



DEPARTMENT OF FINANCE

**ASSESSING THE EFFECTIVENESS OF
FRAUD RISK MANAGEMENT PRACTICES IN
THE BANKING SECTOR OF GHANA**

BY

ANDY OWUSU ASOMANING

INDEX NUMBER: 10637153

E-MAIL: andyoasomaning@gmail.com

**A LONG ESSAY SUMMITTED TO THE UNIVERSITY OF GHANA, LEGON IN
PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE AWARD OF A
MASTERS DEGREE IN BUSINESS ADMINISTRATION (FINANCE OPTION)**

JULY, 2019

DECLARATION

**I hereby declare that this thesis is the result of my own original research
and that no part of it has been presented for another degree in this
University or elsewhere.**

.....
ANDY OWUSU ASOMANING

(10637153)

.....
DATE

CERTIFICATION

I hereby declare that the preparation and presentation of this thesis were supervised in accordance with the guidelines on supervision of thesis laid down by the University of Ghana.

.....

LORDINA AMOAH (PhD)
(SUPERVISOR)

.....

DATE

DEDICATION

To God Almighty and my family

ACKNOWLEDGEMENTS

My utmost appreciation goes to my supervisor who helped in the review and assessment of this dissertation. I am grateful for her comments, important critique and evaluation which helped me to complete this work successfully. I am also grateful to my family especially my parents who have been a solid rock in my life and also all relatives and individuals for their unflinching support and encouragement in the past years.

ABSTRACT

The purpose of the study was to examine the effectiveness of fraud risk management practices in the banking sector of Ghana. The structured questionnaire was used as the main research instrument. Items in the questionnaire were measured on a five-point ranking scale. Both local and foreign universal banks in Ghana, were included study. A total of 100 employees, 50 from the local banks, and another 50 from the foreign banks, were sampled through purposive and convenient sampling techniques. Descriptive and inferential statistics were used to present and analyze the collected data. From the findings of the study, it was revealed that, the level of exposure to both internal and external fraud risk by the universal banks was very low. Largely the banks implemented fraud risk management practices by putting in place strategies in the area of sound risk management environment, policies and procedures and risk mitigation. The banks were highly effective in the management of fraud risk leading to improvement in the performance of the banks. Having a sound risk management environment, policies and procedures, coupled with an effective risk mitigation strategy, mainly contributed to the overall effectiveness of the universal banks in the management of fraud risk. High cost in the implementation of fraud risk management practices was the main challenge facing the universal banks in fraud risk management. The banks are encouraged to invest more in modern software tools, so as to control the incidence of fraud risks.

TABLE OF CONTENTS

DECLARATION	ii
CERTIFICATION	iii
DEDICATION	iv
ACKNOWLEDGEMENTS	v
ABSTRACT	vi
TABLE OF CONTENTS	vii
CHAPTER ONE	1
INTRODUCTION	1
1.1 Background to the Study.....	1
1.2 Statement of Problem.....	2
1.3 Objectives of the Study.....	4
1.4 Research Questions.....	4
1.5 Analysis of Data.....	5
1.6 Significance of Study.....	5
1.7 Scope and Limitation of study.....	6
1.8 Organisation of Study.....	7
CHAPTER TWO	8
LITERATURE REVIEW	8
2.1 Introduction.....	8
2.2 Theoretical Literature	8

2.2.1 The Concept of Fraud.....	9
2.2.2 Types of Fraud.....	9
2.2.3 Causes of Fraud.....	14
2.2.4 Methods of Fraud by Perpetrators.....	15
2.2.5 Fraud Prevention and Detection.....	15
2.2.6 Risk Management.....	16
CHAPTER THREE.....	24
RESEARCH METHODOLOGY.....	24
3.1 Introduction.....	24
3.2 Research Design.....	24
3.3 Population, sampling technique and sample size.....	26
3.3.1 Target Population.....	26
3.3.2 Sampling Technique.....	27
3.3.3 Sample Size.....	27
3.4 Data Collection Instrument.....	29
CHAPTER FOUR.....	32
RESULTS AND DISCUSSIONS.....	32
4.1 Introduction.....	32
4.2 Demographic Profile of Respondents.....	32
4.2.1 Gender Distribution of Respondents.....	32
4.2.2 Age Distribution of Respondents.....	33
4.2.3 Educational Qualification.....	34
4.2.4 Position Held.....	34
4.2.5 Job Tenure.....	35

4.3 Degree of Exposure of Fraud Risk among selected Universal Banks in Ghana.....	36
4.4 Fraud Risk Management Practices of Universal banks in Ghana.....	38
4.5 Effectiveness of Fraud Risk Management of Universal Banks in Ghana.....	41
4.6 Challenges of Universal Banks in Fraud Risk Management.....	43
4.7 Discussion of Results.....	45
CHAPTER FIVE	47
SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS.....	47
5.1 Summary.....	47
5.2 Conclusions.....	49
5.3 Recommendations.....	50
5.4 Limitations of the study.....	51
5.5 Further Studies.....	51
Appendix.....	52
REFERENCES	59

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Regardless of the vast amount of resources, time and energy, used by universal banks in developing corporate governance policies, implementing internal control systems, risk management strategies and the training of employees in order to adhere to best practices, some dishonest, intelligent people, commonly referred to as fraudsters, still manage to find ways to override systems to gain access to organizational resources and assets (Rahman & Salim, 2010). This results in operational risk in the form of fraud. Operational risk is therefore the initial type of risk that any institution of any sort takes on. Managing and mitigating the operational risk of an organization is a very significant challenge for managers in top positions. The study examines the effectiveness of fraud risk management practices by both foreign and local universal banks in Ghana.

Fraud in recent times, has evolved from being committed casually to being highly organized and sophisticated (Rahmana & Anwar, 2014). This particular problem is more prevalent in the banking sector where there are more sophisticated compromises as compared to other sectors. It is therefore important for banks to develop comprehensive systems and practices to effectively manage fraud risk (Fadipe-Joseph & Titiloye, 2012). Fraud can be grouped into two main categories. The first category is fraudulent financial reporting, known as management fraud, and the second category is the misappropriation of assets, also a known as employee fraud (Adams, 2015). Both categories of fraud are

particularly harmful to actual and potential users (Hakami, 2011), and may cause materially misleading financial statements. This study will however, emphasise the activities of fraud leading to the issuance of false financial statements.

Additionally, fraud imposes numerous costs to both its financial and non-financial victims (Rahman & Salim, 2010). For the banking financial institutions, they might suffer loss in terms of monetary transactions, reputational risks, and human capital, including the acquaintance to the risks of bankruptcy (Idowu, 2009).

Developing effective preventive measures against fraud, identifying the methods through which fraud is or can be committed, establishing effective control measures and putting in place fraud resolution guidelines not only helps the universal banks to prevent the loss of revenue and assets, but also improve the quality of their business procedures and their overall standing in the financial services environment (Rahman & Anwar, 2014).

1.2 Statement of the Problem

The extant collected works has revealed the fact that, there is not a single financial organization that is immune to fraud, and that a typical financial institution loses 5-7% of its annual revenues due to fraudulent activities. (Fadipe-Joseph & Titiloye, 2012). According to Dumbrava and Gavriletea (2008), although banking institutions are normally known as one of the most strictly regulated sectors, the commercial banks continue to be definite targets for the activities of fraudsters. The reasons are absolutely obvious; banks are the first choice and the best place to come to, due to their role in capital raising and

capital intermediation. The ramifications of the actions of fraudsters are not minute, instead, may cause failure in the banking sector. Even more detrimental, it may represent one of the major causes of bankruptcy in the world, being typified by the Iceland crisis in 2008.

Fraud cases in the banking industry in Ghana increased from 1,002 cases in 2016 to 1,418 cases in 2017, the Bank of Ghana (BoG) has disclosed. This represents a 41.66% increase and is a major cause for concern. The total worth which was reported for fraud or even attempted fraud amounted to roughly GH¢190.4 million.

Till now, there has been no specific study to explore the perception of those working in banks regarding fraud-related misconducts in the banking sector most notably, in Ghana. Most of the previous studies discussed on bank frauds have been conducted in the Republic of Uganda (Bank of Uganda, 2005), India (Fadipe-Joseph & Titiloye, 2012), Qatar (Rahman & Salim, 2010), Nigeria (Idowu, 2009) and Saudi Arabia (Hakami, 2011) but very little is known from Ghana's perspective. The current study therefore intends to fill the above knowledge gap in the extant literature, by specifically examining into detail, the effectiveness of fraud risk management in the banking sector of Ghana. The researcher has further observed that, the silence among the universal banks in Ghana on fraudulent activities, makes it extremely difficult for banks to share very important information that will help control the menace in the sector. It is therefore imperative for the universal banks in Ghana, to develop systems and practices to effectively manage fraud risk. The extent to

which the universal banks in Ghana, have developed such systems and practices to effectively manage fraud risk is the subject of investigation in this study.

1.3 Objectives of the Study

1.3.1 Main objective

The general objective of this research is to examine the effectiveness of fraud risk management practices by the universal banks in Ghana.

1.3.2 Specific Objectives

To achieve the purpose of the study, the following specific objectives were set out.

- i. To explore the degree or amount of exposure of fraud risks among universal banks in Ghana.
- ii. To identify the fraud risk management practices of universal banks in Ghana.
- iii. To ascertain how effective fraud risk management practices are among the universal banks in Ghana.

1.4 Research Questions

The following research questions were formulated in order to achieve the objectives of the study

- i. What is the amount of exposure of fraud risks among universal banks in Ghana?
- ii. What are the fraud risk management practices of universal banks in Ghana?
- iii. What is the effectiveness of fraud risk management practices among the universal banks in Ghana?

1.5.5 Analysis of Data

The collected data was analyzed statistically using the Statistical Package for the Social Sciences (SPSS, Version 22), to equally assess the relationship between the study variables. The demographic characteristics of the respondents was also analyzed using tables, and other descriptive statistics such as the frequencies, percentages, means and standard deviations.

1.6 Significance of the Study

The study will make the following contributions to academia, practice, and policy. Firstly, the study will add to the extant literature by carrying out an original work which will address the effectiveness of fraud risk management practices by universal banks in Ghana, thereby serving as a reference material for future researchers. This is critical because the study will be undertaken in a developing economy with a focus on the Ghanaian banking sector. The study would thus enlighten both academia and future researchers by providing an adequate repertoire of knowledge about the effectiveness of fraud risk management practices by universal banks in Ghana.

Secondly, the study will be significant to the management of universal banks in Ghana, as well as the regulator (that is, the Bank of Ghana), in closing the knowledge gap in fraud risk management practices among banks in Ghana. The discoveries will bring to the fore, the many fraud risks among the universal banks in Ghana, and the extent to which these banks are open to such fraud risks. The regulator through this study, might be able to fashion out pragmatic measures and policies on the effective management of fraud risk for

all universal banks in Ghana. This will in turn, aid the banks to reduce their level of exposure to fraud risk thereby ensuring operational efficiency and profitability. The findings will further expose the level of efficacy of the banks in managing fraud risks as well as the investor perception of the fraud risks in the Ghanaian banking sector.

Finally, the findings will highlight the encounters of the universal banks in managing fraud risks for appropriate recommendations to be made as to how to address the challenges.

1.7 Scope and Limitation of the Study

The scope of the study is limited to selected local and foreign banks in Ghana. They include the GCB Bank, the Universal Merchant Bank, Zenith Bank, and the United Bank for Africa (UBA). The study targeted basically the respondents within the Greater Accra region of Ghana, comprising of both management and non-management employees. The target respondents were sampled from the four (4) universal banks within the Greater Accra Region of Ghana. The study also concerns the effectiveness of fraud risk management practices of the banks and specifically looks at the degree of contact of the banks to fraud risk, and challenges of the sampled universal banks in managing fraud risk.

1.8 Organization of the Study

The study is organised into five main chapters. Chapter One is the introductory chapter which covers sections such as the background of the study, the problem statement, the purpose of the study, and the specific objectives of the study. Chapter Two reviews literature on the study area. The chapter reviews the relevant theoretical and empirical

literature on fraud and management of fraud risk as well as the challenges of managing fraud risk. Chapter Three presents the methodology. The chapter outlines the research design, the target population of the study, the sample size, the sampling techniques, the data collection instrument, and the statistical tools used in the data analysis. Chapter Four presents the results and discussions. It presents the data collected from the field and summarize them via tables and graphs. The chapter also discusses the findings of the study relative to the empirical literature. Chapter Five represents the conclusion and recommendation. The chapter summarizes the major findings of the study; conclusions reached and also make relevant recommendations based on the findings. Suggestions for future studies are included in this chapter.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter deals with a review of the extant literature on the effectiveness of fraud risk management in the banking sector of Ghana. The specific areas to be covered here includes the concept of fraud, an examination of other theoretical literature, and a review of the extant empirical literature on the effectiveness of fraud risk management in the banking sector of Ghana.

2.2 Theoretical Literature

Different theories and concepts have been identified in the literature, and which can be used to explain the effectiveness of fraud risk management in the banking sector of Ghana. Scholars and other researchers continue to produce comprehensive concepts on fraud risk management in the banking sector. Their aim is to provide a framework for understanding, not just the determinants of fraud risk management in the banking sector, but also to study the degree of exposure of fraud risks within the banking sector. The key concepts and theories underlying the subject under investigation are the concept of fraud, types of fraud in the banking sector, causes of fraud in the banking sector, fraud prevention and detection, and the concept of risk management.

2.2.1 The Concept of fraud

According to the Chartered Institute of Management Accountants (CIMA, 2012), fraud is defined as using deception to make a personal gain dishonestly for oneself and or create a

loss for another. Any person is clever at committing fraud; defrauding any organization is not a mishap but a rather calculated and deliberate act of deception. Fraud does not only involve theft of money but also confidential information and assets. Idowu (2009), intimated that, fraud can be seen as the deliberate falsification, camouflage, or exclusion of the truth for the purpose of dishonesty/stage management to the financial damage of an individual or an organization. It is dishonesty or an act of cheating aimed at causing a person or business to give up possessions or some lawful right. To Rahmana and Anwar (2014), fraud can be well-defined as the use of one's profession for personal enhancement through the conscious misuse, misapplication or employment of an organization's possessions or property.

2.2.2 Types of Fraud

Fraud can be classified depending on their perspective. Some notable authorities categorised them into management and employees' fraud. Furthermore, we have internal fraud, external fraud & mixed fraud which are highlighted below.

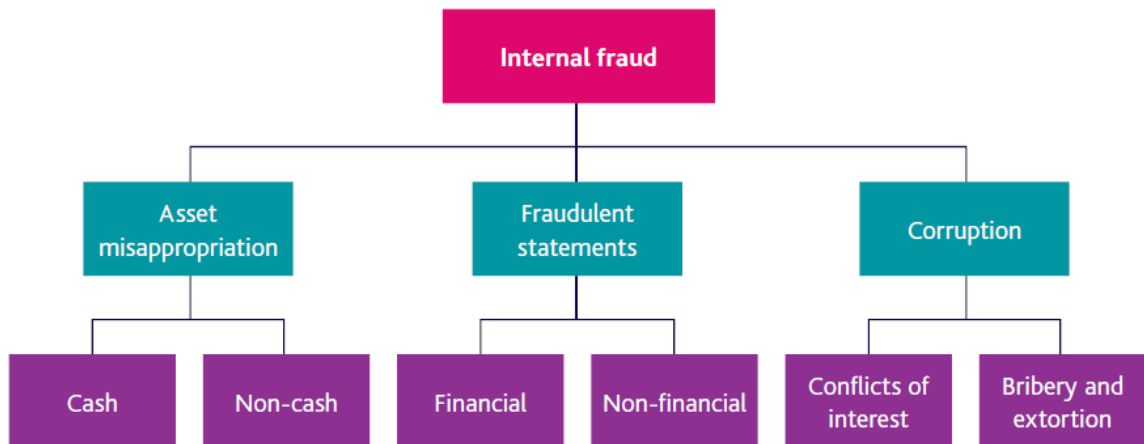
A. Internal Fraud

Internal frauds are frauds that can be committed among the members of staff in a banking institution. According to the Chartered Institute of Management Accountants (CIMA, 2012), there appears to be three major classes of internal fraud that can affect banking institutions.

- The first is *asset misappropriations*, which comprises the misuse or theft of an organizational asset(s). E.g. false invoicing

- The second classification of internal fraud is *fraudulent statements*. This involves falsifying financial statements in return for some form benefit.
- The last but not least is corruption. It could include bribes, using confidential information improperly etc. These types of internal fraud are summarized in Figure 2.1.

Figure 2.1: Type of Internal Fraud



Source: Chartered Instituted of Management Accountants (2012)

Hakami (2011), categorized internal fraud as, a) unofficial borrowing, b) over invoicing, c) unauthorized stamps, d) fictitious transactions, e) committing, f) fraudulent use of documents g) cash on hand converted to personal use, i) premature writing off of assets, j) ghost workers, k) figures falsification.

B. External Fraud

There exists three types of fraud which by definition are committed by entities external to the bank. They include:

- *Over invoicing*: this is done through inflation of normal rates over the actual value of a service(s) rendered.
- *Advance fee fraud*: This may involve an agent who approaches a bank with an offer to access large funds at below market interest rates often for long term. The purported source of such funds is not specifically identified as the only way to have access to it. It is also known as the way by which the agent disappears as the facilities engaged in never come through (Rahman & Salim, 2010). Generally, advance fee fraud is perpetrated in the following ways: schemes seemingly for the disbursement of money for mills, contract frauds, purchase of real estates, and transfer of funds (Samociuk, Iyer, & Doody, 2010).
- *Loan fraud*: Loan and other form of credit extensions to business and individual customers constitute traditional functions of financial institutions. In the process of credit extensions, fraud may occur at any stage, from the first interaction between the customer and the bank to the final payment of the loan (Gupta, 2016). Loan

fraud occurs when credit extended to non-borrowing customers or to a borrowing customer who has exceeded his credit ceiling. The fraudulent aspect of this class is that there is an intention to conceal it from the inspectorate staff on routine check to deceive them with plausible but falsified statements and documents. In some instances, loans are granted on false collaterals that are not existing, over-valued, stolen or counterfeited. Improper loans may also be granted to insider, relatives and friends of corrupt bank officials who collect kickbacks for such transactions (Tahir & Razali, 2012).

C. Mixed Fraud

This involves a case where staff conspire with customers to defraud the bank through unauthorized loans, overdrafts, fraudulent and false accounting procedures (Adams, 2015). It also involves the use of forgeries by operation staff such as supervisors, officers, accountants, clerks and cashiers (Hakami, 2011). Quite often signatures of customers are forged by non-customers with the active connivance of staff who in most cases provide the specimen signature cards, where forgeries are not perfected, arrangements are made with staff to beat the signature verification process. This type of fraud is categorised as management fraud and employees' fraud:

- *Management Fraud* This type of fraud essentially refers to frauds committed by bank employees in top echelon that is, top management level staffs that are aimed largely at deceiving the shareholders and to a considerable extent, auditors and the regulatory authorities through deliberate presentation of false financial statement – the key device of perpetration (Idowu, 2009).

- *Employee Fraud:* Employee fraud refers to fraud committed by employees below management position. As distinguished from management fraud, employee fraud does not involve alternations or misrepresentation of financial statements or information but the outright misappropriation of assets of the bank or the alternation of individual instruments such as cheques, drafts, for their personal advantages (Nabhan & Hindi, 2009). Typical examples of employee frauds are the conversions of cash or other assets of the employer to the fraudster's immediate benefit. Like their management counterpart, quite a number of employee's fraudulent acts occur after having gained a position of trust and responsibility (Rahmana & Anwar, 2014). A considerable higher proportion of bank frauds are usually committed by employees in non-management positions majority of who are cashiers, clerks, accountants etc.

The occurrence of these types of fraud in the banking sector of Ghana is the main focus of this study.

2.2.3 Causes of Fraud

There are several causes of fraud. Ihejiahi (2009) noted that employees who commit fraud generally are able to do so because there is opportunity, pressure, and a rationalization. He refers to the Fraud Triangle (Figure 2.2) when discussing the subject.

Figure 2.2: The fraud triangle



Source: MFI Internal Audit and Controls Toolkit (2007).

Pressure can be enforced due to a variety of factors: Personalised financial problems, drugs, far-reaching debt, etc. *Opportunity* is basically delivered through porous internal controls. E.g. lack of supervision and improper segregation of duties etc. *Rationalization* happens when the individual tries to justify their fraudulent activities.

2.2.4 Method of Frauds by Perpetrators'

- *Foreign exchange fraud*: According to Hakami (2011), this is the way by which the staffs of a company forge letters of credit and other foreign transaction documents -paving way for illegal transfer of funds.

- *Computer fraud:* It usually takes the form of corruption of the programmed or application package and even breaking or hacking into a system through a remote sensor & perpetrating the crime.
- *Account opening fraud:* Basically, this has to do with opening current & bank accounts with the use of fake documents.

2.2.5 Fraud Prevention and Detection

The prevalence of fraud gives rise to the fact that resources and expertise need to combine to tackle the canker if it happens as well as prevent what can be prevented in order to reduce the occurrence of fraud.

A. Fraud Prevention

In order to effectively tackle the problem, it is important to espouse methods that will lessen drive, limit opportunity and cause a decline in the ability of potential fraudsters to vindicate their actions with respect to fraud.

B. Fraud Detection

A strategy for detecting fraud should be put in place to highlight any possible anomalies and nip all fraudulent activities in the bud. By so doing, the firms take a proactive stance in the fight against the menace.

It is very important that firms combine the process of fraud prevention & detection to design a highly effective strategy to combat the situation.

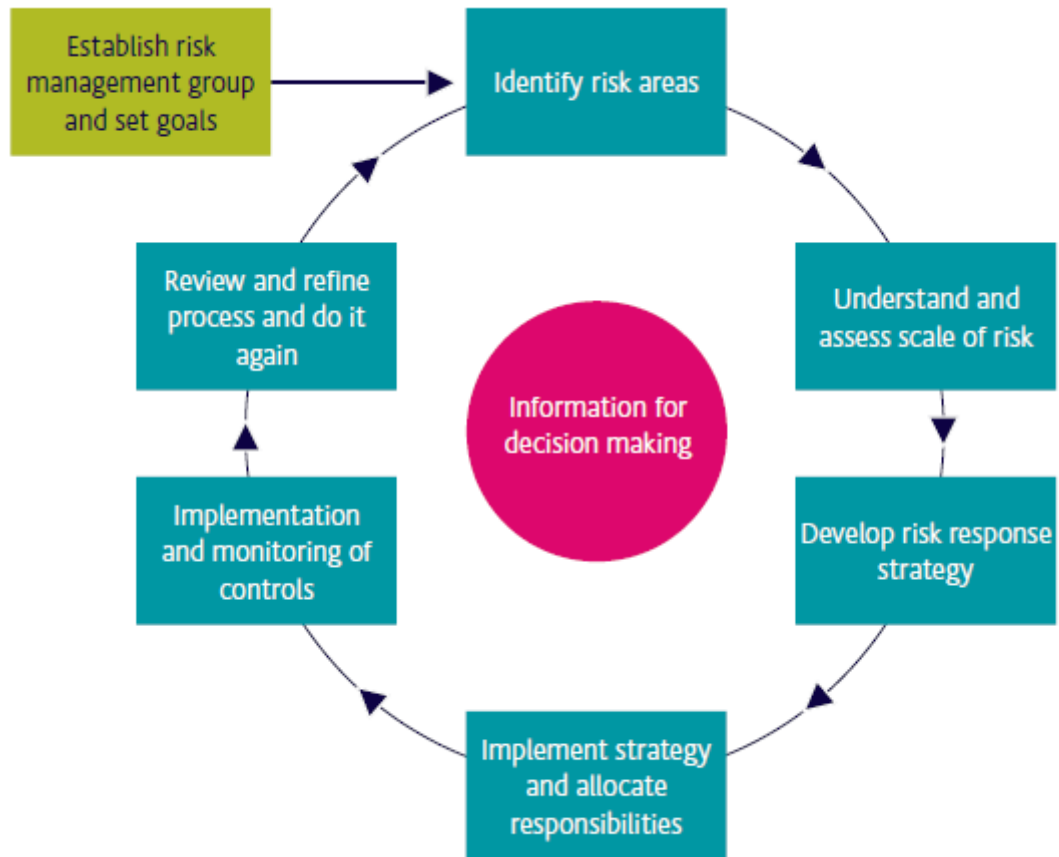
2.2.6 Risk management

In my opinion, this is the thorough monitoring and management of risk to fast track the achievement of a firm's objectives. This goes to show that the organisation needs to be proactive to minimise any potential activities in the form of fraud that seek to damage the reputation and overall credibility of the organisation.

2.2.6 The risk management cycle

The risk management cycle is an interactive process of identifying risks, assessing their impact, and prioritising actions to control and reduce risks (CIMA, 2012). A number of iterative steps should be taken as shown in Figure 2.2.

Figure 2.3: CIMA risk management cycle



Source: CIMA (2012), fraud risk management guide

1. Establish a risk management group and set goals.
2. Identify risk areas.
3. Understand and assess the scale of risk.
4. Develop a risk response strategy.
5. Implement the strategy and allocate responsibilities.
6. Implement and monitor the suggested controls.
7. Review and refine the process and do it again.

The model of risk management cycle was adopted in this reading to assess the fraud risk management practices of banks in Ghana.

1. Establish a risk management group and set goals

According to the CIMA (2012), fraud risk management guide, a risk management group should be established whose task it is to facilitate and co-ordinate the overall risk management process. Possible members of the group could include a chief risk officer, a non-executive director, finance director, internal auditor, heads of planning and sales, treasurer and operational staff (BCBS, 2011). Depending on the size and nature of the organisation, the risk management group may be in the form of a committee who meet from time to time. The risk management group promotes the understanding and assessment of risk, and facilitate the development of a strategy for dealing with the risks identified. The group also takes responsibility for conducting reviews of systems and procedures to identify and assess risks faced by the business, which include the risk of fraud, and introducing the controls that are best suited to the business unit. However, line managers and their staff may also be involved in the risk identification and assessment process, with the risk management group providing guidance.

2. Identify risk areas

According to the CIMA (2012), fraud risk management guide, each risk in the overall risk model should be explored to identify how it potentially evolves through the organisation.

It is important to ensure that the risk is carefully defined and explained to facilitate further analysis. The techniques of analysis include:

- workshops and interviews
- brainstorming
- questionnaires
- process mapping
- comparisons with other organizations
- discussions with peers.

3. Understand and assess the scale of risk

Once risks have been identified, an assessment of possible impact and corresponding likelihood of occurrence should be made using consistent parameters that will enable the development of a prioritised risk analysis. In the planning stage, management should agree on the most appropriate definition and number of categories to be used when assessing both likelihood and impact (CIMA, 2012).

The assessment of the impact of the risk should not simply take account of the financial impact but should also consider the organisation's viability and reputation, and recognise the political and commercial sensitivities involved. The analysis is either qualitative or quantitative, and done with consistency to allow comparisons. The qualitative approach usually involves grading risks in high, medium and low categories (CIMA, 2012).

4. Develop a risk response strategy

Once the risks have been identified and assessed, strategies to deal with each risk identified can be developed by line management, with guidance from the risk management group.

Strategies for responding to risk generally fall into one of the following categories:

- risk retention (e.g. choosing to accept small risks)
- risk avoidance (e.g. stopping sale of certain products to avoid the risk to occurring)
- risk reduction (e.g. through implementing controls and procedures)
- risk transfer (e.g. contractual transfer of risk; transferring risks to insurers) (CIMA, 2012).

5. Implement the strategy and allocate responsibilities

The chosen strategy should be allocated and communicated to those responsible for implementation. For the plan to be effective it is essential that responsibility for each specific action is assigned to the appropriate operational manager and that clear target dates are established for each action. It is also important to obtain the co-operation of those responsible for the strategy, by formal communication, seminars, action plans and adjustments to budgets (CIMA, 2012).

6. Implement and monitor suggested controls

The chosen strategy may require the implementation of new controls or the modification of existing controls. Businesses are dynamic and the controls that are in place will need to be monitored to assess whether or not they are succeeding in their objectives. The risk management group should be empowered to monitor the effectiveness of the actions being

taken in each specific area, as these can be affected by internal and external factors, such as changes in the marketplace or the introduction of new computer systems (CIMA, 2012).

7. Review and refine and do it again

All of the elements outlined above form part of an iterative cycle where risk management is continually reviewed and developed. As the cycle continues, risk management should increasingly become embedded in the organisation so that it really becomes part of everyone's job (CIMA, 2012).

8. Information for decision making

Risk management should form a key part of the organisation's decision-making process. Information is gathered at all stages of the risk management cycle and this information should be fed into the decision-making mechanisms (CIMA, 2012).

2.3 Review of Empirical literature

Rahman and Anwar (2014) conducted a study to identify the common types of bank fraud that frequently happen in Islamic banks, the underlying determinants and the amount of losses as a result of fraud cases. The targeted respondents are among managers and officers within Islamic banks in Malaysia. Out of the total 255 questionnaires sent to the respondents, 146 responses were received, giving a response rate of 57.25%. The results indicate that fraudulent statement is the type of fraud that frequently occurred in Islamic banks followed by credit card fraud. Meanwhile, most of the respondents indicated that the amount of damages due to fraud was more than RM1 million. Furthermore, greed is

expected to be the strong determinant of fraud, followed by non-compliance along with insufficient control and financial pressure in the third rank. Insufficient control can be related to the opportunity element in the fraud triangle theory while financial pressure represents the pressure element of the fraud triangle.

Marrison (2012) provided more understanding of fraud; prevention, detection, reporting and resolution guidelines which the Bank can incorporate in its fight against fraud. Fraud risk assessment provides a comprehensive step by step model that can be utilized in identifying the methods through which fraud is committed, preventing further fraudulent activities occurring and providing guidelines of handling fraud and taking action against perpetrators. Fortunately, some fraud risks are preventable, while others can be closely monitored in order to reduce their consequences and frequencies of occurrence. The study recommends that reducing fraud to the minimum will help Barclays Bank to streamline its business through improving the quality of its processes and ultimately the quality of services offered to customers. This would in turn build customer confidence and increase the Bank's reputation in comparison to its competitors.

Tahir and Razali (2012), investigated risk management, security and controls in the context of Automated teller machines (ATMs). In doing so, it adopts a non-technical approach by investigating the interrelationship and effect of risk management and controls in setting Automated Teller Machine security goals. The literature explores and discusses the risk management and different controls of ATMs. To reduce the risk of fraudulent activity,

several controls can be integrated into the ATM processing environment. However, the controls should not be considered a cure-all.

Rahman & Salim (2010) examined the moderating effect of the contextual fraud risk level on the relationship between the external auditors' ability to assess fraud risk and their ability to detect the likelihood of fraud. This study uses an experimental approach by sending case materials to audit partners or audit managers attached to auditing firms operating in Malaysia. The result shows that the contextual fraud risk level has a significant effect on the relationship between the external auditors' ability to assess fraud risk and their ability to detect the likelihood of fraud.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter includes sections such as: the methodological approaches used in the research design, the sampling and population. It also includes the instruments used in the research, for gathering the data as well as its legitimacy and trustworthiness. Finally, the data breakdown procedure was also included.

3.2 Research Design

A cross-sectional survey with a quantitative methodological approach was adopted in the study, to achieve the purpose of examining the effectiveness of fraud risk management practices of universal banks in Ghana. Schutt (2011), described a quantitative study as a rigorous, objective and systematic process of obtaining numerical data and using control measures and statistical analysis to eliminate contaminating factors.

The quantitative methodology was adopted because, as Quinn (2010) explains, the quantitative approach provides the possibility of measuring the reactions of a great number of people to a limited set of questions. It thus facilitates comparison and statistical aggregation of the data and gives a broad, illustrative set of findings presented clearly and economically. Quantitative approach also provides the basis for testing the research hypothesis (Creswell, 2013). Qualitative methods however typically produces a great deal of detailed information about a much smaller number of people and cases. This, increases

understanding of the cases and situations studied, but it also reduces the possibility of generalization (Quinn, 2010).

The current study is descriptive because it focuses on describing the level of exposure of banks to fraud risk, the fraud risk management practices of banks, the level of effectiveness of the banks in fraud risk management, and the factors hampering effective management of fraud risk. This study is also explanatory because it seeks to examine the implementation of systems and practices on the overall effectiveness of universal banks in the management of fraud risks.

The cross-sectional survey design was adopted in order to achieve the purpose of examining the effectiveness of fraud risk management practices in the banking sector of Ghana. In this regard, four universal banks in Ghana were examined, including the GCB Bank, Universal Merchant Bank, Zenith Bank, and the United Bank for Africa (UBA). Respondents from the above-mentioned banks were sampled from five (5) main departments, namely, operations, credit, risk, IT, and customer service. The study is therefore a conclusive study on examining the effectiveness of fraud risk management practices in the banking sector of Ghana.

3.3 Population and Sampling Techniques and Sample Size

3.3.1 Target Population

The study's population of interest are sampled employees from both the foreign and local universal banks in Ghana, used in the study. They include the GCB Bank, the Universal Merchant Bank, Zenith Bank, and the United Bank for Africa (UBA). The study targeted basically the respondents within the Greater Accra region of Ghana. The targeted participants included sampled employees from operations, credit, risk, IT and customer service departments. Overall, one-hundred (130) employees from the four targeted universal banks in Ghana constituted the population of the study. Table 3.1 shows the sampled distribution of the universal banks in Ghana, drawn from the target population.

-

Table 3.1 Sampled Distribution of Local and Foreign Universal Banks in Ghana

Name of listed Universal Bank	Target Respondents	Expected Sample Size	Response Rate (%)
GCB Bank, Ghana	40	30	75.00
Universal Merchant Bank	30	20	66.67
UBA Bank, Ghana	30	25	83.33
Zenith Bank, Ghana.	30	25	83.33
Total	130	100	76.92

Source, Field Research, 2019

3.3.2 Sampling Technique

Purposive and convenience sampling techniques were utilised to handpick the personnel from the universal banks in order to answer the research questions as appropriately as possible. Convenience sampling technique was used as well because only the target respondents who were present at the time of the data collection and were willing to partake in the study were included.

3.3.3 Sample Size

The scope of the sample governs the statistical exactness of the results (Schutt, 2011). There are over 26 universal banks certified to operate in Ghana (Bank of Ghana, 2018). The study considered respondents from various bank branches within the Greater Accra region of Ghana. The targeted participants included sampled employees from operations, credit, risk, ICT, marketing, and customer service departments. Overall, one hundred (100) employees were sampled, out of the one-hundred and thirty (130) targeted employees from the four universal banks used in the study. They are made up of thirty (30) employees from the GCB Bank, Ghana, twenty (20) employees from the Universal Merchant Bank, Ghana, twenty-five (25) employees from the United Bank for Africa, and another twenty-five (25) employees from the Zenith Bank, Ghana Limited. The sampled respondents included employees, branch managers, risk managers, account officers, marketing staffs, ICT officers, and customer service employees.

To determine the appropriate sample size from the target population of one-hundred and thirty (130) respondents, the researcher adopted the formula as proposed by Tabachnick and Fidell (2006), where,

$$n = \frac{N}{1 + Ne^2}$$

In the formula above, “*n*” represents the sample size to be calculated, while “*N*” is the target population. The value of “*e*” (standard error) depends on the required confidence level set by the researcher. If the confidence level is 95 percent, then the “*e*” value would be 0.05. In this study, 95% confidence interval level was adopted. One hundred and thirty (130) respondents from the four (4) universal banks in Ghana, constituted the target population of the study. Using the target population of 130 employees, that is, *N*=130 and a 5% margin of error (*e*=0.05), the sample size, *n* was therefore calculated as follows:

$$n = \frac{N}{1 + Ne^2} = 98.11$$

The size of the sample is a function of the population parameters under the study and the estimation of the quality that is needed by the researcher (Babbie, 2015). From the formula above, the actual sample size as calculated is ninety-eight (98.11). A sample size of 100 respondents is therefore deemed most appropriate, and would therefore constitute the sample size in the study. The total number of one-hundred (100) respondents therefore constituted the sample size for the study, giving the researcher, an overall response rate of

76.92% from a target population of 130 participants. The sample size of 100 respondents is therefore considered most appropriate for the study.

3.4 Data Collection Instrument

In this study, a structured questionnaire was utilised as the main data gathering tool. The first section (Section A) of the questionnaire examined the demography of the respondents. The profile of the respondents included; gender, age, educational background, tenure of work, and position held in the universal bank.

The next section (Section B) determined the degree of exposure of banks to fraud risk. The items were measured on Five-point Scale: 1=Very low; 2=Low; 3=Moderate; 4=High; 5=Very High. Items included both internal frauds as presented by the Chartered Institute of Management Accountants (2012).

Section C of the questionnaire assessed the systems and practices adopted by the banks to manage fraud risk. Items were measured on a Five-point Scale 1=strongly disagree; 2=disagree; 3=Neutral; 4=Agree 5=strongly agree. Items were adopted from the fraud risk management cycle developed by CIMA (2012).

Section D of the questionnaire evaluated the effectiveness of fraud risk management practices. Items were measured on Five-point scale: 1=Very low; 2=Low; 3=Moderate; 4=High; 5=Very High. Effectiveness of fraud risk management would reflect in the following performance dimensions of the universal banks, increased profitability, increased operational efficiency, financial soundness of the bank, increased investor confidence, ability of banks to detect and prevent fraud, among others.

3.5 Validity and Reliability of the Research Instrument

The questionnaire was authenticated by means of a pilot administration to a sample of some selected respondents. Any inconsistency found was subsequently corrected and finally administered to the target sample. A reliability test was also conducted in the study. According to Pallant (2013).

3.6 Data Collection Procedure

The validated questionnaires were then distributed to a group of respondents in the selected universal banks by personal contact. The respondents were allowed enough time to self-complete the questionnaires. Using the self-completion technique, also gives participants the chance to fill out the questionnaire at their own convenience, in their own time, and to adequately answer all the questions on the research instrument (Creswell, 2013). The questionnaires were then retrieved from the participants through personal contact for sorting and data analysis.

3.7 Data Analysis

Data analysis was done by utilising both descriptive and inferential statistics. Descriptive statistics such as frequencies, mean, and standard deviations will be used to present the findings of the study. The purported mean value represents the average response of all respondents on the ranking scale while the standard deviation represents the spread of the responses on the scale. Frequency was used to present the profile of the respondents. Mean

and standard deviations were used to present the level of exposure of the universal banks to fraud risk, the fraud risk management practices of the banks, the level of effectiveness of the banks in fraud risk management, and the factors hampering effectiveness in fraud risk management.

Data analysis was done using the Statistical Package for the Social Sciences (SPSS Version, 22).

CHAPTER FOUR

RESULTS AND DISCUSSIONS

4.1 Introduction

This chapter presents the results obtained from the analysis of data obtained from the field of study. It starts with the demographic profile of the respondents. Section 4.3 presents the degree of exposure of fraud risks among the universal banks in Ghana; Section 4.4 presents the findings on the magnitude of deployment of the system and practices by banks to manage fraud risk. Section 4.5 presents the results on evaluating the level of effectiveness of fraud risk management practices of universal banks in Ghana. While Section 4.6 presents the challenges of managing fraud risk among the universal banks in Ghana, Section 4.7 discusses the finding of the study.

4.2 Demographic Profile of Respondents

Overall, 100 participants were sampled 50 from the local universal banks and the other 50 from the foreign universal banks in Ghana. The profile pertaining to these participants include gender and age among others.

4.2.1 Gender Distribution of Respondents

Regarding the gender distribution of the 100 respondents, majority, and 62% (n=62) were males while the remaining, 38 % (n=38) represented females. This postulates that the information regarding the effectiveness of fraud risk management practices among the universal banks in Ghana, was obtained from both male and female employees of the sampled universal banks, and therefore the findings are not gender biased. The distribution above can be seen in Table 4.2 below.

Table 4.1: Gender Distribution of Respondents

Category	Number	Percent (%)
Male	62	62.0
Female	38	38.0
Total	100	100.0

Source: Field Survey Data, 2019

4.2.2 Age Distribution of Respondents

The age of the respondents has some significance on the ability of the participants to determine their charitable participation in the study. With regard to the age distribution of the 100 employees of the sampled universal banks in Table 4.2, 27.0% (n=27) indicated they were between 20-29 years of age, and 45.0% (n=45) indicated they were within the age group of 30-39 years. Also, while 25% (n=24) of the respondents were 40-49 years of age, the remaining 34% (n=4) were 50 years and above. Overall, all the respondents were above 20 years of age. This means that all the respondents were matured enough to define their participation in the study.

Table 4.2: Age Distribution of Respondents

Category	Number	Percent (%)
20-29 years	27	27.0
30-39 years	45	45.0
40-49 years	24	24.0
50 years and above	4	4.0
Total	100	100.0

Source: Field Survey Data, 2019

4.2.3 Educational Qualification

The educational level of the respondents has a bearing on the ability of the respondents to read and understand the issues elevated in the questionnaire. In probing the educational qualification of the 100 participants, slightly more than half, 53.3% (n=53) had a Master's degree qualification. The next higher frequency is those with Bachelor Degree qualification or Professional qualification academic background constituting 43.0% (n=43) of the total respondents. While, 3.0% (n=3) of the respondents held Diploma qualification, only one respondent had an SHS/O-Level/A-Level academic qualification. Overall, 99% the respondents had tertiary education (Diploma and above). This implies that, the respondents could be said to have the ability to read and fully comprehend all the issues of fraud risk management practices raised in the questionnaire.

Table 4.3: Educational Qualification

Category	Number	Percent (%)
SHS/O-/A-Level	1	1.0
Diploma	3	3.0
Degree/professional	43	43.0
Masters/PHD	53	53.0
Total	100	100.0

Source: Field Survey Data, 2019

4.2.4 Position held in the Universal Bank

With regard to the position held by the participants as shown in Table 4.4, 7.0% (n=7) were branch managers, 26.0% (n=26) were risk manager / officers, 10.0% (n=106) were ICT managers, 21.0 % (n=21) were customer service employees, 21% (n=21) were finance and account officers, and finally 20.0% (n=20) represented employees who performed other

roles than the ones stated on the questionnaire. This implies that the information regarding fraud risk management practices in the banks was obtained from employees with various professional background.

Table 4.4: Position held in the Universal Bank

Category	Number	Percent (%)
Branch Managers	7	7.0
Risk Manager / Officers	26	26.0
ICT Manager / Officers	10	10.0
Customer Service Officers	16	16.0
Account Officers	21	21.0
Other Officers	20	20.0
Total	100	100.0

Source: Field Survey Data, 2019

4.2.5 Job Tenure

Respondents were also required to state how extensive they had been working with their universal bank and the ensuing responses were found as shown in Table 4.5. 33.0% (n=33) noted they had between 1-5years of working experience in their respective banks, 42% (n=42) had 6-10 years working experience, 22% (n=22) had 11-15years of working experience, and finally 3% (n=3) had between 16years and above as working relationship with their banks. Overall, 66% of the respondents had more than 5 years of working experience in their respective banks. The inference is that respondents had enough time to have witnessed the practices of fraud risk management in their respective bank.

Table 4.5: Job Tenure

Category	Number	Per cent (%)
1-5years	33	33.0
6-10 years	42	42.0
11-15 years	22	22.0
16 years and above	3	3.0
Total	100	100.0

Source: Field Survey Data, 2019

4.3 Degree of Exposure of Fraud Risk among selected Universal Banks in Ghana

The first specific objective of the study was to determine the degree of exposure of fraud risks among the sampled universal banks in Ghana. This objective was achievable by the measurement of the level of exposure using a Five-Point Scale and the output is shown in Table 4.6. The mean and standard deviations were used to present the findings. The mean values of 4.00-5.00- is a higher risk exposure; mean values of 3.00-3.99-is a moderate risk exposure, mean values of 2.00-2.99- is a low risk exposure, and mean values of 1.00-1.99-is a very low risk exposure.

Table 4.6: Degree of Exposure of Fraud Risk among Selected Universal Banks

	N	Mean	Stdev
Misuse of asset	100	2.56	0.71
Money laundering	100	2.27	0.60
Forgeries and falsification of documents	100	2.14	0.65
Use of counterfeit cards	100	2.09	0.75
Conflict of Interest	100	2.08	0.69
Cheque Fraud	100	2.02	0.68
Fund Transfer	100	1.99	0.70
Identity theft & use of lost or stolen documents	100	1.99	0.73
Theft of confidential information	100	1.96	0.77
Bribery	100	1.75	0.60
Computer fraud	100	1.54	0.57
Accounts receivable fraud	100	1.52	0.55
Payroll fraud	100	1.44	0.53
Travel and entertainment Allowance Fraud	100	1.40	0.56
Overall	100	1.91	0.64

Source: Field Survey Data, 2019

Scale: 1= very Low; 2=Low; 3=Average; 4=High; 5=Very high

The findings exposed the overall degree of exposure of the banks to fraud risk was very low (M=1.91, SD=0.64). Low rating (Mean: 2.00-2.99) was obtained for each of the following types of fraud risk; misuse of asset (M=2.56, SD=0.71), money laundering (M=2.27, SD=0.60), forgeries and falsification of documents (M=2.14, SD=0.65), use of

counterfeit cards (M=2.09, SD=0.75), conflict Of Interest (M=2.08, SD=0.69), and cheque fraud (M=2.02, SD=0.68).

Also, the following type of fraud risks received very low (Mean: 1.00-1.99) ratings including; identity theft & use of lost or stolen documents (M=1.99, SD=0.73), theft of confidential information (M=1.96, SD=0.77), bribery (M=1.75, SD=0.60), computer fraud (M=1.54, SD=0.57), accounts receivable fraud (M=1.52, SD=0.55), payroll fraud (M=1.44, SD=0.53), and travel and entertainment allowance fraud (M=1.40, SD=0.56).

4.4 Fraud Risk Management Practices of Universal Banks in Ghana

The second objective of the study is to examine the extent of implementation of the system and practices by the universal banks to manage fraud risk in Ghana. The fraud risk management practices included in the study were in the areas of; establishment of the risk management environment, policies and procedures, risk measurement (identification of the risk), the development risk response strategy (Risk Mitigation) and the risk monitoring and control. The sentiments of the respondents were measured using a five-point Likert scale. Therefore, mean and standard deviations were used to present the results.

Where the overall mean value for each E-banking risk (cyber fraud) management practice is significantly greater than 3.0 (that is, the Test value), then the respondents agreed to the existence of those practices in the universal banks. One-sample z-test was performed at 5% alpha to determine whether or not the mean value is greater than 3.0 using the hypothesis (Ho: $\mu \leq 3.0$; H1: $\mu > 3.0$). The one-sample z-test was used as opposed to the one-sample t-

test because the sample size is greater than 3.0. The E-banking risk practices is subdivided into three namely; board and management oversight, security controls, and legal and reputational risk management practice. The results are summarized in Table 4.8.

Table 4.7: E-banking Risk (Cyber Fraud) Management Practices of Selected Universal Banks in Ghana

	N	Mean	<u>Stdev</u>
Risk management environment, policies and procedures,	100	4.23	0.83
Risk identification	100	4.19	0.86
Risk mitigation	100	4.14	0.72
Risk monitoring and control	100	4.23	0.87
Overall	100	4.20	0.82

Source: Field Survey Data, 2019

***Statistically significant at 5% alpha level (0.05)**

Scale: 1=Strongly Disagree; 2= Disagree; 3 =Neutral; 4= Agree; 5 =Strongly Agree

The output shown in Table 4.8 revealed the existence of fraud risk management practices among the banks (M=4.20, SD=0.82) since (P<0.05). The respondents agreed to the implementation off each of the following fraud risk management practices: sound risk management environment, policies and procedures (M=4.23, SD=0.83), risk identification procedures (M=4.19, SD=0.86), risk mitigation (M=4.14, SD=0.72), and risk monitoring and control system (M=4.23, SD=0.87). Therefore, it can be observed that the banks largely observed the fraud risk management principles proposed by the Basel Committee on Banking Supervision Report (2003) and CIMA (2009).

Risk management environment, policies and procedures

The respondents agreed that the banks, part of fraud risk management practices, Risk management environment, policies and procedures has been put in place (M=4.23, SD=0.83). This means that the respondents agreed that a formal risk management committee has been put in place by the banks. The risk management committee has specific objectives and mandate, the policy objectives are communicated to units in the bank, the risk management group promotes the indulgence and valuation of risk, the risk management group takes responsibility to periodically review the systems and procedures to identify and assess risks faced by the bank including risk of fraud, the risk management group are frequently being empowered to carry out its functions effectively, and overall, the risk management group are effective in carrying out its functions

Risk identification

Also, the respondents agreed that the banks, part of fraud risk management practices, the banks undertake risk identification (M=4.19, SD=0.86). This means that the participants agreed that the risk management group identifies the likelihood fraud risk occurrence in the bank, the risk management group examines the scale of fraud risk occurrence in the bank, the risk management group assess the impact of the fraud risk on the bank, the risk management group undertake analysis of the fraud risk in the bank using various means, and that overall, the risk management group are able to identify the nature, scales and impact of fraud risk in the bank

Risk mitigation

Also, the respondents agreed that the banks, as part of fraud risk management practices, undertake risk mitigation (M=4.14, SD=0.72). This means that the respondents concurred that the risk management group adopts fraud prevention strategies, the risk management group adopts fraud detection strategies, the risk management group recovers funds lost due to fraud, and that the risk management group adopts strategies to control fraud.

Risk monitoring and control

Finally, the respondents agreed that the banks, as part of fraud risk management practices, undertake risk mitigation (M=4.23, SD=0.87). This means that the respondents established that the risk management group monitor the performance of their risk strategies, the risk management group adopts new strategy where the old strategies are defective, the risk management group modify old new strategy to ensure that they are effective, and that the risk management group periodically evaluates the performance of the risk management strategies.

4.5 Effectiveness of Fraud Risk Management of Universal Banks in Ghana

The third specific objective of the study was to ascertain the effectiveness of fraud risk management practices among the universal banks in Ghana. And in order to achieve such an objective, the respondents were given the opportunity to rank some performance indicators relative to the fraud risk management using Five-Point Scale and the results summarized in Table 4.10.

Table 4.8: Effectiveness of Fraud Risk Management of Universal Banks in Ghana

	N	Mean	Stdev
The bank's fraud risk management profile is effective	100	4.41	0.55
There has been competitive advantage than its competitors	100	4.37	0.66
There is customer satisfaction in the service delivery of the bank	100	4.1	0.61
There is growth in investor's confidence in the bank	100	4.05	0.57
There is improvement in the profitability of the bank	100	4.04	0.61
Operational efficiency of the bank is high	100	4.02	0.75
The bank has been able to prevent the occurrence of fraud	100	3.91	0.71
The market share of the bank is very high	100	3.87	0.67
The bank has been able to predict the occurrence of fraud	100	3.86	0.69
The bank has been able to recover losses due to fraud	100	3.53	0.75
Overall effectiveness	100	4.02	0.66

Source: Field Survey Data, 2019

Scale: 1=Strongly Disagree; 2= Disagree; 3 =Neutral; 4= Agree; 5 =Strongly Agree

The output of one-sample z-test for the overall mean effectiveness revealed that the banks attained high effectiveness in relative to fraud risk management (M=4.02, SD=0.66, z=15.45, p=0.000). The participants agreed that the bank's fraud risk management profile is effective (M=4.41, SD=0.55), there has been competitive advantage than its competitors (M=4.37, SD=0.66), there is customer satisfaction in the service delivery of the bank (M=4.1, SD=0.61), there is growth in investor's confidence in the bank (M=4.05, SD=0.57), there is improvement in the profitability of the bank (M=4.04, SD=0.61), operational efficiency of the bank is high (M=4.02, SD=0.75), the bank has been able to prevent the occurrence of fraud (M=3.91, SD=0.71), the market share of the bank is very high (M=3.87, SD=0.67), the bank has been able to predict the occurrence of fraud

(M=3.86, SD=0.69), and the bank has been able to recover losses due to fraud (M=3.53, SD=0.75).

4.6 Challenges of Universal Banks in Fraud Risk Management

The fourth objective of the study was to recognize the challenges of managing fraud risk by universal banks in Ghana. This objective was achieved using a Five-Point Likert Scale and the results summarized in Table 4.11. If the overall mean value for each item is significantly greater than 3.0 (Test value) then the respondents agreed the item is a major challenge to the implementation of fraud risk practices. One-sample z-test was performed at 5% alpha to determine whether or not the mean value is greater than 3.0 using the hypothesis ($H_0: \mu \leq 3.0$; $H_1: \mu > 3.0$).

Table 4.9: Challenges of the Universal Banks in Fraud Risk Management

	N	Mean	Stdev
High cost of implementation of fraud management strategies	100	3.40	0.87
Speedy change relating innovation	100	2.69	0.83
Low knowledge of customers about e-banking system	100	2.50	1.02
Employees greed	100	2.30	0.78
Career disappointment on the part of employees	100	2.19	0.74
Inadequate knowledge of employees in IT	100	2.19	0.90
Incomprehensive fraud risk management plan	100	2.05	0.74
Weak internal control system	100	2.00	0.80
Inadequate fraud risk assessment procedures	100	1.93	0.74
Poor fraud risk mitigation strategies	100	1.90	0.73
Weak fraud risk monitoring systems	100	1.84	0.77
Poor fraud risk mitigation strategies	100	1.83	0.72
Inefficient risk management strategies	100	1.79	0.74

Source: Field Survey Data, 2017

***Statistically significant at 5% alpha level (0.05)**

Scale: 1= strongly disagree; 2= disagree; 3 =neutral; 4= agree; 5 =strongly agree

The outcome interestingly showed that the banks had one major challenge in the implementation of fraud risk management principles as proposed by the Basel Committee of Banking Supervision report ($P < 0.05$). The main challenge of the banks is high cost of implementation of fraud management strategies ($M = 3.40$, $SD = 0.87$).

4.7 Discussion of Results

With regard to the level of exposure of the banks to fraud risk, the study found that the level of revelation of the selected bank to all aspect of fraud risk was very low. Rahmana and Anwar (2014) conducted a study to identify the common types of bank fraud that frequently happen in Islamic banks, the underlying determinants and the amount of losses as a result of fraud cases and found that fraudulent statement is the type of fraud that frequently occurred in Islamic banks followed by credit card fraud. The current study found that the occurrence of these type of fraud is low.

Again, the current study found that putting in place fraud risk management policy and procedures of banks in Ghana had significant positive relationship with the effectiveness of the banks in fraud risk management. The finding, to some extent supports that of Hakami (2011), who showed that risk management is positively related to profitability. The current findings also showed that fraud risk management has positive implication on the overall effectiveness in fraud risk management of banks. Marrison (2012) examined the moderating effect of the contextual fraud risk level on the relationship between the external auditors' ability to assess fraud risk and their ability to detect the likelihood of fraud and concluded that the contextual of fraud risk level has a significant effect on the relationship between the external auditors' ability to assess fraud risk and their ability to detect the likelihood of fraud. The findings support that found by Tahir and Razali (2012), who analysed the effect of electronic banking risks on the performance of commercial banks within the US community banks markets as compared to the performance of the virtual

click and mortar banks with brick and mortar banks. Their findings concluded that electronic banking improved the profitability of commercial banks, hence increasing their overall total revenues. The current study, also revealed that fraud risk management practices in terms of policies and procedures, as well as the mitigation of risk, correlated positively with the overall effectiveness of managing fraud risks, among the universal banks in Ghana.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Summary

The main purpose of the study was to examine the effectiveness of fraud risk management practices in the banking sector of Ghana, using two local and two foreign universal banks in Ghana as the case study. Specifically, the study determined the degree of exposure of Ghanaian universal banks to fraud risks, examined the fraud risk management practices of the universal banks in Ghana, ascertained the effectiveness of fraud risk management practices of the universal banks, and finally identified the challenges confronting the universal banks in Ghana, in the management of fraud risks.

The structured, self-administered questionnaire was used as the chief research tool. Items in the questionnaire were measured on a five-point grading scale. Both local and foreign banks were included in the study. The participants were selected from 2 local banks and 2 foreign universal banks in Ghana. A total of 100 employees, 60 from the local banks and 40 from the foreign banks, were sampled by the use of the purposive and convenience sampling techniques from various branches of each universal bank in the Greater Accra Region of Ghana. Branch managers, account officers, ICT officers, risk officers, customer service officers, and other general employees of the sampled universal banks were included in the study. Both the descriptive and inferential analytical tools were deployed in the study to present the analysis of data.

Regarding the level of exposure of the universal banks to fraud risk, the study revealed that the level of exposure of the universal banks in Ghana to fraud risk was very low with

respect to the misuse of assets, money laundering, forgeries and falsification of documents, use of counterfeit cards, conflict of interest, cheque fraud, fund transfer, identity theft & use of lost or stolen documents, theft of confidential information, thief of confidential information, bribery, computer fraud, accounts receivable fraud, payroll fraud, and travel and entertainment allowance fraud.

With regard to the fraud risks management practices of the universal banks, the study found out that, largely the universal banks implemented the fraud risk management principles as proposed by the Basel Committee on Banking Supervision (BCBS, 2011), in the area of risk management environment, policies and procedures, risk identification, risk mitigation, and risk monitoring and control.

With regard to the effectiveness of the universal banks in fraud risk management, the study revealed that, overall, the universal banks were effective in their fraud risk management practices. They were moderately effective, as this led to improvement in the financial and non-financial performance dimensions of the universal banks in the area of competitive advantage, customer satisfaction, and growth in investors' confidence, and improvement in profitability, increased operational efficiency, detection and prevention of fraud, growth in market share, and the effective recovery of losses due to fraud

Concerning the relationship between fraud risk management practices and effectiveness of the banks in fraud risk management, the study found that having sound a risk management environment, policies and procedures, and the practice of a very good risk mitigation

strategy by the universal banks, all had significant positive relationships with the overall effectiveness of the universal banks in fraud risk management

With regard to the trials of the universal banks in fraud risk management, the study found that the high cost of implementing the fraud risk management principles, policies, and practices was the major challenge confronting both the local and foreign universal banks in Ghana.

5.2 Conclusions

The findings of the study presented the following possible conclusions:

- i. The exposure level to both internal and external fraud risk by universal banks in Ghana is very low.
- ii. Largely, the universal banks in Ghana implement their fraud risk management practices, by putting in place strategies in the areas of having a sound risk management environment, policies and procedures, risk identification, risk mitigation, and risk monitoring and control.
- iii. The universal banks in Ghana, are highly effective in fraud risk management practices, leading to improvements in bank performance within the sector. Having a sound risk management environment, policies and procedures, coupled with a solid risk mitigation strategy in place can effectively contribute to the management of fraud risks among the universal banks in Ghana.
- iv. High cost of implementation of fraud risk management practices is the main challenge confronting the universal banks, in the management of fraud risk in Ghana.

5.3 Recommendations

Based on the findings of the study, the following recommendations are judged appropriated by the researcher:

- The exposure level of the sampled universal banks in Ghana to the various fraud risk management practices was found to be very low. The universal banks are advised to continuously monitor the occurrence or the possibility of the occurrence of the various forms of fraud risk, so as to proactively deal with them. Failure to do so could have negative consequences on the performance of the universal banks.
- Largely, the universal banks in Ghana, manage their fraud risk, by putting in place strategies such as risk management environment, policies and procedures, risk identification, risk mitigation, and risk monitoring and control. The banks are only encouraged to continue to observe their fraud risk management practices as proposed by the Basel Committee on Banking Supervision (BCBS, 2011). The universal banks are urged to ensure an effective identification of fraud risk. Internal control system should be implemented and effective risk mitigation strategies should be adopted and put in place.
- The risk management environment, policies and procedures, and the risk mitigation strategies should be reviewed periodically, and where necessary, appropriate changes must be made to suit emerging and new forms of fraud risk in the banking sector of Ghana.
- The universal banks are also stimulated to invest more of their resources in the effective management of fraud risk in the banking sector. The cost of fraud risk will outgrow the cost of investment in new technologies for fraud risk management.

5.4 Limitations of the Study

The study is limited in scope because it did not cover as many universal banks in Ghana, as it should. The study was limited to only four (4) universal banks, out of over twenty (20) universal banks in the country. This is because the researcher was constrained by time and finances to cover all the universal banks in Ghana. Again, not all the target employees in the selected universal banks were sampled. This is because access to information from the targeted respondents was a challenge, as some of them could not avail themselves to the answering of the questionnaires.

5.5 Further Studies

The study recommends that future studies could consider expanding the scope of the study to include all the universal banks in Ghana to make the findings much more generalizable. Future studies could consider examining the effect of investment in fraud risk management in enhancing banking sector performance in Ghana, using the qualitative research approach. A qualitative approach can obtain the view of bank managers by the use of the interview and open-ended questionnaire.

APPENDIX



DEPARTMENT OF FINANCE

QUESTIONNAIRE FOR SAMPLED EMPLOYEES OF SELECTED UNIVERSAL BANKS IN GHANA

TOPIC: Effectiveness of Fraud Risk Management Practices in the Banking Sector of Ghana: The Case of Selected Universal Banks in Ghana

Introduction: The questionnaire below is aimed at achieving the aforementioned topic, and the successful completion of it will lead to the award of an MBA degree in Finance at the University of Ghana Business School, Legon. The researcher pledge to conceal the anonymity and confidentiality of all persons who give out information as required by this questionnaire.

SECTION A: Bio-graphic Data of Respondents

1) Gender of respondent

A. Male [] B. Female []

2) Age of respondent

A. Less than 20yrs [] B. 20-29 yrs [] C. 30-39yrs [] D. 40-49yrs []

E. 50yrs or more []

3) Educational level of Respondent

- A. SHS/ O/A-Level [] B. Diploma [] C. Degree [] D. Masters/PhD[]
- 4) What is the name of your universal bank?
- A. GCB Bank, Ghana []
- B. Universal Merchant Bank []
- C. UBA Bank, Ghana Limited []
- D. Zenith Bank, Ghana []
- 5) Position held at your universal bank?
- A. Branch Manager []
- B. Risk Manager / Officer []
- C. ICT Manager / Officer []
- D. Customer Service Manager /Officer []
- E. Relationship / Accounts Officer []
- F. Other Officer [] Please specify
- 6) How long have you been working with your universal bank? (Tenure of work)
- A. 1-5 years [] B. 6-10 years [] C. 11-15 years [] D. 16 years and above []

SECTION B: Degree of Exposure of Fraud Risk among Selected Universal Banks in Ghana

The following items seek to determine the degree of exposure of fraud risks among sampled universal banks in Ghana. Please, respond by choosing and using the following Five-Point scale:

- 1=Very low**
- 2=Low**

3=Average

4=High

5=Very high

No.	-	For each statement choose a number				
		Very low	Low	Average	High	Very high
	Degree of Exposure of Fraud Risks among Universal Banks in Ghana					
EXPOSURE OF FRAUD RISKS						
1	Misuse of asset	1	2	3	4	5
2	Money laundering	1	2	3	4	5
3	Forgeries and falsification of documents	1	2	3	4	5
4	Use of counterfeit cards	1	2	3	4	5
5	Conflict of interest	1	2	3	4	5
6	Cheque fraud	1	2	3	4	5
7	Funds' Transfer	1	2	3	4	5
8	Identify theft and use of stolen or lost documents	1	2	3	4	5
9	Theft of confidential information	1	2	3	4	5
10	Bribery	1	2	3	4	5
11	Computer (cyber) fraud	1	2	3	4	5
12	Accounts receivable fraud	1	2	3	4	5
13	Payroll fraud	1	2	3	4	5
14	Transfer and entertainment allowance fraud	1	2	3	4	5
15	Overall degree of exposure of fraud risk among the banks	1	2	3	4	5

SECTION C: Fraud Risk Management Practices of Universal Banks in Ghana

The following items seek to examine the fraud risk management practices of the universal banks in Ghana. Please, respond by choosing and using the following Five-Point scale:

- 1=Strongly disagree**
- 2= Disagree**
- 3=Neutral**
- 4=Agree**
- 5= strongly agree**

No.		For each statement choose a number				
		Strongly disagree	Disagree	Neutral	Agree	Strongly Agree
Fraud Risk Management Practices of Universal Banks						
RISK MANAGEMENT ENVIRONMENT, POLICIES, AND PROCEDURES						
1	There is a formal risk management committee put in place by my bank	1	2	3	4	5
2	The risk management committee has specific objectives and mandate	1	2	3	4	5
3	The policy objectives of the risk management committee are communicated to various units in the bank	1	2	3	4	5
4	The risk management group promotes the understanding and assessment of risk within the bank	1	2	3	4	5
5	The risk management group takes responsibility periodically	1	2	3	4	5

6	The risk management group reviews the system and procedures in order to identify and assess the risks faced by the bank, including the risk of fraud	1	2	3	4	5
7	The risk management group are effective in carrying out their functions	1	2	3	4	5
RISK IDENTIFICATION WITHIN THE BANK						
8	As part of its fraud risk management practice, the bank undertakes risk identification	1	2	3	4	5
9	The risk management group identifies the likelihood of fraud risk occurrence in the bank	1	2	3	4	5
10	The risk management undertakes an analysis of the fraud risk on the bank using various means	1	2	3	4	5
11	The risk management group assesses the impact of the fraud risk on the bank	1	2	3	4	5
12	The risk management group are able to identify the nature, scales, and impact of fraud risk on the bank	1	2	3	4	5
RISK MITIGATION						
		Strongly disagree	Disagree	Neutral	Agree	Strongly Agree
13	The risk management group of my bank adopts various fraud prevention strategies	1	2	3	4	5
14	The risk management group of my bank also adopts various fraud detection strategies	1	2	3	4	5
15	The risk management group of my bank are able to recover funds lost due to fraud	1	2	3	4	5
16	The risk management group adopts various strategies to control fraud-	1	2	3	4	5
RISK MONITORING AND CONTROL						

17	As part of its fraud risk management practice, my bank undertakes risk monitoring and control periodically	1	2	3	4	5
18	The risk management group monitors the performance of their risk strategies	1	2	3	4	5
19	The risk management group adopts new strategies whenever the old strategies become defective	1	2	3	4	5
20	The risk management group are able to modify the new strategies in order to ensure that they are effective	1	2	3	4	5
21	The risk management group periodically evaluates the performance of the risk management strategies	1	2	3	4	5

SECTION D: Effectiveness of the Fraud Risk Management Practices among the Universal Banks in Ghana

This final section of the questionnaire seeks to ascertain the mechanisms and practices being put in place by the universal banks in Ghana, in order to ensure the effectiveness of fraud risk management among the universal banks in Ghana. Please, respond by choosing and using the following Five-Point scale:

- 1=Strongly disagree**
- 2= Disagree**
- 3=Neutral -**
- 4=Agree**
- 5= strongly agree**

No	<u>Effectiveness of the Fraud Risk Management Practices of the Universal Banks</u>	For each statement choose a number				
		Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1	The bank's fraud risk management profile is effective	1	2	3	4	5
2	The bank has a competitive advantage over other banks in the industry	1	2	3	4	5
3	There is customer satisfaction in the service delivery of my bank	1	2	3	4	5
4	There is growth in investors' confidence in the bank	1	2	3	4	5
5	There is improvement in the overall profitability of my bank	1	2	3	4	5
6	The operational efficiency of my bank is very high	1	2	3	4	5
7	The bank has been able to prevent the incidences and occurrence of fraud	1	2	3	4	5
8	The market share of the bank is very high	1	2	3	4	5
9	The bank has been able to predict the occurrences of fraud	1	2	3	4	5
10	The bank has been able to recover losses due to fraud	1	2	3	4	5
11	Overall, the bank has been very effective regarding fraud risk management practices	1	2	3	4	5

REFERENCES

- Adams, G. (2015). Efficiency of fraud risk management and firm performance in Nepal. *International Review of Management and Business Research*. 2(1):12-16.
- Ary, D, Jacobs, C.L., & Razavieh, A. (2012). *Introduction to research in education*. USA: Wadsworth Thompson Learning.
- Babbie, E.R. (2015). *The practice of social research*. Nelson Education Inc.
- Basel Committee on Banking Supervision (2008). Risk Management for Electronic Banking and Electronic Money Activities. *Bank for International Settlements*.
- Basel Committee on Banking Supervision (2010). Basel III: International framework for effective risk management practices, standards and monitoring. *Bank for International Settlements*.
- Bessis, J. (2009). Risk Management in Banking. *John Wiley & Sons Inc. Chichester*.
- Chance, M. & Brooks, T.B. (2011). *An introduction to derivatives and risk management*, (8th ed.). South-Western: Cengage Learning.
- Collier, P.M., & Agyei-Amponsah, S. (2006). *Management accounting: risk and control strategy*. Oxford: Elsevier. (CIMA Official Study System)
- Creswell, J.W. (2013). *Research design: Qualitative, Quantitative and Mixed Methods Approaches*: Thousand Oaks: Sage Publications Inc.
- Dumbrava, P., & Gavriletea, M.D. (2008). Bank frauds vs. bank credibility. *International Journal of Business Research*, 8(5): 28-34.
- Fadipe-Joseph, O.A., & Titiloye, E.O. (2012). Application of continued fractions in controlling bank fraud. *International Journal of Business and Social Research*. 3(9): 210-213.
- Fisher, C.M. (2010). *Research and writing a dissertation: an essential guide for business students*. Pearson Education.
- Gupta, P.K. (2016). Risk management in Indian companies: EWRM concerns and issues. *Journal of Risk Finance*. 12(2): 121-139.
- Hakami, T. A. (2011). Fraud prevention policies and strategies of banks in Saudi Arabia. Master Dissertation, Faculty of Accountancy, Universiti Teknologi Mara, Shah Alam.

- Hair, Jr JF, Money, A.H., Samuel, P., & Page, M. (2012). *Research methods for business*. John Wiley and Sons Ltd. Chichester, UK.
- Holton, G.A. (2013). *Value-at-Risk: Theory and Practice*, San Diego, California: Academic Press.
- Idowu, A. (2009). An Assessment of Fraud and its Management in Nigeria Commercial Banks. *European Journal of Social Sciences*, 10, (4), 628-640.
- Ihejiahi, R. (2009). How to fight ATM fraud online. *Nigeria Daily News*, June 21, P. 18.
- Marrison, C. (2012). *The fundamentals of fraud risk measurement*. (8th ed.). New York: McGraw Hill.
- Nabhan, R.A., & Hindi, N.M. (2009). Bank fraud perception of bankers in the state of Qatar. *International Academy of Banking Studies Journal*, 8(1), 15-38.
- Pallant, J. (2013). *SPSS survival manual*. McGraw-Hill Education (UK).
- Quinn, M.P. (2010). *Handbook of mixed methods in social & behavioral research*(2nd ed.). Newbury Park, CA: Sage.
- Rahman, R. A., & Salim, M. R. (2010). *Corporate Governance and Fraud Prevention in Malaysia*. Sweet & Maxwell Asia, Malaysia.
- Rahmana, R.A., & Anwar, I.S.K. (2014). Effectiveness of fraud prevention and detection techniques in Malaysian Islamic Banks. *International Journal of Social and Behavioural Sciences*, 17(45), 97-107.
- Samociuk, M., Iyer, N., & Doody, H. (2010). *Short Guide to Fraud Risk, Fraud Corruption, Resistance and Detection* (2nd Ed). GBR: Farnham, Surrey, Ashgate Publishing Group.
- Schutt, R.K. (2011). *Investigating the social world: The process and practice of research*. Pine Forge Press.
- Tabachnick, B.G., & Fidell, L.S. (2006). *Using Multivariate Statistics* (3rd Ed.). New York.
- Tahir, I., & Razali, A. (2012). The relationship between fraud risk management and firm value: Evidence from Malaysian public listed companies. *International Journal of Economics and Management*, 1(2), 32-41.
- Van Deventer, D.R., Imai, K., & Mesler, M. (2004). *Advanced financial risk management: tools and techniques for integrated credit and interest rate risk management*. Hoboken, NJ: John Wiley and Sons

- Van Horne, P., Ross, S.A., & Jordan, B.D. (2005), *Principles of Corporate Finance*. (3rd ed.): Richard D. Irwin Inc.
- Wahyuni, D. (2012). The research design maze: understanding paradigms, cases, methods, and methodologies. *Journal of Applied Management & Accounting Research*, 10(1), 69-80.
- Young, N. (2009). *Understanding the Research Process and Methods: An Introduction to Research Methods*. Prentice Hall, UK.
- Adams, G. (2015). Efficiency of fraud risk management and firm performance in Nepal. *International Review of Management and Business Research*. 2(1):12-16.
- Ary, D, Jacobs, C.L., & Razavieh, A. (2012). *Introduction to research in education*. USA: Wadsworth Thompson Learning.
- Babbie, E.R. (2015). *The practice of social research*. Nelson Education Inc.
- Basel Committee on Banking Supervision (2008). Risk Management for Electronic Banking and Electronic Money Activities. *Bank for International Settlements*.
- Basel Committee on Banking Supervision (2010). Basel III: International framework for effective risk management practices, standards and monitoring. *Bank for International Settlements*.
- Bessis, J. (2009). Risk Management in Banking. *John Wiley & Sons Inc. Chichester*.
- Chance, M. & Brooks, T.B. (2011). *An introduction to derivatives and risk management*, (8th ed.). South-Western: Cengage Learning.
- Collier, P.M., & Agyei-Amponsah, S. (2006). *Management accounting: risk and control strategy*. Oxford: Elsevier. (CIMA Official Study System)
- Creswell, J.W. (2013). *Research design: Qualitative, Quantitative and Mixed Methods Approaches*: Thousand Oaks: Sage Publications Inc.
- Dumbrava, P., & Gavriletea, M.D. (2008). Bank frauds vs. bank credibility. *International Journal of Business Research*, 8(5): 28-34.
- Fadipe-Joseph, O.A., & Titiloye, E.O. (2012). Application of continued fractions in controlling bank fraud. *International Journal of Business and Social Research*. 3(9): 210-213.

- Fisher, C.M. (2010). *Research and writing a dissertation: an essential guide for business students*. Pearson Education.
- Gupta, P.K. (2016). Risk management in Indian companies: EWRM concerns and issues. *Journal of Risk Finance*. 12(2): 121-139.
- Hakami, T. A. (2011). Fraud prevention policies and strategies of banks in Saudi Arabia. Master Dissertation, Faculty of Accountancy, Universiti Teknologi Mara, Shah Alam.
- Hair, Jr JF, Money, A.H., Samuel, P., & Page, M. (2012). *Research methods for business*. John Wiley and Sons Ltd. Chichester, UK.
- Holton, G.A. (2013). *Value-at-Risk: Theory and Practice*, San Diego, California: Academic Press.
- Idowu, A. (2009). An Assessment of Fraud and its Management in Nigeria Commercial Banks. *European Journal of Social Sciences*, 10, (4), 628-640.
- Ihejiahi, R. (2009). How to fight ATM fraud online. *Nigeria Daily News*, June 21, P. 18.
- Marrison, C. (2012). *The fundamentals of fraud risk measurement*. (8th ed.). New York: McGraw Hill.
- Nabhan, R.A., & Hindi, N.M. (2009). Bank fraud perception of bankers in the state of Qatar. *International Academy of Banking Studies Journal*, 8(1), 15-38.
- Pallant, J. (2013). *SPSS survival manual*. McGraw-Hill Education (UK).
- Quinn, M.P. (2010). *Handbook of mixed methods in social & behavioral research*(2nd ed.). Newbury Park, CA: Sage.
- Rahman, R. A., & Salim, M. R. (2010). *Corporate Governance and Fraud Prevention in Malaysia*. Sweet & Maxwell Asia, Malaysia.
- Rahmana, R.A., & Anwar, I.S.K. (2014). Effectiveness of fraud prevention and detection techniques in Malaysian Islamic Banks. *International Journal of Social and Behavioural Sciences*, 17(45), 97-107.
- Samociuk, M., Iyer, N., & Doody, H. (2010). *Short Guide to Fraud Risk, Fraud Corruption, Resistance and Detection* (2nd Ed). GBR: Farnham, Surrey, Ashgate Publishing Group.
- Schutt, R.K. (2011). *Investigating the social world: The process and practice of research*. Pine Forge Press.

- Tabachnick, B.G., & Fidell, L.S. (2006). *Using Multivariate Statistics* (3rd Ed.). New York.
- Tahir, I., & Razali, A. (2012). The relationship between fraud risk management and firm value: Evidence from Malaysian public listed companies. *International Journal of Economics and Management*, 1(2), 32-41.
- Van Deventer, D.R., Imai, K., & Mesler, M. (2004). *Advanced financial risk management: tools and techniques for integrated credit and interest rate risk management*. Hoboken, NJ: John Wiley and Sons
- Van Horne, P., Ross, S.A., & Jordan, B.D. (2005), *Principles of Corporate Finance*. (3rd ed.): Richard D. Irwin Inc.
- Wahyuni, D. (2012). The research design maze: understanding paradigms, cases, methods, and methodologies. *Journal of Applied Management & Accounting Research*, 10(1), 69-80.
- Young, N. (2009). *Understanding the Research Process and Methods: An Introduction to Research Methods*. Prentice Hall, UK.

-
-