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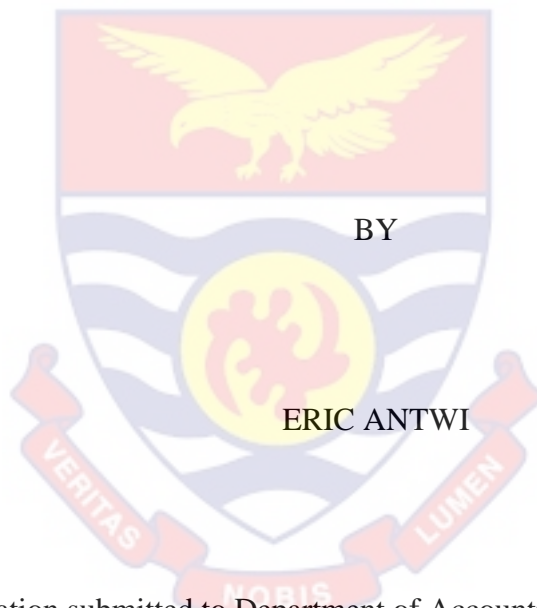
INTERNAL AUDITING, AUDIT COMMITTEES AND FRAUD
PREVENTION IN THE GHANA HEALTH SERVICE: EVIDENCE FROM
THE FANTEAKWA DISTRICT HEALTH DIRECTORATE



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THE FANTEAKWA DISTRICT HEALTH DIRECTORATE



Dissertation submitted to Department of Accounting, School of Business,
College of Humanities and Legal Studies, University of Cape Coast, in partial
fulfilment for the requirements for the award of Master of Business
Administration degree in Accounting

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DECLARATION

Candidate's Declaration

I hereby declare that this dissertation is the product of my own original research and no section of it has been presented to the University of Cape Coast or elsewhere.

Candidate's Signature Date

Name: Eric Antwi

Supervisor's Declaration

I hereby declare that the preparation and presentation of the dissertation was supervised in accordance with the guidelines on supervision of dissertation laid down by the University of Cape Coast.

Supervisor's Signature Date

Name: Dr. James Tuffour

ABSTRACT

This study investigates the relationship between the internal auditing, audit committees and fraud prevention in the Fanteakwa District Health Directorate. Primary data were collected from 108 employees from the health directorate. They included Internal Auditors, Accountants, Administrative Staff and Finance Officers. The study adopted a quantitative approach and employed a questionnaire as its primary data collection instrument. The study employed the Partial Least Square estimation technique for data analysis. The study employed explanatory research design. The study revealed that a well-qualified and knowledgeable audit committee substantially enhances the effectiveness of fraud prevention efforts. Furthermore, the study found that when the internal audit function operates independently, it plays a crucial role in preventing and mitigating fraudulent activities. Also, the study documented that the presence and active involvement of internal auditors in an organisation's operations play a vital role in deterring and preventing fraudulent activities. Therefore, it was recommended that management of the Directorate should focus on developing and maintaining a highly qualified and knowledgeable audit committee. Regular training and professional development opportunities for committee members can help them stay up-to-date with best practices in fraud prevention. Moreover, the Fanteakwa District Health Directorate should take steps to ensure that the internal audit function remains independent from the influence of management. Besides, Medical Superintendents within Fanteakwa District Health Directorate should further empower and support the internal audit team. This may include providing additional training and resources to enhance their ability to detect and prevent fraud effectively.

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Finally, I want to thank all the participants and volunteers who took part in this study. Without their participation and cooperation, this research would not have been possible. This dissertation represents the culmination of years of hard work, and I am grateful to everyone who played a part in making it a reality. Thank you all for your contributions, encouragement and belief in this project.

DEDICATION

To my dear wife Mrs, Edna Antwi.

TABLE OF CONTENTS

	Page
DECLARATION	ii
ABSTRACT	iii
ACKNOWLEDGEMENTS	iv
DEDICATION	v
TABLE OF CONTENTS	vi
LIST OF TABLES	ix
LIST OF FIGURES	x
CHAPTER ONE: INTRODUCTION	
Background to the Study	1
Statement of the Problem	4
Purpose of the Study	6
Research Objectives	6
Research Hypotheses	6
Significance of the Study	7
Delimitation of the Study	7
Limitation of the Study	8
Organisation of the Study	8
CHAPTER TWO: LITERATURE REVIEW	
Introduction	10
Theoretical Review	10
Conceptual Review	12
Empirical Review	16
Conceptual Framework	24

Chapter Summary	26
CHAPTER THREE: RESEARCH METHODS	
Introduction	28
Research Design	28
Research Approach	29
Study Area	30
Population	31
Sampling Procedures	31
Data Collection Instruments	32
Reliability and Validity of the Instrument	34
Data Collection Procedure	35
Data Processing and Analysis	35
Ethical Considerations	36
Chapter Summary	36
CHAPTER FOUR: RESULTS AND DISCUSSION	
Introduction	37
Demographic Characteristics of Respondents	37
Common Method Bias	38
Checking for Reliability and Validity of the Model	40
Testing Hypotheses	42
Chapter Summary	48
CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS	
Introduction	50
Summary of the Study	48

Summary of Key Findings	51
Conclusion	50
Recommendations	51
Suggestions for Further Research	52
REFERENCES	53
APPENDIX	70

LIST OF TABLES

	Page
1 Sample Composition	32
2 Demographic Characteristics of Respondents	38
3 Model Fit	39
4 Summary of Measurement of Scale	41
5 Fornell–Larcker criterion for Determining Discriminant Validity	42
6 Hypotheses Results	42

LIST OF FIGURES

	Page
1 A conceptual framework linking audit committee, expertise, internal auditing and independence and fraud prevention	24
2 Path Modeling and Factor Loading Results	43

CHAPTER ONE

INTRODUCTION

Those in charge of governance must concentrate more on practical ways to address the growing concern over fraud prevention in public health institutions worldwide (Petraşcu & Tieanu, 2014; Mangala & Kumari, 2015; Yakubu, 2017). As a result, scholars and organizations have promoted internal auditing as an efficient method of preventing fraud (Azzolini, Furia, Cambieri, Ricciardi, Volpe & Poscia, 2019; Behrend & Eulerich, 2019; Joshi, 2021). This study sought to examine the relationship between internal auditing, audit committees and fraud prevention in Fanteakwa District Health Directorate. This chapter addresses the background to the study, statement of the problem, purpose of the study, research objectives, research hypotheses, significance of the study, delimitation of the study, and limitation of the study.

Background to the Study

Global concern over fraud prevention in public health institutions has led governance bodies to concentrate on practical ways to address this issue (Petraşcu & Tieanu, 2014; Mangala & Kumari, 2015; Yakubu, 2017). One such strategy that has gained traction is internal auditing, which has been identified by scholars and institutions as a vital tool for preventing fraud (Azzolini, Furia, Cambieri, Ricciardi, Volpe & Poscia, 2019; Behrend & Eulerich, 2019; Joshi, 2021). Internal auditing offers a methodical way to keep an eye on financial transactions, guarantee accuracy, and spot possible anomalies. Examining the connection between internal auditing, audit committees, and fraud prevention in the Fanteakwa District Health Directorate is the goal of this study.

The Fanteakwa District Health Directorate, located in the Eastern Region of Ghana, is responsible for administering healthcare services across multiple facilities within the district. Like other public health institutions, the directorate handles significant financial resources and is tasked with managing these funds efficiently while ensuring transparency and accountability. However, healthcare institutions in Ghana, including Fanteakwa District Health Directorate, have faced challenges related to financial mismanagement and fraud. For instance, the 2021 Auditor-General's Report revealed financial irregularities across Ghana's healthcare sector, highlighting the need for stronger internal controls (Director-General of the Internal Audit Agency, 2021 Annual Report).

Within the Fanteakwa District Health Directorate, issues such as fraudulent billing for unnecessary services and failure to issue receipts for payments have been identified (Eastern Regional Health Directorate, 2016 Annual Report; Report on Peer Review of Hospitals in the Eastern Region, 2020). As a response, internal auditing and the establishment of Internal Audit Committees have been adopted as essential mechanisms to improve financial oversight and prevent fraud. Internal auditing in health institutions like the Fanteakwa District Health Directorate plays a critical role in providing management, auditors, and audit committees with accurate financial data, helping to enhance decision-making and prevent fraud (Christ, Eulerich, Krane & Wood, 2021; Gaosong & Leping, 2021).

Internal auditing also facilitates monitoring of operations and enforces accountability among employees (Mashayekhi, Vanaki & Sivandian, 2021), thereby ensuring compliance with financial reporting standards (Badu &

Kuutol, 2013). In this context, scholars have emphasized the importance of audit committees, particularly in public healthcare institutions. The audit committee, a subcommittee of a company's board of directors or governing body, is tasked with overseeing financial reporting, risk management, and the internal audit process (Bin-Ghanem & Ariff, 2016). For health institutions like the Fanteakwa District Health Directorate, having qualified audit committee members is essential for maintaining transparency and promoting the institution's long-term success (Barnes, 2020).

According to agency theory (Jensen & Meckling, 1976), effective internal auditing and audit committees improve employee accountability, transparency, and fraud prevention, particularly when employees believe their institution enforces strict auditing policies (Kashona, 2019; Handoyo & Bayunitri, 2021). Despite these efforts, challenges remain. The 2021 Auditor-General's Report pointed to weak internal controls within Ghana's health sector, including the Fanteakwa District Health Directorate, where financial irregularities were identified, amounting to GH¢22.7 million across various healthcare facilities (Director-General of the Internal Audit Agency, 2021 Annual Report). These findings underscore the need for more rigorous internal auditing practices within the directorate and similar institutions to prevent financial misconduct and fraud.

While many studies have examined the role of internal auditing in fraud prevention (Badu & Kuutol, 2013; Demirović, Isaković-Kaplan & Proho, 2021), findings have been inconsistent. Some research indicates that internal auditing significantly influences fraud prevention (Oppong, Fofack & Boakye-Yiadom, 2021), while others contend that internal auditing is more effective at

detecting fraud than preventing it (Onoja & Usman, 2015; Abdul-Hafiz, 2020). Additionally, there is limited research on the role of internal auditing in Ghanaian hospitals, particularly within district health directorates like Fanteakwa. This gap in the literature highlights the need for localized studies to better understand the specific challenges and opportunities related to internal auditing and fraud prevention in Ghana's healthcare system.

Given these concerns, this study seeks to explore how internal auditing, audit committees, and fraud prevention interact within the Fanteakwa District Health Directorate. By focusing on this district health directorate, the study will provide insights into how internal audit policies and audit committee expertise can be enhanced to strengthen fraud prevention mechanisms, contributing to better governance and financial management in public health institutions.

Statement of the Problem

According to Oppong, Fofack and Boakye-Yiadom (2021), hospitals' survival and continued existence are contingent on how committed they are to their fraud prevention. It has been argued that one of the mechanisms through which health institutions such as hospitals can prevent fraud activities is through engaging in effective internal auditing (Onoja & Usman, 2015; Putri, Putra, Wirakusuma & Suputra, 2022; Rashid, Al-Mamun, Roudaki & Yasser, 2022). Despite the fact, some studies (see for example, Widilestariningtyas & Karo, 2016; Yakubu, 2017; Asiedu & Deffor, 2017; Westhausen, 2017; Kashona, 2019; Ar'Reza, Wardoyo & Putri, 2020; Oppong, Fofack & Boakye-Yiadom 2021; Rehman, 2022; Malle, Mwonge & Naho, 2022) assessed how internal auditing could enhance fraud prevention. Meanwhile, findings of these studies were conflicting.

Oppong, Fofack and Boakye-Yiadom (2021), for example, investigated the influence of internal auditing on fraud prevention among firms and found that, fraud prevention is largely influenced by internal auditing activities. Oppositely, Onoja and Usman, (2015) have contended that internal auditing only detects fraud but unable to prevent it. Equally, mixed results were found in Aikins, Mensah and Kumi-Kyereme's (2022) study. Also, in Abdul-Hafiz's (2020) investigation on internal auditing and fraud prevention relationship established that, there is uncertainty on whether there still exists a relationship between auditing and fraud prevention. Therefore, addressing these conflicting empirical findings requires further studies on internal auditing and fraud prevention to help us understand of how internal auditing impacts fraud prevention.

Through the lens of agency theory (Jensen & Meckling, 1976), it can be argued that the internal auditing of hospitals is directed at unearthing innovative ways of preventing fraud (Demirović, Isaković-Kaplan & Proho, 2021). This is because the merit of internal auditing is more substantial in hospitals associated with fraud. Furthermore, majority of studies (see Badu & Kuutol, 2013; Yakubu, 2017; Asiedu & Deffor, 2017; Abdul-Hafiz, 2020; Aikins, Mensah & Kumi-Kyereme, 2022) on internal auditing and fraud prevention nexus have been extensive especially in the educational sector and other public sectors with no emphasis on Ghanaian hospitals.

This study is motivated by the fraud recorded at the health sector in Ghana specifically, Fanteakwa District Health Directorate in Ghana (Eastern Regional Health Directorate, 2016 Annual Report; Report on Peer Review of Hospitals in the Eastern Region, 2020; Oppong, Fofack & Boakye-Yiadom

2021). For instance, the hospital was engaged in billing for medical services and supplies that were not medically necessary. Also, officers of the Fanteakwa District Health Directorate receive payment without issuing receipt to clients. Therefore, this study aims to examine the relationship between internal auditing, audit committees and fraud prevention in the Fanteakwa District Health Directorate.

Purpose of the Study

The aim of the study was to examine the relationship between internal auditing, audit committees and fraud prevention in Fanteakwa District Health Directorate.

Research Objectives

Specifically, the study sought to:

1. examine the effect of internal audit committee expertise on fraud prevention in Fanteakwa District Health Directorate.
2. assess the effect of internal auditing independence on fraud prevention in Fanteakwa District Health Directorate.
3. assess the internal auditor role on fraud prevention in Fanteakwa District Health Directorate.

Research Hypotheses

The study also is supported by the following hypotheses to achieve the study objectives.

H₁: Internal audit committee expertise positively affects fraud prevention.

H₂: Internal auditing independence positively influences fraud prevention.

H₃: Internal auditor role positively influences fraud prevention.

Significance of the Study

The purpose of this study was to examine the relationship between internal auditing, audit committees and fraud prevention in Fanteakwa District Health Directorate. The findings of the study provide an in-depth knowledge and insight on how health institutions such as Fanteakwa District Health Directorate internal auditing committee expertise affect fraud prevention. Secondly, the outcome of the study enables hospital authorities to understand more, the appropriate internal auditing policies to execute at the workplace which affect fraud prevention. Third, the result of this study provides valuable input for shaping organisational policies aimed at improving internal auditing efforts. Additionally, the findings from this study serve as a valuable resource for researchers interested in conducting similar investigations.

Delimitation of the Study

The present study aimed to investigate the relationship between internal auditing, audit committees and fraud prevention within the Fanteakwa District Health Directorate. While the research was designed to provide valuable insights into these critical components of healthcare management, it is imperative to outline the delimitations that defined the boundaries and constraints of this study. This study focused exclusively on the Fanteakwa District Health Directorate within the Eastern Region of Ghana. Given this, the study drew its respondents from the Fanteakwa District Health Directorate, including Internal Auditors, Accountants and Hospital Administrators who were accessible for the research. Again, the study relied on data obtained from a survey conducted within the Fanteakwa District Health Directorate. The study did not include data from other external sources or national databases which

could offer a more comprehensive perspective. The study's variables were assessed as follows: the expertise of the internal audit committee was measured using Bin-Ghanem and Ariff's (2016) indicators, internal auditing independence was evaluated through Kaawaase and Nkundabanyanga's (2017) scale and fraud prevention was measured using Petraşcu and Tieanu's (2014) validated scale.

Limitation of the Study

The primary limitation of this study pertained to the limited number of participants in the Fanteakwa District Health Directorate, but this was addressed by conducting an exhaustive and representative survey within the available population. Additionally, data collection primarily relied on questionnaires due to its quantitative nature. Accordingly, some participants found themselves too preoccupied and hesitant to respond to the survey instrument. Further, the study was limited by a specific time frame which might not allow for a comprehensive exploration of long-term trends and changes in the relationship between the studied variables. Finally, findings from Fanteakwa District Health Directorate are not directly applicable to other regions or healthcare systems, limiting the generalizability of the research.

Organisation of the Study

The study included chapter one, which specifically comprised the background of the study, statement of the problem, objectives, research questions, relevance of the study and organisation of the study. Chapter two also encompassed the reviews of literature related to the proposed topic. Chapter three discussed the study methods and strategies that were utilized. Chapter four

contained the presentation and discussion of study results. Finally, chapter five summarised the findings and presented the conclusion and recommendations.

CHAPTER TWO

LITERATURE REVIEW

Introduction

This study sought to examine the relationship between internal auditing, audit committees and fraud prevention in Fanteakwa District Health Directorate. This chapter presents review on internal auditing, internal auditing independence, audit committee expertise and fraud prevention, theory underpinning internal auditing and fraud prevention. The chapter also reviewed works of scholars related to audit committee expertise and fraud prevention; internal auditing independence and fraud prevention and internal auditor role and fraud prevention. Furthermore, this chapter comprises the construction of a conceptual framework.

Theoretical Review

In this section, the agency theory was examined concerning the connection between internal auditing and fraud prevention.

Agency theory

The agency theory is a management concept that delves into the dynamics of the relationship between principals (owners or shareholders) and agents (managers or employees) within an organization (Jensen & Meckling, 1976). In the Fanteakwa District Health Directorate context, there is a relationship between principals (Medical Superintendent) and agents (Internal Auditors, Accountant, Administrative Staff, Finance Officers and other employees). While the theory provides valuable insights, it also gives rise to certain conflicts such as differing interests and goals of principals (Medical Superintendent) and agents (Internal Auditors, Accountant, Administrative

Staff and Finance Officers), information asymmetry among others (Jensen & Meckling, 1976).

Although the agency theory can lead to conflicts, it also offers a framework for comprehending and resolving these conflicts. To balance the interests of principals and agents, reduce conflicts, and increase organizational effectiveness, a range of tactics, including performance-based incentives and monitoring systems, can be used. According to the agency theory (Jensen & Meckling, 1976), when employees believe that their institutions put in place effective internal auditing policy, their accountability, transparency and fraud prevention improves. The agency theory argues further that organisations including hospitals' positive attitudes toward internal auditing will have a positive relationship with fraud detection and prevention (Jensen & Meckling, 1976).

The agency theory advanced that internal auditing of organisations such as hospitals should be directed at unearthing innovative ways of preventing fraud (Rashid, Al-Mamun, Roudaki & Yasser, 2022; Malle, Mwonge & Naho, 2022; Nerantzidis et al., 2022). Jensen and Meckling's (1976) agency theory stipulated that firms internal auditing should serve as an important fraud mitigation mechanism. Awolowo, Garrow, Clark and Chan (2018) have advanced the Jensen and Meckling's (1976) agency theory by establishing that fraud prevention can be enhanced by involving directors, government, shareholders and internal auditors and other stakeholders in the auditing process. Kingman (2018) and Brydon (2019) tend to support the notion that fraud prevention through internal auditing should include these three key actors. Hence, it is important for hospitals directors, government and internal auditors

to prevent fraud and other financial irregularities through intensive internal auditing.

The implication drawn from the agency theory (Jensen & Meckling, 1976) is that institutions such as hospitals with higher commitments towards internal auditing are more likely to be concerned about fraud prevention as well. In contrast, hospitals with lower commitments towards internal auditing may be unconcerned about fraud detection and prevention also (Burnaby, Howe & Muehlmann, 2011; Yakubu, 2017; Abdul-Hafiz, 2020; Mashayekhi et al., 2021).

Conceptual Review

Internal auditing, audit committee expertise, internal auditing independence and fraud prevention are the variables discussed in this section.

Internal auditing

According to Christ, Eulerich, Krane and Wood (2021), internal auditing is explained as a watchdog tool that provides the management of firms, auditors, and audit committee the material information needed on their business book of account and vouchers. Similarly, view internal auditing as a crucial avenue for identifying and averting fraud through a structured and organized method within a company. Internal auditing as perceived by Hazaea et al. (2021) enables institutions to enhance their performance. Also, Joshi (2021) view internal auditing as a powerful for determining whether all financial transactions are recorded accurately in the organisations.

Within organisations, internal auditing serves as a crucial function by providing impartial and objective assurance and advisory services. Its significance lies in the evaluation and improvement of an organisation's risk

management, control and governance processes (Yakubu, 2017). Furthermore, internal auditing is seen as a key apparatus for improving employees' efficiency, accountability and transparency (Mashayekhi et al., 2021), detecting financial irregularities (Badu & Kuutol, 2013) and preventing fraud (Burnaby, Howe & Muehlmann, 2011; Abdul-Hafiz, 2020). Vanaki, Mashayekhi and Sivandian (2021) see internal auditing as a significant element that prevent fraud and guide institutions such as hospitals decision making. Aikins, Mensah and Kumi-Kyereme (2022) view internal auditing as an essential goal that every institution must strive to achieve.

Consequently, institutions such as hospitals are committed to engaging in intensive internal auditing to serve as an important tool for preventing fraud because of the believe that, internal auditing of these hospitals have become key driver of fraud detection (Ar'Reza, Wardoyo & Putri, 2020; Al-Dhubaibi & Sharaf-Addin, 2022). While internal auditing provides many benefits, it also gives rise to certain problems including incomplete coverage, lack of specialized expertise, resistance to change limited independence and resource intensive. Despite these demerits, the benefits of internal auditing generally outweigh the challenges. It provides valuable insights, promotes good governance and helps organisations manage risks and improve their overall performance. Bardhan and Hao (2022) submitted that institutions that conduct quality internal auditing on regular basis reduce or prevent fraud. Čular, Slapničar and Vuko (2020) also opined that institutions who embrace internal auditing independence are more likely to identify the loop holes, frauds and financial irregularities.

Internal auditing independence

Internal auditing independence encompasses the notion of granting auditors the freedom to carry out their internal audit activities and fulfil their responsibilities without bias safeguarding them from conditions that could compromise their objectivity (Kaawaase & Nkundabanyanga, 2017). Hasan, Kassim and Hamid (2020) define internal auditing independence as an objective mindset that enables internal auditors to carry out their internal auditing responsibilities. Internal auditing independence help render impartial and unbiased assessment that are essential to proper conduct of internal auditing (Dzigbede, 2020). Turetken et al. (2020) observed that internal auditing independence is a key factor of fraud prevention.

Zou (2019) argued that making internal auditors independent in the discharge of their audit functions without interference from the government, management of organisations and other bodies could help prevent fraudulent attitudes among employees. It has been established that internal auditors that are allowed to work without interference are likely to prevent fraud in the system (Lonto, 2022; Madawaki, Ahmi & Ahmad, 2022). This is because the sense of independence given to auditors tends to influence their attitudes towards their internal auditing process which, in turn, will positively affect fraud prevention (Ogoun & Atagboro, 2020; Wuryandini, Pakaya & Husain, 2022).

Fraud prevention

Mangala and Kumari (2015) explained the concept of fraud prevention as the formulation and execution of strategy to detect fraudulent transactions and to prevent these actions from further happening. Moreover, Petraşcu and Tieanu (2014) view the fraud prevention construct as a control mechanism for

achieving behavioural results such as accountability and transparency. Some scholars (Malle, Mwonge & Naho, 2022; Nerantzidis, Pazarskis, Drogalas & Galanis, 2022) in the internal auditing domain argued that fraud prevention depends on hospitals quality internal auditing effectiveness. Mangala and Kumari (2015) found that internal auditing impact positively and significantly on fraud prevention.

Oppong, Fofack and Boakye-Yiadom (2021) for example investigated the impact of internal auditing on fraud prevention within organisations. Their findings indicated a substantial correlation between the activities of internal auditing and the prevention of fraud. Asiedu and Deffor (2017) advanced that one of the reasons why institutions including hospitals engage in internal auditing activities is to detect and reduce fraud. It has been acknowledged that those institutions who conduct internal auditing are better positioned to identify the loop holes, frauds and corrupt activities (Badu & Kuutol, 2013; Demirović, Isaković-Kaplan & Proho, 2021). However, Onoja and Usman, (2015) on the other hand contended that internal auditing only detects fraud but unable to prevent it.

Audit committee expertise

Bin-Ghanem and Ariff (2016) described audit committee expertise as individuals with the audit expertise and are assigned to review institutions such as hospitals internal auditing processes in order to prevent fraud. In the same vain, Agyei-Mensah (2018) considers audit committee expertise as an important mechanism for checking and preventing financial irregularities and fraud. Alzeban (2019) perceive audit committee expertise as a crucial factor that contributes significantly to fraud preventions of hospitals. This means that

hospitals fraud prevention is dependent on have internal auditors have expertise in their internal auditing functions.

It has been established by Dewi and Anisykurlillah (2021) that the audit committee expertise concept is an effective tool for preventing fraud in organisations. This is because it is a mixture or blend of individuals with an in-depth knowledge in internal auditing (Barnes, 2020; Dakhallh, Rashid, Abdullah & Al Shehab, 2020). It has been acknowledged that institutions that form or constituted audit committee with expertise have the propensity to reduce or prevent fraud (Fariha, Hossain & Ghosh, 2022; Garven & Scarlata, 2020). Hasnan et al. (2020) stipulated that audit committee expertise enables institutions to achieve their long-term objective of having effective audit reviews which later help prevent fraud.

Empirical Review

This section presents on the relationship among the variables in the study.

Audit committee expertise and fraud prevention

Mangala and Kumari (2015) clarified fraud prevention as the execution of strategy to detect fraudulent transactions and to prevent these actions from further happening. Petraşcu and Tieanu (2014) also explained fraud prevention as a control mechanism for accountability and transparency. Malle, Mwonge and Naho (2022) and Nerantzidis et al. (2022) presented that fraud prevention depends highly on hospitals' quality internal auditing. Mangala and Kumari (2015) found that internal auditing impacts positively on fraud prevention. In their study, Mangala and Kumari (2015) adopted a quantitative research design, using survey data collected from internal auditors and finance officers across

organizations. They employed regression analysis to evaluate the relationship between internal auditing activities and fraud prevention. According to the agency theory (Jensen & Meckling, 1976), when employees believe that their institutions put in place effective internal auditing policy, their accountability, transparency, and fraud prevention improve.

Relying on the agency theory, it can be argued that bringing together internal auditors with the expertise could enable hospitals to prevent fraud (Jensen & Meckling, 1976; Rashid, Al-Mamun, Roudaki & Yasser, 2022). This is attributed to the fact that the audit committee is made up of auditors with expertise to detect fraud in an audit report (Al-ahdal & Hashim, 2022). Al-ahdal and Hashim (2022) conducted a mixed-method study, combining interviews with internal auditors and a survey targeting hospital management to gather insights into how audit expertise impacts fraud prevention. They used thematic analysis for the qualitative data and descriptive statistics for the quantitative data. It has been acknowledged that institutions that constitute audit committee expertise have the tendency to prevent fraud (Ambiyo, 2020; Rashid, Al-Mamun, Roudaki & Yasser, 2022). Ambiyo (2020) employed a longitudinal analysis of audit reports from hospitals to assess how audit committee expertise evolved over time and its impact on fraud prevention, using time-series regression models.

Other streams of studies (see Barnes, 2020; Dakhallh, Rashid, Abdullah & Al Shehab, 2020; Dewi & Anisykurlillah, 2021) have affirmed that audit committee expertise enables institutions to achieve their long-term objective of having effective audit reviews which later help prevent fraud. Barnes (2020) used a case study approach, analyzing the audit processes of selected hospitals.

The study involved in-depth interviews with key audit committee members and a review of audit documentation. Thematic analysis was applied to identify the factors linking audit expertise to fraud prevention. Mangala and Kumari (2015) and Toumeh, Yahya and Amran (2020) found that internal auditing impacts positively and significantly on fraud prevention. Toumeh, Yahya, and Amran (2020) employed structural equation modeling (SEM) to assess the relationships between audit committee expertise, internal auditing, and fraud prevention, based on survey data from healthcare institutions.

Chijoke-Mgbame, Boateng and Mgbame (2020) also found in their study that constituting audit committee expertise could bring about a positive influence on fraud prevention in the organization. Their methodology involved collecting primary data through questionnaires administered to audit committee members and using correlation and regression analysis to assess the impact of committee expertise on fraud prevention. In the study by Endrawes, Feng, Lu and Shan (2020), a positive correlation was confirmed between audit committee expertise and fraud prevention. Additionally, assessments conducted by Fariha, Hossain and Ghosh (2022) as well as Garven and Scarlata (2020) collectively affirm that expertise within the audit committee is a vital factor in helping institutions prevent fraud. Fariha et al. (2022) used archival data from hospitals' audit records, employing content analysis and logistic regression to measure the influence of audit committee expertise on fraud occurrences.

This is because the audit committee is made up of individuals with expertise and is assigned to review the audit process and report through oversight and monitoring functions (Velte, 2020; Ozcelik, 2020; Zeng, Yang & Shi, 2021; Mohammadi, Saeidi & Naghshbandi, 2021; Mousavi, Zimon, Salehi

& Stepnicka, 2022). Velte (2020) employed a survey-based approach, collecting responses from audit committee members and auditors in healthcare institutions, and used factor analysis to identify the key components of audit expertise that contribute to fraud prevention. On the basis of the narrations above, it is hypothesized that: H1: There is a significant positive relationship between audit committee expertise and fraud prevention.

Internal auditing independence and fraud prevention

Borrowing from the social exchange theory (Blau, 1964), auditors who believe that their work is free from interference tend to perform their auditing functions with fairness. Pointing to the tenet of the social exchange theory, hospitals' internal auditing independence is geared towards detecting and preventing frauds and other financial irregularities (Spira & Page, 2003; Blau, 1964; Mertzanis, Balntas & Pantazopoulos, 2019; Alzeban, 2022; Aikins, Mensah & Kumi-Kyereme, 2022). Mertzanis et al. (2019) used a survey approach, distributing questionnaires to internal auditors and healthcare management teams to examine the link between independence in auditing and fraud prevention. They analyzed the data using structural equation modeling (SEM). Hasan, Kassim and Hamid (2020) see internal auditing independence as an objective mindset that enables internal auditors to carry out their internal auditing responsibilities.

Internal auditing independence helps render impartial and unbiased assessments that are essential to the proper conduct of internal auditing (Dzigbede, 2020; Islam & Stafford, 2022). Dzigbede (2020) employed a comparative analysis methodology, comparing hospitals with varying levels of internal auditing independence using survey data and historical financial records

to analyze the relationship between auditing independence and fraud prevention. Turetken et al. (2020) and Khalid and Sarea (2021) noted that internal auditing independence is a fundamental contributor to fraud prevention. Turetken et al. (2020) utilized interviews and content analysis to explore the perspectives of auditors and audit committee members on how independence affects fraud prevention, supplemented by quantitative data from a survey to validate their qualitative findings.

Kaawaase and Nkundabanyanga (2017) contended that ensuring the independence of internal auditors in performing their audit responsibilities without external interference from government, organizational management, or other entities could effectively deter fraudulent activities. Kaawaase and Nkundabanyanga (2017) adopted a mixed-method approach, combining interviews with key audit personnel and a survey of healthcare administrators. They used thematic analysis for qualitative insights and regression analysis for the quantitative survey data.

Internal auditors that are allowed to work without interference stand the highest chance to prevent fraud within an organization (Lonto, 2022; Madawaki, Ahmi & Ahmad, 2022; Ta & Doan, 2022). This is due to the fact that the sense of independence given to auditors tends to influence their attitudes towards their internal auditing process, which may positively and significantly affect fraud prevention (Wuryandini, Pakaya & Husain, 2022). Similarly, Mwanza (2022) argued that the extent to which internal auditors are made independent directly leads to fraud detection and prevention. Mwanza (2022) conducted a quantitative study using survey data from internal auditors, applying regression analysis to assess the significance of independence in fraud

detection. In the study by Ogoun and Atagboro (2020), a substantial correlation between internal auditing independence and fraud prevention was emphasized. Likewise, Zou (2019) documented a positive association between internal auditing independence and the prevention of fraud. Ogoun and Atagboro (2020) employed a survey methodology and correlation analysis to evaluate the relationship between auditor independence and fraud prevention in public healthcare institutions.

Zeng, Yang and Shi (2021) explained some important reasons why internal auditing independence helps mitigate fraud. Firstly, internal auditing independence granted internal auditors enables them to report any fraud detected in their auditing process. Secondly, internal auditing independence given to internal auditors also enables them to recommend actions to officials engaged in the fraudulent activities. Their study was based on a case study methodology, analyzing specific instances of fraud detection in hospitals and the role of internal auditing independence in these cases. The empirical studies by Rehman (2022) and Sofyani, Hasan and Saleh (2022) confirmed Zeng, Yang and Shi's (2021) position that internal auditing independence leads to fraud prevention in organizations. Hence, it is hypothesized that: H2: There is a significant positive linkage between internal audit independence and fraud prevention.

Internal auditor role and fraud prevention

Alazzabi, Mustafa, and Karage (2023) advanced that the internal auditor role in internal auditing has become a solid foundation for detecting and preventing fraud in organizations. In their research, Alazzabi et al. (2023) used a survey-based methodology, targeting internal auditors and finance officers in

healthcare institutions. They employed regression analysis to determine the relationship between the internal auditor's role and fraud prevention. It has been confirmed that good internal auditors in organizations that conduct quality auditing can prevent fraud-related problems (Alzoubi, 2019). Alzoubi (2019) conducted a case study analysis, using data from a series of fraud cases in healthcare institutions. Interviews with internal auditors were conducted, and content analysis was applied to understand how internal auditor roles contributed to fraud detection and prevention. Further, an internal auditor performing his or her role excellently contributes effectively to preventing fraud and other financial irregularities (Chang, Chen, Cheng & Chi, 2019).

Alzoubi (2019) and Kagias, Cheliatsidou, Garefalakis, Azibi, and Sariannidis (2022) submitted that the primary responsibility of internal auditors is to offer quality internal auditing to detect fraud, ensure efficiency, accountability, and transparency. Kagias et al. (2022) employed a survey method and used structural equation modeling (SEM) to explore how internal auditor roles directly influence fraud prevention, based on data collected from hospitals' financial departments. Within the perspective of the internal auditor's primary responsibility (Alzoubi, 2019; Kagias et al., 2022), internal auditors are expected to provide excellent internal auditing (Chen, Lin, Lu & Zhou, 2020), which in turn, may lead to the prevention of fraud (Demirović, Isaković-Kaplan & Proho, 2021). Demirović et al. (2021) used a mixed-method approach, combining a quantitative survey with internal auditors and qualitative interviews to further explore the relationship between internal auditing roles and fraud prevention.

Empirically, Dzikrullah, Harymawan, and Ratri (2020) proved that internal auditor role performance has a significant and positive association with fraud prevention. Their study was based on a quantitative approach, using survey data from a large sample of internal auditors. Statistical techniques, including regression analysis, were employed to measure the association between the internal auditor's role and fraud prevention. Internal auditors who have successfully performed their auditing role have benefited enormously from fraud reduction (Eulerich & Eulerich, 2020; Ghaleb, Kamardin & Al-Qadasi, 2020). Eulerich and Eulerich (2020) conducted a longitudinal study, collecting data from hospital audits over a five-year period and applying time-series regression to analyze the role of auditors in reducing fraud.

Also, some studies (Jarrah, AL-Jarrah, Al-Zaqeba & Al-Jarrah, 2022; Kagias et al., 2022; Khelil & Khlif, 2022; Madawaki, Ahmi & Ahmad, 2022) confirmed empirically that good internal auditor role performance has the propensity for enhancing fraud prevention. Jarrah et al. (2022) used a cross-sectional research design with survey data from healthcare institutions, applying statistical analysis to confirm the impact of internal auditor roles on fraud prevention. Further, Melinda, Susanti, Tarigan, Deliana, and Napitupulu (2022) documented a positive association between internal auditor roles on fraud prevention. Melinda et al. (2022) used a case study approach, analyzing internal audit reports from hospitals with known fraud cases and applying qualitative content analysis to assess how internal auditors' roles were linked to fraud prevention efforts. Equally, Nerantzidis, Pazarskis, Drogalas, and Galanis (2022) investigated the influence of internal auditor roles on fraud prevention among organizations and found that internal auditors who perform their roles

well help reduce fraud in the system. Their study used a survey method, distributed to internal auditors and financial managers, with regression analysis applied to establish the relationship between auditor roles and fraud prevention. Furthermore, Rifai and Mardijuwono (2020) opined that internal roles well practiced stimulate employees to avoid committing fraud. Therefore, it is hypothesized that: H3: There is a significant positive relationship between internal auditor role and fraud prevention.

Conceptual Framework

The conceptual framework links audit committee expertise, internal auditing independence and internal auditor role to fraud prevention.

Figure 1

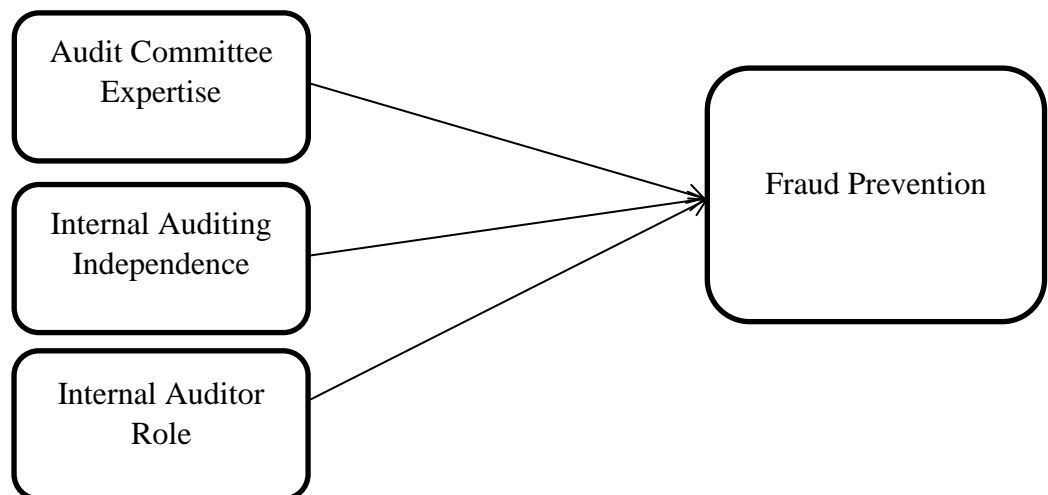


Figure 2: A conceptual framework linking audit committee expertise, internal auditing independence and the role of internal auditor role of internal auditor in fraud prevention.

Source: Author's Construct (2023).

The conceptual framework of this study focuses on how audit committee expertise, internal auditing independence, and the role of internal auditors

contribute to fraud prevention within the Fanteakwa District Health Directorate. This framework highlights that when hospitals, like those in the district health directorate, have audit committees composed of members with expertise in finance, accounting, and internal auditing, these committees are better equipped to oversee the internal audit process effectively. The expertise of the audit committee enables it to provide informed oversight, detect financial risks, and ensure the internal audit function is well-resourced and supported, ultimately improving the overall ability to prevent fraud.

Furthermore, internal auditing independence is a critical component of fraud prevention. Independence allows internal auditors to perform their duties objectively, free from interference or pressure from management. When internal auditors operate independently, they are better able to identify weaknesses in the internal control system and detect fraudulent activities. The conceptual framework suggests that auditors who are free to report their findings without bias can recommend improvements to prevent potential fraud, thus contributing significantly to maintaining the integrity of financial practices within the health directorate.

Additionally, the role of internal auditors is central to the framework. Beyond evaluating internal controls, internal auditors actively identify areas of risk and propose corrective measures. They play a proactive role in fraud prevention by monitoring financial processes, ensuring compliance with established procedures, and recommending improvements to strengthen internal controls. Empowering internal auditors to carry out these responsibilities enhances their ability to prevent fraud and financial irregularities.

In summary, the conceptual framework links audit committee expertise, internal auditing independence, and the internal auditor role to fraud prevention. It emphasizes that the combined effect of these factors is crucial in creating a robust system that mitigates fraud risks. By fostering a competent audit committee, maintaining auditor independence, and empowering internal auditors, the Fanteakwa District Health Directorate can better safeguard against fraudulent activities and ensure financial accountability. This framework reflects the study's focus on strengthening internal auditing practices to enhance fraud prevention efforts within the health sector.

Chapter Summary

This chapter provided a comprehensive review of the key concepts, theories, and empirical studies related to audit committee expertise, internal auditing independence, and the role of internal auditors in fraud prevention, particularly within healthcare institutions like the Fanteakwa District Health Directorate. A significant finding from the literature is the importance of audit committee expertise in enhancing fraud prevention; however, there is limited empirical evidence linking this expertise directly to fraud prevention in public healthcare institutions, especially in developing countries. Additionally, the review highlighted that internal auditing independence is crucial for fraud prevention, but maintaining this independence within public institutions, particularly those with resource constraints like district health directorates, poses challenges. A gap exists in understanding how these institutions ensure internal auditors can operate independently and how this affects their ability to prevent fraud. Furthermore, the literature reveals that the role of internal auditors in public institutions tends to focus more on compliance and oversight

rather than proactive fraud prevention, indicating a need for more research into how auditors can contribute more actively to fraud prevention efforts in public healthcare settings. Overall, this chapter highlighted the theoretical foundations and identified gaps in existing research, underscoring the need to examine how audit committee expertise, auditor independence, and the role of internal auditors influence fraud prevention within the Fanteakwa District Health Directorate, thus filling these gaps with practical insights.

CHAPTER THREE

RESEARCH METHODS

Introduction

This study aimed to investigate the relationship between internal auditing, audit committees and fraud prevention within the Fanteakwa District Health Directorate. The research methods employed, such as research design, research approach, sampling techniques, sample size determination, analytical methods, research instruments as well as validity and reliability assessments utilised in this study are discussed in this chapter.

Research Design

Research design refers to the overall plan or strategy that a researcher employs to answer their research questions or test hypotheses (Sileyew, 2019). Research design serves as a strategic framework that guides researchers in the collection, measurement, analysis and presentation of research data (Sekaran & Bougie, 2016). Research design guides the collection and analysis of data. These scholars classify research designs into three main categories: exploratory, explanatory (cause-and-effect), and descriptive designs. In the pursuit of understanding the impact of internal audit committee expertise on fraud prevention, internal auditing independence on fraud prevention and the role of internal auditors in fraud prevention at the Fanteakwa District Health Directorate, this study employed an explanatory research design.

The rationale for choosing the explanatory research design stems from its suitability for discerning and reporting the relationships between the variables under investigation as emphasized by Sekaran and Bougie (2016), Decoteau (2017), Heppner, Wampold, Owen and Wang (2015) and Saunders

and Lewis (2016). Also, researchers often regard the explanatory research design as an effective means of conducting a comprehensive examination of research objectives using statistical tests of significance (Cantwell, 2020). According to Sobh and Perry (2006), researchers adopt an explanatory design when they want to go beyond describing or exploring a phenomenon and instead aim to explain the underlying factors and relationships.

Research Approach

Research approach encompasses three main methodologies: quantitative, qualitative and mixed methods (Neuman, 2014). Bloomfield and Fisher (2019) and Lewis (2015) argue that the use of a quantitative research approach is beneficial for researchers as it enables a rigorous evaluation of the relationships between study variables through statistical tests of significance. On the other hand, Bengtsson (2016) contends that employing a qualitative research approach is particularly useful for clarifying certain aspects of social phenomena through observation. The mixed method approach, as supported by Bengtsson (2016), Sekaran and Bougie (2016), Tenny, Brannan and Sharts-Hopko (2017) and Arifin (2018), combines elements of both quantitative and qualitative research methods.

In line with the study's specific objectives, which involve examining the effects of internal audit committee expertise, internal auditing independence and the internal auditor's role on fraud prevention within the Fanteakwa District Health Directorate, a quantitative research approach was chosen. This approach proves suitable for research endeavours of this nature that intend to work with numerical data (Lewis, 2015; Creswell, 2014). Furthermore, the quantitative

approach enables researchers to gain a comprehensive understanding and knowledge of the study (Bloomfield & Fisher, 2019).

Study Area

The research incorporated participants who were readily available from the Internal Auditors, Accountants, Administrative Staff and Finance Officers associated with the Fanteakwa District Health Directorate in the Eastern region of Ghana.

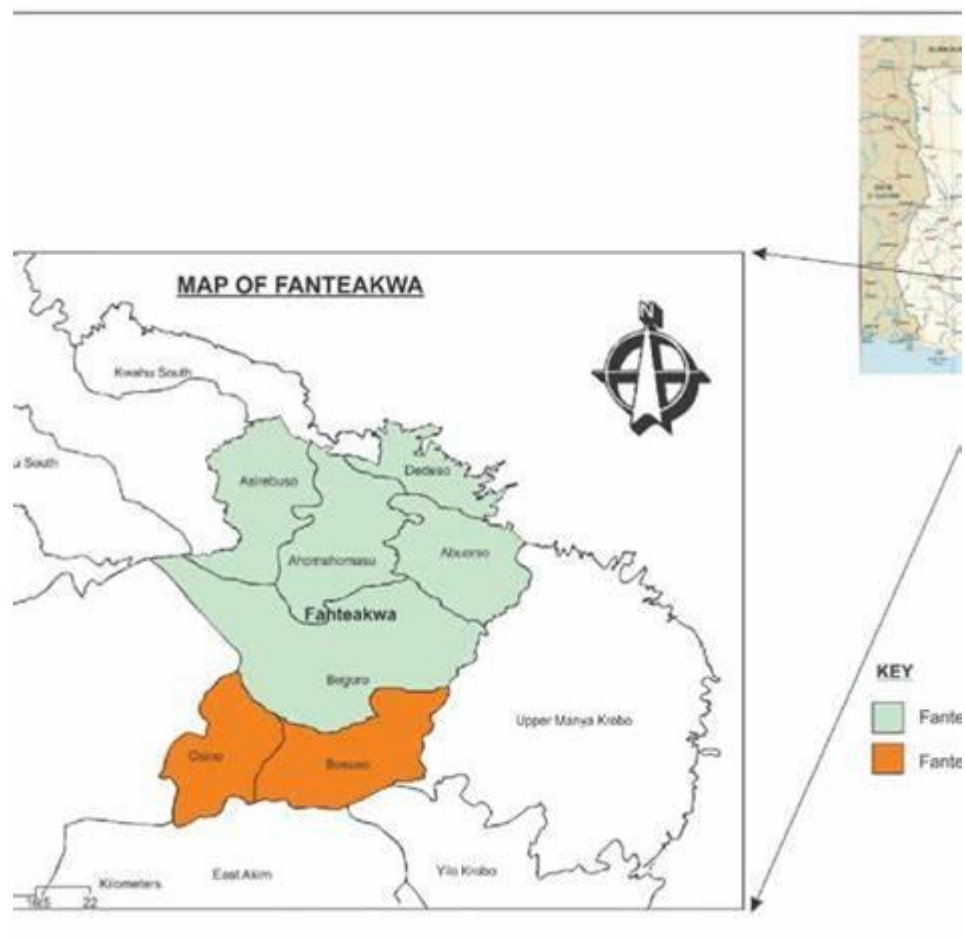


Figure 3: Map of Fanteakwa, Ghana

Source: Geographic Information System (GIS) and Cartographic Unit of the Department of Geography and Regional Planning, University of Cape Coast (UCC), Cape Coast.

Established in 2003, the Fanteakwa District Health Directorate functions as the central referral hub for CHPS centers Clinics, and Health centers within

the Fanteakwa District. Its primary mission is to improve the health and well-being of individuals in the district by delivering high-quality and cost-effective healthcare services, ultimately striving for enhanced healthcare outcomes.

Population

Graneheim and Lundman (2004) provided a definition of "population" as a collection of cases meeting specific criteria. Likewise, Ngechu (2004) describes a population as encompassing a group of elements, events or individuals under scrutiny. In the scope of this study, the accessible population included 150 individuals, specifically Internal Auditors, Accountants, Administrative Staff and Finance Officers from the Fanteakwa District Health Directorate (Fanteakwa District Health Directorate Staff Directory, 2022).

Sampling Procedures

Sekaran and Bougie (2016) emphasized that a sample represents a subset of the population chosen for a study. It has been widely acknowledged that employing sample surveys allows researchers to conduct studies more efficiently than considering the entire population (Saunders et al., 2016). Ali, Rasheed, Siddiqui, Naseer, Wasim, and Akhtar (2015) advocate for a minimum sample size of 100 or more. Conversely, other research (Faber & Fonseca, 2014; Boddy, 2016; Taherdoost, 2017) argue that a larger sample size is essential for research-based investigations to yield reliable conclusions and facilitate broader generalizations.

Following the guidelines provided by Krejcie and Morgan (1970) for determining sample size, and to maintain a 5% margin of error and a 95% level of significance, the study randomly selected 108 individuals comprising Internal Auditors, Accountants, Administrative Staff, and Finance Officers from the

pool of 150 Internal Auditors, Accountants, Administrative Staff, and Finance Officers within the Fanteakwa District Health Directorate.

Table 1: Sample Composition

Staff Category	Sample Composition
Internal Auditors	18
Accountants	35
Administrative Staff	45
Finance Officers	10
Total	108

Source: Fanteakwa District Health Directorate, 2022.

Simple random sampling technique was employed in the study. This is because the use of simple random sampling technique ensures efficiency and effectiveness when the population has certain individuals that have the similar characteristics within the population (Sekaran & Bougie, 2016). Similarly, this technique was used since in Ghana, data gathering is a problematic as people finds it difficult to answer and return questionnaires (Gyensare, Anku-Tsedee, Sanda & Okpoti, 2016). Besides, every individual within the sample has the same chance of selection.

Data Collection Instruments

In this particular study, a questionnaire served as the primary tool for gathering data from respondents, assessing their knowledge of internal auditing and its impact on fraud prevention within the Fanteakwa District Hospital. According to Neuman and Kreuger (2003), a questionnaire is a survey research document containing a series of questions provided to respondents for their responses. Employing a questionnaire offers several advantages, including time

efficiency for respondents, as it can be completed independently, without the presence of the researcher, as noted by Chang et al. (2020). Further, the use of questionnaires often helps respondents feel more comfortable and secure, allowing them to provide responses without apprehension (Grassini & Laumann, 2020; Northstone et al., 2020).

For the purpose of this study, the questionnaire was made up of four (4) sections. Section A of the questionnaire collected data on respondent's characteristics such as gender, age, educational qualification and years of work with the hospital. Section B of the questionnaire also collected primary data on internal audit committee expertise. Section C gathered data on internal auditing independence. Section D captured information on fraud prevention.

The study variables measured include internal audit expertise, internal auditing independence, internal auditor role and fraud prevention. All variables were measured on a continuous scale of 1-5. Accordingly, internal audit committee expertise was measured on a five-item scale by using Bin-Ghanem and Ariff's (2016) expertise indicators. The psychometric properties of Bin-Ghanem and Ariff's (2016) instrument have been demonstrated by several studies. Eg, Fariha, Hossain and Ghosh (2022) found a cumulative Cronbach alpha of 0.86 and Garven and Scarlata (2020) also recognized a Cronbach's alpha of 0.85. Following Kaawaase and Nkundabanyanga (2017), internal auditing independence was measured with five item scale. Turetken et al. (2020) recorded a reliability of the instrument of 0.754. Similarly, internal auditor role was measured by following Mardessi (2021) measurement scale. Fraud prevention was measured based on Petraşcu and Tieanu's (2014) validated scale with reported reliability of 0.82.

Reliability and Validity of the Instrument

Reliability is explained as having the same results even if the measures were taken multiple times (Myer, Karim, Joubert & Ehrlich, 2007). The instruments considered were derived from tested and standardized instruments to minimize random measurement error. The instruments considered will be derived from tested and standardized instruments to minimize random measurement error. Liu, Kuang, Yin and Hu (2017) emphasise that the purpose of assessing the reliability of a construct or variable is to reduce errors and biases within a study. Consequently, the study's variables or constructs underwent a validation process to confirm their internal consistency, which involved the calculation of Cronbach's Alpha coefficient. Research has suggested that scales are considered reliable when their Cronbach's Alpha coefficient is 0.70 or higher (Henseler, Ringle, & Sarstedt, 2015).

The validity of an instrument according to Naik, Jandavath and Byram (2016) determines how a research instrument measures the particular variables or constructs it supposed to measure. Validity is the accuracy with which a phenomenon is described (Bagozzi & Yi, 2012; Chin, 1998). Common sources of invalidity are selection, information and confounding bias (Myer et al., 2007). To reduce information bias, the researcher adapted survey instruments with study design with high validity levels. Furthermore, the study also assessed validity by calculating the AVE. To establish discriminant validity, the AVE for each latent variable was employed, following the approach by Fornell and Larcker (1981).

Data Collection Procedure

The researcher secured permission from the Directorate of Human Resources at the Fanteakwa District Health Directorate. Subsequently, all participants received assurance that the study was strictly for academic purposes and their responses would be handled with the highest level of confidentiality. This strategy was employed to encourage active participation from the participants. Questionnaire distribution by the researcher occurred in the initial week of April 2023, and the responses were collected from the participants in the final week of the same month.

Data Processing and Analysis

To investigate the study's hypotheses, the research employed SPSS version 24 and Smart PLS version 4. In particular, SPSS was used for conducting a descriptive analysis to reveal the characteristics of the study's participants. Furthermore, Smart PLS-SEM was utilised to perform structural equation modeling aligning with the hypotheses of this research. Each of the research objectives was analysed as follows:

1. Examine the effect of internal audit committee expertise on fraud prevention in Fanteakwa District Hospital. SEM was used to analyse this objective.
2. Assess the effect of internal auditing independence on fraud prevention in Fanteakwa District Hospital. SEM was used to analyse this objective.
3. Assess the internal auditor role on fraud prevention in Fanteakwa District Hospital. SEM was used to analyse this objective.

Furthermore, confirmatory factor analysis model (CFA) of SEM was employed for construct validation, scale refinement and path analysis in the study to

determine the associations among the study constructs. The utilisation of SEM confirmatory factor analysis keeps researchers from bias estimate of items loadings (Götz, Liehr-Gobbers & Krafft, 2010; Hair, Sarstedt, Hopkins & Kuppelwieser, 2014; Hair, Hult, Ringle & Sarstedt, 2016).

Ethical Considerations

Rubin and Babie (2016) suggested that participants involved in research should be thoroughly informed about the ethical considerations relevant to the study. This information is crucial to enable them to respond to the questionnaire effectively. Consequently, the researcher conveyed to the respondents that their participation in the study was obligatory. Additionally, to safeguard their privacy, respondents were explicitly instructed not to disclose their personal information.

Chapter Summary

Chapter Three focused on the research methodology used in the study, detailing the explanatory design and quantitative approach employed to explore the relationship between internal auditing, audit committees, and fraud prevention within the Fanteakwa District Health Directorate. The chapter covered the study area, population, and sample size of 108 participants, selected using simple random sampling. A questionnaire was used as the primary data collection instrument, with its reliability confirmed by Cronbach's Alpha and validity ensured through Average Variance Extracted (AVE). Data analysis was conducted using SPSS and Smart PLS-SEM. Ethical considerations were also addressed, ensuring participant confidentiality and voluntary involvement throughout the study.

CHAPTER FOUR

RESULTS AND DISCUSSION

Introduction

This chapter presents the results derived from the primary data collected for the study. It explores the impact of internal audit committee expertise, the independence of internal audits, and the role of internal auditors on fraud prevention within the Fanteakwa District Health Directorate. The findings are accompanied by comprehensive discussions and analyses, providing deeper insights into how these factors contribute to fraud prevention within the organization.

Demographic Characteristics of Respondents

This section focused on demographic characteristics, including sex, age, educational qualifications, positions, and the number of years individuals have worked with the Fanteakwa District Health Directorate. As depicted in Table 2, it is evident that 78.7% of the respondents are male, while 21.3% are female. Consequently, it can be inferred that the study comprises a higher proportion of males than females. Again, the demographic result shows that the ages between 21-31 years represent 23.2%, 32-41 years represent 46.3%, 42-51 years denotes 18.5% 52 years and above represent 12.0%. Hence, it is established from the study that the ages between 32-41 years dominated with 46.3%.

Additionally, the results on respondents' educational qualification shows that respondents who hold Diploma represent 13.9%, Bachelor's Degree records 75.0% and Postgraduate Degree document 11.1%. Also, the positions held by respondents specify that Internal Auditors records 16.7%, Accountants had 32.2%, Administrative Staff denotes 41.7% and Finance Officers represent

9.2%. Finally, the items measuring the number years respondents have worked with the Fanteakwa District Health Directorate recognised that 62.1% represent 1 – 10 years, 11 – 20 years signify 29.6% and 21 – 30 years denote 8.3 % (See Table 2).

Table 2: Demographic Characteristics of Respondents

Variable	Frequency	Percentage
Sex		
Male	85	78.7
Female	23	21.3
Age (years)		
21 –31	25	23.2
32 – 41	50	46.3
42 – 51	20	18.5
52 years and Above	13	12.0
Educational Level		
Diploma	15	13.9
Bachelor’s Degree	81	75.0
Postgraduate Degree	12	11.1
Position		
Internal Auditors	18	16.7
Accountants	35	32.4
Administrative Staff	45	41.7
Finance Officers	10	9.2
Years of Work		
1– 10 years	67	62.1
11– 20 years	32	29.6
21- 30 years	09	8.3

Source: Field Survey (2023)

Common Method Bias

In this study, the participant count, totaling 108, significantly surpasses the number of exogenous constructs including internal audit independence,

internal audit effectiveness and internal auditor role. As stipulated by Chin (1998), research employing primary data of this nature typically encounters minimal challenges related to indicator loadings and path coefficients. Consequently, to assess potential common method bias, the study applied Harman's one-factor test, revealing a factor score of 18.225. This score falls below Podsakoff et al.'s (2003) suggested 50% threshold, indicating a low risk of common method bias. Furthermore, the examination of collinearity was conducted using the Variance Inflation Factor (VIFs) as part of the Partial Least Square-Structural Equation Modeling (PLS-SEM) analysis. As detailed in Table 6, the VIF values are all below the threshold proposed by Kock (2015), which is 3.3. This further confirms the absence of common method bias within the study's findings.

Table 3: Model Fit

	Saturated Model	Estimated Model
SRMR	0.053	0.068
d_ULS	1.931	4.706
d_G	0.466	0.553
Chi-Square	3,050.235	3,557.221
NFI	0.777	0.739
rms Theta	0.101	

Source: Field Survey (2023)

Lohmöller (1989) proposed that rms Theta values in Partial Least Square (PLS) measurement models should ideally be less than 0.12 to be deemed well-fitting. Conversely, values exceeding the threshold of 0.12 in measurement models are not suitable for further analysis (Lohmöller, 1989). According to

Lohmöller's criteria, the rms Theta value in this study stands at 0.101, affirming that the model is indeed suitable for both the study and subsequent analysis. Furthermore, within a PLS measurement model, a SEM with a SRMR value of 0 is considered well-fitting. However, Henseler et al. (2014) noted that a measurement model can exhibit a SRMR value of 0.064. Additionally, Hu and Bentler (1999) suggest that a structural model is considered fit when the SRMR value is less than 0.08. In light of Hu and Bentler's criterion, the model's SRMR value is recorded at 0.053, meeting the criteria for a well-fitting model (see Table 3).

Checking for Reliability and Validity of the Model

Henseler, Ringle and Sarstedt (2015) suggest that in PLS-SEM, factor loadings are considered reliable when their outer loadings are 0.7 or higher. From Table 4, it becomes evident that majority of the outer loadings exceeded the 0.7 threshold. However, one item, which exhibited a loading of 0.665, falls slightly below the recommended 0.7 threshold. Surprisingly, this item was not been excluded from the model, primarily due to the satisfactory attainment of AVE values derived from the structural model (refer to Table 4). To ensure the constructs' reliability, the composite reliability of each construct was assessed. The composite reliability values, as presented in Table 3, span from 0.911 to 0.964. These results explicitly affirmed that the reliability of the constructs aligns with the standards proposed by Hair et al. (2014).

Additionally, the convergent validity of the items was determined by evaluating the AVE values for each construct. According to Chin (1998) and Hair et al. (2014), AVE values should ideally reach 0.5 or higher. As demonstrated in Table 3, the model attains AVE values that meet or exceed this

threshold, ranging from 0.674 to 0.841, thus validating the convergent validity of each construct within the study.

Cronbach alpha values for the items falling between 0.877 and 0.952, further confirm the constructs' reliability. In accordance with Bryman and Bell (2011), an Alpha value exceeding 0.7 substantiates adequate reliability of a construct. Therefore, Table 4 underscores that all constructs met the Cronbach alpha threshold.

Table 4: Summary of Measurement of Scale

Latent Variable	Indicators	Mean	SD	Loadings	CR	AVE	Cronbach Alpha
<i>Internal Audit Committee Expertise</i>					0.941	0.762	0.921
	IACE1	5.233	1.392	0.844			
	IACE2	5.573	1.256	0.923			
	IACE3	5.607	1.188	0.893			
	IACE4	5.802	1.065	0.850			
	IACE5	5.687	1.132	0.851			
<i>Internal Auditing Independence</i>					0.918	0.692	0.888
	IAI1	5.780	1.012	0.817			
	IAI2	5.667	1.220	0.864			
	IAI3	5.913	1.019	0.841			
	IAI4	6.020	1.049	0.829			
	IAI5	5.760	1.124	0.805			
<i>Internal Auditor Role</i>					0.911	0.674	0.877
	IAR1	5.667	1.187	0.828			
	IAR2	5.587	1.228	0.665			
	IAR3	5.367	1.627	0.867			
	IAR4	5.593	1.312	0.855			
	IAR5	5.507	1.242	0.873			
<i>Fraud Prevention</i>					0.964	0.841	0.952
	FP1	5.547	1.263	0.853			
	FP2	5.593	1.662	0.947			
	FP3	5.773	1.317	0.935			
	FP4	5.867	1.289	0.928			
	FP5	5.940	1.207	0.919			

Source: Field Survey (2023)

Hair et al. (2016) have emphasised the significance of researchers assessing discriminant validity within a structural equation modeling (SEM) framework. According to the criteria established by Fornell and Larcker (1981) and Hair et al. (2016), discriminant validity is achieved when the Average Variance Extracted (AVE) values of each construct exceed the squared value of the correlation between those constructs. In accordance with the principles set by Fornell and Larcker (1981) and Hair et al. (2016) regarding discriminant validity, it can be confirmed that all constructs in the study satisfied these criteria, thereby affirming the model's discriminant validity (see Table5).

Table 5: Fornell–Larcker criterion for Determining Discriminant Validity

	FP	IACE	IAI	IAR
FP	0.821			
IACE	0.580	0.832		
IAI	0.575	0.595	0.873	
IAR	0.565	0.618	0.746	0.917

Source: Field Survey (2023)

Note: Fraud Prevention (FP), Internal Audit Committee Expertise (IACE), Internal Auditing Independence (IAI) and Internal Auditor Role (IAR).

Testing Hypotheses

This section presents results on tested hypotheses on the effect of internal audit committee expertise on fraud prevention; influence of internal auditing independence on fraud prevention and effect of internal auditor role on fraud prevention in the Fanteakwa District Health Directorate.

Table 6: Hypotheses Results

IV	DV	Path coeff.	S. E	t-Stats	P-Values	R ²	f ²	Q ²	VIF
IACE	FP	0.255	0.036	4.320	0.000	0.815	0.007	0.318	1.790
IAI	FP	0.136	0.027	21.988	0.000	0.815	0.008	0.318	1.678
IAR	FP	0.573	0.023	20.172	0.000	0.815	0.550	0.318	1.000

Source: Field Survey (2023)

Note: Fraud Prevention (FP), Internal Audit Committee Expertise (IACE), Internal Auditing Independence (IAI) and Internal Auditor Role (IAR).

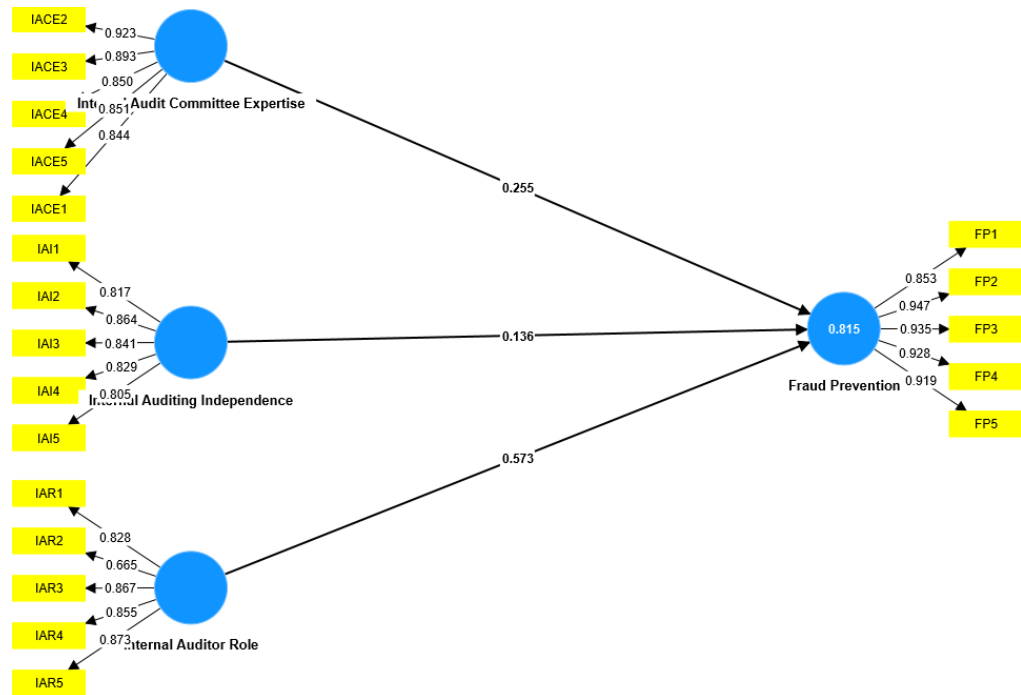


Figure 2: Path Modeling and Factor Loading Results

Source: Fieldwork, (2023)

The primary data sourced from respondents was analysed using PLS-SEM technique. Table 6 presents the R^2 value in the structural model. Also, the model represented by the study hypotheses specifies that internal audit committee expertise, internal auditing independence and internal auditor role described 815% of variation in fraud prevention concept. The R^2 value of 815% is adequate to help interpret the path coefficients results in the study. Götzet al. (2010) submitted that a construct or variable is said to have a predictive relevance if its Q^2 figure is higher than zero. For that reason, a $Q^2 = 0.318$ denotes that internal audit committee expertise, internal auditing independence and internal auditor role have a large predictive relevance for fraud prevention. Testing the hypotheses was done by connecting the path coefficient and its

related p-value from the analysis. As clearly divulged in Table 6 and Figure 2, all the hypothesised direct relationships were supported by the structural model data.

H₁: Internal audit committee expertise positively affects fraud prevention

It is established from Table 6 that the path and its p-value ($\beta = 0.255$, $p = 0.000$) stipulates that the path from internal audit committee expertise to fraud prevention is significant and positive. This therefore confirms the hypothesis that internal audit committee expertise significantly and positively impact and fraud prevention. It can also be deduced from the finding that District Health Directorate that constitutes audit committee with expertise stand the chance to prevent fraud since it is a blend of individual with in-depth knowledge about internal auditing (Barnes, 2020; Dakhallh, Rashid, Abdullah & Al Shehab, 2020).

The finding connects positively and significantly with the empirical results of Barnes (2020), Dakhallh et al. (2020), Dewi and Anisykurlillah (2021), Mangala and Kumari (2015) and Toumeh, Yahya and Amran (2020) that audit committee expertise helps institutions including District Health Directorate to achieve their long-term objective of having effective audit reviews which will later leads to fraud prevention. In addition, this finding resonate with Chijoke-Mgbame et al.'s (2020) findings that constituting audit committee expertise could bring about a positive influence on fraud prevention in an organisation.

Equally, Endrawes et al. (2020), Fariha, Hossain and Ghosh (2022), Garven and Scarlata (2020) and Hasnan et al. (2020), Velte (2020), Ozcelik (2020), Zeng et al. (2021), Mohammadi, Saeidi and Naghshbandi (2021) and

Mousavi et al. (2022) reported a positive connection between audit committee expertise and fraud prevention. This is basically because the audit committee are individuals with the expertise and is assigned to review audit process and report through oversight and monitoring functions.

H₂: Internal auditing independence positively influences fraud prevention

Moreover, the finding ($\beta = 0.136$, $p = 0.000$) also means that internal auditing independence influence fraud prevention significantly and positively. This result implies that internal auditing independence given internal auditors help them to render impartial and unbiased assessment that are essential to proper conduct of internal auditing (Dzigbede, 2020; Islam & Stafford, 2022). Furthermore, Turetken et al. (2020) and Khalid and Sarea (2021) observed that internal auditing independence is one of the key factors of fraud prevention. This result links positively with some scholars in the internal auditing domain that, internal auditors that are allowed to work without interference stand the highest chance to reduce and prevent fraud (Lonto, 2022; Madawaki, Ahmi & Ahmad, 2022; Ta & Doan, 2022).

Kaawaase and Nkundabanyanga (2017) in their survey presented that making internal auditor independent in the discharge of their audit functions without interference from the government, management of organisations and other bodies could help prevent fraudulent actions. Likewise, Mwanza (2022) argued that the extent to which internal auditors are made independent directly lead to fraud detection and prevention. The finding also confirms the empirical investigations by Rehman (2022) and Sofyani, Hasan and Saleh (2022) and Zeng, Yang and Shi (2021) that internal auditing independence leads to fraud prevention in organisations.

H₃: Internal auditor role positively influences fraud prevention

Furthermore, it is reported that ($\beta = 0.573$, $p = 0.000$) clarify a positive relationship between internal auditor role and fraud prevention. This finding means that internal auditors who have successfully performed their auditing role can benefit enormously with fraud reduction (Eulerich & Eulerich, 2020; Ghaleb, Kamardin & Al-Qadasi, 2020). Dzikrullah, Harymawan and Ratri's (2020) study result prove the postulation that internal auditor role performance has a significant and positive association with fraud prevention. Some studies on the extant study (see Jarah, AL-Jarrah, Al-Zaqeba & Al-Jarrah, 2022; Kagias et al., 2022; Khelil & Khlif, 2022; Madawaki, Ahmi & Ahmad, 2022) have confirmed empirically that good internal auditor role performance has the propensity for enhancing fraud prevention.

In addition, Melinda et al. (2022) recognised a positive and significant nexus between internal auditor roles on fraud prevention. In the same way, Nerantzidis et al. (2022) investigated the influence of internal auditor role on fraud prevention and found that internal auditors who perform their roles well help reduce fraud in the system. Rifai and Mardijuwono (2020) argue that internal auditor roles well practiced stimulate employees to avoid committing fraud. According to Chang, Chen, Cheng and Chi (2019), an internal auditor performing his or her role excellently contributes effectively in preventing fraud and other financial irregularities. The finding affirm Kagias et al.'s (2022) opinion that internal auditors offer quality internal auditing to detect fraud, ensure efficiency, accountability and transparency.

Chapter Summary

The chapter presented on the results derived from the primary data collected for the study. It then presented results on the impact of internal audit committee expertise, the independence of internal audits, and the role of internal auditors on fraud prevention within the Fanteakwa District Health Directorate. The findings were accompanied by comprehensive discussions and analyses by providing deeper insights into how these factors contribute to fraud prevention within the organization.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Introduction

In this chapter, the study provides a summary of the findings presented in chapter four. Also, it formulates conclusions and offers recommendations tailored for Internal Auditors, Accountants, and Hospital Administrators within the Fanteakwa District Health Directorate. Additionally, it provides suggestions for future research endeavours exploring this particular subject matter.

Summary of the Study

This study examined the correlation between internal auditing, audit committees and fraud prevention within the specific context of the Fanteakwa District Health Directorate. The primary data for this research were collected from a sample of 108 individuals, including Internal Auditors, Accountants, Administrative Staff and Finance Officers who are actively engaged with the Fanteakwa District Health Directorate. To analyse the research data, the Partial Least Square estimation technique was employed. This choice was made due to its ability to mitigate biased estimates of item loadings and its capacity to simultaneously assess connections among various constructs in the model.

The study provided a comprehensive review of the relevant literature and hypotheses before subjecting them to rigorous evaluation. An explanatory research design was adopted, with theoretical foundations grounded in agency theory. The results of this investigation significantly enrich our comprehension of the role of internal auditing in the prevention of fraud within the Fanteakwa District Health Directorate.

Summary of Key Findings

Audit committee expertise and fraud prevention

A compelling and statistically significant correlation has been unveiled regarding the impact of audit committee expertise on fraud prevention within the Fanteakwa District Health Directorate. The study demonstrates a robust and noteworthy link, highlighting that a well-qualified and knowledgeable audit committee substantially enhances the effectiveness of fraud prevention efforts. This finding underscores the critical role played by an expert audit committee in bolstering the defense against fraudulent activities within the Fanteakwa District Health Directorate emphasising the importance of specialized knowledge and experience in the prevention of financial and operational misconduct.

Internal audit independence and fraud prevention

An exceptionally significant revelation has been unveiled regarding the connection between internal audit independence and fraud prevention within the Fanteakwa District Health Directorate. The research indicates a robust and statistically substantial association emphasising that when the internal audit function operates independently, it plays a crucial role in preventing and mitigating fraudulent activities. This finding underscores the significance of maintaining a high level of independence within the internal audit process to ensure the effective protection of financial and operational integrity in the context of the Fanteakwa District Health Directorate.

Internal auditor role and fraud prevention

A noteworthy and favourable correlation has been identified in a study between the role of internal auditors and their contribution to fraud prevention.

The research reveals a strong and statistically significant connection indicating that the presence and active involvement of internal auditors in a Health Directorate's operations play a vital role in deterring and preventing fraudulent activities. This finding underscores the importance of internal audit functions in maintaining the integrity and security of financial and operational processes within Fanteakwa District Health Directorate.

Conclusion

In conclusion, the findings of this study shed light on the relationship between internal auditing and fraud prevention within the specific context of the Fanteakwa District Health Directorate. The study underlines the essential role of audit committee expertise in fortifying fraud prevention efforts. The study findings demonstrate a compelling and noteworthy connection emphasising that a well-qualified and knowledgeable audit committee significantly enhances the effectiveness of fraud prevention. This stresses the critical merit of specialised knowledge and experience within the audit committee making it an indispensable component in safeguarding the Fanteakwa District Health Directorate against financial and operational misconduct. Furthermore, the study emphasises the importance of internal audit independence. The study reveals statistically substantial association between internal audit independence and effective fraud prevention. This highlights the significance of maintaining a high level of independence within the internal audit process as it serves as a cornerstone in mitigating fraudulent activities and upholding financial and operational integrity.

Lastly, the study unveiled compelling and significant insights, reinforcing the critical role that internal auditors and audit committee expertise

play in the prevention of fraudulent activities within this organization. The study's first major finding highlights the substantial positive correlation between the role of internal auditors and their contributions to fraud prevention. This connection underscores the significance of internal audit functions in safeguarding the integrity and security of financial and operational processes. The active involvement of internal auditors is instrumental in deterring and preventing fraudulent activities, making them invaluable assets in the Fanteakwa District Health Directorate's efforts to maintain trust, accountability and fiscal responsibility.

In essence, this study contributes valuable understandings that can inform the policies and practices of the Fanteakwa District Health Directorate highlighting the pivotal roles of internal auditors, audit committee expertise and internal audit independence in fostering a robust fraud prevention environment. These findings underscore the organization's commitment to financial integrity and its proactive approach to mitigating the risks associated with fraudulent activities.

Recommendations

In light of the significant findings from this study, several recommendations can be proposed to further improve fraud prevention practices within the Fanteakwa District Health Directorate:

1. To strengthen fraud prevention efforts, the Health Directorate should focus on developing and maintaining a highly qualified and knowledgeable audit committee. Regular training and professional development opportunities for committee members can help them stay up-to-date with best practices in fraud prevention.

2. Recognising the importance of internal audit independence, the Fanteakwa District Health Directorate should take steps to ensure that the internal audit function remains independent from the influence of management. This could involve periodic assessments of the reporting structure and procedures to minimize conflicts of interest.
3. Given the strong correlation between the role of internal auditors and fraud prevention, it is advisable to further empower and support the internal audit team. This may include providing additional training and resources to enhance their ability to detect and prevent fraudulent activities.

Suggestions for Further Research

Future research on internal auditing and fraud prevention should compare the effectiveness of internal auditing in fraud prevention within the Fanteakwa District Health Directorate with similar organisations in the healthcare sector or other sectors. This comparative analysis can highlight best practices and areas for improvement. Also, further studies should complement existing quantitative findings with qualitative research such as interviews and surveys of internal auditors, audit committee members and management. This is because qualitative data can offer deeper insights into the challenges, strategies and specific actions that impact the relationship between internal auditing and fraud prevention. By pursuing these research avenues, a more comprehensive understanding of the relationship between internal auditing and fraud prevention can be developed leading to enhanced practices and improved fraud prevention outcomes.

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APPENDIX A: QUESTIONNAIRE FOR STAFF

Dear Respondent,

I am Eric Antwi, conducting a research study on the Relationship between Internal Auditing and Fraud Prevention within the specific context of the Fanteakwa District Health Directorate. Your valuable insights are greatly appreciated. Please be informed that your participation in this research is entirely voluntary, and we will ensure the full protection of your privacy. There is no need to disclose your name, phone number, email address or any other identifying information. Rest assured that all your responses will be handled with the utmost confidentiality. Thank you for your participation.

Section A: Demographic Data

- | | | |
|-----------------------|----------------------|--------------------------|
| 1. Gender | Male | <input type="checkbox"/> |
| | Female | <input type="checkbox"/> |
| 2. Age | 21-31 years | <input type="checkbox"/> |
| | 32-41 years | <input type="checkbox"/> |
| | 42-51 years | <input type="checkbox"/> |
| | 52 years above | <input type="checkbox"/> |
| 3. Educational Level: | | |
| | Certificate | <input type="checkbox"/> |
| | Diploma | <input type="checkbox"/> |
| | Bachelor's degree | <input type="checkbox"/> |
| | Postgraduate Degree | <input type="checkbox"/> |
| 4. Position / Rank | | |
| | Internal Auditors | <input type="checkbox"/> |
| | Accountants | <input type="checkbox"/> |
| | Administrative Staff | <input type="checkbox"/> |
| | Finance Officers | <input type="checkbox"/> |

5. Please indicate the number of years you have been working with the

Directorate: 1- 10 years ☐

11 -20 years ☐

21 - 30 years ☐

31 years & above ☐

Section B: Internal Audit Committee Expertise

Please rate your level of agreement with the following statements on a scale of 1 to 5, where 1 represents "Strongly Disagree" and 5 represents "Strongly Agree."

Items	1	2	3	4	5
Internal audit committee expertise plays a significant role in enhancing fraud prevention efforts in the Fanteakwa District Health Directorate.					
The expertise of the internal audit committee positively influences our ability to prevent fraud within the Directorate.					
The internal audit committee members have the necessary knowledge and skills to detect and prevent fraudulent activities effectively.					
The expertise of the internal audit committee is essential for the effective operation of our Directorate.					
The internal audit committee's expertise significantly contributes to the achievement of our Directorate's objectives.					

Section C: Internal Auditing Independence

Please rate your level of agreement with the following statements on a scale of 1 to 5, where 1 represents "Strongly Disagree" and 5 represents "Strongly Agree."

Items	1	2	3	4	5
The independence of the internal audit function is a critical factor in preventing fraud at the Fanteakwa District Health Directorate.					
Internal auditing independence is maintained effectively within our Directorate to prevent and mitigate fraudulent activities.					
The internal audit function operates independently from management, which enhances our ability to detect and prevent fraud.					
The independence of the internal audit function enhances the Directorate's ability to prevent and detect fraudulent activities.					
Internal auditing independence is a critical factor in ensuring the integrity and effectiveness of the Directorate.					

Section D: Internal Auditor Role

Please rate your level of agreement with the following statements on a scale of 1 to 5, where 1 represents "Strongly Disagree" and 5 represents "Strongly Agree."

Items	1	2	3	4	5
The role of internal auditors significantly contributes to the prevention of fraud within the Fanteakwa District Health Directorate.					
Internal auditors actively involved in Directorate's operations play a vital role in deterring and preventing fraudulent activities.					
The presence and involvement of internal auditors significantly enhance the integrity and security of financial and operational processes, contributing to fraud prevention.					
Internal auditors assess and review fraud prevention measures regularly					
The internal auditors collaborate well with other departments to prevent and address fraud issues					

Section E: Fraud Prevention

Please rate your level of agreement with the following statements on a scale of 1 to 5, where 1 represents "Strongly Disagree" and 5 represents "Strongly Agree."

Items	1	2	3	4	5
The Directorate takes fraud prevention seriously.					
Fraud prevention is a top priority for our Directorate.					
I believe that fraud prevention measures are effective in our Directorate.					
I am aware of the types of fraudulent activities that could affect our Directorate.					
Our Directorate provides adequate training and information about fraud prevention.					

Thank you.