In light of the discussion above, control activities form part of an organisation's system of internal controls, and serve as the principal mechanism through which objectives and risks are reduced. Formulation, implementation, and ongoing review must therefore be conducted with a considered awareness of an organisation's risk profile and operational requirements. By having assurance that control activities are appropriately coordinated with an organisation's control environment and approaches to managing risk, organisations can enhance capabilities for delivering operational efficiencies, securing financial reporting integrity, and compliance with legislation, in the process safeguarding assets and enhancing overall organisational performance and value.

2.2.3.3 Information and Communication

Information and communications are integral parts of an effective system of internal controls, providing for the dissemination of information that facilitates one to fulfill one's responsibilities. Information and communications, as defined by the Committee of Sponsoring Organizations of the Treadway Commission (COSO), are processes through which information is determined, captured, and communicated between and among individuals, enabling them to discharge their responsibilities (COSO, 2013; Abu Naser et al., 2017). Communication must, as such, take place in a general way, flowing down, sideways, and up through an organization, such that all components of an organization possess information to facilitate them to work effectively in supporting other components of an internal controls system (COSO, 2013; Abu Naser et al., 2017).

The importance of communications and information in organizational performance cannot be overestimated. In a complex and high-speed pace of modern business, effective communications and information processing capacities become a success and competitiveness key in an organization (Gordon et al., 2009; Cristina & Cristina, 2009). Efficient information and communications capabilities form a basis for decision processes and allow an organization to react to opportunity and danger in a timely and effective manner (Gordon et al., 2009; Cristina & Cristina, 2009). Besides, studies have confirmed a positive relation between information and communications system quality and organizational performance, with a demonstration of a key role for such factors in achieving operational and financial performance objectives (Chenhall & Moers, 2007; De Haes & Van Grembergen, 2009).

The roles of information and communication extend outside the internal organizational operations. In the governance and compliance space, these components work to facilitate the communication of pertinent and credible information to external stakeholders, including regulators, investors, and customers. This serves not just transparency and accountability but also trust and confidence in the financial reporting and management processes of the organization. The Sarbanes-Oxley Act of 2002, for instance, emphasizes the importance of effective communication channels in maintaining the integrity of financial reporting and compliance with legal and regulatory requirements (Patterson & Smith, 2007).

Technological advancements have profoundly changed information and communications management in organizations. Information technology (IT) system integration has changed processes of internal controls, allowing for effective and efficient information processing and communications. Nevertheless, new challenges and vulnerabilities arise, including cybersecurity and information privacy, and strong IT governance and controls must therefore be in place to safeguard sensitive information and maintain its integrity (Turel et al., 2008; Wu et al., 2012).

In order to maximize information and communications value in internal controls, organisations must ensure that such factors are incorporated in operational requirements and in strategic objectives. Not only involves deploying pertinent technology solutions but also developing an information and communications' culture of openness and information dissemination. Communication skills and information system use competencies for workers can be developed through training and development programs, and in the process, the internal controls environment is strengthened (Leidner & Kayworth, 2008; Hunton, 2003).

2.2.3.4 Risk Management

Risk management, as a part of an organization's system of internal control, entails the identification, evaluation, and response to risks that may impact the accomplishment of the organization's objectives. It is a key process to ensure that risks are kept within acceptable limits and that strategic, operational, financial, and compliance goals are achieved. The Committee of

Sponsoring Organizations of the Treadway Commission (COSO) stresses the need for a sound risk management process as part of its integrated internal control framework, citing its contribution to the accomplishment of effective and efficient operations, reliable financial reporting, and compliance with laws and regulations (COSO, 2013; Simkins, 2010).

The role of risk management in organisations is not mere compliance and loss avoidance, but a mechanism for enhancing decision-making, utilizing assets, and searching for opportunity. Sound practice in risk management enables organisations to gain a perception of future danger and opportunity, and therefore become competitive and resilient. Empirical work performed by Arena, Arnaboldi, and Azzone (2010) and Gates et al. (2012) validates that planning with a consideration for risk management enables organisation's performance, for it brings together risk tolerance and aspirations for growth and operational capabilities.

Furthermore, the changing environment of risk in today's modern business, with its technological improvements, changing legislation, and increased interconnectedness, puts a strong emphasis on an ever-changing and future-focused risk management process. Examples of such sophisticated issues include technological-related risks, such as cybersecurity, and political and geographical uncertainty, and these represent many of the complex issues with which modern organisations have to contend. The works of Mitchell and Harris (2012) and Lin, Pervan, and McDermid (2007) illustrate the growing necessity for dealing with such emerging risks through flexible risk management processes, in conjunction with an organisation's overall governance and internal controls system.

Risk analysis, which is a component of risk management, involves a diligent review of the likelihood and effect of identified risks. Risk analysis is essential in prioritization and determination of appropriate methods to address risks, for instance, through avoidance, reduction, sharing, or acceptance. Effective risk analysis enables organizations to focus their effort and allocate it to most significant risks, and as such, make effective and efficient use of risk management processes. Empirical evidence about the success of comprehensive and systematic risk analysis in improving performance and governance within an organization is provided through the work of Beasley, Clune, and Hermanson (2005) and Sarens & Beelde (2006).

Along with processes at an internal level, external communications with stakeholders are a part of risk management as well. Good communications about risk management policies and processes can generate confidence in the ability of an organization to manage risks effectively in its stakeholders. In financial markets, this confidence can play an important role in an organization's cost of capital and value in the marketplace. Linsley and Shrives (2006) and Aebi, Sabato, and Schmid (2012) research provides evidence that good communications about risks have a positive effect in the form of performance in the marketplace and trust in an organization's stakeholders.

The embedding of risk management within other components of internal control, such as information and communication and control activities, is paramount in coming up with an effective and consistent internal control system. Integration aids in aligning risk management processes with the operational processes of an organization and its control environment, and in enhancing its overall quality and resilience. Kaplan and Mikes (2012) and McShane, Nair, and Rustambekov (2011) state that an integrated approach to managing risks involves an effective application of strengths in various components of an internal control in addressing complex risks in a multidimensional fashion.

2.2.3.5 Monitoring

Monitoring, as an integral component of a strong internal control system, involves ongoing or periodic assessment of an organization's internal control processes over time. Monitoring is essential in a bid to ensure that an internal control system is relevant, effective, and in a state to address new and emerging risks (COSO, 2013; Masli et al., 2010). Monitoring activity is emphasized in the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in its Internal Control—Integrated Framework, and it is deemed an essential characteristic that allows an organization to achieve its operations, reporting, and compliance goals (COSO, 2013; Masli et al., 2010).

The role of monitoring in organisations is two-way in its function. Not only can it assure that controls in an organisation are working in the manner in which they have been designed, but it can also reveal areas for improvement. Monitoring can contribute to improvements in efficiency in processes, a lessening in waste, and fraud and error avoidance. Empirical studies have confirmed that ongoing monitoring and ongoing review of processes for controls have been linked with heightened operational efficiency and financial performance (Beasley et al., 2009; Thöns, 2018).

Monitoring activities can usually be carried out by continuous assessments or stand-alone assessments. Continuous assessments, such as management and supervision, are embedded in normal operations and provide timely information. Stand-alone assessments, such as internal audit, provide an objective assessment of the effectiveness of internal controls and risk management processes in an entity. Both activities are complementary and essential for an effective monitoring program. Empirical research carried out by Goodwin-Stewart and Kent (2006) and Sobel & Reding (2004) confirms the use of both continuous and stand-alone assessments in an attempt to render monitoring processes effective.

The importance of having an internal audit function in monitoring cannot be overestimated. Internal auditors play a significant role in evaluating governance processes, risk management, and internal controls in an entity. Their objective and unbiased assessments produce useful information that aids in continuous improvement in internal controls. Gramling, Maletta, Schneider, & Church (2004) and Prawitt, Smith, & Wood (2009) studies unveil additional value through internal audits in governance and performance in an entity through effective monitoring processes.

Technological advancements have impacted both the range and effectiveness of monitoring processes in a significant manner. Automated tools and continuous monitoring programs have become widespread, and companies can monitor and assess processes in real-time. Automated tools and continuous monitoring programs simplify failure and deviation detections in a timely manner, and allow for rapid corrective actions to be taken. Examples of studies by Alles, Kogan, & Vasarhelyi (2008) and Masli et al. (2010) reveal that technology enables efficient and effective processes in monitoring through timely and proper information for decision-making.

Notwithstanding the apparent benefits of effective monitoring, there are obstacles. Giving assurance regarding the effectiveness and sufficiency of monitoring processes takes resources, capable manpower, and management dedication in following through with observations and recommendations. Business operations' complexity in today's times and changing nature of risks can even become obstacles in putting in place thorough processes of monitoring. Nonetheless, according to studies such as Steinbart, Raschke, Gal, & Dilla (2012) and Cosmin (2011), companies that overcome obstacles and make investments in effective monitoring processes have a chance to manage risks, maximize operational performance, and achieve strategic objectives.

Monitoring is therefore a vital component of an organization's internal control system, playing a key role in ensuring the effectiveness and relevance of control processes. Through continuous and independent evaluations, including the critical role of internal auditing, organizations can identify and correct deficiencies, address emerging risks, and enhance overall performance. The integration of technology into monitoring processes acts to further strengthen this component by enabling real-time assessment and more efficient information processing. As organizations face increasingly complex and uncertain environments, the importance of robust monitoring practices in supporting organizational resilience and success cannot be overstated.

2.2.4 Features of Effective Internal Control Systems in Organisation

A sound system of internal controls plays a crucial role in ensuring an organisation's operational effectiveness, integrity of financial reporting, and compliance with laws and regulations. As the Committee of Sponsoring Organizations of the Treadway Commission (COSO) defines, an effective system of controls is one that provides a reasonable assurance that an organisation achieves its objectives in regard to these aspects. Effectiveness in such a system is dependent on its ability to respond to evolving environments and identify and mitigate risks in good time (Beasley et al., 2009; COSO, 2013). An effective system is one that addresses an organisation's operations in a comprehensive manner and gets incorporated into the organisation's culture, such that control processes become an organisation's routine activities.

First of all, a key feature of an effective system of internal controls is its capacity to undertake thorough risk assessments that pinpoint, analyze, and manage both external and internal risks confronting the organization. Risk assessment helps companies prioritize and allocate resources effectively in an attempt to mitigate such risks. Research conducted by Arena, Arnaboldi, and Azzone (2010) illustrate that companies with organized processes for risk assessments have a high chance of dealing with risks in a proactive manner, enhancing its level of resilience and operational performance. This feature helps to make the company sensitive and adaptable to its changing internal and external environment, and in the process, protecting its assets and its name.

Secondly, there will have to be effective control environment. With effective control environment, having an impact over entity's individuals' control consciousness. It is composed of integrity, ethical values, and competency of entity's individuals; values and working style of management; and delegation of authority and accountability of management. Hermanson et al.'s (2012) studies reveal a positive association between effective control environment and effective internal controls. With effective control environment, an entity's leadership will have a strong commitment towards integrity and ethical values, and a strong foundation for other segments of internal controls will be established.

Thirdly, effectiveness in internal controls requires an efficient communications system. Efficient in and out communications channels in and with external parties enable all information relevant to internal controls and risk management to be noticed, captured, and communicated in a timely manner. Gordon et al. (2009) and Melville, Kraemer, and Gurbaxani (2004) studies validate that effective communications enable an organisation to react in a timely manner to risks and weaknesses in controls, and in doing so, make a contribution towards an overall effective internal controls system. This characteristic is significant in providing information relevant to decision-makers at the proper times, enhancing effective decision-making and effective operations.

Fourthly, there needs to be ongoing and continual monitoring activity by internal departments like an internal audit. Monitoring activity over time is necessary in evaluating the performance of an internal control system and any adjustment over a period of time. Monitoring ensures that internal controls are functioning effectively even in situations of changing processes within a business or altering external situations. As per research carried out by Goodwin-Stewart and Kent (2006) and

Prawitt, Smith, & Wood (2009), businesses with quality monitoring processes can efficiently detect and correct control weaknesses, and ensure financial reporting and adherence to laws to be reliable. This attribute assists in sustaining an effective and relevant internal control system over a period of time.

Fifthly, effective controls require well-designed control activities. Policies and processes through which management directives can be implemented are what refer to as control activities. Examples of such processes and policies include approval, authorizations, verifications, reconciliations, and review of performance in operations. There is evidence, according to studies by Agbejule & Jokipii (2009) and Ejoh and Ejom (2014), that well-designed specific controls contribute a lot towards an organisation's success in attaining its objectives. That characteristic is important in ensuring that risks are reduced effectively through effective and efficient controls.

Finally, there cannot be a good system of controls where there is no adequate information system. Integration of information systems in internal controls facilitates effective and efficient processing and communication of information. Alles, Kogan, & Vasarhelyi (2008) show how information systems render information more timely and accurate, improving decision and control processes. This aspect allows the organization to have access to relevant and reliable information for operational, compliance, and reporting needs.

2.2.5 Assessment and Evaluation of Internal Control Systems in Organisation

Internal control system assessment and evaluation in organizations are key processes that help ensure these systems are functioning well and are in line with the organization's goals. The ongoing evaluation is important in determining areas of improvement, reducing risks, and in ensuring compliance with applicable laws and regulations. The Committee of Sponsoring Organizations of the Treadway Commission (COSO) framework highlights the significance of these processes in having an effective internal control system (COSO, 2013).

One essential characteristic of effective testing and evaluation is complete coverage, with each and every section of an entity's internal control system, including control environment, risk assessment, control activities, information and communications, and monitoring activities, periodically examined and appraised. According to studies conducted by Beasley, Clune, and Hermanson (2005) and Carcello, Hermanson, Neal, and Riley (2002), such a thorough review is valued, with such assessments having a high likelihood of identifying and resolving weaknesses in an entity's controls, and, in turn, improving overall performance and reducing fraud and errors.

The frequency and continuity of evaluation underpin their effectiveness. Periodical and continuous evaluations enable timely observation of weaknesses and trends in the environment in which operations occur and that have a high probability of affecting the system of internal controls. Research conducted by Doyle, Ge, and McVay (2007) and Hermanson and Rittenberg (2003) supports the contention that increased evaluation frequency creates a strong system of internal controls through timely updating of control policies and actions.

The qualifications and independence of assessors have a considerable role in strengthening the effectiveness of evaluation and assessment processes. Outside expert and independent external consultants and auditors can give an objective view of the effectiveness of an organisation's internal control system, but qualified and experienced internal auditors can ensure that the organisation's standards and objectives have been captured accurately in the evaluation. Scholars Changwony and Rotich (2015) and DeZoort, Hermanson, Archambeault, and Reed (2002) have concluded that assessments conducted by qualified and independent assessors have a high probability of identifying weaknesses in controls and providing recommendations for improvements that have to be addressed.

Effective evaluation and assessment of an internal control system is aligned with organisational goals and integrated with risk management processes. Alignment between them makes sure that an internal control system helps achieve objectives for an organisation and that control processes are shaped in such a way as to mitigate significant risks. Empirical research carried out by Kaplan and Mikes (2012) and Arena, Arnaboldi, and Azzone (2010) confirm the importance of integrating evaluation and assessment processes with an organisation's planning and risk management, and show how such integration enhances an organisation's performance and resilience.

The use of technology and analysis of data in testing and evaluation processes maximizes effectiveness and efficiency in such processes. Computerized software can allow for real-time tracking of controls, and analysis of data can allow for trends and patterns in controls, such as weaknesses and improvement areas, to be identified. Empirical studies by Alles, Kogan, and Vasarhelyi (2008) and Chen et al. (2014) present the utility of technology use in testing of controls, for instance, in terms of increased accuracy and timely information.

Further, an efficient evaluation and review mechanism generates actionable recommendations and a follow-up mechanism for ensuring that weaknesses discovered will be addressed. Having the ability to transform findings into actionable improvement actions and monitor the efficacy of such recommendations is critical in enhancing the internal control mechanism. As per studies conducted by Cohen, Krishnamoorthy, and Wright (2002), companies that effectively implement recommendations generated through internal control evaluations achieve considerable improvement in their control environments and overall operational efficiency.

Finally, testing and evaluation of internal controls are significant processes that require complete coverage, continuity, competent evaluators, alignment with organizational goals, use of technology, and follow-up actionable recommendations. All of these make the internal control system effective and able to support an organization's objectives, and subsequently, its performance and strength are enhanced.

2.2.6 Stakeholder Perceptions of Internal Controls Systems in Organisation

Stakeholder perception of internal controls is important at a very basic level in most industries, with a direct impact on trust, confidence, and the reputation of an entity, both for private entities and public ones like Electricity Company of Ghana (ECG), whose stakeholders, such as investors, regulators, customers, and employees, rely on assurance obtained through internal controls. Only through effective internal controls can reliable financial reporting, operational efficiency, and compliance with laws and regulations be ensured, and by doing so, an entity is able to deliver to its stakeholders and achieve its objectives, as put forth by the Committee of Sponsoring Organizations of the Treadway Commission (COSO, 2013).

Investors, in reality, view sound internal controls as a significant benchmark for an entity's financial health and investment suitability. For entities such as ECG, investors' trust can have a significant bearing on access to funding and funding costs. Perceived investment risk is reduced when an entity is perceived to have sound controls, and, in consequence, potentially lower funding costs and heightened investment viability (Mock, Srivastava & Wrigh, 2017). That, in its turn, accentuates the utmost value of possessing effective controls not only for success in operations but for financial solidity and expansion, as well.

Regulatory compliance is also a reflection of the importance of stakeholder perception. Laws such as the Sarbanes-Oxley Act in America have placed increased emphasis on effective internal controls, a sign of a global trend towards increased supervision. Public entities, often under increased scrutiny, must demonstrate effectiveness in controls in order to comply with regulators and maintain public trust. ECG is a case in point; as a public utility, compliance with regulatory standards is not simply a matter of legality but a consideration in terms of public confidence and approval (Coenen, 2008).

The role of internal controls in ensuring the integrity of financial reporting cannot be overstated. Stakeholders need credible and trustworthy financial reports to make effective decisions. A perceived weakness in internal control mechanisms can cast doubt on the credibility of financial reports, potentially damaging an organization's reputation and stakeholder trust. This is particularly the case for public organizations, where financial transparency and accountability are paramount. Scholars have shown that enhancements in internal control mechanisms can lead to improved financial reporting quality and, by extension, stakeholder trust (Babatunde, 2013).

Operational efficiency and fraud protection are important areas that are influenced by stakeholder views regarding internal controls in an institution. Efficient operations and the ability to detect, prevent, and respond to fraud represent effective management and sound internal controls. For an institution such as ECG, positioned at the epicenter of Ghana's energy sector, operational efficiency not only impacts service delivery but also public perception and approval. Stakeholders will have increased trust in such institutions, whose dedication to maintaining high operational standards through effective controls is apparent (Beasley et al., 2005; Akisik & Gal, 2017).

Lastly, the perception of internal controls is important for workers' morale and motivation. Workers will become motivated and engaged when they trust that their entity's controls work and that such controls function fairly. That trust in internal stakeholders can then serve as a starting point for performance improvement, less turnover, and a healthy organizational culture. In public entities, in which accountability and public service count, one cannot overestimate the role played by internal controls in shaping an entity's organizational culture and workers' perceptions (Hall, 2008).

2.2.7 Roles played by Efficient Internal Controls in an Organization

Effective internal controls underpin an organisation's integrity, efficiency, and accountability. Not compliance requirements, but a strategic asset, supporting all aspects of an organisation's operations, effective internal controls have a critical role in enhancing governance, enhancing operational efficiency, supporting compliance and ethical standards, and safeguarding financial reporting, fraud, and overall organisation performance and value creation. By enabling organisations to respond dynamically to opportunity and risk, such controls build trust with stakeholders and allow for long-term, sustained success and growth. As such a review delves into many dimensions of an internal controls' role, it is apparent how important such controls become in achieving organisation objectives and attaining a competitive edge in a complex and competitive environment. In situating such a review for a deeper analysis of an internal controls' many dimensions in an organisation's success, its role extends not only to compliance but to becoming a pillar in an organisation's decision and success.

2.2.7.1 The Role of Internal Control in Corporate Governance

Effective internal controls form a key pillar in governance in companies, offering governance infrastructure under and supporting governance in organisations, including state-owned organisations such as Electricity Company of Ghana (ECG). Governance in companies, including processes, structures, and relations through and under which companies are guided and monitored, is predominantly contingent on effectiveness and solidity of internal controls in safeguarding interested parties' interests and providing the organisation's strategic objectives effectively and responsibly.

At the core of governance in a corporation is accountability, a value that is firmly instilled in values of controls in an organisation. Controls provide an integral model for controlling risk, operational efficiency, and compliance, and for reporting transparent and accountable information, in a form desired and anticipated by stakeholders, most prominently in public organisations such as ECG. Governance is facilitated through enhanced controls through diligent observation of activity, in a form that will make objectives of an organisation in compliance with both stakeholder and regulating requirements (COSO, 2013).

The strategic role played by internal controls in governance in a company is to fortify decision processes. By providing timely and reliable information, senior management and boards of directors can make effective decisions, and a culture of integrity and ethics is present in such an environment in an entity. In a public entity, such a feature is most critical, with ethical considerations and responsible stewardship of assets assuming prominence. In research studies conducted by Beasley et al. (2005), such effectiveness in terms of internal controls in fortifying decision-making and planning in an entity have been stressed, with positive consequences for such controls in an entity's decision and planning processes.

Moreover, internal controls have a key role in compliance with laws and legislation in corporate governance. In an era of increased regulatory scrutiny, such as in these times, companies, and most importantly state-owned companies like ECG, have a critical role in demonstrating compliance with laws, legislation, and standards. Not only do companies become compliant with laws through internal controls but even have the agility to react to new legislative requirements in a timely manner. The value of such a role can be gauged in a study conducted by the Institute of Internal

Auditors (IIA, 2020), in which it identifies the role played by internal controls in strengthening compliance with laws and ethics in industries.

The trust and confidence of its stakeholders in an organization's governance processes depend, in a significant manner, on its perceived effective internal control system. Public entities, in whose operations and governance processes a high level of scrutiny is kept by both the public and regulating agencies, depend particularly on an effective internal control system for such trust and confidence. An effective internal control system ensures its stakeholders about accountability, transparency, and ethical operations in an organization, enhancing its trust and reputation. Research conducted by Cohen, Krishnamoorthy, and Wright (2002) has proven that effective controls have a direct relation with a high level of trust and confidence in an organization's governance processes by its stakeholders.

Finally, the inclusion of internal control systems in the corporate governance framework encourages a culture of continuous improvement. By regularly evaluating and assessing their organizations, organizations can identify areas of weakness and implement remedial measures, thereby enhancing their governance structures and processes over time. This approach to continuous improvement is essential to keep abreast of the evolving business and regulatory environments with a view to making organizations like ECG resilient and sustainable in the long term.

2.2.7.2 The Role of Internal Controls in Maintaining Efficient Operations

In the quest for operational effectiveness, no function can be overemphasized for internal controls. They play a crucial role in streamlining processes, reducing waste, and enhancing overall operational efficiency in organisations, including state-owned ones like Electricity Company of

Ghana (ECG). Operational efficiency in this context defines an organisation's ability for delivering goods and/or services in a most cost-effective way with no compromise in terms of quality. Effective internal controls can go a long way in identifying bottleneck issues, reducing risks of operational failures, and maximizing resource utilization (Cheng et al., 2018).

Internal controls enable operational efficiency through effective processes and procedures in compliance with the overall objectives of an entity. Having a planned form of operations enables assurance that operations will be conducted consistently and in terms of approved standards, and productivity and efficiency will increase in consequence. For instance, procurement controls enable avoidance of overpayment and procurement of poor-quality materials, and efficient use of organizational assets will therefore be guaranteed. According to a study conducted by Chen et al. (2020), effective internal controls have helped simplify operations, and significant savings in terms of expenses and increased operational performance have been attained.

Moreover, internal controls play a key role in continuous observation and improvement in operational processes. Inefficiencies and deviations in approved processes are captured through routine review and audits, and timely corrective actions can then follow. In public organisations such as ECG, whose operational inefficiencies have direct impact for public service delivery and citizen satisfaction, such an internal controls feature is paramount. As per a study conducted by Masli et al. (2010), continuous observation is paramount for operational integrity and efficiency, and such controls constitute an integral part of continuous improvement in processes.

The use of technology in internal controls continues to boost operational efficiency through automation of repetitive work, accuracy in data, and real-time tracking of operations. Automated internal controls can minimize errors and processing and reporting times, both of which can slow down operations and tie down resources, and channel them towards more critical work. In ECG, technology-powered internal controls can go a long way in enhancing service delivery through timely and effective operations. Empirical studies conducted by Spathis (2006) validate IT positive contribution towards operational efficiency, with an emphasis placed on technology incorporation in internal controls frameworks.

Internal controls, in addition, promote operational efficiency through a responsible and accountability culture. Workers will be motivated to work effectively and follow protocols, knowing that their actions will be monitored and that failure to comply with agreed processes will have repercussions. All sections of an organisation will work towards common objectives, with less waste and effective utilization of assets, through a responsible and accountability culture. Hermanson et al. (2012) validate this in a study, stating that a sound control environment will positively contribute to an organisation's efficiency and effectiveness.

In addition to improving operational processes, internal controls have a key role in managing operational risks, an important part of operational efficiency. By identifying operational risks and implementing controls for such operational risks, organisations can prevent disruptions and have a free flow of operations. In public organisations, operational disruptions have a larger consequence, and such organisations, therefore, have to exercise utmost care in operational processes and have controls over them at all times. By controlling operational risks in a proactive manner through controls, not only can operational failures be prevented, but public organisations such as ECG can have a reliable and efficient delivery of service. In its work, Bento et al. (2018) sees a key role for internal controls in operational risk management, proving them to be a key in operational continuity and efficiency.

2.2.7.3 The Role of Internal Controls in Regulatory and Ethical Compliance

Internal controls have a critical role in providing assurance of compliance with both regulators and ethics, and it is a pillar upon which companies that seek to have the utmost integrity and accountability are constructed, including state-owned companies such as Electricity Company of Ghana (ECG). Internal controls act as a mechanism for checks and balances in an expansive environment of regulators, ensuring companies not only comply with laws, but with ethics, and therefore creating a trust and accountability environment.

Internal controls have a critical function in dealing with complex aspects of compliance with legislation. They act to coordinate a system for compliance risk identification, compliance risk analysis, and compliance risk management. In high-regulation industries, for instance, in ECG in the energy sector, compliance with legislation addresses a variety of subjects including environment, health and safety, and protection of consumers. According to a study conducted by Ashbaugh-Skaife, Collins, Kinney and LaFond (2009), a critical function for internal controls in providing reliable compliance reporting, and in turn, in curbing compliance-related legislative transgressions, is seen to exist.

In addition, internal controls have a critical role in developing an ethical environment in an organization. By creating transparent ethical standards and complying with them, internal controls help in minimizing unethical behavior-related risks. This aids in maintaining trust and confidence in the organization, especially public organizations under constant scrutiny by regulators and the general public. Fernandhytia and Muslichah (2020) present an example in a study of how efficient internal control frameworks can enable ethical decision processes, and therefore promote an organization's commitment towards ethical conduct.

In addition to enhancing ethical conduct, internal controls promote financial reporting accuracy and integrity. Public trust, in publicly sponsored entities such as ECG, whose operations have a high level of transparency and accountability, is sustained through compliance in this aspect of reporting accuracy and integrity. For instance, re-emphasis in the role of internal controls in preventing financial statement fraud and enhancing financial reporting dependability comes through in the form of the Sarbanes-Oxley Act of 2002. In studies conducted by Doyle, Ge, & McVay (2007), effective controls have a long way in preventing financial misstatement, and in enhancing compliance with regulators and ethics in financial reporting.

Internal controls facilitate the ease with which compliance-related issues are raised and resolved promptly. Through constant monitoring and regular evaluations, companies are able to respond to any deviations from compliance demands and ethical principles in good time, even before such deviations become full-blown issues. Compliant management through proactive measures is essential in reducing legal exposures and keeping operations in line with ethical principles. The research of Beasley (2005) outlines compliance risks and its effectiveness in being identified and resolved through constant monitoring in a system of internal controls.

Moreover, the integration of technology into internal controls has revolutionized the management of compliance with real-time analysis and monitoring of compliance data. Automation and data analytics of compliance tools can enhance the effectiveness and efficiency of compliance, providing organizations with the agility to respond promptly to changes in regulatory requirements. In ECG, technology can automate compliance processes to provide energy regulation and ethical compliance. Research by Skaife, Veenman, & Wangerin (2013) recognizes the potential of technology-enabled internal controls in attaining improved compliance outcomes.

2.2.7.4 The Role of Internal Controls in Maintaining Financial Reporting Integrity

Financial reporting integrity constitutes a foundation of trust and transparency in any organization, including state institutions like Electricity Company of Ghana (ECG). It plays a crucial role in ensuring that stakeholders can rely on financial data to be accurate and complete. Internal controls play a big role in ensuring such integrity, and act as a safeguard against errors and fraud that may compromise financial reports. Such controls constitute a foundation in providing a reasonable assurance that financial statements are dependable and prepared in accordance with relevant accounting standards and law.

Internal controls over financial reporting include a range of processes, including transaction processing controls, segregation of duties, financial system access controls, and reconciliation processes. All these controls contribute to accuracy in financial statement and transaction recordings, and financial statements fairly represent an entity's financial position. As argued by Al-Laith (2012), controls have a strong impact in financial information accuracy, and according to COSO (2013), such controls have a key role in financial reporting misstatement prevention and detection. All these fundamental parts of an internal control system have an important role in financial reporting-related controls.

The function of internal controls in protecting financial reporting integrity is also apparent in compliance with accounting standards and laws. For companies like ECG, under heightened regulatory scrutiny, compliance with IFRS and country-specific accounting laws is imperative. Compliant use of accounting policies and processes is facilitated through internal controls, and compliance with accounting standards is achieved through them. Ashbaugh-Skaife, Collins, Kinney, and LaFond (2009) illustrate in their work that effective controls have a positive relation with financial reporting quality in that effective controls allow companies to comply with accounting standards and enhance financial statement credibility.

In addition, internal controls strengthen financial reporting reliability via a culture of ethics and accountability. Within an entity's internal controls, whistleblower policies and ethical codes encourage employees to conduct themselves in an ethical manner and report any concerns of fraud and accounting irregularities. This aspect of internal controls plays a role in guaranteeing financial report reliability. Suh et al. (2018) affirm through research that an ethical environment contributes to fraud prevention, and Al-Laith (2012) highlight that internal controls facilitate ethical financial reporting procedures.

The role of internal audit departments in evaluating and improving financial reporting controls cannot be overestimated. Internal auditors assess effectiveness in controls, identify weaknesses, and make recommendations for improvement. On a continuous basis, such an evaluation ensures controls over a period of time remain effective, with a view to altering with altering environments and processes in an entity. According to Beasley, Carcello, Hermanson, and Neal (2009), effective internal audit activity fortifies financial reporting reliability through early detection and reduction of misstatement risks. In a similar manner, Doyle, Ge, and McVay (2007) highlight the value of an internal audit in improving financial reporting integrity through thorough review of controls in an entity.

The use of technology in internal controls is also instrumental in ensuring financial reporting integrity. Computerized transaction processing and electronic audit trails, for example, enhance accuracy and efficiency in financial reporting processes. Skaife, Veenman, and Wangerin (2013) discuss how technology-enhanced internal controls can reduce financial reporting errors and fraud, and Alles, Kogan, and Vasarhelyi (2008) discuss the benefits of continuous audits and monitor programs in ensuring high financial reporting integrity standards.

2.2.7.5 Internal Controls' Role in Fraud Prevention and Detection

The use of internal controls in fraud prevention and fraud detection is a concern for all organisations in the world, including state-owned organisations such as Electricity Company of Ghana (ECG). Internal controls serve to build an effective environment that not only deters fraud but also ensures fraud is detected in a timely manner when it occurs. The fraud prevention and fraud detection function of internal controls is critical in safeguarding an organisation's assets and securing financial and business processes integrity.

Internal controls for fraud prevention entail a combination of policies, processes, and practices for fraud risk minimizing. Controls in this regard include explicit codes of conduct, segregation of duties, access controls, and approval requirements for transactions. Association of Certified Fraud Examiners (ACFE, 2020) acknowledges the necessity of such controls, citing that with them, fraud occurrences can effectively be curtailed. In a similar manner, a study by Beasley, Carcello, Hermanson, and Neal (2009) identifies a strong control environment as a fraud deterrent through its establishment of a culture of accountability and ethical conduct.

Detection-focused internal controls, on the other hand, have been designed to detect fraud that circumvents preventive controls. Examples of such controls include continuous monitoring programs, routine audits, and whistleblower programs. Detection controls' effectiveness in fraud discovery have been corroborated in studies performed by Abiola and Oyewole (2013), whose work revealed continuous monitoring and audit processes effectively detect fraud. Besides, having whistleblower programs, according to Dyck, Morse, and Zingales (2010), effectively aids in fraud discovery, a problem that warrants providing safe reporting avenues for suspicious activity.

Technology application in internal controls has revolutionized fraud detection and prevention interventions. Advanced data analytics and machine learning algorithms have the potential to scan patterns and deviations in large datasets, bringing to light transactions or activities that fall out of the ordinary. As Kuenkaikaew (2013) and Baesens, Van Vlasselaer, and Verbeke (2015) argue, the success of technology-enabled controls in identifying potential fraud highlights the essential role that technology plays in enhancing the fraud detection ability of internal control systems.

Public entities, including ECG, have fraud prevention and fraud detection specific to them in terms of size, complexity, and role in providing public service. Stewardship of public assets deserves heightened scrutiny and accountability, and, therefore, a role for controls is even more critical. Public entities must have strong controls, Public Company Accounting Oversight Board (PCAOB, 2007) affirms, in an attempt to protect them from fraud and secure proper use of assets. Besides, in terms of Gray, Manson, and Crawford (2019), public entities with full-fledged internal control frameworks can effectively resist fraud, and in the process, preserve public trust and confidence.

Employee training and awareness programs are an integral part of an effective fraud detection and fraud prevention mechanism. Employee awareness regarding fraud, its symptoms, and reporting channels can make workers a first line of fraud protection. Trompeter, Carpenter, Desai, Jones, and Riley (2013) confirms that educated and vigilant workers can play a critical role in fraud avoidance and fraud detection, citing training and awareness programs with a continuous schedule.

2.2.7.6 The Role of Internal Controls in Enhancing Organizational Performance and Value

The function of internal controls extends beyond risk management and compliance and actually enhances organizational value and performance. That is best suited to private firms and even public organizations like Electricity Company of Ghana (ECG), whose financial soundness, operational effectiveness, and strategic responsiveness rely partly on internal controls. Organizations that have good internal controls in place can optimize operations, safeguard assets, report financials accurately, and ensure compliance, all of which add up to greater organizational value and performance.

Internal controls have a direct contribution in terms of operational efficiency through simplification, minimizing errors, and minimizing waste. Optimizing operations is important in maintaining competitive advantage and value maximization. For example, in ECG, operational expenses will be kept at a minimum, and service delivery maximized through effective use of resources, courtesy of internal controls. In a study by Berglund and Sterin (2021), effective internal controls have been stressed in contributing towards improvement in operational performance through minimizing inefficiencies and maximization of dependability in processes. In a similar study conducted by Cheng (2018), positive contribution of internal controls towards operational efficiency is portrayed with a strong value addition in terms of performance improvement in an organization.

Financial stability is one such area in which internal controls have a critical role to play. By offering assurance of financial reporting integrity and financial reporting compliance, internal controls make financial statements reliable. That dependability is critical for attracting investors, raising funding, and in supporting sound decision-making at a strategic level. For a public entity such as ECG, with a larger pool of stakeholders to respond to, such stability generated through strong controls is a godsend. Altamuro and Beatty (2010) demonstrate financial reporting-related controls' role in minimizing misstatement risk, and Cohen et al. (2002) present financial stability improvement through effective controls in detail.

The strategic agility of an organisation is, to a significant degree, determined by its system of internal controls. Internal controls allow for efficient management of risks and decision-making at a strategical level through timely and proper information. Strategical agility helps organisations respond in a timely manner to a change in the marketplace, in the regulative environment, or in operational complications. For organisations like ECG, adaptability in a changing energy environment is critical for long-term performance and value creation. Gordon et al. (2009) reiterate, too, the role of internal controls in supporting decision-making at a strategical level and in controlling risks, and in consequence, supporting agility and competitiveness at an organisation level.

Internal controls play an important role in compliance with regulators and ethics, and in value addition in an organisation. In a complex environment of regulators, compliance can make a big difference in terms of an organisation's reputation and trust with its stakeholders, and in particular for public organisations, whose trust is an important asset. Compliance with strong internal controls can save an organisation financial penalties and loss of reputation. Nalukenge et al. (2018) have even gone to say that compliance and internal controls have a direct bearing, and strong controls have fewer instances of violations and ethical transgressions.

Furthermore, internal controls contribute value to an organisation in terms of enhanced confidence of stakeholders. Customers, investors, and other stakeholders will have enhanced confidence and trust in organisations with a high level of internal controls in position. That confidence will then manifest in heightened customer satisfaction, investors' confidence, and, in the long-term, value for an organisation. COSO (2013) re-emphasizes that strong controls instill confidence in stakeholders, and Ashbaugh-Skaife, Collins, Kinney, and LaFond (2009) have an empirical basis for linking internal controls with market valuation and investors' confidence.

2.2.8 Forces (Changes) Influencing Effective Internal Controls in Organisation

The environment for effective internal controls within organizations is in a state of continuous change, driven by numerous external and internal forces confronting traditional frameworks for controls and requiring flexible approaches. Emerging technology, cybersecurity, changes in the compliance and regulatory landscape, globalization, and financial and economic marketplace uncertainty are some of the main drivers of the design and implementation of internal control systems. As organizations respond to these changes, an increasing need for flexible and strong internal control systems is evident, and these must not only address current risks and compliance requirements but also look for future ones, enabling organizations to maintain operational integrity, financial accuracy, and compliance in an evolving environment. Behind and driving this general need for flexibility and forward thinking is a recognition and response to a host of changing influences on controls, including leveraging technology to enhance controls, safeguarding controls against cybersecurity, coping with a constantly evolving compliance and regulatory landscape, addressing the increased complexity of globalization, and coping with financial and marketplace uncertainty.

2.2.8.1 Technology's Impact on Internal Controls

The advent of technology has played a profound role in changing internal controls, reorienting the way in which organisations react to risk, compliance, and operational efficiency. The technology impact reaches across all sectors, including state-owned organisations such as Electricity Company of Ghana (ECG), whose integration with technology is a part and parcel of its controls. Integrating technology into its controls has amplified, enormously, organisations' capabilities for tracking operations, protecting assets, and getting reporting correct, but with increased complications and obstacles.

One of the most significant implications of technology for controls in an entity is enhanced capabilities in terms of analysis and monitoring of information. High-tech analysis software enables companies to sift through massive volumes of information in an effort to detect trends, outliers, and patterns that can embody weaknesses in controls, and even embody potential danger. In such a case, Alles, Kogan, and Vasarhelyi (2008) have stressed continuous auditing and monitoring technology in providing real-time information regarding an entity's operations, and improving effectiveness in controls. Similarly, Skaife, Veenman, and Wangerin (2013) have through a study confirmed that technology-facilitated analysis of information can go a long distance in curbing financial statement risks through heightened accuracy and punctuality in controls.

Technology has, in fact, altered the way in which risk evaluation in controls takes place. The ever-evolving nature of technological-related risks, such as cybersecurity, mandates that companies use increasingly sophisticated and flexible frameworks for evaluating risks. Gordon, Loeb, and Lucyshyn (2005) state that technology integration in processes for risk evaluation allows for a more complete consideration of both traditional and emerging factors in a risk environment. All such factors have to be taken into consideration in one, overall picture in creating effective controls for counteracting the sophisticated nature of risk in today's times.

The automation of controls is yet another significant contribution of technology towards internal controls. Not only is automation efficient and effective, but it reduces the opportunity for human errors. Robotic Process Automation (RPA) and blockchain have been at the forefront in automating reconciliation, processing of transactions, and compliance reporting processes. Rozario and Vasarhelyi (2018) explains how processes can become efficient with the use of RPA, and Casey and Wong (2017) explores the use of blockchain technology in offering transparency and integrity in processes. All such technological tools make for robust and reliable internal controls.

Nevertheless, technology use in internal controls has its own sets of challenges. More use of technology introduces new forms of risks, most specifically in cybersecurity. Protection of electronic assets and sensitive data is a key concern for businesses, and cybersecurity controls must thus be included in the internal control environment. As Bierstaker, Janvrin, and Lowe (2014) contend, with complexity and evolving forms of cybersecurity risks, controls need to be continually updated and enhanced, and a dynamic and fluid environment for controls is thus essential.

Moreover, the efficient use of technology in controls requires a significant investment in infrastructure, training, and change management. Organizations must ensure that employees have skill sets to effectively use technological tools and continuous learning and adaptability become part of a continuous work environment. Steinbart, Raschke, Gal, and Dilla (2012) in their article give strong importance to training and support in leveraging technology for controls, and actually, give a strong accent to humans' role in technology-intensive settings for controls.

2.2.8.2 Regulatory and Compliance Landscape Evolution

Navigating regulatory reform in Ghana, particularly for public institutions such as Electricity Company of Ghana (ECG), entails a complex environment with numerous reform and legislative amendment processes geared towards heightened transparency, accountability, and efficiency in the public sector. There have been several significant regulatory reform and public sector reform processes over the years, and each one of them carries significant implications for controls in such entities.

The introduction of Public Financial Management Act (PFMA), 2016 (Act 921) in Ghana marked a significant development in financial management reform in the public sector in the country.

PFMA establishes a general legislative frame for financial management in the public sector, with a strong emphasis on planning, fiscal discipline, and efficient use and distribution of resources. Public organisations have an obligation under PFMA to build and maintain sound internal controls and practice, and in doing so, reiterate and re-emphasise financial and operational integrity through such controls. PFMA's transparency and accountability necessitate public organisations such as ECG to apply strengthened controls in compliance with financial management under PFMA requirements.

In addition, Public Procurement Act, 2003 (Act 663), and its amendment in 2016 through Public Procurement (Amendment) Act, 2016 (Act 914), have initiated procurement reform in the public sector. These reforms seek to promote efficiency, fairness, transparency, and value for money in procurement in the public sector. Public procurement is mandated under the Act to comply with uniform procurement processes and controls, and its impact is considerable in relation to procurement and contract management internal controls in institutions such as ECG. For such institutions, coordination of such procurement controls with procurement laws is critical in curbing inefficiencies and procurement processes conducted in an ethical and transparent manner.

In addition to financial and procurement reform, issuance of the Companies Act, 2019 (Act 992) has brought with it a new, modernized legislative environment for incorporation, governance, and winding up of companies, including state-owned companies. As pertaining predominantly to companies, provisions and requirements under Act 992, in relation to corporate governance, financial reporting, and audits, have useful lessons for public entities in an endeavor to harmonize their governance processes and controls with best international practice. Harmonization promotes operational efficiency and accountability in public entities.

The push towards digitalization in public administration has not been accompanied by a lack of regulatory reform in an attempt to utilize technology in an effort to make operations and service delivery in the public sector efficient and effective. National Information Technology Agency Act, 2008 (Act 771) sets out to develop and implement information and communications technology (ICT) in the public sector. For ECG and similar entities, it entails having to integrate ICT governance and cybersecurity controls in its internal controls in a manner that technological innovation will have a positive contribution towards operational performance and compliance.

Economic and financial market fluctuations, both locally and globally, require constant adjustments in internal controls. Exchange, inflation, and fluctuations in interest, among many factors, pose financial management challenges for public entities. There is a necessity for flexible internal controls in an attempt to counter such risks in a way that keeps such entities in a financial state of solidity and preparedness in a state of uncertainty in terms of economy.

2.2.8.3 Globalization and Organizational Complexity

Globalization has altered organisation's operational and strategic environment worldwide, producing a level of complexity that necessitates effective controls in organisations. Complexity arises in dealing with disparate environments of regulation, operations in geographical regions, and responding to global marketplace dynamics. For a public organisation like Electricity Company of Ghana (ECG), opportunity and challenge in operational efficiency, compliance, and competitiveness in the global marketplace arise with globalization.

One of the major implications of globalization on organizational complexity is an increase in operations and supply chains to many countries. Such growth necessitates a call for a change of internal controls in a bid to deal with cross-border-related risks, volatility in currency, and adherence to global standards. Rugman and Verbeke (2004) reveals the challenge of managing multinational operations for an organization, with a call for flexible and adaptive controls. Furthermore, Zeng, Xu, Yin, and Tam (2012) reveals the complexity of global supply chains, with a need for comprehensive internal controls in managing and reducing supply chain risks.

The diverse range of regulatory regimes in countries introduces a level of complexity in organizational operations. Organizations with operations in numerous countries must comply with a variety of country and international laws and regulations, such as tax codes and labour laws, to mention but a few. Regulatory diversity compels such organizations to have flexible internal controls in place in order to obtain compliance in all countries in which they have operations. Luo, Wang, and Zhang (2017) introduce an analysis of the role of regulatory diversity for multinational companies, with a discussion of the role played by internal controls in managing such diversity. In a similar manner, Iershova (2023) also placed strong emphasis on the role played by internal controls in managing compliance-related risks in a global economy.

Globalization also spreads its impact to governance and structure at an organizational level, moving towards a direction of decentralized operations and decision processes. In such a case, decentralization introduces complications in exercising governance and supervision, and strong inbuilt controls that can effectively work in disparate segments and geographies become a necessity. Sarens, Christopher, and Zaman (2013) even portrays governance and control complications in a decentralized entity, attributing strong inbuilt controls for exercising governance and accountability in such a case. Aguilera, Filatotchev, Gospel, and Jackson (2008) work even identifies the contribution of globalization in governance structures of companies, attributing a need for an inbuilt adaptability in controls for effective governance in complex environments.

The technology shifts accompanying globalization complicate the organizational environment even further through an added dimension of cyber threats and a demand for digitalization of internal controls. Application of information and communications technology (ICT) in cross-border operations necessitates that companies implement cybersecurity controls and safeguard integrity in electronic communications and transactions. Analysis conducted by Bierstaker, Janvrin, and Lowe (2014) looks at the evolving role of technology in controls, and cybersecurity controls' necessity as part of an entity's system of controls. In addition, Gordon et al (2003) describes the financial justification for investing in cybersecurity controls in an international operations scenario.

Further, globalization raised the significance of cultural factors in internal controls planning and development. Organizations must deal with cultural diversity in ethics, business conduct, and communications within their global operations. Cultural diversity may affect effective internal controls and requires firms to tailor their controls to accommodate evolving cultural values and traditions. Empirical research by Hofstede (2016) on cultural dimensions and its influence on organizational practice provides insights into controls management in a multicultural global environment. Similarly, Soares, Farhangmehr, and Shoham (2007) in their publication discuss cultural diversity and its influence on international marketing, and based on that, cultural factors gain significance in international controls.

2.2.8.4 The Influence of Economic and Financial Market Volatility

Economic and financial market volatility has a significant effect on organizational activities, and effective internal controls must thus exist to mitigate such risks and maximize such opportunities. Volatility in economic factors and financial markets, in the sense of rapid and unpredictable changes in such factors and markets, poses a multi-faceted challenge to organizations, state-owned ones included, like the Electricity Company of Ghana (ECG). It influences operational costs, investment, and general planning, and thus the role of such controls in navigating such uncertainty cannot be overemphasized.

To start with, economic changes directly affect the expenses and revenues of an organisation. For instance, interest, inflation, and currency exchange fluctuations can directly influence the financial standing of an organisation in a direct way. Lagat and Okelo (2016) highlight the importance of financial planning and analysis during a changing environment with respect to internal controls in managing such financial risks. Similarly, Lane and Rosewall (2015) highlight the contribution of a change in interest with respect to corporate financial decision-making, in the sense of having proper controls for financial management during uncertain times in financial markets.

Second, financial market volatility impacts investment planning and valuation models. Organizations must adjust investment portfolios relative to changes in markets to save capital and ensure returns. This requires a combined risk assessment mechanism within the internal control system. Adrian and Shin (2010) discuss how far leverage and liquidity constraints in financial markets influence organizational risk-taking behavior, while studies by Baker, Bloom, and Davis (2016) describe economic implications of volatility in stock markets, highlighting the necessity of internal controls that provide adaptive investment strategies.

The influence extends even to price and availability of credit. In financial and economic downturns, and financial market stress, credit can become less accessible and even more expensive, curbing organizational expansion and operational agility. Akwaa Sekyi and Moreno Gené (2017) reveal how controls in an entity can mitigate the counterproductive effect of constrictive availability of credit. Lai et al. (2020) have an analysis of the role of controls in managing entity investments' sensitiveness to availability of finance during financial uncertainty.

Furthermore, economic and financial uncertainty necessitates increased controls over financial disclosures and reporting. Organizations must ensure that financial statements effectively convey the effects of uncertain economies and market fluctuations. Transparency in financial reporting under uncertain economies is emphasized by Leuz and Wysocki (2016), and timely and proper disclosures in maintaining investors' confidence during financial uncertainty in the market are examined by Chen et al. (2011).

Operational changes are one of the most important areas whereby internal controls turn into a core function in response to economic and financial market changes. Organisations are required to undertake speedy operational, supply chain, and cost structure changes in a bid to survive and sustain competitiveness and financial viability. Ivanov and Dolgui (2019) revealed the contribution of flexible supply chain management as an internal system for mitigating financial disruption-related risks. Similarly, operational flexibility is highlighted in sustaining organisational performance during periods of economic recession by Swafford, Ghosh, and Murthy (2006).

Lastly, the overall organisation's strategy must respond to financial and economic uncertainty in a marketplace, with controls at an internal level in position to allow for strategic agility. It entails having the capability to change direction in response to a marketplace, entering and exiting a marketplace, and altering a business model when necessitated. Bogers et al.'s (2019) article on dynamic capabilities and strategic management describes how controls at an internal level allow organisations to become resilient and have strategic agility. Sull and Eisenhardt (2015) also refer to simple rules in decision-making in uncertain markets and, in relation, the role played by controls at an internal level in allowing for strategic responsiveness.

Therefore, financial and economic market volatility's impact on organisations warrants a proper and adaptable approach towards internal controls. Not only will such controls have to protect organisations, but organisations must, through such controls, have the opportunity to survive and adapt during times of economic and market fluctuations. As organisations, including state-owned organisations such as ECG, go through such trials, proper integration of robust controls at a strategic level is significant in managing volatility, financial solidity, and long-term organisation development.

2.2.9 Challenges in Implementing Effective Internal Controls

Applying effective internal controls presents a variety of challenges to organisations, including public organisations such as Electricity Company of Ghana (ECG). Challenges range from technological integration complexities to compliance with emerging requirements for changing regulations, managing human factors, and harmonizing controls with organisation strategy. Overcoming such obstacles is critical in creating effective sound internal controls that enhance operational efficiency, financial integrity, and risk management.

One major challenge to having effective internal controls in place is the speed with which technology continues to evolve at a high rate. While technology offers tools for enhancing monitor and control processes, it can be a complicated and expensive issue to incorporate such tools into existing frameworks. Further, the constantly evolving nature of cyber threats means that there is a perpetual need for revising and updating internal control mechanisms. Gordon et al. (2003) highlight the financial and strategic challenge involved in balancing cybersecurity with internal controls, and Bierstaker et al. (2014) highlight that it is difficult for businesses to apply internal controls to technological changes.

Another challenge is compliance with a changing environment with ever-changing requirements for compliance. Organizations must function in an environment in which compliance requirements can change at any time, and constant awareness and adaptability must follow. For public companies like ECG, in compliance with both national and international requirements, it can become even more challenging. What Healy and Serafeim (2019) introduce regarding complications in complying with a global environment is supported and reinforced in regards to compliance complications in observations of PwC (2020).

Human factors, in fact, represent significant barriers to effective implementation of controls in an entity. Resistance to change, lack of awareness, and vulnerability to human errors can threaten effective controls. Culture, training, and communications' role in overcoming such barriers is discussed in work performed by Effendi (2019), whose work takes into consideration the role played by an entity's culture in strengthening controls, and Galletta et al. (2021), whose work takes into consideration the role played by incentives in terms of management in controlling environments.

Alignment of internal controls with organisation objectives and strategy is another difficult problem. Internal controls not only have to protect assets and ensure accuracy of reporting, but have to be seen to advance the general goals of the organisation as well. To achieve such alignment, a very detailed understanding of the operations and direction of an organisation is a requirement. Kaplan and Mikes (2012) investigation of methods of managing risk provides insights on how best to align internal controls with organisation strategy.

Global complexity is one of the factors that make it challenging to have effective internal controls in place. Organizations with big supply chains, such as ECG, and companies with many sales in numerous jurisdictions face specific compliance and risk concerns. All these demand uniformly worldwide and locally relevant internal controls. Rugman and Verbeke’s (2004) analysis of multinational companies emphasizes the challenge of managing internal controls in a worldwide environment.

Moreover, the scarcity of resources, particularly in public and small entities, can impair effective development and maintenance of controls in an entity. Poor budgets, unavailability of expertise, and technology infrastructure can impair an entity's ability for full-fledged controls. Choi et al.'s (2013) investigation of scarcity of resources and effectiveness of internal controls confirms the significant role played by poor firm resource towards effectiveness in controls.

To sum, having effective controls in an entity is replete with impediments, including technological integration and compliance with regulators, controlling for humans, and mapping controls to strategic objectives. Complexity in operations in a worldwide environment and a lack of resources make such impediments even more challenging. To overcome them, a model of technology investments, compliance and awareness cultures, mapping controls to organizational objectives, and controls that can adapt to a changing operational and regulative environment must be embraced. Overcoming such impediments is imperative for entities, including state-owned entities such as ECG, to build effective controls that can safeguard assets, ensure accuracy in reporting, and enable organizational performance.

2.2.10 Status of Internal Control in Ghana Public Sector

The status of public sector controls in Ghana has become an issue of increased concern and reform over the years. In a quest to enhance accountability, transparency, and efficiency, through legislative and regulative interventions, the Government of Ghana has initiated strengthening public entities' internal controls, including the Electricity Company of Ghana (ECG). In spite of such interventions, effectiveness in such public sector controls continues to embody a complex issue, conditioned by a range of factors including regulative change, availability of resources, and institutionality.

Legislative structures like Public Financial Management Act, 2016 (Act 921) have offered a robust foundation for the implementation and enforcement of internal controls within the public sector. Act 921, in particular, has been instrumental in defining the role and expectation of financial management within public organizations in a way intended to ensure efficient and effective utilization of public resources. Despite such regulatory attempts, Yao et al. (2017) argue that operationalization and realization of such policies into effective internal controls in practice differ tremendously among and between public organizations. Abdulai (2020) found that, converting legislative requirements into actual, functional internal controls is a challenge.

The capacity of public sector entities to maintain effective controls is weakened in most cases through a lack of financial and infrastructure capabilities. There is a need for proper training, technology, and financial capacities for effective controls, but most public entities in Ghana have significant constraints in these areas. As mentioned by Bempa (2015), a lack of financial and manpower capabilities constrains public sector entities' capacity for effective controls in most cases. Besides, Ofori and Fuseini (2019) mentions IT infrastructure, an important key for effective modern controls, such as cybersecurity and financial reporting, and its unavailability in most cases.

Institutional culture and governance practice in the public sector also make a contribution towards effective internal controls. Leadership dedication towards accountability and transparency is paramount. Governance and cultural issues, including lack of accountability and resistance, have a tendency to outdo such an endeavor, however. Public sector organizational culture in Ghana can affect use and effectiveness of state entities' internal controls, according to Owusu (2012).

The role of external audits and over watch agencies in assessing and enhancing public sector internal controls is a critical aspect. For example, in Ghana, the role of the Audit Service in testing for effectiveness in public entities' internal controls cannot be overestimated. Shortfalls in internal controls and improvement recommendations have been regularly discovered in Audit Service reports, but compliance and follow-up with such recommendations have not been uniform. Asiedu and Deffo (2017) theorized that financial malfeasance, a recurring issue, is an issue with internal controls in the public sector, and effective compliance mechanisms with audit recommendations must, therefore, be enhanced.

Moreover, the function of technological advancement and globalization presents both opportunity and challenge for public sector internal controls. Implementation of new technology can make public sector internal controls effective and efficient but at a price, such as having to counterbalance accompanying risks such as cybersecurity issues. Senyo et al. (2021) touches on the opportunity for improvement in public sector administration in Ghana through digitalization.

Again, the effective use of internal controls in the public sector in Ghana is added to by the prevalent issue of corruption, a key challenge to both effectiveness and integrity of such controls. Corruption undermines the function of internal control structures through bypassing approved processes and controls for entity or individual gain. Transparency International Corruption Perceptions Index consistently lists the issue of combating corruption in the public sector in Ghana. Anku-Tsede et al. (2023) questioned effectiveness in governance in the public sector and in internal controls, and stressed the necessity for effective anti-corruption programs as part of internal control frameworks.

Also, the quest for sustainability and environment accountability brings new dimensions for internal controls in the public sector. Globally, transitioning towards sustainable development necessitates that organisations integrate environment and social governance (ESG) considerations into its internal controls. Integration ensures organisations not only comply with environment legislation but contribute positively towards society's aims. In Ghana, public organisations such as

ECG increasingly value consideration for sustainability. Yeboah (2020)'s study proves the role of internal controls in supporting sustainable in public sector. The study re-emphasizes the new face of internal controls in terms of including sustainability and environment accountability, in consonance with broader organisation and society aspirations.

2.2.11 Issues of Accountability and Efficiency in Ghana's Public Sector

Ghana's public sector is plagued with deep-rooted financial malfeasances and lack of compliance with established accounting and ethical standards. Reports of the Auditor General have continued to reveal poor performance in accountability and compliance with ethical standards in the sector beginning December 2009 (Banyen & Nasamu, 2015). All these reveal a systemic problem in the public sector, signifying deep-rooted weaknesses in internal controls that cannot prevent misappropriation, secure truthful reporting, and secure proper care and best practice in safeguarding assets.

Financial mismanagement, in the form of overspendings over budgeted provisions, reflects the inefficiencies that plague the public sector. An example is seen in the enormous deficit incurred in November 2015, when spending overshot budgeted provisions by a margin of GH¢20.2 million, a variance reflective of a lack of fiscal discipline and controls in state entities (Haruna & Vyas-Doorgapersad, 2016). Procurement processes conducted in a manner not approved by parliament, in direct contradiction of legal requirements and compromising public spending integrity (Agyei-Mensah, 2019; Boateng, 2016), worsens such a lack of fiscal indiscipline. Inability to follow such procedural requirements and legal requirements reflects deep-rooted weaknesses in the inbuilt controls in public sector operations designed to enable compliance and accountability.

This is exacerbated by the sector's inability to operate within budget, a sign of an underlying issue of managerial inefficacy and lack of adequate inbuilt controls. Kaiser and Streatfeild (2016) state that a fundamental suggestion is instituting statutory spending limits to curb over-spending even in instances of emergency, in a bid to foster fiscal responsibility and optimal efficiency in public utilization of resources. These and all other interventions are instrumental in establishing a culture of responsibility and accountability, with the aim of getting public institutions to operate under and not above budget, and within adherence to due processes.

The findings of the Office of the Auditor General paint a disturbing picture of financial malfeasance in terms of embezzlement, misuse of funds, and improper bank deposits, valued at a total of USD912 million in foreign debt, 30% of which can be attributed to such malfeasance (Ajao et al., 2013). All such discrepancies say a lot about a lack of proper controls and inefficient internal audit processes, and point towards an imperative need for tightening controls in order to prevent financial malfeasance and proper utilization of public funds.

Furthermore, the fact that public companies and state-owned entities failed to report significant amounts of cash is a reflection of the dire state of controls in the public sector in Ghana (Boateng, 2016). Misappropriation of state cars, most of them recovered from ousted officials, is a reflection of the overall issue of embezzlement of assets and lack of accountability in the sector. Cases such as these serve to illustrate the necessity for effective reform in internal controls in an attempt to effectively secure state assets.

The cumulative impact of such financial improprieties and general culture of non-conformity warrants a coordinated effort towards reforming inner controls in Ghana's public sector. Regulatory and legislative actions alone will not work towards strengthening such controls, but a will to develop a culture of integrity, transparency, and accountability at all levels of public service will be critical in driving such strengthening of controls. By resolving such inner controls, Ghana can make its public sector entities efficient and effective in service delivery, and make them serve in a responsible and ethical manner, for and in the public interest.

2.2.12 Overview of Ghana's Energy Sector

The energy sector in Ghana forms part of the infrastructure of the country, a national development pillar, and comes under the portfolio of the Ministry of Energy. Underpinned by significant institutions such as the Energy Commission, with a function in technical regulation and advising government in planning and in terms of policy regarding energy, and the Public Utilities Regulatory Commission (PURC), whose function is to promote high-quality delivery of electricity and water service

At the center of Ghana's energy economy is Volta River Authority (VRA), traditionally the country's sole producer of electricity. VRA produces and distributes power to the Ghana Grid Company (GridCo), whose function is to transmit electricity throughout Ghana. GridCo operates a grid that forms a bridge between generating and distributing electricity and is a key player in grid efficiency and grid stability.

The Electricity Company of Ghana (ECG) is a dominant utility in the distribution segment of the sector, providing electricity to residential, commercial, and industrial customers. It seeks to make dependable electric power accessible to its customers and addresses service delivery complications in an economy in growth. Northern Electricity Department (NED), a subsidiary of VRA, plays a similar role in its region in Northern Ghana.

Ghana's energy sector is characterized, in addition, with a role for Independent Power Producers (IPPs), whose contribution aids in source diversity in terms of the source of energy and in enhancing energy security. IPPs have become increasingly important with growing demand and a preference for renewable and sustainable sources of energy.

The sector is not in a vacuum and is in contact with international energy markets. Ghana both buys and sells electricity in a move to stabilize demand and supply in the country and obtain regional security in terms of energy. Imports and exports go to neighboring countries, such as the Communauté Électrique du Bénin, in a reflection of Ghana's role in regional trading in terms of power.

However, despite such frameworks, the sector is under strain, with financial vulnerabilities in public utilities, tariff, and infrastructure investments for growing demand and loss in transmission and distribution (Ackah & Kizys, 2018). Reforms and investments have gone towards improving operational efficiency and financial viability, with a target of increased access to electricity and integration of renewable sources in the mix (Energy Commission of Ghana, 2020).

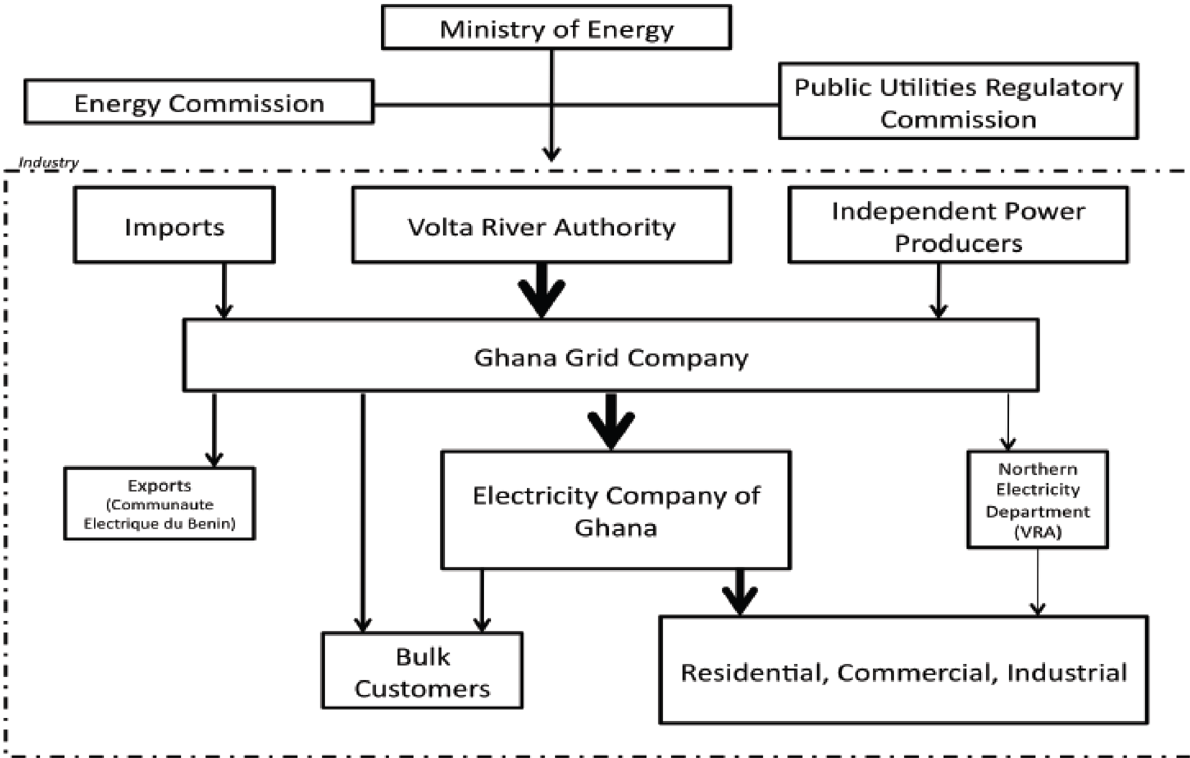

Figure 2: Structure of Ghana Electricity System (IAEA-Ghana, 2013)

2.2.13 Overview and Structure of Electricity Company of Ghana

The Electricity Company of Ghana (ECG) is a major stakeholder in Ghana's energy industry through its operation as a main distributor of electricity in southern Ghana. Established in 1967, it operates under the supervision of the Ministry of Energy and is saddled with the critical responsibility of providing efficient electricity service to domestic, commercial, and industrial customers. ECG's role is not merely distribution but encompasses planning, development, and maintenance of its distribution system in an attempt to address heightened demand and support national development.

ECG's operational presence reflects the gravity and complexity of its role in the Ghanaian power sector. Not only is ECG involved in distributing Volta River Authority (VRA) and Independent Power Producer (IPPs)'s generated electricity to its consumers, but it is also responsible for system maintenance, fault rectification, and service delivery to its consumers. ECG's operations, therefore, have a significant impact in the life of Ghana's economy, touching industries, companies, and the overall wellbeing of its citizens.

The structure of ECG, as one can observe in the organogram, mirrors a hierarchical and functional structure designed to manage the expansive and complex operations of electricity distribution. In charge of the overall operation and responsible for overall direction and policy, at the top is the Managing Director. Reporting directly under him are departments such as the Ashanti Strategic Business Unit (SBU), Audit, and Legal Services, and a variety of general manager positions that speak to a multi-leveled management, offering focused and supervision in terms of specialties in disparate parts of the company.

The General Managers (GMs) for Project Office, Energy Trading, Monitoring & Evaluation, and Planning for the corporation represent jobs that enhance compliance, delivery of projects, direction, and continuous performance review. All these jobs have a critical role in managing a complex environment of compliance, trading in the marketplace for energy, and ensuring that projects comply with corporation direction and execute effectively and efficiently.

On the operational level, Deputy Managing Directors (DMDs) for Engineering & Operations, Sales & Customer Services, and for Finance & Corporate Services embody a tripartite orientation towards ECG's three most significant areas of business activity. Engineering and operations are significant for supporting the physical infrastructure of the distribution grid, sales and customer service for generating revenue and pleasing customers, and for finance and corporate services supporting financial viability and long-term viability of an organisation.

Every operational unit goes further into specific areas, such as region operations, customer services, information and communications technology, procurement, and human resources, among numerous others. All such divisions highlight the multidimensional nature of ECG operations, which requires specialist skills and focused management in addressing the complexity of the distribution network, customer relationships, technological infrastructure, procurement of goods and services, and well-being of employees.

The organogram also reflects a labor division, with individual departments and directorates having specific roles towards ECG's overall function. With network development and expansion through to consultancy in energy and telecommunications business, all ECG's departments contribute towards the objective of efficient and effective distribution of electricity for the company. With training centers and buildings and estates, ECG's commitment towards developing its workforce and effectively managing its property is also hinted at.

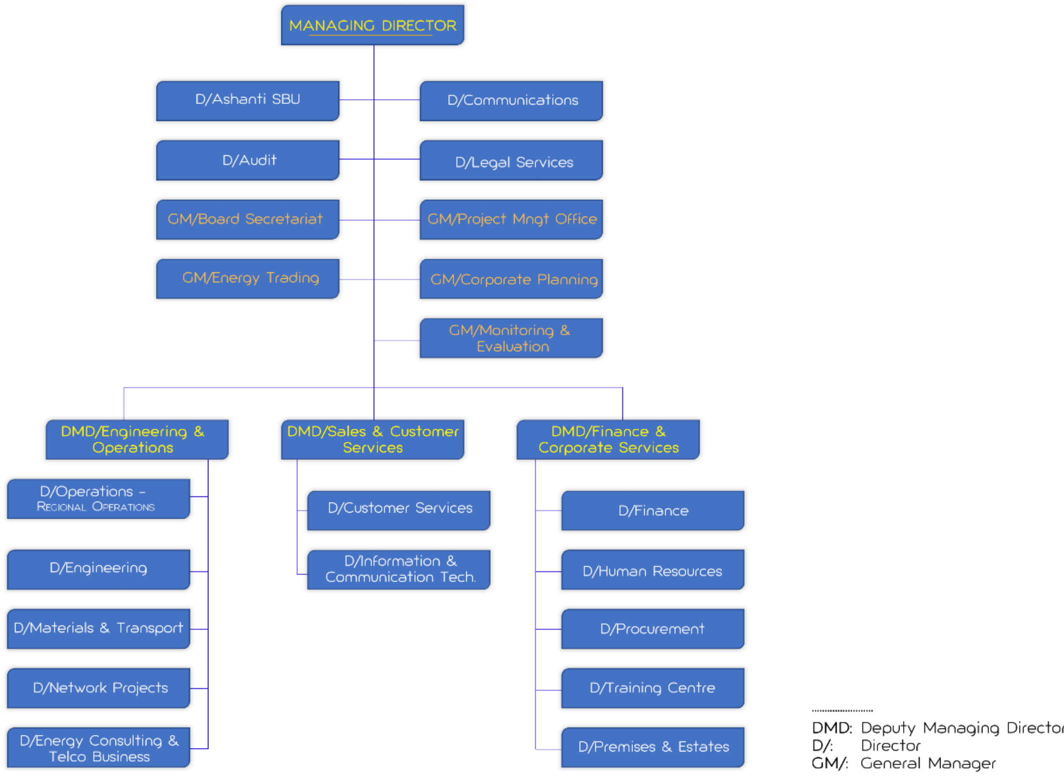

Figure 3: Organisational Structure of ECG (ECG Ghana, 2023)

2.3 Theoretical Review

According to Abend (2008), a study's theory is related to the actual production and sociological knowledge. Researchers cannot neglect theoretical inquiries since they can help them understand social phenomena. Lederman and Lederman (2015) emphasized that "all research should have a valid theoretical framework to justify the importance and significance of the work". In this study, theories that have been adopted include Agency theory, System Theory and Stakeholder theory.

2.3.1 Agency Theory

Agency theory is important in describing the driving mechanism of governance and internal controls in an organisation. Agency theory, formulated in 1976 by Jensen and Meckling, is based on the fact that, in any organisation, a conflicting interest between principals (the owners, i.e., the shareholders) and agents (the manager(s)) arises. Jensen and Meckling say that such a conflicting interest can generate an agency problem, and such a problem can make an agent pursue private objectives that differ from principal wealth maximizing objectives, particularly in instances of a disjunction between ownership and control in an organisation.

The link between agency theory and internal controls is particularly strong. Internal controls have been seen to play a key role in reducing principal-agent relation risks through a mechanism that ensures that agents act in terms of principal interests. Fama and Jensen (1983) expand on this through an example of how decision and control structures have to function together in an attempt to coordinate actions of agents with principal objectives. In addition, Eisenhardt (1989) has gone a level further in arguing that internal controls are part of information asymmetry minimizing and controlling for behavior of agents in firms.

Agency theory affected a number of these internal controls, such as performance-related incentives and routine audits. Controls serve both as a balancing and a safeguard mechanism with regard to manager overreaches and manager self-interests. Controls also constitute a mechanism for accountability at the heart of governance in a corporation. Jensen and Meckling's (1976) work has been supported with newer work by Beasley (1996), and it shows that efficient controls can negate the issue of agency through a manager-shareholder interest alignment.

However, agency theory is not exempted from criticism. Agency theory is criticized for a sole concern with financial self-interest and a lack of consideration for overall organizational aims by a section of critics. According to Ghoshal and Moran (1996), postulation of opportunism in the theory can lead to an over-emphasis in controlling structures, potentially stifling innovation and cooperative behavior in organisations. In a similar manner, Davis, Schoorman, and Donaldson (2018) believe that agency theory’s prescriptivist position can miss out on manager role complexity and contingent character of organisations.

Despite such criticism, agency theory continues to make a contribution, in part, through its explanatory and predictive capabilities in explaining behavior in governance structures in companies. Agency theory has been credited with its capacity for formulating explicit, and hence testable, propositions about control mechanisms. Roberts (2012) identifies that agency theory can make a useful contribution towards the development of incentives and contracts that will cause principals' and agents' interests to align. Recent work conducted by Dalton, Hitt, Certo, and Dalton (2007) demonstrates the generalizability of agency theory in a variety of settings, attesting to its value for present governance concerns.

The application of the theory in the current study is multi-faceted. The theory provides a theoretical framework for an exploration of the use of internal controls in Electricity Company of Ghana, with a perspective to an analysis of how such controls can be used to mitigate the risks involved in disentanglement between ownership and management. Agency theory recognizes the necessity of having an effective system of internal controls in place that are capable of monitoring and guiding agent behavior, so that the strategic goals of the organization are achieved.

2.3.2 System Theory

Systems theory, founded on the premise that organizations are complex, interrelated sets of subsystems that need to function harmoniously for overall effectiveness, provides a comprehensive framework for understanding organizational dynamics. Ludwig von Bertalanffy, in the mid-twentieth century, pioneered this theory, positing that an organization can be viewed as an open system that interacts with its environment. In the context of internal controls, systems theory suggests that these controls are not isolated mechanisms but interconnected components of a broader organizational system that influence and are influenced by external and internal factors (Kast & Rosenzweig, 1981; Scott and Davis, 2015).

The integration of controls with operations in an organization is emphasized in systems theory. It recognizes that controls in an organization form part of a complex system of operations, impacting and impacted by various processes in an organization. According to Mihret and Khan (2013), effectiveness in controls is contingent upon perfect integration of controls in an organization's operational processes. Arena and Azzone (2012) confirms this through demonstration that controls developed with a systemic consideration can contribute towards strategic alignment of processes in a business, and therefore, organizational performance.

Systems theory describes the role played at an internal level by controls in relation to overall organisation. Theory recognizes that controls at an internal level, when effectively included, can make overall system performance efficient through effective working and contribution of individual parts towards organisation aims. Abiodun (2020) have an opinion that controls at an internal level have a regulating role, in terms of organisation adaptability towards inner and outer transformations, and Ho, Wu and Wu (2014) present an example of how controls at a system level contribute towards overall organisation operations' steadiness and reliability.

Critiques of system theory have argued that its over-use can oversimplify and under-emphasize complex and idiosyncratic behavior in organisations. Clegg (2021) argued that system theory can become overly theoretical and fails to consider idiosyncratic actions and political behavior in organisations, which can affect controls in an organisation. Besides, academic critics such as Alvesson and Spicer (2012) have argued that system theory sometimes fails to pay regard to political and relations of power in organisations, and political and relations of power in organisations can affect controls' operations and implementations in an organisation. Besides, Hill, Schilling and Jones (2020) have argued that system theory fails to regard rapidity in change in modern-day business, and its static form could not apply in full swing in current organisation's structures.

In spite of such criticism, systems theory is widely recognized for its strengths, most of all its general orientation towards an analysis of an organization. It has been praised for placing a strong emphasis on viewing an organization's operations in their entirety in establishing internal controls. Sargiacomo et al. (2015) recommends the theory for providing a comprehensive picture model that can guide the design and assessment of internal controls at every level of an organization. Abbas and Iqbal (2012) finds merit in the theory for enabling an overall approach toward managing and controlling risks, and for increasing organizational flexibility and resilience.

Systems theory's greatest asset is its utility in problem diagnosing and problem-solving in complex systems, such as in public sector entities such as the Electricity Company of Ghana. Systems theory is useful in providing insights into how individual parts of an organization's internal control system can work together in a coordinated whole. Okwir et al (2018) point out the utility of systems theory in performance management, arguing that it can enhance effectiveness in internal controls through unveiling interdependencies and systemic risks.

The significance of systems theory in relation to such work runs deep. It furnishes a frame of reference through which one can perceive and comprehend controls of a public entity such as Electricity Company of Ghana in terms of a complex, interrelated system. Systems theory underlies and informs one's perception of controls of an entity not in terms of discrete processes but in terms of an overall operational system of an entity, impacting and impacted in a range of organizational factors. With a systems theory, one can in such work perceive in what way and to what degree controls of an entity contribute towards organizational cohesion and achievement of overall strategic objectives.

2.3.3 Stakeholder Theory

Stakeholder theory asserts that firms should pay attention to the interests and powers of all groups that can affect or are affected by them, and not just owners, such as workers, customers, suppliers, communities, and government. R. Edward Freeman, in 1984, came up with a theory that set a new path for considering corporation responsibility, one that broke away from a shareholder-only perspective of responsibility. In a modern context, the theory puts forward a less limited model for business, one where value creation for a multitude of groups takes center stage (Freeman, 2010).

The link between organizational internal control systems and stakeholder theory is based on the fact that these controls need to protect all stakeholders' interests. Akisik and Gal (2017) argue that good controls that duly consider stakeholder interests can lead to successful risk management and ethics in action. De Villiers et al. (2014) argue that stakeholder engagement can guide sustainability reporting, which is part of transparent reporting by an internal control system.

Additionally, stakeholder theory will postulate that internal controls will be designed to address a broad range of concerns, in view of diversity in stakeholder interests. This will include financial accuracy and efficiency, through to ethical behavior and social accountability. Eccles and Krzus (2010) observe that a stakeholder orientation in internal controls yields an integrated reporting, blending financial and sustainability information, and therefore providing a full view of organizational performance.

Despite its broad view, stakeholder theory has been criticized for its failure to have specific decision-making criteria. Jensen (2010) is of the view that attempting to serve everyone at a single point in time could mean conflicting aims and less-than-optimum decision-making. In a similar view, Sundaram and Inkpen (2004) observe difficulty in balancing competing stakeholder aims, an issue in prioritizing objectives in a system of internal controls. Besides, Phillips, Freeman, and

Wicks (2007) speak of difficulty in specifying relevant stakeholders, an issue for companies in developing and implementing internal controls.

On the one hand, stakeholder theory is appreciated for its breadth and long-term value creation orientation. In the view of Harrison, Bosse, and Phillips (2010), consideration of a variety of stakeholder interests can allow companies to build more ethical and long-term oriented business behavior. In the view of Crane, Palazzo, Spence, and Matten (2014), the theory can promote corporate social responsibility, and in its turn, can contribute to increased reputational capital and trust. Sison and Ferrero (2015) say that stakeholder theory constitutes a source for moral underpinnings of corporate governance and inner controls, orienting them towards general values in society.

Stakeholder theory is also more powerful in that it engenders a stronger, ethical organizational culture. Stakeholder practice will not only make internal controls comply with laws but will instill a culture that values ethical conduct and community well-being. Hoi, Wu, and Zhang (2018) demonstrate that firms with high stakeholder-focused cultures will have high performance, and Veronica et al. (2020) report that stakeholder dialogue can yield high performance and agility.

For the purpose of this analysis, stakeholder theory is an appropriate framework within which to examine the role of internal controls in managing Electricity Company of Ghana's diverse interests. Concepts within the theory support the development of internal controls that uphold not just financial and operational integrity, but also address the needs and expectations of various groups of stakeholders, including customers, employees, and society at large in Ghana. With an application of stakeholder theory, this analysis is able to see in what ways ECG's internal controls can promote community development and sustainable business practice, alongside financial performance.

2.4 Empirical Literature and Gaps

2.4.1 Review of International Studies

In Tenbele's (2019) work, an investigation of the effectiveness of CUEA's internal control system was the focus, and specifically, interest was in exploring its constituent components: control environment, risk assessment, control activities, information and communication, and monitoring activities. Using a descriptive study and a stratified sampling method, 53 administrative employees in a survey were queried. Analysis, through the use of descriptive statistics, indicated that, to a high extent, the control environment was effective, but the other four, to a lesser extent, were moderately effective. CUEA, the study found, has an internal control system that is effective to a moderate extent, and its overall effectiveness improvement will need stricter enforcement and monitoring of policies and processes. In its finding, this study exposes a significant gap in the empirical literature on exhaustive evaluation of the comprehensiveness of an internal control system, especially in schools and universities. Most, like Tenbele's (2019), merely report perceived effectiveness of an internal control system and not an exhaustive exploration of actual implementation challenges, nor a specific identification of each constituent part's contribution to an organization's performance. Contrarily, in trying to fill such a gap, in this present work, an exhaustive exploration of all components of an internal control system in Electricity Company of Ghana is undertaken.

In the Mahadeen et al. (2016) study, an analysis of the role played by Jordanian organizational effectiveness and Jordanian companies' internal control system elements was performed. Data collection involved a survey via a questionnaire that was posted to 151 Jordanian companies' workers at various manager levels. High positive impact of such Jordanian companies' internal control elements towards Jordanian companies' effectiveness and a high positive value of a significant correlation coefficient, signifying a strong positive relation between Jordanian companies' internal control system and Jordanian companies' effectiveness, were calculated in the study. There was a lack of studying such practice and challenge of such internal control elements, specifically in industries other than Jordanian industries, in the study. In an attempt to cover such a lack, in this present study, an analysis of Electricity Company of Ghana is performed, offering a general sectoral outlook and a review of operational, financial, and compliance aspects of internal control systems.

In the study of Rafindadi and Olanrewaju (2019), the function of internal controls in financial accountability in Nigerian NGOs was analyzed. With a survey of 352 respondents in 44 North-Western Nigerian NGOs, the authors utilized regressions and PLS structural model analysis of information. In its conclusion, the work stressed the significant function played by internal controls in improving service delivery quality in terms of service delivered by NGOs and correct accountability, with a specific observation that a 1% drop in risk appraisal yields a 0.155 improvement in accountability. In its observations, the work also determined a lack of regulating frameworks in government and inactive intervention in funding for NGOs as contributing factors in service delivery failure. One such omission in such a work involves its geographical and sector-specificity, limiting its generalizability to a larger universe in environments in Nigeria in which NGOs function. In an attempt at closing such gaps, such a current work aims at providing a deeper analysis of controls in the Electricity Company of Ghana.

In their 2016 publication, Rosman, Shafie, Sanusi, Johari, and Omar discussed the role of budget participations and effectiveness of internal controls in improving performance effectiveness in Non-profit Organizations (NPOs) in Malaysia. Employing a survey research, it conducted a survey and dispatched questionnaires to NPOs that have been duly registered with Registrar of Society or Company Commission of Malaysia, with a 64% success in securing a response from its samples. In its regressions, it revealed significant relations between control environment, control activity, and both financial and non-financial performance of NPOs. In conclusion, high budget participations and strong internal controls system have a significant role in improving NPOs' transparency and accountability. Nevertheless, in its location, the study has a weakness in its generalizability, in that it concentrated only in Malaysia, and its application in NPOs and companies in other environments, most importantly in developing countries with a disparate environment in terms of laws and operational impediments, can be questioned. Besides, in its contribution, even when discussing in general terms the impact of controls and budget participations, it doesn't go in detail in terms of specific operational, compliance, and strategic impediments encountered in organisations, and therefore, a necessity for such work.

In the study by Tri, Tran, and Huu (2020), the effectiveness of internal control systems in Vietnamese construction businesses in Ba Ria-Vung Tau Province was assessed. Drawing on quantitative and qualitative methods grounded in the COSO Framework 2013, the authors analyzed data from 304 construction SMEs' responses. They confirmed a positive impact of five internal control components on systematic effectiveness, with monitoring having the strongest impact and control activities the least. The legal sanction policy factor did not, however, show a significant relationship with the effectiveness of internal control systems. The gap that this study has found in this research is the restriction of the study to the construction sector in a single Vietnamese province, which could potentially narrow the generalizability of its findings to other sectors or geographical areas. Further, while the study underscored the importance of internal control components, it did not address how such systems could be optimized against the background of evolving business risks or the role that could be played by technology in the effectiveness of internal controls. This current study seeks to fill these gaps by targeting the Electricity Company of Ghana, making a broader sectoral assessment, and incorporating a qualitative method for a deeper exploration of the operational, financial, and compliance processes of internal control systems.

2.4.2 Review of Related Local Studies

In a study by Ayagre, Appiah-Gyamerah, and Nartey (2014), the researchers aimed at evaluating control environment and monitoring activities components of Internal Control Systems in Ghanaian Banks. Using a Likert scale survey, authors measured respondents' awareness and perception of internal controls and effectiveness in banks. In its findings, there existed strong controls in the areas studied with high mean values for both components, as per the study. In its recommendations, ongoing and personalized internal controls' monitoring is recommended in an effort to ascertain actual working of such systems. Despite the strengths in the study, a context gap in the study exists, with its focus on only two out of five internal controls' components, leaving out risk assessment, control activities, and information and communications. In an effort to fill such a gap, in this current study, an extensive focus on all such controls' components, as per COSO, in the Electricity Company of Ghana, is suggested, thus providing a complete picture of such controls in the case of Ghana's energy sector.

In the article of Ibrahim, Diibuzie, and Abubakari (2017), the study's objective was to investigate the role played by factors of internal controls in financial performance in five health institutions in the Upper West Region in Ghana. With an ordered logistic model and a fifty-person sample, financial performance and internal controls showed a positive general relation, but significant in three out of five of the examined internal controls. In its conclusion, in its recommendation, such internal controls proposed in health institutions must regularly be monitored by a relevant governing institution or an audit committee. In its contribution, its observation of a narrow geographical and sectoral range, and thus, possibly not a general picture for internal controls in other sectors and regions in Ghana, stands out in its work. In addition, in its observation of positive relations, it failed to tackle the problem of whether and in what manner factors of internal controls could have an impact on performance dimensions other than financial ones. In its contribution, in its work, these weaknesses in its work are addressed in that it evaluates internal controls in the Electricity Company of Ghana, offering a general picture in both operational and sectoral terms.

The research conducted by Agbenyo, Jiang, and Cobblah (2018) analyzed the impact of government internal controls on financial reporting quality in the Revenue Authority of Ghana. By quota and simple random sampling, fifty participants were recruited and questionnaires were utilized in collecting information. In their analysis, through a correlation matrix, it showed that even though monitoring, a part of internal controls, had a statistically significant impact on financial reporting quality, collection performance improvements positively impacted financial reporting quality. In this study, a critical knowledge gap in knowing the specific roles played by individual parts of internal controls in financial reporting quality is discovered. In an attempt to build on such a conclusion, the current study aims at providing a deeper analysis of all parts of internal controls in a new environment, namely, Electricity Company of Ghana, through a qualitative analysis in an attempt to have a deeper grasp of internal controls and its impact on efficiency and compliance in an organization.

In another study, Lartey et al. (2019) analyzed compliance with internal controls in public organisations in a specific country with consideration for preventive, detective, corrective, and directive controls. Lartey et al. (2019) analyzed 395 respondents' feedback using a structural equation model and, through analysis, concluded positive significant impacts for all types of controls, with preventive controls having most impact. Unlike Lartey et al.'s (2019) specific consideration for a country and a specific kind of organisation, such restrictions are avoided in this current work through employing a similar model for use in Electricity Company of Ghana, employing qualitative interviews for a deeper, nuanced analysis of how internal controls function in a new environment and sector, extending Lartey et al.'s (2019) work and offering a fuller picture of compliance with internal controls for a range of organisations.

Lastly, Oduro and Cromwell (2018) explore fraud and fraud prevention in relation to internal controls in Ghana's local government environment. In a survey conducted in 35 local government entities, and using a multi-regression analysis, a significant fraud deterrent through a mechanism of risk evaluation and use of information technology, according to them, is revealed. On the contrary, factors such as control environment, control activity, monitoring, and information and communications, even with a positive impact, failed to have a significant contribution towards fraud prevention. One key finding was the establishment of poor background checks, poor monitoring, and incorrect documentation as common internal controls' weaknesses, with an attribution of fraud to staff, who were seen to be responsible for most fraud cases. Gaps in the work of Oduro and Cromwell include its restriction to quantitative measures of effectiveness in internal controls, with an opportunity for a qualitative analysis of the operational, financial, and compliance processes of internal controls' effectiveness in an entity such as Electricity Company of Ghana, an objective of this current work in an attempt to bridge such gaps.

The empirical studies literature encountered in disparate studies have a unifying theme in regard to the value of having sound internal controls in a variety of settings, including banking in Ghana, not-for-profit entities in Malaysia, and construction companies in Vietnam. Together, these studies reiterate the positive impact of effective internal controls in enhancing performance, accountability, and systemic efficiency in an organisation. Despite rich information gained, important gaps exist and these pertain to the geographical location and sector being restricted in studies, and therefore, not allowing for a broader generalizability of findings. There is a recurring theme, too, in regard to a lack of overall assessments for all aspects of internal controls and an examination of qualitative dimensions of implementation concerns. In an attempt to bridge such gaps, in this current study, an in-depth examination of internal controls in the Electricity Company of Ghana extends the discussion in an empirical manner into the utility sector. Employing a qualitative approach, it seeks to explore unearthing the nuanced impact of internal controls in operational efficiency, compliance, and governance, and in doing so, extends a more composite picture of internal controls in a variety of sectors and geographical locations.

2.5 Chapter Summary

In summary, the literature review chapter has proceeded through a general review of theory of internal controls, theoretical frameworks, and observations, each one offering a background platform for an understanding of background of the study, effectiveness of internal controls in the energy sector in Ghana, and in particular, in Electricity Company of Ghana (ECG).

The first section of the chapter provided a conceptual foundation, which defined major dimensions of internal controls based on the COSO model. Here, it provided insight into major components—control environment, risk assessment, control activities, information and communications, and monitoring activities—and its contribution in ensuring integrity, efficiency, and compliance within an entity. It highlighted a primary function of the internal controls to safeguard assets, enhance financial reporting integrity, as well as compliance with laws and regulations.

Next, the chapter covered three main theories: agency theory, systems theory, and stakeholder theory, each giving a unique perspective for viewing internal controls. Agency theory focused on the function of internal controls in mitigating conflicts between owners (the principals) and management (the agents). Systems theory adopted a whole-systems perspective, viewing internal controls as part of a linked and interdependent system within an organization. Stakeholder theory broadened the scope of internal controls beyond owners to all groups that have a vested interest in an organization. Like any theory, each of them has criticisms, but cumulatively, they paint a rich picture of internal controls with regard to a range of dimensions, and with respect to its function in governance and performance within an organization.

The empirical studies included both locally and international studies, offering a rich source of information about effectiveness and usability of internal controls in a range of sectors. Unlike positive associations between strong controls and effectiveness, accountability, and performance, all of the studies under review referenced gaps, and most notably, narrow geographical and sectoral scopes of examination. Besides, a high demand for in-depth and qualitative studies about practice and impediments encountered in establishing and employing internal controls, a demand filled in this study, existed in studies under review.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Chapter Introduction

The chapter presents the adopted research methodology for this study, describing in detail the systematic examination of ECG’s internal controls for effectiveness. It covers the research design and philosophy, defining theoretical and pragmatic underpinnings for investigation. It describes the environment for study, target population, and determination and selection of the sample, in a manner that promotes representativeness and pertinence of the study. It describes tools and techniques for collecting and analyzing data, providing a platform for an empirical study. It covers ethical considerations in a manner that promotes integrity and ethical behavior in the study. Adopted methodology is such that it will present a critical and thorough analysis with a view to provide meaningful insights into ECG’s controls.

3.2 Research Design

The research design for this study is a qualitative one, with an objective of researching in detail concerns regarding ECG's internal controls' effectiveness. Qualitative research design is most applicable in researching general occurrences in their natural settings, and in allowing for an examination of root causes, opinions, and motives (Creswell, 2013). Qualitative research can allow for a critical examination of the internal controls, the problem in their implementations, and persons' opinions involved in their supervision and management. Qualitative design has been utilized in an attempt to capture ECG's internal controls' dynamics, in a form that could not have been accomplished with quantitative information alone.

The choice of a qualitative study is justified through its ability for rich, in-depth information regarding complex processes in organisations. For investigations of internal control systems, qualitative studies allow one to investigate individual experiences, cultures in organisations, and interdependencies between individual parts of an internal control system, in terms of individual experiences in an organisation (Myers, 2019). This aids in not only investigating structures of such systems but, most importantly, factors of a human nature that contribute towards effectiveness in such systems. Other studies, such as Harmsen (2018), have successfully utilized qualitative approaches in investigating how an organisation's internal control systems can be strengthened.

In addition, the appropriateness of the qualitative design is highlighted by its flexibility and malleability, whereby researchers are able to work effectively with the complexity of the problem at hand. It serves to allow the study to be able to react to findings as they emerge, promoting a reflexive and responsive research process (Maxwell, 2012). In situations of limited prior studies in an area, and in situations whereby dynamics in an entity's internal controls may differ tremendously compared to comparable entities, flexibility is especially beneficial through qualitative research design. With such a study, insightful information about effectiveness in ECG's internal controls can be unearthed, contributing to existing knowledge in an area.

3.3 Research Philosophy

The philosophy of research guiding this research is interpretivist, as it holds that reality is subjectively constructed by humans in their particular worlds. This line of thinking is best applied to qualitative research, whereby one desires a detailed understanding of human experiences, observations, and interpretations of social reality (Bryman, 2016). Interpretivism is favored due to its interest in subjective interpretation of social reality, and as such, is best placed to comprehend the complexity of ECG's internal controls from the perspective of individuals tasked with developing, implementing, and operating in these controls. It allows for rich exploration of perceived and actualized internal controls in ECG's particular work setting, with consideration of variation in experiences and interpretations among individuals.

Justifying the application of such a philosophy, it enables a rich, nuanced analysis of controls' comprehension, performance, and negotiation in ECG, taking into consideration a variety of interpretations and meanings imparted to them by ECG's various organizational members. It is significant in disentangling complex social processes that have an impact on effective controls. In consonance with the work of Power (2013), in whose work fraud risk management was analyzed, in this work, an examination will be performed in order to unveil controls' location in ECG's general organizational culture and operational reality. Thus, interpretivist philosophy will enable the study to develop an awareness of controls' shaping through subjective realities, with an analysis extending beyond quantitative assessments of effectiveness in controls.

3.4 Study Setting

The study location for this work is Electricity Company of Ghana (ECG), a principal institution in Ghana's energy sector, with a distribution mandate for electricity in southern parts of the country. Electricity Company of Ghana (ECG) is a principal institution in Ghana's energy sector, having been established in 1967 through a merge of Electricity Department and Volta River Authority distribution system. Its creation represented a principal step towards uniting distribution of electricity in then new and independent Ghana, with an objective of enhancing access, dependability, and efficiency of delivery of power to urban and rural communities. ECG's function entails distribution and retail of electricity to southern parts of Ghana, acting in a principal liaison role between entities producing power and the ultimate consuming public. ECG, over years, has evolved in terms of satisfying increased national requirements for energy, technological advances, and necessity for environmentally friendly delivery of power.

The choice of ECG as a site for research is important, and it affords a vibrant background for studying the function and effectiveness of internal controls in a key public utility. ECG's long and complex history, with its experiences of challenge and achievement in extending electricity cover and delivering service, affords a rich environment for such a study. Analysis of ECG's development of its internal controls in terms of its history and operational complexity is a rich source of information regarding how such controls develop over a period of years. Not only does the site of study draw out ECG's key role in developing Ghana, but it affords a basis for studying in general terms the implications of internal controls in enhancing accountability, operational effectiveness, and compliance with regulatory requirements in an organisation.

3.5 Population

The study population for this work consists of a diversified group of key stakeholders in Electricity Company of Ghana (ECG). There is the senior management, responsible for strategical decision-making and supervision; operational workers, responsible for managing the day-to-day operations and seeing through the application of internal controls processes; financial officers, responsible for maintaining financial integrity in the company and reporting requirements; and the internal auditors, responsible for a critical role in checking effectiveness in internal controls structures and compliance with established policies and procedures. With such a target population, the study will gain a panoramic view of the internal controls structures from a multi-perspective view in an organization, and have a full grasp of the mechanism, success, and failure in imposing such controls. With such a target population, in addition, one will gain in-depth information regarding the design, operationalization, and impact of such controls in enhancing efficiency in an organization, managing risks, and compliance with a regulating environment, and therefore, a full picture of ECG's internal controls structures.

3.6 Sampling Technique and Sampling Size

This study employs a non-probability purposeful sampling technique in recruiting 15 respondents at Electricity Company of Ghana (ECG) with a careful selection for a general range of information pertaining to the objectives of the study. Purposeful sampling works best in qualitative studies when one wants in-depth contextual understandings and not necessarily generalizability at a statistical level. With such a selection, one can opt for respondents with desired information, expertise, or outlooks pertaining to investigation of ECG's inner controls. By choosing senior management, operational workers, financial officers, and inner auditors, the study aims at garnering in-depth perspectives at several organizational levels and departments. In justification for using a purposeful selection, Patton (2014) sees its use in qualitative studies in selecting information-rich cases for in-depth analysis of a problem at issue.

3.7 Research Instrument

For this study, interviews have been embraced as the principal tool for investigation, with a proven track record in providing rich, in-depth information about complex realities such as organisation's internal controls. Interviews most appropriately apply in qualitative studies with a desire to explore participants' experiences, interpretations, and perceptions in detail. Interviews allow for rich, firsthand information regarding operations of, and experiences with, and understandings about, ECG's internal controls, with a level of detail and nuance unachievable through quantitative methodologies. Interviews' malleability permit follow-up in detail in case of curiosity, clarifying and developing concern points in real-time, and in so doing, expose nuance and complexity in organisation's internal controls. Kvale and Brinkmann (2009) refer to the use of interviews in qualitative studies for generating meaningful information closely pertinent to questions at issue, with an opportunity for thorough examination of the issue at hand. Through use of interviews, in this study, thorough examination of effectiveness, difficulty, and implications of ECG's internal controls in terms of operations and supervision, respectively, is assured, direct from sources most closely involved in operations and supervision.

3.8 Data Collection

The data collection in this study will include face-to-face interviewing with the researcher, a preferred method of collecting data that comes with a variety of advantages. Interviewing face-to-face allows for high levels of rapport and trust to build between participant and researcher, a critical in getting un-guarded and in-depth information. Personal contact allows for a flexible and adaptable interviewing process, in which interviewer can observe non-verbal cues, adjust direction of conversation when deemed fit, and explore in detail specific concerns in relation to feedback gained from participants. Personal contact ensures collected information not only rich and in detail but nuanced, with a reflection of participant experiences and understandings of Electricity Company of Ghana (ECG)'s inner controls' complexity. Personal contact in collecting information reflects a willingness on part of the researcher to understand in detail the issue's complexity, with high information quality and dependability in information collected.

The interviews will run for approximately 45 minutes, a duration deliberately chosen to allow for a satisfactory level of depth but not for participant fatigue. That duration is a balance between eliciting in-depth information regarding the inner controls and maintaining participant interest and motivation. Participants will, in preparation for each interview, be advised of the purpose of the study, the confidentiality of their responses, and their willingness to volunteer, in an assurance of consent. Interviews will be conducted in a semi-structured format, guided through a list of prepared but not scripted questions that allow for in-depth narrative but with room for venturing off-piste in search of unplanned observations. That level of adaptability enables a fuller and rounded picture of ECG's inner controls through investigation of areas of specific interest that occur during discussion. In a best practice in qualitative inquiry, following guidance in Rubin and Rubin (2012), tape recordings (with consent) and a verbatim transcribing of them will be conducted to ensure accuracy in analysis, and integrity and richness in participant contribution will not be compromised.

3.9 Data Analysis

Data gathered from interviews will be examined through thematic analysis, a method renowned for its flexibility and richness in qualitative research. Thematic analysis is optimally suited for application in this study, with its ability for detecting, examining, and reporting patterns (themes) in data, and providing a detailed and rich, albeit complicated, report of data (Braun & Clarke, 2006). Thematic analysis is optimally suited for application in this study, with its ability for uncovering both manifest and latent information in interview transcripts, and enabling a rigorous exploration of ECG's internal control systems. The inductive nature of thematic analysis supports the interpretivist position of the study, enabling a data-driven analysis, with an anchorage in real gathered data, and not limited to pre-established categories and theory. By employing such an approach, the analysis is ensured to be representative of participants' experiences and observations, and provide insights into effectiveness, challenge, and nuance in ECG's internal control systems.

The data analysis will begin with a thorough reading of the interview transcripts in an endeavor to become intimately familiar with its contents, and then creating initial codes representing key ideas and concepts mentioned by participants. Segmenting the data into meaningful analytic units is part of such a coding exercise. Next, these codes will then be collated together into potential themes representing collected data in terms of the research questions. Each theme will then be considered and developed in an endeavor to represent a coherent pattern in the data, with a discernible and coherent narrative. Defining and naming themes and creating the report, in which themes will then be mentioned in terms of the research questions and literature, providing a rich and nuanced interpretation of the study's findings, will follow with it. In all of this, iterative working will follow, moving between the dataset, coded extracts, and analysis of themes, in an endeavor to have a deep and reflexive encounter with the data (Nowell et al., 2017). In thorough and systemic analysis under thematic analysis, nuanced investigation of complex phenomena, such as internal control systems, is supported, and therefore, it is a fitting selection for use in such a study.

3.10 Ethical Consideration

Ethical principles form a basis for responsible practice in research, particularly in studies with human subjects, such as in this case with Electricity Company of Ghana (ECG)'s internal controls. First and foremost, an important ethical requirement is informed consent. Participants will be thoroughly informed about the purpose, methodology, potential risks, and benefits of the study in such a manner that they will understand that participating is a matter of freewill and that at any stage, they can withdraw from participating in the study with no penalty at all. This acknowledges the participants' autonomy and protects them in exercising an educated decision in relation to participating in the study. Confidentiality and anonymity are of paramount concern, too; individual information and feedback will be kept in confidence, utilized for research alone, and any publication will make use of anonymized information such that participants cannot be individually identified.

Secondly, research integrity is critical in sustaining ethical conduct in the conduct of the research. This involves transparency in terms of the purpose of the research, refraining from any form of deception, and accuracy and dependability in collected and documented information. There will be a stringent data management plan in terms of secure data storage and proper documentation of the conduct of the research, safeguarding against potential biases and sustaining the integrity of the findings. Ethical practice in research also extends to respectful and humane treatment of study subjects, acknowledging and minimizing any potential discomfort and tension occasioned by taking part in the study.

Lastly, this study acknowledges the overall ethical implications of researching internal controls in a principal national utility service organisation. Findings and recommendations will be presented with regard for their implications for ECG’s operations, workers, and society in general. This involves a commitment to producing not only academically sound but also socially responsible work, contributing positively to current discussion about internal controls in public utilities. In its conduct, the study will have utmost consideration for ethical values of beneficence, non-maleficence, and justice, such that work brings useful contribution and no hurt and disadvantage to any group and individual involved in it. Conformity with ethical codes developed and promulgated by such prestigious organisations such as British Psychological Society (BPS) and American Psychological Association (APA) ensures that work in the study conforms with best practice in ethical conduct of research.

3.11 Chapter Summary

In summary, the adopted research approach in researching effectiveness of internal controls at Electricity Company of Ghana (ECG) is discussed in the chapter, with a qualitative study design underpinned with an interpretivist epistemology. This selection was for its aptness in representing rich, complex experiences and understandings of participants in relation to internal controls. Study location and site involved a characterization of ECG, including its position in Ghana's energy sector and its diversity in terms of participants, such as senior management, operational workers, financial officers, and internal auditors, purposefully selected in a manner allowing for salience and depth in information generated. Interviews, as a principal tool for elicitation of rich information, were warranted, with processes for collecting and analyzing data designed to prioritize at all times ethical concerns, such as informed consent and confidentiality. Analysis of collected information involved a deliberate use of thematic analysis, recognized for its aptness in unearthing trends and themes representing complexity of internal controls. In such a manner, a methodological basis prioritizing ethical integrity, sound analysis, and participant-focused approaches was constructed, opening room for a thorough examination of ECG's internal controls.

CHAPTER FOUR

ANALYSIS AND RESULTS

4.1 Chapter Introduction

This chapter deals with analysis and presentation of the research findings in relation to the effectiveness of internal controls in the energy sector in Ghana, and in Electricity Company of Ghana specifically. The chapter compares and contrasts the state of internal controls, operational, financial, and compliance effectiveness with a qualitative analysis. It also looks at the impact of technological innovation and regulatory change, and documents stakeholder perception regarding effectiveness and impact on performance and governance in an organisation. Data for the analysis was drawn from a sample of 15 respondents including senior management, operational, financial, and internal audits, with thematic analysis in extracting relevant trends and observations. Interviewee background information is presented in table 4.1

Table 4.1: Background Information of Respondents

Respondent ID	Department/Office	Gender	Age Group	Years of Service	Time Taken for Interview (mins)	Role/Position
R1	Senior Management	Male	40-49	15	45	Director of Operations
R2	Operational Staff	Female	30-39	7	30	Operations Supervisor
R3	Financial Department	Male	50-59	20	40	Chief Financial Officer
R4	Internal Audit	Female	40-49	12	35	Internal Auditor
R5	Senior Management	Male	50-59	18	45	General Manager

R6	Operational Staff	Female	20-29	3	30	Junior Operations Officer
R7	Financial Department	Male	40-49	10	45	Financial Analyst
R8	Internal Audit	Male	30-39	5	30	Audit Officer
R9	Senior Management	Female	40-49	16	35	Head of Strategy
R10	Operational Staff	Male	30-39	6	40	Technical Supervisor
R11	Financial Department	Female	50-59	22	45	Senior Accountant
R12	Internal Audit	Female	30-39	8	30	Compliance Auditor
R13	Senior Management	Male	50-59	19	35	Regional Manager
R14	Operational Staff	Female	20-29	2	30	Technical Assistant
R15	Financial Department	Male	40-49	11	45	Budget Officer

4.2 The current state of internal controls in Electricity Company of Ghana (ECG)

This section presents an analysis of ECG's state of its current internal controls, based on key stakeholder interviews. Analysis of the key components of the model of internal controls, including the control environment, risk, controls, information and communications, and monitoring, is discussed in detail in terms of effectiveness and areas for improvement in enhancing its overall system of internal controls. What is uncovered is a complete picture of how these controls function and are maintained in ECG.

4.2.1 Current Status of the Control Environment at ECG

The analysis of Electricity Company of Ghana (ECG)'s current state of control environment identifies dominant themes that revolved around integrity and ethics value promotion, ethics values championed and supported by management, ethical codes and standards, and leadership in shaping a positive environment of controls. Stakeholder interviews highlighted how each of these, and all together, work towards shaping the organizational culture, with a high value placed on ethics and competency. ECG's high value for ethics, supported through management's proactive role in championing and sustaining such values, is uncovered in the findings. Analysis of these dominant themes, supported with supporting quotations taken during the interviews, is discussed below.

Theme One: Promotion of Integrity and Ethical Values

Promoting integrity and ethical values is integral in developing the Electricity Company of Ghana (ECG)'s control environment. As can be seen in the interviews, integrity is valued high in the company through instilling it in operations and in its corporate culture. Respondents mentioned that management consistently sets an environment in which ethical behavior is desired, supported through constant training and communications internal. This helps in developing a culture of transparency, accountability, and trust, and such a culture is critical in providing effective control systems. Not only is integrity communicated through proper policies, but through practice, management adheres to such values too. An ECG Auditor mentioned,

"At ECG, we have regular training sessions to remind our staff about the importance of integrity in all aspects of their work, and it is something that management constantly reinforces through actions, not just words" (R4).

This quotation demonstrates that the firm not only believes in written policies but also encourages ethical behavior through training and leadership example on a regular basis. The top manager reinforces the fact that integrity is a part of the firm's day-to-day business, and a culture is established in the organisation where ethical behavior is non-negotiable. All these training sessions, along with management's actions, make all employees at all levels of hierarchy understand the importance of integrity at work.

"Integrity is fundamental to how we operate at ECG; it is ingrained in the company's philosophy, and we ensure that it is upheld at all levels through regular evaluations and discussions" (R3).

This assertion continues to underscore the fact that integrity is one of the most significant values in an organisation. The Internal Auditor portrays integrity not merely as an ideal but a governing principle ingrained in the operational processes of an organisation. Regular assessments and discussion work to strengthen such a value, and through them, ethical standards remain high at all times in an organisation. All these work towards building a control environment in an organisation where integrity is both wanted and respected.

Theme Two: Management's Commitment to Ethical Practices

Management's commitment to ethics was a theme that kept recurring in many respondents, with a strong emphasis placed on such values being displayed through leadership. ECG's management, in reports, not only sets high standards for ethics but actually lives them through actions and decision-making. Leadership in the organisation sees to it that ethics is not only a practice but a norm at all levels, with a culture that values and expects ethics at all times. Respondents emphasized transparency and openness with which ethical concerns are addressed, and in a manner that generates trust and accountability.

“Management doesn't just talk about ethics, they live it. When there’s an ethical issue, they make sure it is addressed openly, ensuring everyone knows that there’s no room for unethical behavior in the company” (R7).

This quote mirrors the hands-on way in which leadership takes a role in ensuring ethical practice in its operations. The Financial Officer re-affirms that actions at a management level comply with its publicly disclosed ethical requirements, re-affirming that not only is ethical practice being discussed, but it is actually emulated at a leadership level. Having a proactive role in such a manner creates a level of security amongst workers that such an entity takes a strong stance towards ethics, improving overall controls environment even further. An Operational Staff member further affirmed,

“Management leads by example, whether it’s in decision-making or handling difficult situations, they ensure ethical considerations are always at the forefront” (R2).

This assertion corroborates that not only is management's ethical commitment in terms of explicit policy but in fact in its everyday decision-making too. The Operational Staff identifies that leadership consistently prioritizes ethical considerations at the top of its operations in a manner that ensures ethical behavior is instilled in the whole entity. Leadership through example enables management to instills an ethical behavior culture that extends to and impacts the entire company.

Theme Three: Implementation of Ethical Guidelines and Codes of Conduct

The use of codes of conduct and ethical guidelines is a significant component of ECG's control environment. The codes and guidelines have been established to set forth specific behavior and decision-making expectations clearly for the organization. Respondents verified that ECG has established comprehensive ethical guidelines, and these have been communicated to all employees through various channels and periodically revised for compliance. The codes and guidelines serve as a foundation for high integrity and ethical practice, and for communicating to all employees their responsibility for building an ethical behavior culture. The codes and guidelines are revised periodically in an effort to ensure current and relevant methods in light of evolving organizational needs and external influences. One Manager from ECG explained,

"We have a code of conduct that all employees must follow, and it's not just something they sign off on—it is actively discussed in our orientation programs and workshops" (R5).

This quote accentuates effective use of ECG's code of conduct, stating that it is not a formality but an integral part of orientation and ongoing training in the company. HR Manager describes that not only workers are educated about the guidelines but actually work with them regularly. Repeated communications maintain moral standards instilled in the company's culture in its formative years and go on to become a part of workers' development in working years.

Another Manager affirmed,

"The ethical guidelines are part of the daily fabric of ECG. We ensure that employees understand their importance and that ethical behavior is not just an ideal but a core expectation" (R13).

This statement goes on to specify that ECG's ethical standards become an integral part of its internal controls. The Internal Auditor affirms that such guidelines are reiterated regularly, such that ethical behavior is an integral part of operational culture in the corporation. By re-emphasizing such guidelines regularly, ethical standards become consistently reinforced and adhered to, and in the long-term, work towards the integrity of the corporation.

Theme Four: Leadership's Role in Fostering a Positive Control Environment

Leadership plays an important role in developing a positive environment for controls in ECG, and one can witness it in respondents' feedback during the interviews. Respondents stressed in unison that management's contribution towards developing a positive environment for ethics and controls is most important in developing an organizational culture with compliance, transparency, and accountability values. ECG's leadership is seen to contribute actively towards a positive environment for controls not only through imposing policies but through practicing ethical leadership. Their actions and decision-making processes contribute a lot towards developing an environment for the rest of the organization, and in having ethics in all parts of the company. In the view of a Senior Manager at ECG,

"Our leadership team is committed to creating a positive environment by ensuring that internal controls are a part of every major decision, and they set the standard by being transparent and fair" (R13).

This quote emphasizes leadership's part in defining the company's control environment. The Senior Manager identifies that ECG's leadership sees to it that internal controls are woven into the decision-making processes' fabric and in so doing sets the tone for ethical and transparent operations. The reference to transparency and fairness also alludes to the leadership's role in fostering an environment where ethical standards and internal controls are upheld consistently. A Financial Officer, one of the respondents, remarked,

"Leadership is always at the forefront, advocating for best practices, and they ensure that these practices are embedded in our daily work culture" (R7).

This statement attests that not only does leadership espouse but actively promotes best practice, including ethics and sound inner controls. That statement by the Financial Officer attests that best practice in management is integral to developing a company's culture. Leadership's continuous espousal ensures such values cascade through an organisation, producing a healthy environment for controls and underpinning long-term objectives of a company.

4.2.2 Current Status of Risk Assessment at ECG

The theme analysis of the status of risk assessment in Electricity Company of Ghana (ECG) brings out significant themes regarding the process of risk identification and analysis, integration of risk assessment in organizational planning, external environment influence on risk management, and stakeholder involvement in the risk analysis process. Stakeholder interviews emphasized ECG's application of a systemic approach in identifying, analyzing, and evaluating risks, and further, an observation of how external factors influence the ability of the organization in effectively managing such risks. Results show that ECG's risk assessment is a continuous, changing, and ongoing process that is in alignment with the company's objectives and is influenced both internally and externally. Analysis of such themes, supported by quotation of the interviewed statements, is presented below.

Theme One: Risk Identification and Analysis Process

The risk analysis and identification process in Electricity Company of Ghana (ECG) is thorough, according to the indications in respondents' interview statements. Respondents discussed at length how ECG employs a systemic process for analyzing and managing risks in relation to its organizational objectives. The process begins with an identification of potential risks, then a thorough analysis to assess the probability and potential impact on ECG's operations. As discussed with respondents, risk identification extends beyond financial and operational risks to general concerns such as technological improvements, changing laws and regulations, and external marketplace shifts. Having a general-purpose process in place covers all potential risks, allowing for more effective risk management programs. An ECG Manager emphasized,

"We conduct regular risk assessments that encompass every aspect of our operations, from operational challenges to technological disruptions, ensuring we are prepared for any potential risk that may arise" (R5).

This quotation highlights the thoroughness in ECG's risk analysis and identification, observing its broad scope. What emerges in the Senior Manager's utterance is that risk assessments go out not to single sectors but to every area of operations, inclusive of day-to-day operations and new external ones. That broad vision reflects the organisation's resolve to stay ahead of evolving risks, thus, its flexibility in the event of emerging occurrences. Another respondent, a Financial Officer, added:

"Risk assessment is a continuous process, and we use both internal audits and external assessments to ensure that we cover all possible risk scenarios" (R11).

The second quotation portrays ECG's constant character of risk analysis. According to the Financial Officer, risk analysis is not an activity but a continuous one. With both internal and external evaluation, ECG will have a full view of its risks, and nothing will pass unscrutinized. With such a practice, the company can have a proactive attitude and high preparedness in its dealings with any form of risk that can threaten its objectives.

Theme Two: Integration of Risk Assessment in Organizational Objectives

Risk assessment at ECG is seamlessly incorporated into the organizational objectives of the company, such that risk management is not an individualistic exercise but an integral part of decision-making at a strategic level. Respondents mentioned that ECG puts a high value on harmonizing its processes for risk assessment with its overall organizational objectives, such that early identification and management of its risks takes a form that helps in attaining objectives at a company level. Integration of risk assessment with organizational strategy helps ECG in lessening any potential dislocations in its operations and harmonizes its efforts in managing its risks with the long-term objectives of the company. An ECG Auditor mentioned,

“Our risk management is directly tied to our business objectives, meaning every risk we assess is evaluated in terms of how it could impact our ability to achieve those objectives” (R12).

This quote describes at which level ECG integrates its risk analysis in its overall objectives. In Senior Manager’s response, one can observe that risk analysis is not an activity in itself but is included in its planning phase. All such risks that are determined, in detail, are analyzed in relation to its impact in terms of its potential to slow down or drive the company towards its objectives.

With its risk management in harmony with its objectives, ECG's actions in its risk mitigation become effective and specific. A Financial Officer also shared:

"We ensure that all risk-related decisions, from financial risks to regulatory risks, are aligned with the company's strategic objectives, allowing us to manage them while moving forward with our goals" (R15).

The Financial Officer's statement attests that integration between risk analysis and overall organizational objectives is a reality. What is seen in such a statement is that leaders in a company make all risk-related decisions with regard to overall company strategy in mind. Leaders ensure that the company remains focused towards long-term success and actively addresses risks with a potential to threaten its objectives. With such integration, analysis of risk forms an integral part of ECG's operational model.

Theme Three: Impact of External Environmental Changes on Risk Management

The influence of external environmental factors in ECG's risk management process is paramount in its ability to respond to changing risks. Respondents stressed that external factors, including regulatory changes, technological development, and marketplace dynamics, have a significant bearing on the manner in which the company identifies and counteracts risks. The organisation keeps a keen eye on such external factors in an effort to have a flexible risk management system that can adapt when it is deemed imperative. Management reiterates its concern with keeping abreast of such factors in a bid to respond and counteract impending risks. An ECG audit officer stated:

"We constantly monitor regulatory changes and technological advancements, as these external factors can have a significant impact on our operations. This allows us to proactively adjust our risk management strategies" (R4).

This statement portrays ECG's proactive approach towards managing risks. The Senior Manager accentuates that continuous observation of technological and regulative trends enables the company to anticipate and respond to events that can affect operations. With such anticipation, the company is in a position to adapt and respond effectively to external transformations, countervailing any conceivable risks in an effective manner. A manager further added:

"Market fluctuations and political changes are also key considerations for us. We incorporate these factors into our risk assessment to ensure we're always prepared for any external disruptions" (R9).

This comment fortifies the role of external factors in ECG's risk management even more. As per the Risk Officer, political and market trends are both part of the analysis of the company's risks. By taking such external factors into consideration, ECG can develop in-depth and adaptable strategies, putting the company in a position for any disruptions that can arise through external factors.

Theme Four: Stakeholder Involvement in the Risk Assessment Process

Stakeholder engagement forms part of ECG's risk evaluation process. Respondents stressed that feedback both from its external and internal stakeholders is taken by the company in an effort to understand any future risks in a deep manner. Stakeholder engagement helps in having a larger range of insights and a complete analysis of any risks that can affect an organisation. With its stakeholders involved, ECG's risk management process is well balanced, educated, and in harmony with everyone involved, according to a Manager at ECG,

"Stakeholder input is crucial in our risk assessment process. We regularly engage with different departments to gather insights on potential risks that might be outside our immediate scope" (R9).

This quote identifies the importance of having a variety of departments involved in the exercise of risk analysis. Senior Manager re-emphasizes that having a variety of internal groups involved helps ECG to identify potential risks that in any one group, individually, will not become apparent. Having a variety of groups involved ensures that all aspects of the organisation are considered when assessing risks, and a fuller and truer picture is painted. A Financial Officer also stated,

"We engage with external stakeholders, such as regulators and suppliers, to ensure that our risk assessments account for external influences that could impact our operations" (R7).

This remark underscores the role played by external stakeholders, such as regulators and suppliers, in the risk evaluation process. The Financial Officer observes that including external perspectives ensures that risks that arise outside ECG are addressed appropriately. This participatory approach strengthens the risk evaluation process, ensuring that ECG is prepared for both internal and external concerns.

4.2.3 Current Status of Control Activities at ECG

The analysis of current control activity status at Electricity Company of Ghana (ECG) reveals key themes in terms of customizing control activities in relation to respective risk levels, preventive control activity implementation, taking corrective actions in case of detected risks, and controlling and evaluating such control activities. Interviews with respondents stressed that control activities are designed with a long-term orientation to counter respective risks in the organisation, with a proper differentiation between preventive and corrective actions. In addition, continuous evaluation of control activities aids in confirming effectiveness in countering detected risks. Findings indicate that ECG approaches respective risks in a thorough manner through a combination of proactive and reactive control activities with continuous evaluation support. Analysis of such themes, with supporting quotations of respective statements in the interviews, is presented below.

Theme One: Tailoring of Control Activities to Risk Levels

Designing control processes to a range of different levels of risk is a key part of ECG's model for dealing with organizational risks. According to respondents, ECG employs a systemic model in terms of developing control processes in relation to the level of risk that is determined. The company employs a risk-based model for utilizing its resources in an effective manner in dealing with high-risk areas in a strong manner, and less risky areas proportionately. It helps ECG prioritize its actions and ensure that its control processes are proportionate to a specific impact of a certain risk towards the objectives of an organization. An ECG Operational Manager emphasized:

"We assess the level of risk in each area, and based on that, we implement controls that vary in intensity—higher risks get more robust and detailed controls, while lower risks are managed with lighter interventions" (R2).

This statement attests to ECG's practice of proportionating controls according to the level of risks. Senior Manager's statement mirrors the way in which the organisation effectively utilizes its resources through prioritizing high-risk areas, closely controlling such areas, and ensuring such areas have proper controls in place. Adjusting controls in such a way helps ECG target vulnerabilities specifically and manage risks effectively, balancing efficiency and effectiveness in its practice of risk management. An Audit Officer further elaborated:

"For areas with high financial risks, we apply stricter controls, such as detailed audits and continuous monitoring, while for operational risks, we use more straightforward procedures" (R8).

This quotation reflects the customized manner in which ECG addresses risks according to the types of risks involved. The Risk Manager's statement reflects that ECG utilizes a range of controls for specific types of risks. For high-financial types of risks, for example, the organisation ensures that controls, such as audits, are in place to ensure thorough checking and monitoring. Varying controls according to the intensity of risks renders ECG's risk management both contextual and dynamic, countering risks with an appropriate reaction.

Theme Two: Implementation of Preventive Control Activities

Preventive control actions underpinned ECG's risk management strategy. Interviews with stakeholders confirmed that preventive controls are prioritized in order to prevent potential risks from ever emerging in the first instance, and in doing so, remove the need for corrective controls. Respondents emphasized that preventive controls are installed in order to tackle risks in a proactive manner and to make certain that a strong platform is in place that eradicates or reduces the chance for things to go wrong in the first instance. Preventive control actions have a significant role in managing high impact risks, for instance, financial mismanagement and non-regulation compliance. A Supervisor from ECG stated,

"Preventive controls are the first line of defense. We have policies and procedures in place that aim to stop potential issues before they become major problems" (R2).

This quotation captures ECG's emphasis on preventive controls as its foundation for its internal control system. The testimony of the Senior Officer reaffirms that preventive controls are established early on in a bid to reduce the chances of having material issues. By emphasizing preventive controls, ECG is guaranteed that it is able to identify and rectify potential risks early enough, safeguarding the interests and operational integrity of the organization. A Compliance Officer added,

"For example, we ensure that all contracts and transactions undergo thorough vetting to prevent any legal or compliance issues from arising" (R12).

This statement illustrates the manner in which preventive control mechanisms are embedded in ECG's daily operations, particularly in those involving legal and compliance risks. The Compliance Officer's comment illustrates how preventive measures, such as stringent vetting processes, are embedded in ECG's operations to assist in identifying and resolving issues at the earliest opportunity. This methodical approach to risk prevention allows the firm to effectively manage risks, with minimal exposure to costly or detrimental situations.

Theme Three: Corrective Control Activities in Response to Identified Risks

Corrective control measures constitute an important component of ECG's risk management system, especially in addressing risks that have actually occurred or have been identified through review and observation. Respondents noted that ECG applies corrective measures in addressing risks that have actually occurred, in a way that ensures such risks are effectively minimized in effect. Corrective controls are triggered when preventive controls and detective controls fail, and ECG is thus able to mitigate such risks to a bare minimum. Stakeholders emphasized that such measures are risk-specific and essential in restoring stability and in ensuring that the entity continues to achieve its objectives in spite of challenges. In the words of a General Manager:

"When a risk materializes, we take immediate corrective actions, such as revising procedures or conducting additional training to address the issue" (R5).

This quote portrays the importance of taking corrective measures when risks become real. Senior Risk Manager's statement confirms that ECG takes immediate actions towards emerging risks through updating current processes or taking corrective actions, such as training, in an effort to correct the issue. Doing it in a proactive manner aids in the management of its risks even when real, improving its quick recovery in case of failure. An Operational Staff further explained:

"For example, when an audit reveals discrepancies, we immediately adjust our financial controls to prevent further issues" (R6).

This assertion identifies the role played by corrective control actions in financial management. The statement by the Financial Control Officer confirms that in case discrepancies have been detected, corrective actions are taken immediately to adjust financial controls. This corrective action ensures any weakness experienced in the system is addressed in a timely manner, preventing future cases of similar faults and maintaining financial integrity in the company.

Theme Four: Monitoring and Evaluation of Control Activities

Monitoring and evaluation of controls form an integral part of ECG's risk management practice. Stakeholders mentioned that the corporation continues to monitor its controls in a bid to assess effectiveness in controlling risks. Monitoring is geared towards tracking performance of controls, while evaluations seek to assess whether controls are delivering desired outcomes. Respondents mentioned that continuous monitoring helps ECG detect gaps in controls and make improvements in effectiveness over a period of time. Periodical evaluation helps maintain a relevant and responsive control framework for new and emerging risks. An ECG Internal Auditor explained:

"We regularly monitor the performance of our control activities through audits and assessments to ensure they remain effective in managing risks" (R4).

This quote best portrays the importance of continuous monitoring and audits in ECG's practice of risk management. As Senior Internal Auditor, continuous monitoring is a routine practice at ECG, and through it, the entity can validate that its controls function in practice. Periodical audits and evaluations produce useful information about effective controls and allow ECG to identify areas for improvement, and through them, its system of risk management can become even strong and adaptable. A Compliance Manager added:

"Our control processes are reviewed on a regular basis, and where they're not meeting standards, we make any necessary adjustments to ensure ongoing improvement" (R12).

This comment highlights the evaluation aspect of controlling ECG’s control activities. The Compliance Manager’s statement highlights ECG’s commitment to continuous improvement. By periodical evaluation of control activities and changing them wherever deemed fit, ECG keeps its risk management efforts in tune with the objectives of the organisation and capable of effectively countering new types of risks. Active monitoring and evaluation allow ECG to maintain its risk management system healthy and strong.

4.2.4 Current Status of Information and Communication at ECG

The examination of current information and communications in the Electricity Company of Ghana (ECG) reveals dominant themes regarding effective use of channels for internal communications, communications supporting internal controls, and integration of feedback in communications processes. Interviews with stakeholders emphasized the importance of effective, concise communications in supporting overall operations of internal controls and in providing uniformity between departments. Efficient communications were mentioned to allow for decision-making and transparency, and in supporting overall risk management and controls of the company. The analysis reveals that even with a systemic communications process in ECG, continuous improvement in feedback integration could make overall communications flow easier. Presentation of these themes with supporting quotations drawn from the interviews is discussed below.

Theme One: Effectiveness of Internal Communication Channels

Internal communication channels contribute a lot towards ECG's operational effectiveness and its internal controls environment. Respondents stressed the efficiency of communications channels in enhancing collaboration and allowing critical information to flow with ease between departments.

Smooth channels of information enable workers at all hierarchical levels to access information about changes in policies, processes, and new emerging risks, and everyone in the entity is in harmony with the objectives of the company. Respondents, however, stated that impediments such as message delivery lags and intermittent failures in communications arise, and information delivery in a timely manner is affected. A Senior Accountant from ECG explained:

"Our internal communication channels have been designed in such a way that all departments get coordinated, but sometimes there may be a delay in communicating crucial updates, and such can affect the speed with which we react to certain risks" (R11).

This quotation identifies the importance of timely communications in ECG. The Senior Accountant underlines the importance of effective information dissemination, particularly in managing risks. Communication channels, in general, work effectively in keeping everyone in the same page, but delayed transmission of important updates is a problem that can erode timely processing in managing specific risks. A Technical Supervisor added:

"Communication between groups is pretty good, but in certain areas, clearer and faster communications will make our internal controls even better, particularly in high-pressure situations" (R10).

This observation identifies that even with channels for communications, such communications can be enhanced in terms of both clarity and timely delivery, most specifically in high-priority situations. The observation of the Technical Supervisor affirms the necessity for enhanced communications processes in supporting the function of internal controls, most specifically in situations in which immediate actions must occur.

Theme Two: Support of Communication in Internal Control Functions

Communication support for internal controls is key in allowing assurance that controls are performed effectively and adhered to during ECG. Stakeholders emphasized that through proper communication, workers become aware of their responsibilities in addition to the need for compliance with control processes that have been instituted. Efficient communication prevents mistakes and misconceptions that can jeopardize internal controls, in addition to being a tool for re-emphasizing the company's determination for compliance. There was, nevertheless, an admission that miscommunication at times dilutes such controls. An ECG Manager mentioned:

"Effective communication is critical in ensuring controls are understood and executed at all levels internally. Controls are reinforced consistently through continuous updating and routine meetings" (R9).

This quote identifies communications' important role in having everyone in staff know and comply with controls in position. The Head of Strategy confirms that ongoing reinforcement through updating and meetings keeps controls in everyone's minds and in practice, and that controls are consistently obeyed. Another Internal Auditor supplemented:

"Although communications in general underpins our controls, sometimes breakages occur, most particularly at times of change in an organisation, and new controls then have a delayed start" (R4).

This statement identifies that even with communications in general being effective in supporting controls, exceptions in form of failures during times of change in an organisation can cause new controls not to be implemented. Observation of the Internal Auditor identifies that effective communications have to be continued, especially during times of transition, for internal controls not to fall in function.

Theme Three: Integration of Feedback Mechanisms in Communication

The integration of feedback processes in ECG's communications is critical for ongoing improvement and adaptability to new emerging concerns. Respondents stated that feedback is actively solicited, particularly in new controls, but room for improvement can be seen in its integration in decision-making processes. Employee and stakeholder feedback sharpens both communications processes and internal controls, such that gaps and weaknesses in them can effectively be addressed in a timely manner. However, a few respondents stated that feedback loops sometimes slow down, and therefore, make the entity less agile in its reaction to changing environments. As a Budget Officer at ECG stated:

"We actively seek feedback from departments about the effectiveness of communications and controls, but sometimes its integration into decision-making takes a little longer than we'd like" (R15).

This quotation illustrates the importance given to feedback in improving both internal controls and communications in ECG. The Budget Officer recognizes that even where feedback is continuously sought, its integration in decision-making can decelerate the speed with which the firm can act in response to evolving needs for improvement. A General Manager further shared:

"We have processes in place for collecting feedback regarding communications, but admit that real-time feedback response is an issue that is being addressed for improvement" (R5).

This statement attests that feedback processes exist, but real-time responsiveness is an area for improvement. What the General Manager is stating is that resolving this issue will make ECG a more adaptable organisation in terms of its responsiveness to feedback, and that will make communications and its internal control system function even better.

4.2.5 Current Status of Monitoring at ECG

The themes emerging in analysis of current state of ECG's monitoring include frequency of monitoring activity, reporting and documentation of monitoring results, and continuous improvement through monitoring insights. Interviews with stakeholders supported that ECG has in place systematic processes for ongoing monitoring of its internal controls in a manner that ensures the company's risk management practice continues to respond effectively and adapt to changing challenges. Respondents added that results of monitoring activity are thoroughly documented and pursued in an effort to enhance controls. Continuous improvement is a key part of ECG's practice of monitoring in that the organization utilizes insights gained through such activity in enhancing and strengthening its controls. Findings reveal that monitoring is a dynamic and integral part of ECG's practice of risk management, and one that helps in ongoing simplification of ECG's internal controls systems. The emerging themes, supported with quotations in an interview, are addressed below.

Theme One: Frequency of Monitoring Activities

The frequency of activity at ECG in terms of monitoring is paramount in providing effective risk management. Respondents emphasized that, in reality, monitoring is an ongoing activity, with activity being conducted at scheduled intervals in a view to providing timely identification of risks and effectiveness of internal controls. One observation is that activity in terms of monitoring is not intermittent but is part of routine operations in a company. In such a way, ongoing observation of internal controls is enhanced, and quick reaction can be facilitated when a problem arises. A Director of Operations at ECG remarked:

"Monitoring is an integral part of our routine, and we conduct routine review to ensure that the risks are being effectively addressed" (R1).

This quote mirrors continuity in ECG's monitoring operations. Monitoring, in the Director of Operations' view, is not an ad hoc function but a part of routine operations in the organisation. By putting such operations in routine processes, ECG generates a continuous feedback loop, and any kind of risk can be identified early and addressed even before escalating. A Senior Accountant added:

"We schedule quarterly review activity and respond to any immediate issues when and wherever they arise in an effort to have effective controls" (R11).

This statement identifies that ECG's monitoring system is planned and responsive in its operations. As planned, routine checking is performed quarterly, but the entity is flexible enough to react to any arising challenge. With such adaptability, ECG's practice of managing its risks is proactive and reactive, with an ideal level of alertness in operations.

Theme Two: Reporting and Documentation of Monitoring Findings

Effective reporting and documentation are integral parts of ECG's monitoring role. Respondents stressed that proper documentation of the output of monitor work is a significant consideration for the company with a view to having a complete record for analysis in detail. Documentation not only aids in following through with performance tracking of internal controls but is a critical record for future use and for decision. An ECG Internal Auditor testified:

"We make certain that all monitoring findings are recorded in detail, enabling good decision-making and strengthening our overall risk management strategies" (R4).

This quote reflects the importance of proper reporting and documentation in ECG's work in monitoring. As per the Internal Auditor, proper documentation enables the organisation to track progress, identify areas for improvement, and make strategic decisions. With proper documentation of its work in monitoring, ECG promotes transparency and accountability in its risk management function. A Technical Supervisor also mentioned,

"All monitoring outcome are recorded in our internal database, facilitating easier access and follow-up on the results by concerned teams" (R10).

This statement describes the role played by organized documentation in granting access to monitor results. By documenting in one, shared database, ECG allows relevant parties access to information in a timely manner, with easier follow through in a timely manner for findings. Having an internal database is transparent and efficient, and it strengthens an organisation's internal control system even more.

Theme Three: Continuous Improvement from Monitoring Insights

Continuous improvement is a tenet of ECG's practice in managing its risks, powered through observations acquired through monitoring activity. Stakeholders stressed that the corporation utilizes observations acquired through processes of monitoring in altering and developing its controls, in a way that its system keeps on effectively dealing with changing risks. That such a mechanism for improvement and adaptability is present is a strong contributing feature towards an effective and strong system of controls in its internals. A General Manager explained:

"We use information obtained through monitoring activity on a regular basis to refine our controls and react to developing risks" (R5).

This quotation reflects ECG's commitment to using monitor results to drive improvements. The General Manager emphasizes that monitoring is not simply about discovering faults but about using insights to make continuous improvements in controls. Having a future-focused outlook ensures that the organisation's system of managing risk keeps pace with new challenges arising. A Budget Officer added:

"When monitoring identifies gaps in our controls, we take immediate action to ensure the system stays robust" (R15).

This statement re-affirms ECG's improvement orientation in a continuous manner through taking actions in gaps monitored. The Budget Officer confirms that not only observations are documented but immediate actions regarding them are taken. Prompt reaction towards faults keeps ECG's internal controls in a state of continuous improvement for efficient management of risks and for withstanding tests of times.

4.3 Effectiveness of Internal Control Systems in Operational, Financial, and Compliance Processes

The examination of ECG's effectiveness in operational, financial, and compliance processes draws on insights from the interview respondents, and identifies major themes that exhibit controls' role in streamlining operational performance, safeguarding financial integrity, and complying with regulatory requirements. In operational processes, controls have been seen as instrumental in driving efficiency and ensuring appropriate utilization and allocation of assets. In financial processes, controls ensure financial reporting accuracy, with respondents highlighting specific areas seen as being particularly effective, and in a state that would benefit from improvement. On compliance, controls play an instrumental role in ensuring compliance with requirements, with respondents highlighting specific instances of controls' contribution towards ECG compliance with requirements. These themes, drawn from ECG's respondents, paint a picture of controls' role in ensuring operational efficiency, financial accuracy, and compliance with requirements in ECG. Analysis below provides a deeper examination of these themes, offering an in-depth perspective of controls' role in ECG processes.

Theme One: Optimization of Operational Efficiency through Internal Controls

The optimization of operational efficiency is one of the important aims achieved through the application of internal controls in ECG. Stakeholders emphasized such controls in simplifying processes, reducing inefficiencies, and having operations function effectively. Internal controls remove bottlenecks, simplify workflows, and enhance overall productivity in departments. Respondents emphasized how well-established processes, routine checking, and timely intervention make for effective operations in the firm. An Operations Supervisor explained:

"Our internal controls allow us to identify inefficiencies early and address them before they become bigger ones. This maintains efficiency in operations" (R2).

This statement is an expression of a proactive attitude towards optimizing operations. Identification of inefficiencies early and taking care of them in a timely manner helps operations become even smoother, and disruptions that could have otherwise proven a blow to productivity, don't occur. Smooth operations are kept sustained through continuous tracking, with the organization having the opportunity to make rapid adaptations in its processes whenever and wherever it is needed. A Director of Operations further noted:

"Our internal controls are set up to permit smooth flow, with clearly defined procedures for handling any issue that arises in operations" (R1).

This comment reflects the necessity of proper internal controls in enhancing effective operations. Efficient and transparent processes enable fewer stoppages in operations and allow ECG to function effectively. Maintaining operations efficient entails ongoing observation and improvement of internal controls, and ECG has successfully achieved that in its operations.

Theme Two: Effective Resource Allocation and Utilization via Internal Controls

Proper utilization and distribution of resources form the basis of ECG's system of internal controls, ensuring that resources are utilized in an ideal manner in all aspects of the company. Stakeholders clarified that through controls, resources can be channeled to most critical operations and projects, and obtain best value for each resource. Controls serve to monitor and assess the use of resources, in a manner that ensures budgets are adhered to and that resources are not wasted or misallocated. Frequent checking, audits, and reporting all serve to ensure that resources are efficiently channeled towards attaining the objectives of the company. According to a Financial Analyst:

"Internal controls have a significant role in ensuring that financial and human assets are utilized and distributed effectively and appropriately in a range of departments" (R7).

This statement is an expression of the need for effective controls in utilizing the resources in regions of most urgency. Optimum use of resources is a function of continuous observation and careful planning; in a manner that individual departments' demand is met without over-strain to the assets of the company. Controls allow effective avoidance of loss and ensure that resources contribute towards the overall aims of the company.

"We have strict internal controls to make sure that all resources are utilized efficiently, and if there's a deviation, it is immediately flagged for review" (R11).

This quote reflects the function of internal controls in identifying and resolving misallocation of resources. Deviations in budgeted allowances and misuse of resources are detected through the presence of internal controls, and such discrepancies are resolved at an early stage. Prompt actions are taken to correct such discrepancies, and resources are utilized in a manner that helps in supporting ECG's operational and financial objectives at all times.

Theme Three: Safeguarding Financial Resources with Internal Controls

Protection of financial assets is a fundamental function of ECG internal controls. Stakeholders reiterated that internal controls are in place to protect financial assets of the organization from fraud, theft, and mismanagement. Controls allow adequate procedures for finance tracking and control, such that financial transactions will be well documented and align with company policies. Respondents added that robust financial controls, such as regular auditing, cash management procedures, and appropriate segregation of duties, go a long way in reducing financial misappropriation. One Chief Financial Officer said:

"Our internal controls are there to safeguard the company's financial assets. We have established procedures for managing cash flow and investments, and our audits keep us on track" (R3).

This statement identifies the manner in which controls at an internal level directly work towards protecting ECG's financial assets. By having funds monitored and taken care of, financial vulnerabilities such as misuse and misuse of funds can be kept at a minimum level. Having effective financial protocols in position creates a secure environment in which financial assets are protected and utilized responsibly. An Audit Officer elaborated:

"Through internal audits and continuous financial assessments, any potential threat to financial assets of the organisation can be identified and resolved in a timely manner" (R8).

This quotation also outlines the active role of internal controls in protecting ECG’s financial assets. Through perpetual auditing and monitoring, vulnerabilities can be identified and corrected with remedial actions, and financial integrity can be maintained within the organization. Through perpetual examination of financial activities, financial vulnerabilities can be corrected even before they escalate, and financial assets of the organization can be protected.

Theme Four: Ensuring Accurate Financial Reporting through Internal Controls

Internal controls contribute immensely towards financial reporting accuracy and dependability in ECG. Respondents re-emphasized financial reporting accuracy as a key objective of ECG's internal controls. Reconciliation processes, routine audits, and approval processes form part of controls that serve to ensure that financial books in ECG are correct and reflective of the actual financial position of the company. Transparency in financial reporting was emphasized, and controls in ECG were regarded to provide structures for maintaining correct books, and an interviewed Financial Analyst noted:

“Our internal controls make sure that financial transactions are checked and documented accurately. That helps to make our reports a correct reflection of the financial position of the company” (R7).

This statement identifies that ECG’s financial statements have integrity through its controls inbuilt in its processes and careful checks in place, which prevent errors and omission in financial reporting, and thus make its reports reliable and accurate. Not only is it useful for the operational purpose of the company, but it also generates confidence with its stakeholders, who rely on accurate financial reporting for decision-making processes. A Senior Accountant further added:

"We possess strong controls for preparing our financial statements. These processes make certain that financial reports are correct and in compliance with the requirements of regulators" (R11).

This quote confirms the role of controls in financial reporting accuracy. The Senior Accountant's affirmation bears witness to high financial transparency in the organisation. With proper controls in position, ECG can produce correct and compliant financial statements, a necessity for regulators', investors', and other stakeholders' confidence in them.

Theme Five: Ensuring Regulatory Compliance with Internal Controls

Ensuring regulatory compliance is a key function of ECG's control systems. Stakeholders have stated that such controls are drafted in a way that not only covers but even exceeds requirements mandated under governing frameworks. Controls such as compliance audits, regular training, and adhering to policies and procedures in practice, serve to make ECG operate in compliance with legal frameworks and in harmony with best practice in its sector. Respondents emphasized that through such controls, the organisation is safeguarded from legal and financial consequences that could arise in case of a failure to comply with requirements. According to a Compliance Auditor:

"We have strong internal controls to ensure that all our operations comply with the requirements of regulators. There is constant training and audits in keeping with these requirements" (R12).

This assertion reflects ECG's proactive role in adhering to compliance with regulatory requirements. Periodical training and audits work towards enhancing the company's commitment towards compliance with laws and regulations. All these measures ensure ECG operations fall in compliance with predetermined norms, minimizing the danger of regulatory transgressions that can have disastrous consequences. A Director of Operations further noted:

“Our internal controls ensure that all departments follow proper regulatory processes, and compliance is checked regularly to prevent any slips" (R1).

This quotation validates the role played by internal controls in enhancing compliance in an organisation. Consistent checking and adhering firmly to regulatory processes maintain ECG in compliance with emerging regulatory requirements. Having effective structures in position for internal controls acts as a safeguard against transgressions, putting ECG in a position of compliance with regulating authorities.

Theme Six: Monitoring and Adapting to Regulatory Changes through Internal Controls

Monitoring and compliance with new laws, regulations, and changing industry standards is one of ECG’s greatest strengths in its internal controls. Stakeholders emphasized that compliance with laws and regulations is not a one-time exercise, but a continuous exercise, and one that involves constant updating in terms of changing laws, regulations, and industry standards. ECG’s internal controls have a flexible nature, with the entity in a position to move with ease in terms of changing laws and regulations in its environment. Respondents supplemented that constant review, updating of processes, and continuous consultation with legal professionals allow the entity to comply with new and updated laws and regulations. A General Manager explained:

“We have controls that are not static in any way; they adapt with changing laws and regulations. We regularly revise our processes in compliance with new requirements" (R5).

This remark underscores ECG's forward-looking stance regarding regulatory evolution. Ongoing revisions and updates of internal controls guarantee the company's adherence to current as well as developing regulatory structures. Such flexibility is vital in a setting where regulations may change often, and slow adjustment could result in compliance problems. A Technical Supervisor also commented: A Technical Supervisor further added:

"Whenever there's a change in the regulatory environment, we adapt our internal controls and ensure all relevant departments are informed and trained" (R10).

This comment expresses the need for flexibility in controls. ECG's rapid and efficient response to changing legislation keeps the organisation in compliance with legislation at all times. Having all departments trained and aware of new legislation allows the organisation to comply and negate any threat posed by changing legislation.

4.4 Impact of Technological Advancements on Internal Control Systems within ECG

The analysis of technology impact on ECG's internal controls comes from respondents' viewpoints, and a number of key themes unveil the role played in transforming ECG's internal controls. Adoption of state-of-the-art technology has heightened accuracy and accuracy in controls, with less room for errors and a heightened dependability of information. Automated processes have played a significant role in simplifying controls, cutting paperwork, and raising efficiency. Real-time reporting and tracking have eased real-time access to key information, raising efficiency in decision-making and rapid responsiveness. Advance in cybersecurity controls has heightened security for ECG's internal controls, safeguarding sensitive information from potential vulnerabilities. All these observations unveil deep impact of technological development in strengthening and enhancing ECG's internal controls in terms of effectiveness and solidity. The following analysis takes these themes into consideration in detail, offering a deeper analysis of technology's impact in transforming ECG's internal controls.

Theme One: Enhancement of Control Precision and Accuracy through Technology

Technology has been key in enhancing accuracy and precision in ECG's internal controls. Stakeholders stressed that utilizing high-tech data analysis software and tools has heightened financial reporting and operational tracking accuracy. Implementation of Enterprise Resource Planning (ERP) software, for example, has facilitated ECG in consolidating disparate operations, and therefore, financial information is more accurate and precise. Consolidation lessens discrepancies and renders reports utilized in decision-making reliable. As a Financial Analyst at ECG:

"The integration of ERP systems immensely enhanced the accuracy of financial information, minimizing errors prevalent in traditional processes" (R7).

This statement highlights technology's contribution towards improving financial controls' accuracy. As per the Financial Analyst, ERP software programs have reduced the likelihood of errors, improving financial reporting accuracy in general. Besides, advanced tools for analysis have aided ECG in conducting deeper and correct audits. With such tools, large datasets can be analyzed, and outliers and trends can be identified, potentially representing discrepancies and ineffectiveness in controls processes. The Director of Operations added:

"Data analytics allows us to identify inconsistencies in operational data that we could not see before, enabling more accurate control and reporting" (R1).

This remark is a reflection of the value of information analysis in enhancing operational accuracy. With technology, ECG realizes its internal controls become even more reliable, effective, and accurate in enhancing sound decision-making. This technological advancement translated into strengthened internal controls, culminating in increased organizational performance and risk management.

Theme Two: Automation of Internal Control Processes

Automation has revolutionized ECG's processes of internal controls, making operations easier and less intervention-intensive. Automated processes have enhanced efficiency and effectiveness in controlling processes, with reliable and consistent output assured. For instance, application of computer reconciliation programs accelerated financial processes, reduced processing times, and eliminated reconciliation processing errors involved in reconciliations conducted manually. As an Operations Supervisor testified:

"The automation of reconciliation processes not only reduced the time taken but also increased the accuracy of our financial reports" (R2).

This insight echoes the role played by automation in simplifying routine work at ECG. What is most apparent in the statement of the Operations Supervisor is the improvement in efficiency and accuracy through automation processes. Besides, compliance reporting automation facilitated ECG in having current and correct information, with timely reporting and compliance with requirements. Automated warnings and alerts have even been included for tracking and raising compliance issues, with immediate follow-up actions taken for them. As stated by the Audit Officer:

"Automation has streamlined our compliance reporting so that we can meet deadlines and maintain accurate records devoid of manual errors" (R8).

This comment describes the contribution of automation towards supporting compliance processes. The observation of the Audit Officer confirms heightened dependability and punctuality in reporting compliance, spurred by computerized processes. With automation technology, ECG achieved heightened efficiency in operations, reduced workload, and heightened dependability in internal controls. Not only have such technological processes maximized controls, but have added overall governance in an institution too.

Theme Three: Real-Time Monitoring and Reporting Capabilities

Real-time reporting and monitoring have been incorporated as a key component of ECG's internal controls, driven largely by technological advancement. Through these, ECG is able to maintain ongoing oversight of operations, and identify and react to abnormalities and possible harm in real-time. Through the advancement of complex tools, such as SCADA, ECG is able to observe real-time data in terms of a number of operational parameters, and make timely intervention a possibility. The Technical Supervisor at ECG stated:

"Real-time monitoring has greatly improved our ability for early detection of issues, enabling timely remedial measures and reducing operational downtime" (R10).

This statement expresses value added in terms of operational efficiency through real-time monitoring. Real-time tracking of ongoing information puts ECG in a high level of awareness, reducing the lag between problem realization and resolution. Apart from operational efficiencies, real-time reporting has boosted financial and compliance report accuracy and timely delivery. Automated reporting software generates and distributes reports with little or no intervention, reducing errors and offering timely information to interested parties. This capability enables wiser decision-making and strengthens overall governance in an organization. The Regional Manager added:

"With automated reporting, transparency and accountability have been enhanced, and major stakeholders have been kept informed with the most up-to-date information at all times" (R13).

This statement echoes the value of real-time reporting in generating transparency and improving the reliability of internal controls. The adoption of real-time reporting and monitoring systems by ECG has positioned it to respond in a proactive way to operational and financial problems, in a step that will improve its risk management and controls system.

Theme Four: Strengthening of Cybersecurity Measures in Internal Controls

Strengthening cybersecurity controls is a significant aspect of ECG's internal controls, in consideration of increased use of digital technology. Cybersecurity programs play a critical role in protecting sensitive information and integrity of financial and operational processes. ECG utilizes a range of cybersecurity tools, such as firewalls, intrusion detection tools, and multi-factor authentication, to protect its electronic infrastructure. ECG's Chief Financial Officer stressed:

"Our cybersecurity controls are intended to guard against internal and external threats to keep our data and systems safe" (R3).

This statement expresses the key function played by cybersecurity in providing assurance for integrity in controls. Protecting sensitive information via cybersecurity enables ECG to maintain trust in its operations and processes. Employee cybersecurity training has also been a high-priority function, with a view to sensitizing them and reducing the opportunity for human errors. Software system updates and patches regularly ensure vulnerabilities have been resolved in a timely manner, minimizing the opportunity for a cyberattack. The Compliance Auditor commented:

"Cybersecurity training for employees plays a part in minimizing the vulnerabilities created by human errors, one of the greatest security risks for our networks" (R12).

This remark demonstrates the part humans play in cybersecurity. Well-trained and vigilant employees reduce the possibility of a breach and optimize overall cybersecurity success. By doing so, ECG tightened its controls internally, and cybersecurity remained a high priority in an evolving era of electronic threats. Possessing robust cybersecurity not only protects an organization's assets but also reinforces its internal controls' reliability and solidity.

4.5 Stakeholder Perceptions on the Impact of Internal Control Systems on Organizational Governance Practices

The analysis of ECG's governance practice and its role in internal controls reveals dominant themes through the lens of the view of its stakeholders. Stakeholders perceive a key role for internal controls in enhancing accountability and transparency in the organisation, with decision processes guided through ethical values. Stakeholders further emphasized that controls serve to promote risk management and oversight processes, for proactive and informed governance. Controls allow for compliance with both governance and regulatory requirements, for ECG to comply with best practice in its industry and with legal requirements. Analysis below reveals such themes, in an attempt to interpret the key role played by ECG's internal controls in enhancing effective governance practice and integrity in ECG.

Theme One: Enhancing Accountability and Transparency through Internal Controls

Internal controls at ECG have been key in offering accountability and transparency in its operations, and have a direct impact on governance practice in the organisation. Stakeholders emphasized that such controls must exist in an endeavor to maintain ECG’s financial and operational processes integrity. With technology such as Enterprise Resource Planning (ERP) systems, ECG has been able to make its transactions correct and traceable, and allow transparent reporting and accountability. Not only can such systems monitor financial and operational activity in real-time, but report them in real-time to concerned parties, instiling a transparency culture. As a Director of Operations attests:

“We have implemented an ERP system for tracking all transactions, with a view towards having each and every dollar documented and transparently disclosed" (R1).

This reflects the way technology tools are central to building a culture of accountability, with transparent, available records that enable both internal and external oversight. In addition, the General Manager stressed:

“We perform routine internal audits, with the use of computerised systems, to confirm that no resources have been misused" (R5).

This comment mirrors technology's contribution towards high financial governance standards. Through such controls, ECG promotes accountability in its leadership, effective use of assets, and trust in financial operations in the company by its stakeholders. Implementation of technology in internal controls, therefore, not only increased operational efficiency but also supported governance structures through enhanced accountability and transparency in general.

Theme Two: Facilitating Ethical Leadership and Decision-Making

Internal control mechanisms in ECG are also paramount in fostering ethical leadership and accountable decision-making. Stakeholders pointed out that such controls offer a framework beneath which leadership can make decisions in alignment with corporation values as well as compliance demands. Since ethical leadership is a foundation of effective governance, integration of such mechanisms such as compliance management software has helped improve ethical decision processes. In the words of a Senior Accountant,

"Our internal controls allow leaders to make good decisions with trustworthy information, and this builds a culture of ethical leadership throughout the entire organisation" (R11).

This observation indicates that, through technology, leaders are privy to accurate, real-time information, which allows them to make well-informed, ethical decisions that are consistent with the governance principles of the company. The Compliance Auditor commented further:

"Our internal controls even include compliance tests, guiding decision-making at all levels towards compliance with legal and ethical requirements" (R12).

These compliance controls, facilitated through computerized checks and balances, make leaders responsible for high moral standards in decision-making, providing room for ethical leadership in ECG. Besides, utilizing data-driven decision-support tools, bias in decision-making has reduced, and actions taken will not only comply with laws but in best long-term governance for the company. Integration through technology ensures that decision-makers have proper tools and frameworks with which to make decisions with integrity, and hence contribute towards sounder governance practice.

Theme Three: Strengthening Risk Management and Oversight Mechanisms

Internal control processes in ECG have played a critical role in strengthening risk management and governance structures such that the institution is in a position to detect, assess, and manage risks effectively. Risk management processes in ECG have been strengthened through technological interventions such as computerized risk evaluation software and predictive analysis, which issue early warnings for financial and operational risks, say stakeholders. These technological interventions have helped the institution enhance its capacity to manage risks in anticipation of them becoming full-blown issues, therefore, supporting sound governance. According to a Regional Manager:

“With the use of automated risk management tools, we can predict and mitigate potential risks much earlier, allowing us to take corrective actions swiftly” (R13).

This statement highlights the merit of technology in elevating ECG's ability towards efficient risk management. Automated systems, such as those integrated into the ERP systems, detect looming threats in real-time, enabling the leadership to make informed choices to shield the organization from potential disruptions. The Audit Officer also noted:

"Our internal controls, including risk assessment tools, allow us to oversee operations at various levels and pick up early warning signs" (R8).

This underscores the effectiveness of internal controls in enhancing governance. With constant monitoring and real-time risk management platforms, ECG has been effective in enhancing its governance frameworks and offering effective risk mitigation. Integrating new age technology in its internal controls, ECG has acquired a robust risk management platform, enhancing not only ECG’s governance frameworks but its decision-making and governance processes as well.

Theme Four: Promoting Compliance with Regulatory and Corporate Governance Standards

Internal control structures at ECG have also facilitated compliance with governance requirements and standards, a key to attaining the credibility and long-term survival of the entity. Stakeholders emphasized that such controls have played a key role in keeping ECG in compliance with national legislation and international standards. Computerized reporting tools and compliance management software have facilitated compliance with requirements, providing real-time information regarding compliance with requirements at a company level. The Chief Financial Officer explained:

"Our internal controls include computerized checking for compliance, with both national and international standards being kept at all times" (R3).

This illustrates that technology-imposed controls allow ECG to maintain a uniform and effective compliance system. With computerized controls, ECG can monitor areas of non-compliance and correct them at a quick pace, and in a timely manner, in an attempt to avert violations that can cause damage to the company's reputation. As a Senior Internal Auditor:

"We have included real-time monitoring of compliance within our controls so that we are able to adhere to all requirements on time" (R4).

This reinforces the function played by real-time compliance tools in offering assurance that ECG is in compliance with relevant laws and regulations. Besides, utilizing such tools has aided in lessening compliance reporting mistakes caused by humans, strengthening strong governance and accountability. Application of technology in internal controls facilitated ECG in having an efficient and proactive compliance mechanism, strengthening governance and backing its commitment to legal and ethical compliance.

4.6 Challenges Associated with Internal Control Systems at ECG

The analysis of the challenges facing internal control systems in ECG recognizes several key themes that explain the difficulties in having an effective control system. Stakeholders indicated that the lack of integration of technology tools is a significant hindrance, and this limits the organization from fully exploiting the benefits of automation and real-time monitoring. This is also exacerbated by change resistance and poor staff training that limits the implementation and maximization of new systems. Participants further indicated that scarce resources, in terms of human capital and budgets, limit effective implementation and ongoing monitoring of the controls.

Fragmentation and the complexity of controls in use were also cited as challenges that frustrate consistency and cohesion within departments. Finally, data privacy and security concerns were raised as an overriding theme, and the stakeholders indicated that compromised protection of sensitive information could expose ECG to far-reaching vulnerabilities. The ensuing analysis examines the themes in even greater detail to provide a comprehensive understanding of challenges that impact the efficiency and efficacy of internal control systems in ECG.

Theme One: Inadequate Integration of Technology

The challenge of poor integration of technological tools in ECG's internal controls is one that touches on operational efficiency in the company and its ability to respond to emerging risks. Stakeholders emphasized that ECG has some technological tools, but these tools have not been integrated, and processes have become segmented. Inefficiencies result out of such lack of integration, in that information between departments or between functions fails to run harmoniously with one another. According to a Senior Accountant:

"We still have several standalone systems that are not integrated, which makes data flow cumbersome and decision-making slow" (R11).

The inability to integrate these systems causes a bottleneck in information exchange, and as a result, in timely decision-making and good governance. The systems work in silos, and it requires a great amount of manual intervention to consolidate and cross-check information, reducing productivity and increasing the margin for errors. Moreover, the lack of integration makes it difficult for ECG to respond and monitor risks in real time. With different systems operating in a standalone format, it is difficult to get a single view of operations, financial standing, or compliance for the entire organisation. A Technical Supervisor highlighted:

“Without an integrated system, it is difficult to receive real-time information that alerts us to control gaps or risks in a timely manner” (R10).

Without real-time information in all departments, management cannot have current and complete information and, therefore, cannot respond in a timely manner to any discrepancies and risks. This incapacitates ECG in taking timely corrective actions and lessens effectiveness in its mechanism of internal controls. The sluggish reaction times, which are caused by inefficient processes and poor integration, mean that operational weaknesses are not spotted in time and are allowed to grow. The fractured model delivers tardy decision-making processes, diminished productivity, and general deterioration in the reliability of control systems, in effect undermining ECG's governance processes.

Theme Two: Resistance to Change and Lack of Staff Training

Resistance to change and lack of proper training of workers are two of the biggest barriers to successful installation of new internal controls at ECG. Most of its workers, and many of its most seasoned workers, resist new processes and technology with a sort of reluctance. It is a reluctance not necessarily motivated by a lack of desire to adapt, but a lack of comfort with new processes and a long-standing fear of change. A Regional Manager observed:

“There's a reluctance to implement new internal controls purely for the reason that humans prefer existing ones and don't desire uncertainty in change" (R13).

This comment describes how familiarity with the present state induces a state of affairs in which workers become apprehensive about the implications of change. Resistance to such a change impedes integration of newer, efficient controls, and invites an organisation to vulnerabilities in terms of ineffectiveness in present practice.

The challenge is compounded when proper training is not conducted, and therefore, workers cannot effectively understand and use new controls. Even when new updated systems are installed, workers will not effectively use them when proper guidance and information have not been imparted to them. According to a Compliance Auditor:

“We haven't been trained in new controls in detail, and, therefore, we're not taking full use of them" (R12).

This statement mirrors the value placed in training in a position in imparting workers with an effective preparation for utilizing new tools to their full potential. Inadequately trained workers mean that even with newer and sophisticated controls, workers will lack an opportunity to navigate and apply them, and hence, hinder the effectiveness of overall controls in use. This skill and awareness gap can lead to workers not utilizing current systems in full, and, in turn, compromising the integrity of the controls. With workers possessing neither skill nor motivation for change, ECG will face a significant challenge in delivering effective use of its controls and a compliance and accountability environment.

Theme Three: Limited Resources for Effective Implementation and Monitoring

Limited resources form a significant hurdle in effective ECG's internal controls' implementation and maintenance. Despite a realization of strong controls' value, financial and manpower restrictions confront the organization, and these restrict full achievement of such controls. Financial restrictions inhibit procurement of high-tech tools and technology, which could make its internal controls even more effective. As a Financial Analyst mentioned:

“The budget for controls is not high enough to cover technological investments in enhancing the systems" (R7).

This constraint forces ECG to utilize outdated processes and less effective manual processes in an effort to detect and mitigate risks, and in reality, undermining the framework of internal controls. The budget constraint also holds back recruitment of qualified staff capable of contributing towards strengthening and monitoring internal controls, and in turn, constrains effective implementation even more. Besides, the problem of having a lack of human resources reaches out to undermining uniformity and effectiveness of tracking processes. According to one Senior Accountant:

"Due to an insufficiency of single-purpose workers for monitoring, the process ends up becoming reactive, not proactive" (R11).

With insufficient manpower in key positions, monitoring is not performed regularly, and weaknesses in controls systems will not be discovered when a problem happens. With a lack of specific resources, ECG cannot effectively apply a proper monitoring scheme for all its operations. Monitoring efforts, therefore, become scattered and not thorough, and gaps in controls and failure to detect potential risks in a timely manner can arise. In the absence of the financial and manpower resources, ECG is not able to establish and sustain an effective system of internal controls. This limitation has a direct impact on the corporation's ability for risk management, compliance, and organizational integrity, and hence a greater investment in technology and training of its personnel is justified to negate heightened challenges.

Theme Four: Complexity and Fragmentation of Control Processes

The fragmentation and complexity in processes of controls present a significant challenge for ECG in providing effective management of its internal controls processes. As a result of expansion in terms of size and operations diversification, its processes have become increasingly complex and fragmented between departments. Complexity arises through its use of numerous control processes that don't effectively speak with one another, creating a fractured system of managing risks. According to a Director of Operations:

“Our internal processes for controlling are scattered in a variety of departments, and thus, lack coordination and generate confusion in implementing new policies and in making any modifications.” (R1)

This fragmentation brings about a lack of cohesion in controls, and uniformity in operations is not simple to have. There can be processes and controls in each and every department, and a single uniformity in governance and in managing risks is not simple to implement.

The fragmentation of control processes creates duplicative work, with disparate departments working in similar processes or similar areas, unaware and, therefore, creating inefficiencies. As a Technical Assistant:

“There’s a lot of redundancy in processes, and that’s keeping our reaction pace down in terms of controlling failures and operational risks" (R14).

This redundancy brings about issue resolution and issue identification delays, with many entities working to settle one issue with no coordination in between them. Overlaps in processes generate confusion and miscommunication in an organisation, and overall make its internal controls less effective.

The complexity and fragmentation issue impair ECG's ability to respond in a timely manner to operational risks and challenges. Lacking a model for simplification of its internal controls, the corporation will have to grapple with disparate systems that make its risk management process less effective. Complexity impedes its adaptability in dealing with emerging risks and challenges, therefore, decreasing its agility and effectiveness at ECG's internal control system.

Theme Five: Data Security and Privacy Concerns in Internal Control Systems

Data security and confidentiality have become a critical challenge in ECG's administration of its internal controls. With increased use of electronic platforms for reporting and tracking, security of sensitive information is a critical issue of concern. With technology integration, ECG stands at a high vulnerability of being attacked by hackers, and its integrity can be compromised in its internal controls. According to an Audit Officer:

"Our internal controls can be compromised via cyberspace, and we haven't yet finished controls to protect sensitive information" (R8).

The lack of effective cybersecurity controls exposes ECG to a data breach, not only incurring financial loss but damaging the trust and organisation's reputation with its stakeholders too. Besides cybersecurity, processing sensitive information in controls in the organisation raises concerns about privacy. The organisation is responsible for adhering to many laws when it comes to safeguarding financial and individual information, yet most of its stakeholders stated that its controls over privacy fall below its requirements. A Compliance Auditor highlighted:

“We don’t have clear-cut protocols for safeguarding personal data, so we are vulnerable to privacy violations” (R12).

This absence of specific privacy protocols increases the level of non-compliance with data protection legislation, and therefore, can result in legal penalties and loss of reputation. Problems with data security and privacy, when not addressed, can impair effective internal controls through vulnerabilities that threaten the accuracy and confidentiality of information. Besides, in case of a lack of proper protection, ECG will face non-conformity with industry requirements and regulatory requirements, and can expose the entity to financial and legal penalties. All these concerns necessitate ECG investing in strengthened data protection processes and compliance with data privacy laws in an effort to maintain integrity in its internal controls system.

4.7 Chapter Summary

This chapter examined critically the internal controls of the Electricity Company of Ghana (ECG), measuring them in terms of current status against Ghana's energy industry. What came out in the analysis is that, although ECG has established a system of controls in an effort to enhance operational, financial, and compliance processes, several gaps in terms of complete implementation have not yet been filled. Although a necessity, these internal controls have not yet been fully integrated with existing technology, and investment in proper operation and monitoring is inadequate. Complexity and fragmentation in processes have also contributed to inefficiencies, and ECG is not yet able to maximize its utilization of controls to its full extent. Stakeholders pointed out that, despite such weaknesses, everyone recognizes that controls play a fundamental role in governance, accountability, and integrity in an organization.

In terms of technological advancement, the research analyzed how ECG has evolved in terms of employing new tools for controls, but integration has not been uniform. Real-time monitoring tools and computerized reporting tools have been found to have potential in terms of enhancing transparency and risk management, but lack of training and change resistance have been found to hinder them. Regulatory reform has placed new compliance requirements that ECG must follow, and these make its controls' working processes even more complex. Stakeholder perception revealed a high value for controls' governance function, with a view towards its impact towards decision-making and performance in an organisation. Security concerns over information and continuous improvement in training of workers have been found to necessitate immediate intervention, but overall, analysis reveals that, with continuous obstacles, ECG's internal controls have a key role in its governance structure, and fixing them will make them comply with industry and regulatory requirements even better.

CHAPTER FIVE

DISCUSSION

5.1 Introduction

This chapter discusses the findings that were obtained from the qualitative analysis that was conducted as part of the study. The discussion under this chapter have been made in order of the research objectives of the study.

5.2 To evaluate the current state of internal control systems within the Electricity Company of Ghana (ECG) in the context of Ghana's energy sector.

The study found that ECG's control environment is supported with strong integrity and ethical values, instilled in its operations through training programs, leadership, and organized ethics frameworks. As per the findings, ECG actively encourages integrity through manager actions and routine training, such that all its workers have high ethical standards at all levels. In consonance with Hess and Broughton (2014), who believe that strong ethical cultures in companies enhance workers' commitment and counteract fraud, ECG's management takes its actions a notch higher, with ethics manifested in decision-making and routine work processes, enhancing a transparent and accountable working environment. In its analysis, the study found that ECG's organized ethics training scheme keeps workers in constant contact with ethics, closing loopholes for unethical behavior. As per Al Halbusi et al. (2021), ethical leadership significantly impacts workers' ethical behavior, citing a transparent corporation's role in enhancing operational integrity. ECG's practice aligns with COSO's model of inner controls, whose view holds that ethical values make a critical part of an effective environment for controls (COSO, 2013). By instilling ethical values in its corporation and manager behavior, ECG fortifies its inner controls, enhancing financial soundness and governance effectiveness.

Also, the study found that ECG integrates risk assessment in its organizational objectives, such that risk management is not a standalone function but part of overall strategic decision-making. According to the study, risk assessment is closely intertwined with ECG's corporation objectives, with each of its discovered risks analyzed in terms of its contribution towards overall objectives of the corporation. This is in harmony with best practice in governance, in which risk management is included in planning in an effort to counteract disruptions and drive long-term viability (Kaplan & Mikes, 2016). Respondents stressed that ECG ensures that all its risk-related decisions, including financial, operational, and compliance risks, are in harmony with corporation objectives. This affirms the argument of Power (2009) that companies with integrated frameworks for managing risk can make effective, fact-based decisions in a manner that drives performance and resilience. ECG's proactive stance in risk assessment, in addition, allows for a deliberate and coordinated manner in dealing with uncertainties. That ECG prioritizes integration of risk assessment with corporation objectives reflects the general observation that companies with such integration have a high chance at sustaining stability and transforming with transforming risks (Lam, 2014). By ensuring its efforts at countervailing its risks are in a coordinated manner with its corporation objectives, ECG maximizes its opportunity at anticipating and countervailing its risks in a manner that keeps its long-term objective in consideration.

In addition, according to the study, ECG structures its controls in terms of level of risk, with a view to utilizing its resources effectively in high-risk regions with stricter controls and proportionate controls in low-risk regions. Respondents stated that ECG utilizes a model of risk, with a view to utilizing its resources effectively and a critical function having its proper supervision. According to the findings, such differentiation maximizes operational efficiency and reduces financial mismanagement and failures in compliance. In addition, according to the study, ECG places high value in preventive controls, with its policies and procedures in a position to detect and counteract such impending risks even before such risks crystallize. Respondents emphasized that such preventive controls, such as contract vetting and financial monitoring, act as first level of defense in maintaining organizational solidity (Arena et al., 2010). In addition, according to the study, corrective controls constitute an integral part of ECG's controls, with a view to addressing such risks that have actually crystallized. Once discrepancies have been uncovered, such corrective actions, such as revising processes and providing training for workers, are taken in a view to avert future occurrences. With such an arrangement, such an entity can effectively respond to emerging risks in a timely manner, and at the same time, instill a culture of accountability. In addition, according to the study, constant review and evaluation of controls constitute a key part of ECG's controls, with a view to enable such an entity to review its present controls and make such improvements as deemed fit. With such a dynamic review of controls, ECG can effectively respond to changing risks, with a view to having a strong and effective controls environment in position.

Moreover, the study found that information and communications contribute towards effective controls at ECG, with effective communications providing for decision-making, transparency, and coordination between departments. ECG, according to the study, has well-established channels for communications, but intermittent message delivery impedes timely reaction to critical risks. This manifested in feedback received in that even when communications in general contribute towards enabling controls, communications failure, particularly during transition, can impede effective execution of controls in a glitch-free manner. In addition, according to the study, communications contribute towards compliance with controls, with constant feedback and meetings providing channels for keeping workers abreast with requirements for controls in terms of compliance.

Miscommunication and slow integration of feedback in decision processes, however, manifested as a problem, with respondents citing that even when ECG actively seeks feedback, slow reaction to feedback impedes agility in terms of reaction to controls-related concerns. In addition, according to the study, ECG's communications enable collaboration between departments, with workers at all levels kept abreast with changing policies and emerging concerns in terms of risks. According to respondents, however, improvement in communications in terms of its effectiveness and pace, particularly in high-risk environments, could make ECG's controls even more effective. According to the study, feedback channels are key in sharpening controls, but slow reaction times mean full potential is not being leveraged in feedback channels. According to these findings, communications have a key role in strengthening ECG's controls system, but in addition, areas in which improvement could make ECG's controls environment even stronger have been determined.

Furthermore, the study determined that monitoring forms a critical part of ECG's internal controls mechanism, with its role in continuous evaluation and improvement of risk management processes. According to the findings, ECG has incorporated monitoring in its day-to-day operations, with both scheduled and timely assessments of its internal controls in place. With a structured mechanism, such as scheduled and timely assessments, ECG identifies and addresses risks early enough, supporting its proactive stance in managing risk. In addition, through effective reporting and documentation of its monitoring, transparency and accountability in its operations are increased, with thorough documentation supporting informed decision-making and timely corrective actions. With a centrally located database for storing its monitoring, access for relevant parties is facilitated, and ECG's efficiency in its internal controls is strengthened even further. In addition, through its use of continuous improvement, ECG prioritizes improvement through its use of monitoring information to streamline its internal controls, with adaptability in its controls to changing risks guaranteed. Respondents stressed that not only is its monitoring information documented but actively utilized in controlling its controls and strengthening its operational resilience. Despite such strengths, however, through its study, it determined that delayed corrective actions at times can slow down improvements, and therefore, a need for increased efficiency in acting on its monitoring information (Beasley et al., 2023; COSO, 2013). With such a determination, its role in maintaining ECG's effectiveness in its controls, through its critical role in its controls, is reiterated, with a re-emphasis placed on quick reaction processes in strengthening its risk mitigation processes.

5.3 To explore the effectiveness of these internal control systems in operational, financial, and compliance-related processes.

The study analyzed ECG's effectiveness in operational, financial, and compliance processes through its internal controls. As per the findings, internal controls have a significant role in operational efficiency, effective use of assets, financial asset safeguard, and compliance with regulators. Operationally, internal controls make processes efficient, reduce inefficiencies, and maximize productivity through establishment and checking processes. As per the report, ECG's internal controls enable early detection and resolution of inefficiencies, and disruptions that could impact performance, and therefore, not occur at all. Interview respondents stated that organized controls enable operational processes to run with ease, with specific processes for fixing potential obstacles. As per the report, routine checking and interventions enable a hitch-free run, with efficiency defects detected and addressed even before escalating to a problem level. The controls enable effective use of assets through proper use of financial and human assets. As per the report, ECG's controls enable financial security through avoided misallocation of assets and compliance with budgeted constraints. By acting in anticipation, operational efficiency is maximized, and ECG's overall objectives (COSO, 2013).

The study further revealed that internal controls safeguard financial resources by minimizing risks of fraud, mismanagement, and unauthorized transactions. Interviewees pointed out that ECG's internal control policies, such as cash-handling procedures, segregation of duties, and periodic audits, ensure financial transparency and accountability. The controls help to eliminate the risk of financial misappropriation because they offer clear oversight structures for financial transactions. The study confirmed that financial controls at ECG are formulated to ensure precise and dependable financial reporting, ensuring that financial statements reflect the organization's actual position. Respondents pointed out that reconciliation processes, approval procedures, and periodic review of finances eliminate errors and discrepancies in financial reporting. By ensuring robust financial controls, ECG strengthens stakeholder confidence and ensures compliance with financial regulations. The study further established that the company's ability to detect financial irregularities early enhances decision-making and ensures financial sustainability in the long run. This finding corroborates previous research that indicated that organizations with stringent financial controls experience fewer cases of financial misreporting and fraud (Arwinge and Arwinge, 2013).

The research found that internal controls are vital to regulation compliance through adherence to industry standards and legislation. Controls related to compliance such as policy compliance, compliance audits, and compliance training programs for employees were found to serve as a preventive control for managing compliance violations. Respondents in interviews noted that ECG utilizes continuous assessment and review programs for overseeing adherence to evolving laws and legislation. The research found that ECG's controls evolve with new legislation, and all departments are notified of new legislation and specifications. Respondents noted that compliance training programs undertaken periodically allow employees to understand compliance needs, reducing inadvertent compliance violations. Moreover, based on the research, ECG's proactive compliance minimizes financial and legal penalties for non-regulation compliance. All these findings attest that a flexible and responsive internal controls system that evolves with changing laws and legislation is essential for compliance (Benedek, 2012).

5.4 To assess the impact of technological advancements and regulatory changes on the effectiveness of internal control systems within the ECG.

The study analyzed ECG's effectiveness in operational, financial, and compliance processes through its internal controls. According to the study, internal controls have a significant role in operational efficiency, effective use of resources, financial assets protection, and compliance with regulators. Operationally, workflows become efficient, and inefficiencies and productivity loss are reduced through defined processes and tracking processes. According to the study, ECG's controls enable early detection and resolution of inefficiencies, and therefore, disruptions that could impact performance are averted. Interview respondents stated that organized controls make operational workflows efficient, with processes for resolving potential bottlenecking areas defined. According to the study, continuous tracking and interventions enable operations to run seamlessly, with detected and resolved inefficiencies not escalating into full-fledged ones. The controls enable effective use of resources through effective use of financial and human assets. According to the study, ECG's controls make ECG's financials secure through effective use of assets and compliance with budgeted constraints. Through such a proactive approach, operational efficiency is maximized and ECG's overall objectives facilitated.

The research further revealed that financial controls safeguard financial assets through minimizing fraud, mismanagement, and improper use of funds. Interview respondents emphasized that ECG's financial controls, such as cash-handling processes, segregation of duties, and audits, ensure financial transparency and accountability. Controls serve to mitigate financial misappropriation risk, providing transparent frameworks for financial transactions. The study confirmed that ECG's financial controls have a purpose of ensuring reliable and correct financial reporting, such that financial statements accurately represent the entity's position. Respondents showed that reconciliation processes, approval processes, and financial review processes avert financial reporting errors and discrepancies. By having sound financial controls, ECG strengthens trust with its stakeholders and ensures compliance with financial laws and regulations. The study confirmed that the early detection capability of financial malfeasance in a company strengthens decision-making and ensures long-term financial viability.

The study also confirmed that ECG's internal controls are important in maintaining compliance with laws and industry standards through harmonization with them. Compliance controls, including compliance with policies, compliance audits, and workers' training programs, were confirmed to be important in averts preventive compliance violations. Interview respondents confirmed that ECG utilizes continuous evaluation and monitor programs for compliance with new laws and changing requirements. According to the study, ECG's internal controls have a mechanism for adaptability with changing laws and requirements, such that departments receive updated information about new laws and requirements. Respondents confirmed that continuous training programs for workers in compliance with new laws and requirements reduce the opportunity for accidental compliance failures. Besides, according to the study, ECG's proactive compliance averts financial and legal consequences for failure to comply with laws and requirements. All these confirm that having a flexible and adaptable mechanism for internal controls that keeps in pace with changing laws and requirements is important for success and growth in any institution. Overall, according to the study, ECG's internal controls effectively maintain operational efficiency, safeguard financial assets, and compliance with laws and requirements, and position the institution for long-term success and growth.

5.5 To understand stakeholder perceptions regarding the effectiveness of internal control systems in the ECG and their impact on organizational performance and governance.

The findings confirm that stakeholders perceive internal controls to be critical in strengthening governance in ECG at an organizational level. Perhaps one of the most significant areas stressed is the role played by internal controls in enhancing accountability and transparency. By having Enterprise Resource Planning (ERP) and computerized audits, ECG increased accuracy in financial reporting and operational supervision, and reduced room for mismanagement. Transparency is an integral part of effective governance, in that, it creates confidence in regulators, investors, and even in the general public in an entity's operations. Stakeholders confirmed that technology-facilitated internal controls have increased transparency in financial transactions, and discrepancies can be spotted with ease and resolved in a timely manner. By having compliance management software, ECG guaranteed compliance with frameworks for corporate governance, a critical in curbing fraud and compliance-related threats. In a country such as Ghana, with its public sector entities such as ECG, such controls have become even more important in an environment with high demand for accountability and efficiency in governance and financial management in public sector entities. Real-time tracking of transactions not only boosted stewardship in financial affairs but, in addition, inculcated a culture of responsible leadership in a company such as ECG. By computerizing audits and risk analysis, ECG eliminated room for mistakes and biases in decision-making, strengthening governance processes even further. Stakeholders continued to confirm that such controls allow effective supervision through governing boards, in that, decision-makers become responsible for actions, and strategic decisions align with ECG's corporate objectives.

Another governance benefit of ECG's internal controls is that they facilitate ethical leadership and quality decision-making. Governance failures have most frequently resulted from unethical leadership and ineffective compliance with regulations, but ECG's internal controls have established channels for compliance and ethical behavior enforcement. By integrating computerized tools for risk management, ECG has improved its ability for forewarning and controlling operating risks, such that governance structures become proactive and not reactive in nature. Stakeholders welcomed the fact that decision-makers at ECG increasingly rely on fact-based data and not discretion, reducing subjectivities that lead to misgovernance and corruption. This shift towards fact-based decision-making aligns with best governance practice, where accountability structures are underpinned through technology and rigorous compliance structures (Sifiso and Pfano, 2022). Furthermore, having computerized compliance monitoring decreased compliance violations, insulating ECG from reputational damage that can arise through governance failures. Remarkably, the inquiry found that not only are internal controls a means of supervision but, indeed, function as instruments of long-term sustainability support. By aligning decision processes with governance ideals, ECG ensures its leadership aligns with ethical behavior in business, and thus, a governance climate marked by transparency, accountability, and operational efficiency is fostered. Finally, the inquiry finds that reinforcing controls will even further advance ECG's governance structure, underpinning its viability and trust in the market.

5.6 To determine the challenges associated with internal control systems at Electricity Company of Ghana (ECG).

The research ascertained that one of the greatest weaknesses in ECG’s internal controls is inadequate integration of technological tools, leading to inefficiencies and undermining overall control environment effectiveness. ECG, though it has embraced some digital tools, holds them in fragmented silos in respective departments, leading to fragmentation of operations. Fragmentation leads to a delay in information consolidation, and it is difficult to identify risks and inefficiencies in real-time. Manual interventions have to be performed in collating and reconciling information, a step that not only slows decision-making but also increases the likelihood of errors. In the absence of an integrated system, management is unable to get real-time information, and thus, its effectiveness in acting in case of a controls failure is undermined. Integration of technology, according to studies, is the strength of controls through enhanced accuracy in information, reduction in fraud, and timely decision-making (Rashid et al., 2021). The failure of ECG, therefore, in a complete integration of its systems forces its processes to remain inefficient, and its effectiveness in controlling risks is undermined. According to the research, such a failure of integration extends its effect to financial reporting accuracy, with financial information in departments failing to reconcile efficiently, increasing a high likelihood of misstatement and discrepancies in audits. Consequently, ECG’s disintegrated internal controls system forces its ineffectiveness in detecting and preventing financial malpractices, and its exposure to operational and financial risks is increased.

Another major issue mentioned in the study is resistances to change and poor training of staff, which erode the effectiveness of ECG's internal controls. Staff who have long been working with traditional systems resist new technology and controls, and such resistances are fueled by a desire for familiarity with processes, a lack of sensitization to new system benefits, and a general apprehensiveness about new and unfamiliar processes. In the study, most workers showed reluctance in transitioning from traditional processes to computerized processes, citing job loss and increased complexity in work processes. Resistance is fueled by an inability in the organization to implement widespread training programs designed to impart workers with skills and competencies in utilizing complex controls effectively. Existing studies reveal that a lack of training enables poor practice in terms of internal controls, as workers lack the competencies to apply controls (Guo et al., 2016). In ECG, a lack of coordinated training programs has seen poor compliance with developed internal controls policies, with workers being uninformed about new controls or lacking technical capabilities to apply them effectively. In a study, it was discovered that when new internal controls programs are implemented, an accelerated rollout is conducted, and workers have little chance to adapt, with a lack of follow-up and guidance, and compliance and effectiveness gaps in controls and compliance follow subsequently.

The study also found that restricted funds have a considerable impact on ECG's efficiency and effectiveness in its internal controls. Financial and manpower restrictions have been seen to serve as considerable obstacles to having and maintaining an effective system of internal controls in ECG. ECG's financial restrictions impair its capacity to fund sophisticated controls technology and experienced professionals in controlling and imposing controls. ECG's financial restrictions impair its capacity for routine audits of its controls, and weaknesses go undetected, and develop into critical weaknesses and then significant risks. Inadequately trained and experienced professionals for controlling and monitoring mean that ECG's controls work in a passive manner, with weaknesses only addressed when operational disruptions have been experienced. Research has confirmed that underfunded controls in an entity expose it to heightened financial malgovernance and compliance failures (Masanja et al., 2018). In ECG, not only is proactive management of risks impeded, but ECG's effectiveness in imposing compliance in departments is also curtailed. In its study, ECG's challenge in having a strong monitor function in its controls was uncovered, with current staff overworked with many jobs, impairing its effectiveness in controlling and imposing controls. Besides, lack of investment in cybersecurity controls has compromised ECG's controls, and its controls expose it to security vulnerabilities, and its financial information is at high vulnerability for unauthorized access and cyberattack. In its current state, with no funding and manpower, ECG's controls lack effectiveness, and its operations expose it to operational inefficiencies, financial loss, and penalties.

5.7 Chapter Summary

The findings in this study present critical factors in effective controls in Electricity Company of Ghana (ECG). First, ECG's controls structure, with a sound system consisting of controls, risk, and compliance, but whose effectiveness is hindered through operational inefficiencies, poor supervision, and poor processes of enforcement, was determined in the study. Second, compliance with financial laws and ECG's policies through ECG's compliance processes exhibited gaps in compliance with financial laws and ECG's policies through poor tracking of compliance and lack of automation in compliance processes, according to the study. Third, analysis of ECG's controls impact in financial performance revealed that strong controls positively impact financial performance, but leakages in revenues and vulnerability to fraud hinder full effectiveness in controls, according to analysis in the study. Fourth, a survey of ECG's stakeholders about ECG's controls revealed concerns about accountability, transparency, and workers' reluctance in having controls in ECG, according to a survey in the study. Lastly, key impediments to ECG's controls, including poor integration of technology, reluctance to change, lack of availability of resources, poor processes, and security in data, cumulatively hinder the institution’s effectiveness in having a strong controls structure, and a transition towards strategical improvements in governance, compliance, and financial performance is therefore warranted.

CHAPTER SIX

CONCLUSION AND RECOMMENDATION

6.1 Introduction

The chapter provides the conclusions based on the findings of the study. The chapter also provides the various recommendations based on the findings of the study. Equally, there are some limitation to this study that have been discussed at the latter part of this section and recommendation for further studies have also been made to future researcher as well.

6.2 Conclusion

First, the study concludes that ECG's internal controls have been designed to drive ethical values, risk assessment, controls, information and communications, and monitoring, in harmony with best practice in risk management and governance. According to the study, ECG attains a robust control environment through embedding integrity in its corporate governance through leadership and organized ethics training. Secondly, its risk assessment is harmonized with strategic planning, with a view to having its risks in harmony with its objectives and enhancing its resilience. ECG's controls are risk-based with preventive and correct actions that make operations efficient and mitigate financial malpractice. Nonetheless, according to the study, communications, particularly timely information dissemination, posed a potential constraint to effective controls' effectiveness. In addition, while ECG's controls for monitoring assure continuous review of its risks, its sometimes delayed effectiveness in taking corrective actions leaves room for improvement. The study confirms that ECG's controls system ensures financial solidity, effective governance, and risk management. However, simplifying communications processes and quickening its reaction to feedback through monitoring will make its controls even more effective.

Secondly, the study concludes that ECG's internal controls effectively drive operational efficiency, financial solidity, and compliance with regulators. As per the findings, ECG's internal controls streamline workflows, maximize use of assets, and counteract operational inefficiencies through orderly intervention and monitoring processes. By early intervention and resolution of inefficiencies, ECG maximizes productivity and prevents disruptions that can impair performance. Besides, according to the findings, financial controls such as segregation of duties, routine audits, and reconciliation processes safeguard financial assets and prevent fraud, and enhance transparency and accountability. All these enhance sound financial reporting instil confidence with stakeholders. Besides, according to the findings, ECG's internal controls drive compliance with regulators through harmonization with laws and requirements in the industry. Monitoring, compliance audits, and training programs for workers counteract regulatory risks and maintain compliance with changing policies.

Thirdly, the study concludes that technological innovation and regulatory change have a profound impact in strengthening ECG's internal controls effectiveness. As per the study, computer tools and automation make operations efficient through simplification, accuracy in information, and minimizing errors. Integration with technology strengthens financial controls through real-time tracking, computer reconciliation, and fraud detection, and financial transparency and accountability. Regulatory change, according to the findings, necessitates ongoing updating of internal controls for compliance objectives. ECG's proactive actions, such as compliance audits and training for employees, contribute towards compliance with changing legal frameworks. All these actions enhance governance, mitigate risks, and contribute towards long-term viability of an organization.

Fourthly, the study concludes that ECG's internal controls are seen by stakeholders to be key in supporting governance, accountability, and performance in an entity. Automated tracking of finance, compliance, and structures for managing risk have, in the findings, heightened transparency and reduced room for mismanagement. Stakeholders emphasized that such controls simplify decision-making through instilling ethical leadership and fact-based governance. The findings also found that effective internal controls boost compliance with regulators, minimizing legal and reputational risk. By utilizing technology-facilitated tools for oversight, ECG has deepened governance structures in a corporation, supporting long-term viability. Stakeholders, therefore, perceive internal controls to be key in ECG's operational integrity and development strategy.

Lastly, the study concludes that ECG is hindered in having an effective controls system, with its greatest challenge being poor technology integration, resistance to change, and a lack of resources. Inability to have a full integration of a computerized system has seen operations become disconnected, with delayed consolidated information, and inefficient financial reporting and detection of risks. Resistance to new technology, in addition to a lack of proper training, reduces compliance and effectiveness in controls. Inadequate financial and manpower resources then restrict ECG's ability for routine audits, compliance, and cybersecurity enhancements. All these vulnerabilities erode ECG's ability for an effective controls system, and subsequently expose the entity to operational inefficiencies, financial mismanagement, and compliance risks.

6.3 Recommendations

Based on the study's conclusion, the following recommendations have been proposed in the study;

The study recommends ECG to prioritize full integration of digital technology in a manner that maximizes its effectiveness in enhancing its internal controls. Inefficiencies in consolidating information, compromised risk identification, and delayed decision-making processes arise when technological infrastructure is not in a single platform. To counteract, ECG can invest in a single, centrally located Enterprise Resource Planning (ERP) system that unites financial management, risk analysis, and compliance tracking in all departments in one platform. An integrated system will allow for real-time tracking of transactions, streamline reconciliation processes, and reduce errors occasioned through manual intervention. Besides, use of sophisticated tools in fraud detection and predictive risk analysis through advanced analytics and artificial intelligence (AI) can boost fraud detection and predictive risk management capabilities. An effective technological infrastructure will not only maximize ECG's operational efficiency but will also boost financial reporting accuracy and compliance with regulators.

In addition, ECG is advised in the study to implement a full-fledged change management and training scheme for its workers in an effort to counteract resistances to new internal controls. Resistance to change continues to serve as a strong barrier to successful rollout of computerized controls, with workers who have become accustomed to traditional approaches tending to perceive new technology as complex or intimidating. To counteract such, ECG can implement organized training programs, seminars, and continuous development programs for workers at different seniority levels. Training must focus on imparting technical competencies in utilizing new systems, with workers having a cognizance of the utility of internal controls in minimizing danger and improving efficiency in an organization. Besides, incorporation of change management techniques, such as getting workers involved in transition, providing incentives for compliance, and developing a flexible work environment, can ease transition and promote acceptance. By developing workers' capacity and creating an adaptable work environment, ECG can enhance compliance and make internal controls effective in practice.

Also, the study recommends ECG to allocate enough financial and human resources to develop its internal control system. Shortage of resources constrains the capacity of the organization to implement high-level control technology, conduct periodical audits, and implement compliance effectively. To reverse such a scenario, ECG should make additional budgetary provisions for internal control operations, such as ongoing investments in cybersecurity, forensic audits, and computerized monitoring tools. ECG should, in addition, recruit qualified personnel with expertise in risk management, forensic accounting, and compliance with laws and regulations to undertake control operations. An earnest internal control unit will enhance ECG's early financial malpractice detection, compliance policy enforcement, and anticipation of operational risks. By curbing scarcity of resources, ECG will enhance effectiveness and durability of its internal controls, averts fraud, mismanagement, and compliance with laws and regulations.

In addition to institution level interventions, the study recommends that regulators in Ghana strengthen frameworks for regulating state-owned enterprise (SOEs') internal controls. Poor compliance with public sector internal controls policies increases financial mismanagement and inefficiencies' risk. To counteract, regulatory agencies such as the Public Utilities Regulatory Commission (PURC) and the Auditor General's Department have to introduce stricter compliance tracking for SOEs, with a view to effectively having internal controls in practice. For example, such requirements could include compulsory periodical audits, increased transparency requirements, and stricter financial reporting requirements. Regulatory agencies have to, in addition, introduce default penalties and reward companies with effective internal controls in practice. Strengthening the regulatory environment will cause ECG and other SOEs to implement sounder internal controls, improving operational efficiency and financial accountability.

Finally, the study proposes that national policies for the digitization of public institution internal controls be developed by policymakers. Most public institutions, including ECG, suffer from archaic manual processes, and these hinder effective financial reporting and risk management. To address this, the government must develop uniform digital integration policies, which will stimulate public institutions to adapt to computerized internal controls. This can involve creating a uniform digital infrastructure for SOEs, providing funding for technological improvements, and offering training programs in digital internal controls. Policymakers must also stimulate collaboration between state-owned entities and private technology providers in developing tailor-made digital solutions for enhancing compliance and risk management. Having national directives for internal control digitization will not only benefit ECG but will integrate overall governance in Ghana's public sector as well.

6.4 Limitations of the Study

One of the key weaknesses of the study is its use of one organisation's data, namely, Electricity Company of Ghana (ECG). Despite providing useful information regarding governance arrangements and internal controls, its generalizability to state-owned companies and private sector companies that operate in alternative frameworks could not have been guaranteed. In addition, the study was predominantly conducted using qualitative information drawn from stakeholders' perceptions, and, even though insightful, could have been susceptible to biases in perception. A detail analysis, including financial performance information and effectiveness of controls, could have produced a more objective analysis of ECG's internal controls. Finally, technological restraints in ECG saw a range of electronic controls in an infancy stage of rollout, and, therefore, not assessable in terms of long-term impact. Despite these weaknesses, the study forms a sound platform for an analysis of ECG's governance and effectiveness of controls.

6.5 Recommendations for Future Research

Based on such determined constraints, future studies will have to expand its scope to include state-owned companies and private companies in addition to ECG in order to make generalizability of its findings larger. Comparative analysis in a range of companies will generate a deeper analysis of how industries implement and manage controls in a range of environments. Besides, future studies will have to apply a quantitative analysis, utilizing financial performance and statistics in gauging effectiveness in controls in financial solidity and operational efficiency. That will generate a less-subjective analysis of effectiveness in controls. As ECG’s transformation into a digital entity progresses, future studies can assess to what level technology-integrated systems contribute to fraud detection, compliance checking, and governance performance over a span of years. Besides, future studies will have to assess rank and file workers' experiences working with controls on a daily basis, whose experiences can generate rich information about real-life complications in its use. Lastly, future studies will have to assess regulating entities' role in strengthening controls' effectiveness in state-owned companies, analyzing regulating reform's impact in financial accountability and governance effectiveness in the public sector.

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APPENDIX 1: INTERVIEW GUIDE

Introduction

Thank you for agreeing to conduct an interview with me. I'm COMFORT DOMPREH OFORI, and I'm researching a study on the effectiveness of ECG's internal controls in the Electricity Company of Ghana. I'd appreciate your experiences and observations regarding individuals working in ECG's internal controls. All information will be kept in confidence and will only be used for academic purposes. It will not consume your 30-45 minutes at most. In case of a change of heart, at any point, you can withdraw your consent and terminate the interview.

Personal Information:

1. Please state your name (optional) and your position in ECG.

2. How long have I been working in my current role?

3. Can you briefly detail your daily responsibilities in relation to internal controls?

Interview Questions

Assessing the Existing Status of Internal Controls in Electricity Company of Ghana (ECG)

Component: Control Environment

Major Question: What is the control environment at ECG?

• Sub-question: What processes and controls have been adopted to inculcate integrity and values in employees?

• Sub-question: How can management ensure its commitment to ethics and competency?

Component: Risk Analysis

Major Question: What is risk assessment at ECG?

• Sub-question: Can you detail out the process for identifying and analyzing ECG's objectives-related risks?

• Sub-question: How can ECG's risk management be affected by changes in the external environment?

Component: Control Activities

Major Question: What have been controlling actions taken at ECG to mitigate risks?

• Sub-question: How are such controls designed for different sectors and for different levels of risk?

• Sub-question: Could specific examples of individual risks being lowered through controls be provided?

Component: Information and Communication

Major Question: Can you explain how information is communicated within ECG?

• Sub-question: How can such a message promote effective internal controls?

• Sub-question: Are present communications processes hindered by any obstacles?

Component: Monitoring

Major Question: What processes are utilized at ECG for tracking internal controls?

• Sub-question: How often are such monitoring operations performed?

• Sub-question: Could you specify any new observations through tracking and how have they been addressed?

Investigating the Effectiveness of Internal Controls in Operating, Financial, and Compliance Processes

Major Question: In what ways do internal control systems within ECG affect operational effectiveness?

• Sub-question: Can you detail any specific examples in which internal controls have directly influenced operational performance?

• Sub-question: What operational concerns can be resolved with strengthened internal controls?

Major Question: What is the function of internal controls in maintaining ECG's financial integrity?

• Sub-question: How do such systems enable proper financial reporting and avert financial discrepancies?

• Sub-question: Do financial controls that in your view work particularly well, or could use improvement?

Major Question: How effective are ECG's internal controls in supporting compliance with regulatory requirements?

• Sub-question: Can examples of ECG's compliance with specific regulatory requirements through its use of internal controls be provided?

• Sub-question: What are the biggest compliance obstacles through internal controls?

Evaluating the Effects of Technological Development on Internal Control Systems in the ECG

Major Question: How have technological developments affected the internal control systems at ECG?

• Sub-question: Can any specific technology implementations have been utilized to enhance internal controls?

• Sub-question: How have these new technologies affected overall system effectiveness?

Major Question: How has technology integration in internal controls impacted ECG's risk management?

• Sub-question: What technological tools or systems have been utilized to detect, assess, and manage risks?

• Sub-question: Can you detail any obstacles experienced in incorporating technology in risk management processes?

Stakeholder attitudes towards effectiveness of internal control systems of ECG and its role in contributing to organisational performance and governance

Major Question: What is the perception of stakeholders regarding ECG's effectiveness in its internal controls?

• Sub-question: How do these perceptions affect organizational performance?

• Sub-question: What is being done in terms of reconciling objectives for internal controls with stakeholder expectations?

Main Question: What influence do ECG's internal controls have on governance practice?

• Sub-question: Can you state the role of ECG in relation to its contribution towards national development?

• Sub-question: What governance concerns can be resolved through enhancing controls in a corporation?

Major Question: How have ECG's financial and operational performance been affected by its internal controls?

• Sub-question: Can specific examples of how operational efficiency has been increased and hindered through internal controls be shared?

• Sub-question: What have been the impacts of having internal controls for financial stability and reporting accuracy at ECG?

Additional Questions:

Major Question: What are the principal challenges for the internal control systems at ECG?

• Sub-question: How do these barriers affect overall efficiency in the organisation?

• Sub-question: What have been proposed as solutions or strategies for overcoming these obstacles?

Major Question: What kind of government support does ECG require in terms of strengthening its internal controls?

• Sub-question: Are there any areas in which government intervention can have its greatest impact?

• Sub-question: How will such an improvement contribute to ECG's internal control environment?