Financial Management Practices and Fraud Risk Management of Commercial Banks in Kampala, Uganda

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***Abstract*:-This study examined the relationship between financial management practices and fraud risk management in commercial banks in Kampala. This study had a population and sample of 24 licensed commercial banks and adopted a multi research design. The unit of inquiry had 120 respondents; Accounts, Finance, Audit, Risk and Branch Managers. Greed was the most common cause of fraud, forgery and altering cheques was the most common type of fraud. Four hypotheses were formulated and tested using simple regression at a significant level of 5%, Independent T-test and Oneway Anova. Correlation findings revealed a positive significant relationship between financial management practices and fraud risk management; accounting information systems (r = .153, p<.01), financial reporting analysis (r = .186*, p<.01) and forensic accounting (r = .403**, p<.01). Regression analysis showed that fraud risk management was strongly influenced by forensic accounting (beta = 0.430, p<.01), followed by financial reporting analysis (beta = 0.089, p=0.343) and accounting information systems (beta = -0.106, p = 0.305).**

The F statistic in ANOVA showed significant linear relationship for all the predictor variables and fraud risk management; financial management practices (F=8.121, sig =0.000), accounting information systems (F=10.755, sig =0.000), financial reporting analysis (F=6.040, sig =0.000) forensic accounting (F=9.969, sig =0.000) and fraud risk management. While financial management practices may have an influence on fraud risk management in commercial banks in Kampala, the relationship is weak at its best. This leaves a gap for further research on other fraud risk management predictor variables.

Every fraud is unique, but the fraudsters can never be too smart. Bank managers need to pay attention to; the causes of fraud and address them promptly; proper accounting information systems management; combining improved systems with strong risk controls; effective financial reporting analysis measures; apply forensic accounting; ensure strategized efforts from all levels of staff; take heed of the lessons from previous fraud occurrences; involve all stakeholders in the fraud risk management process.

***Keywords:* Financial Management Practices; Financial Reporting Analysis, Accounting Information Systems, Forensic Accounting, Fraud Risk Management; Prevention, Detection, Response.**

LIST OF ACRONYMS

ACFE	Association of Certified Fraud Examiners
MUBS	Makerere University Business School
AIS	Accounting Information Systems
FRA	Financial Reporting Analysis
GAAP	Generally Accepted Accounting Principles
KYC	Know your customer
AICPA	American Institute of Certified Public Accountants
ROA	Return on Assets
SPSS	Statistical Package for Social Sciences
COSACE	Committee on Commissions, Statutory Authorities and State Enterprise
CIMA	Chartered Institute of Management Accountants
FIDA	Federacion Internacional de Abogadas (Uganda Association of Women Lawyers)
EFCC	Economic and Financial Crime Commission
SFIO	Serious Fraud Investigation Office
KPMG	Klynveld Peat Marwick Goerdeler. (Multinational professional services network)
BoU	Bank of Uganda
NYSE	New York Stock Exchange
COSO	Committee of Sponsoring Organizations of the Treadway Commission
MDI	Micro-finance Deposit taking Institutions
FTSE	Financial Times Stock Exchange
IIA	Institute of Internal Auditors
IRM	Information rights management
FSB	Financial Stability Board
TPS	Transaction Processing System
GLS	General Ledger System and
FRS	Financial Reporting System
MRS	The Management Reporting System.
IBM 702	Data Processing System
MIS	Management Information Systems
ERP	Enterprise Resource Planning
BI	Business Intelligence
BSC	Balanced Scorecard

ICT	Information and Communications Technology
ICMAI	Institute of Cost Accountants of India
SD	Standard Deviation
ANOVA	Analysis of variance

I. GENERAL INTRODUCTION

1.0 Introduction

This study examined the relationship between financial management practices as the independent variable and fraud risk management, dependent variable, in commercial banks in Kampala. For the purpose of this study, "financial management practices" are defined and demarcated as the practices performed by the accounting officer in the areas of Accounting Information Systems, Financial Reporting Analysis and Forensic Accounting. In this study, effective fraud risk management approaches encompass controls and measures that can be grouped into three broad dimensions: preventives, detectives, and responsive measures (ACFE, 2015; Alavi, 2016; Albrecht, Albrecht, Albrecht, & Zimbelman, 2012; Boateng, Boateng, & Acquah, 2014; KPMG, 2016; Zhang, 2012). This chapter presents the background, problem statement, purpose, objectives, questions, hypothesis, scope and significance of the study.

1.1 Background to The Problem

1.1.1 Historical Background:

Financial management emerged as a distinct field of study and evolved in 3 broad phases including the traditional phase, transitional phase and the modern phase.

Traditional phase: This lasted for about four decades and focused on four selected aspects of financial management. It treats the entire subject of finance from the outsider's point of view including; investment banks, lenders and others, rather than the financial decision maker in the organization. It considered episodic events like formation, issuance of capital, major expansion, merger, reorganization and liquidation during the life of an enterprise. It laid heavy emphasis on long term financing, institutions, instruments, procedures used in capital markets and legal aspects of financial events. The traditional phase ignored problems of working capital management, considered outsiders only, overly emphasized episodic events and was consequently criticized throughout its period of dominance.

Transition phase: This phase began in the early 1940's and continued all through the early 1950's. Financial management in this era was similar to that of the traditional phase but more emphasis was given to working capital especially the day to day problems faced by the finance managers. In the transition phase, Capital budgeting techniques were developed.

Modern phase: The modern phase began in the mid 1950's and has developed commendably. Combining economic and statistical ideas has made financial management more analytical and quantitative. Funds are rationally matched to their uses thus maximizing shareholder's wealth. There were significant developments and advancement in the fields of capital budgeting, capital structure theory, efficient market theory, and option pricing theory, arbitrage pricing theory, valuation models, dividend policy, working capital management, financial modeling and behavioral finance. Finance is fascinatingly challenging and many more developments are expected to happen in the future.

Financial management in Uganda: Uganda's financial system is composed of formal, semiformal and informal institutions and financial institutions in Uganda are supervised and regulated by the Bank of Uganda which has the mandate to supervise and regulate the operations of commercial banks, credit institutions, microfinance deposit taking institutions and forex bureuax according to Bank of Uganda statute 1993. Acts and regulations include; BOU Act 1969, BOU Act 2000, Financial Institutions Amendment Act 2016, Mobile Money Guidelines 2013, Agent Banking Regulations 2017, Financial Institutions (Islamic Banking) Regulations 2018, Guidelines for the Licensing and Operation of Forex Bureaus and Money Remittance Companies, 2018 and many others.

Uganda's banking sector has developed since 1906 and prior to independence in 1962, the banking sector in Uganda was dominated by foreign owned commercial banks (Beck and Hesse, 2006). There are 24 licensed commercial banks in Uganda. Fraud risks in Uganda's commercial banks have been documented by Bank of Uganda and several researchers including; Ddumba Ssentamu (1993), Mpuga (2002), Kasekende and Ego (2003), Matama (2008), Bategeka and Okume (2010), Dr. Emmanuel Obbo (2016), Fred N Nakisa (2016), Kityamuweesi Simon Petre (2017) Elina Kultanen (2017), Drani Epalu David (2018) and many others not mentioned here. Despite the new and improved financial management practices in commercial banks, fraud risk is still evident in the commercial banking sector leaving a gap for investigation.

Fraud risk management: Organizations are trying to have a proactive strategy to attain higher levels of business integrity through transparency, sound corporate governance, effective and efficient internal control (KPMG, 2014b) [71]. Previous literature indicated that effective fraud risk management approaches encompass controls and measures that can be grouped into three broad dimensions: preventives, detectives, and responsive measures (ACFE, 2015; Alavi, 2016; Albrecht, Albrecht, Albrecht, & Zimbelman, 2012; Boateng, Boateng, & Acquah, 2014; KPMG, 2016; Zhang, 2012). Current researches on fraud and the management of fraud mainly focus on detection and preventive approach. These proactive approaches aim at averting and detecting fraud at an early stage and in line with firm's strategic objectives to tackle the fraud before it occurs. However, responsive measures are no doubt need equal focus to manage residual fraud risks. Thus, an effective business-driven fraud risk

management approach is one that is focused on three aspects: detection, prevention, and response (Boateng et al., 2014; KPMG, 2016) [14, 73]. It is empirically evident that fraud risk management began around after World War II and has developed tremendously. However, the regulations, governance rules and risk management methods have failed to prevent financial crises, most notably; the Sarbanes Oxley regulation of United States in 2002 and Stock Exchange including NYSE in 2002 (Blanchard and Dionne, 2003, 2004), did not suffice to prevent the financial crisis that began in 2007. Seven commercial banks were all closed by the central bank of Uganda; the include, Teefe Bank (1993), International Credit Bank Ltd (1998), Greenland Bank (1999), The Co-operative Bank (1999), National Bank of Commerce (2012), Global Trust Bank (2014) and the sale of Crane Bank Ltd (CBL) to DFCU (2016). The Committee on Commissions, Statutory Authorities and State Enterprises (COSASE) investigation stems from a 2017 forensic Audit Report by the Auditor General on the closure of commercial banks. Despite the improved financial management practices and developing fraud risk management measures in commercial banks, fraud risk is still evident in the commercial banking sector leaving a gap for investigation and which prompted this study.

1.1.2 Theoretical Background:

Previous literature indicated that effective fraud risk management approaches encompass controls and measures that can be grouped into three broad dimensions: preventives, detectives, and responsive measures (ACFE, 2015; Alavi, 2016; Albrecht, Albrecht, Albrecht, & Zimbelman, 2012; Boateng, Boateng, & Acquah, 2014; KPMG, 2016; Zhang, 2012). This theory was used in this study for its importance as it vividly shows the three main components of fraud risk management

1.1.3 Conceptual perspective:

Fraud Risk Management (dependent variable) could be defined as an organization's complementary process to enterprise risk management that identifies potential fraud risks and provides the impetus to detect and or deter the likelihood and prevents the consequences of fraud, (Ian Bowyer 2014). Risk management is the process of understanding and managing risks that the entity is inevitably subject to in attempting to achieve its corporate objectives (CIMA Official Terminology, 2005). Risk management began to be studied after World War II. Several sources (Crockford, 1982; Harrington and Neihaus 2003; William and Heins, 1995) date its origin to 1955-1964. According to the Association of Certified Fraud Examiners (ACFE) (2014), annual fraud survey report, a typical organization loses 5 % of its revenue to fraud each year. The Banking and Financial Services sector had the highest number of fraud cases analyzed at 17.8%. Literature reviewed indicate that many scholars have concentrated on antecedents of fraud, Albrecht, Albrecht and Dunn (2001), Erickson, Hanlon & Maydew (2006), Hochberg, Sapienza & Jorgensen (2009), Miller (2006). Other researchers, Knapp and Knapp (2001), Cullinan and Sutton (2002), Ramos (2003) Alleyne and Howard (2005), Bakre (2007),

Idowu (2010) concentrated on fraud assessment in commercial banks. The reviewed data did not directly address the objectives of this study and the variables here in thus prompting the study.

1.1.4 Contextual Background:

The study took place in 24 commercial banks in Kampala. According to Alon Mwesigwa, In the 1990s and early 2000s, Uganda banking industry suffered a number of bank failures. Eight banks failed forcing the Bank of Uganda to intervene and resolve them by closure or sale to new owners (The Observer July 1, 2014). Literature about bank behavior in Uganda is limited (Mugume, 2010). According to Bank of Uganda, in the Financial Stability Report of June 2017, "during 2016/2017, the upside risks highlighted in our last report largely materialized, manifested in challenging conditions for the banking industry. The key vulnerabilities related to lower than expected economic growth, slow loan growth and elevated levels of credit risk which had a significant impact on bank profitability." Some cases of commercial banking fraud in Kampala include; Kizito v Bank of Uganda (MISC. CAUSE NO. 244 OF 2016) (2017) UGHCCD (13 January 2017), Mars Tours And Travel Ltd V Stanbic Bank Ltd 11 July 2014 (HCCS NO 120 OF 2010) [2014] UGCOMMC 98, Best Connect Tours And Travel (U) Limited V Stanbic Bank Limited (CIVIL SUIT NO 172 OF 2010) [2014] UGCOMMC 97, Kornark Investments (U) Ltd. Vs. Stanbic Bank Uganda Ltd (CIVIL SUIT NO 116 OF 2010) [2012] UGCOMMC 6 (16 February 2012), Barclays Bank (U) Ltd v Global Supplies Ltd & 3 Ors (High Court Civil Suit No. 741 of 2004) ((U)) [2009] UGCOMMC 24 (16 February 2009), Obed Tashobya v DFCU Bank Ltd ((HCT-00- CC- CS) [2007] UGCOMMC 45 (8 May 2007) and Nasolo v DFCU Leasing Co. Ltd (HCCS NO 0432 Of 2006) [2014] UGCOMMC 19 (14 February 2014). This literature reviewed showed that these cases confirmed the existence of fraud and exposed a gap in the fraud risk management of commercial banks thus prompting this study to analyze financial management practices and fraud risk management of commercial banks in Kampala.

1.2 Problem Statement

Previous research has shown that fraud risk management is the basis for the prevention, detection and response to fraud. According to Boateng et al., 2014; KPMG, 2016; "an effective business-driven fraud risk management approach is one that is focused on three aspects: detection, prevention, and response". In addition to global regulations, the Bank of Uganda manages all commercial banks in Uganda with clear guidelines, policies, rules and regulations for fraud risk management measures to be maintained by each bank in order to prevent, detect and respond to fraud. Commercial banks

have also embraced improved technology in addition to other policies of managing the fraud risk.

However, with all the measures in place, commercial banks in Kampala survive amidst a trend of fraud which causes loss to the stakeholders. For example;Bank of Uganda reported an increase in the overall risks to systemic stability in 2016 with a rise in non-performing loans. The Committee on Commissions, Statutory Authorities and State Enterprises (COSASE) investigation stems from a 2017 forensic Audit Report by the Auditor General on the closure of commercial banks in Uganda. In relation to operational risk, "Over the last two years, there has been a general rise in insurance fraud and cyber risks which has affected the performance of the industry" Bank Of Uganda, Financial Stability Report of June 2018. According to The Bank Scene Newsletter of February 2019, "Increased adoption of technology by financial services providers such as banks has raised Uganda's cyber-attacks risk, exposing them to loss of customers' deposits and savings to online fraudsters". Uganda's attempts to attain middle income status continues to be undermined by corruption, widespread tax evasion and money laundering, according to a new report titled: Scooping Study in Illicit Financial Flows in Uganda which was authored by Global Financial Integrity with contributions from Economic Policy Research Centre (EPRC) and Uganda Association of Women Lawyers (FIDA).

Prevalence of financial fraud is yet at the increase (Popoola, Che-Ahmad, Samsudin, Salleh, & Babatunde, 2016). "Commercial Banks have increased the provisioning for the expected losses by nearly UGX 200 Billion, as they move to implement the new accounting rules that took effect in January 2018, the latest Financial Stability report from Bank of Uganda shows"; as reported by the Uganda Institute of Banking and Financial Services in February 2019. Although improved fraud risk management measures are applied in the commercial banks, fraud risk is still evident in the commercial banking sector leaving a gap for investigation. Lack of clarity for the continued existence of fraud in the commercial banks prompted this study to analyze the relationship between Financial Management Practices and Fraud Risk Management of Commercial Banks in Kampala.

1.3 Research Objectives

To analyze the relationship between financial management practices and fraud risk management among commercial banks in Kampala.

1.3.1 Specific Objectives

i. To examine the relationship between accounting information systems and fraud risk management.
ii. To establish the relationship between financial reporting analysis and fraud risk management.
iii. To identify the relationship between forensic accounting and fraud risk management.
iv. To analyze the relationship between financial management practices and fraud risk management among commercial banks in Kampala.

1.4 Hypotheses

i. There is a relationship between accounting information systems and fraud risk management.
ii. There is a relationship between financial reporting analysis and fraud risk management.
iii. There is a relationship between forensic accounting and fraud risk management.
iv. There is a relationship between financial management practices and fraud risk management.

1.5 Scope of the study

1.5.1 Geographical Scope

The study was conducted in Kampala because that's where most of the banks are found and it is also the axis of Uganda's economic development.

1.5.2 Time Scope

Information related to a period of five financial years (2014 - 2019) was considered in this study anticipating to establish the relationship between the study variables using the most recent facts.

1.5.3 Theoretical Scope

The study was based on the theory according to Boateng et al., 2014; KPMG, 2016; "Thus, an effective business-driven fraud risk management approach is one that is focused on three aspects: detection, prevention, and response" Previous literatures indicated that effective fraud risk management approaches encompass controls and measures that can be grouped into three broad dimensions: preventives, detectives, and responsive measures (ACFE, 2015; Alavi, 2016; Albrecht, Albrecht, Albrecht, & Zimbelman, 2012; Boateng, Boateng, & Acquah, 2014; KPMG, 2016; Zhang, 2012).

1.5.4 Content Scope

The study analyzed the relationship between financial management practices and fraud risk management among commercial banks in Kampala. According to Khan and Jain, "Finance is the art and science of managing money". Financial management practices are defined as the practices performed by the accounting officer, the chief financial officer and other managers in the areas of budgeting, supply chain management, asset management and control (Moore and Reichert, 1989), for the purpose of this study, financial management practices were defined and demarcated as the practices performed by the accounting officer in the areas of Financial Reporting Analysis, Accounting Information Systems and Forensic Auditing.

"Effective fraud risk management approaches encompass controls and measures that can be grouped into three broad dimensions: preventives, detectives, and responsive

measures" (ACFE, 2015; Alavi, 2016; Albrecht, Albrecht, Albrecht, & Zimbelman, 2012; Boateng, Boateng, & Acquah, 2014; KPMG, 2016; Zhang, 2012). Lack of clarity for the continued existence of fraud in the commercial banks prompted this study to analyze the relationship between Financial Management Practices and Fraud Risk Management of Commercial Banks in Kampala.

1.6 Significance of the Study

Findings of this research are important to all stake holders of commercial banks in Uganda such as shareholders, the government of Uganda, Investors and the general public, in bridging the gap between Financial Management and Fraud Risk Management and highlighting more effective, alternative ways of combating and minimizing fraud. It is also useful to future academicians as an addition to the body of knowledge and the researcher will acquire practical skills for carrying out more research in the future. This study is unique and differs from most current research. The study contributes to solving the problem of fraud in the banking sector and highlights measures to improve control in the banks' fraud risk management process.

1.7 Justification of the study

Fraud and its management have been the main factor in the distress of banks, and as much as various measures have been taken to minimize the incidence of fraud, it still rises by the day because fraudsters always devise strategic ways of committing fraud. Modern-day banking involves large volumes of complex data, which makes it difficult to monitor those transactions. Fraud is deleterious especially in developing regions like the countries of Africa (Rossouw, Mulder & Barkhuysen, 2000).

There is no simple and straightforward solution or explanation for fraud (Rossouw et. al. 2000). The banking sector plays a very significant role in the development of any economy (Adeyemo, 2012). Banks in most economies are the principal depositories of the public's monetary savings, the nerve center of the payment system, the vessel endowed with the ability of money creation and allocation of financial resources and conduit through which monetary and credit policies are implemented (Idolor, 2010 and Akindele, 2011). Accounting information systems, financial reporting analysis, forensic accounting among others can be used to successfully investigate and prosecute those individuals involved in criminal activities in the banking sector.

1.8 Conceptual framework

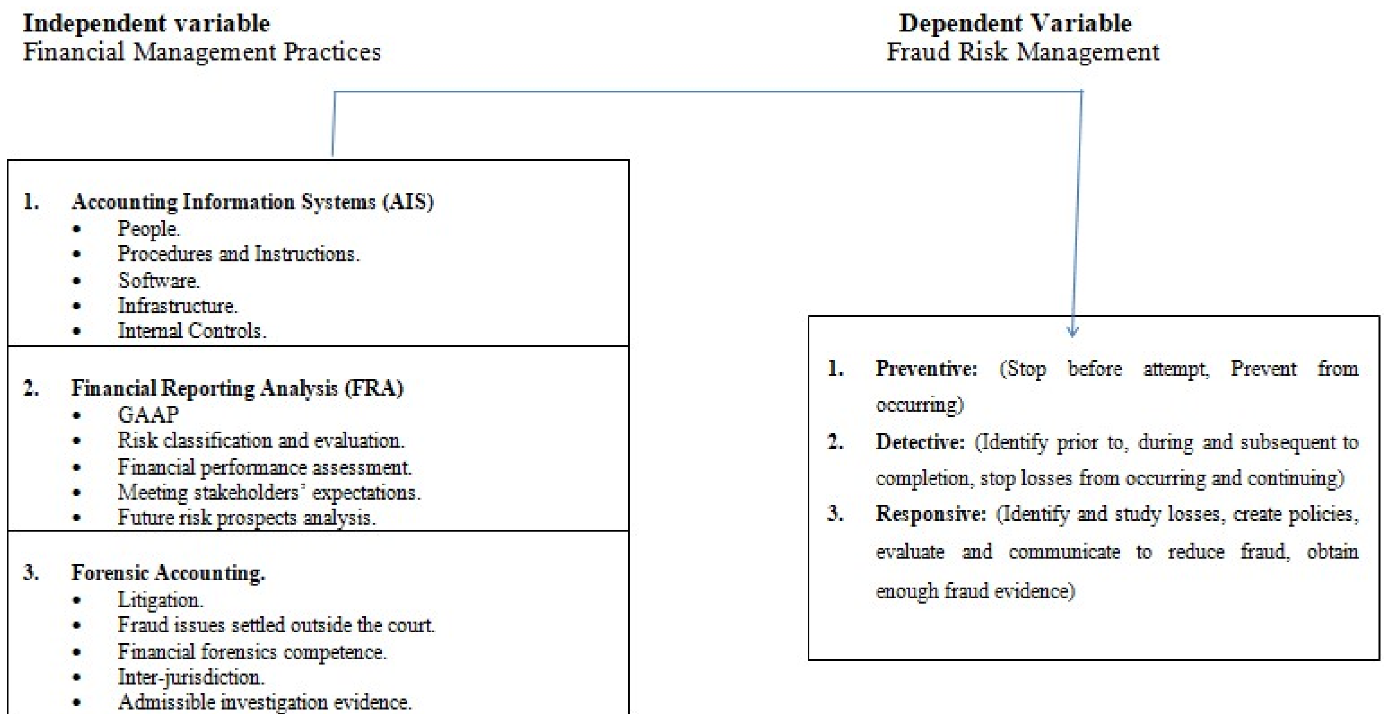

Figure 1:Conceptual Framework of Financial Management Practices and Fraud Risk Management

In this conceptual framework, financial management practices link into each other and eventually transform into fraud risk management. The conceptual framework demonstrated that financial management practices comprise of three components that link into each other that is; Accounting Information Systems, Financial Reporting Analysis and Forensic Accounting and eventually transform into Fraud Risk Management. However at the same time each component of Financial Management Practices directly affects fraud risk management.

For functional Accounting Information Systems (AIS), there are competent people to manage the Accounting Information System, clear procedures and instructions are given to the system users, reliable and cost effective Software is used in the bank, Information Technology Infrastructure is well repaired and maintained, internal Controls exist, are monitored and evaluated regularly. These components, if well utilized, support Fraud Risk Management such that fraud is easily prevented, detected and prompt response taken.

Reliable Financial Reporting Analysis involves, financial statements are accurately prepared in line with GAAP, risk is classified, evaluated and recommendations given for its management, financial performance is assessed as per the bank's required standards, stakeholders' financial expectations are met and analysis of future risk prospects is done for going concern status. Accuracy in analysis is important for effective Fraud Risk Management in a way that facilitates efficient decision making by bank managers. Forensic Accounting mechanisms; the bank uses litigation to manage fraud, the bank prefers to settle fraud issues outside the court, competent accountants are available to handle forensic cases, fraudsters are everywhere, the bank has capacity for inter-jurisdiction and investigation evidence gathered is admissible in a court of law. The level of forensic accounting indirectly affects Fraud Risk Management for example, if fraudsters are genuinely punished, other bank staff may be deterred from getting involved in fraud.

Each component of Financial Management Practices indirectly affects Fraud Risk Management, for example, Accounting Information Systems are used to prevent, detect and promptly respond to fraud, Financial Reporting Analysis facilitates efficient decision making by bank managers and Forensic Accounting is used to ensure that fraudsters are genuinely punished. Therefore, for better Fraud Risk Management; all the three components of the financial management practices must be operational.

II. LITERATURE REVIEW

2.0 Introduction

This section assembles experts' opinions and makes a review of related studies conducted by various scholars on Financial Management Practices and its relevance and contribution to Fraud Risk Management.

2.1 Theoretical Review

Fraud risk management is a framework which enables an organization to have controls that first prevent the fraud from occurring, detect as soon as a fraud happens and respond effectively to fraud incidents when they occur by; relating with clients to design, implement, evaluate ethics and compliance programs and related antifraud programs with controls. Every business is exposed to the risk of fraud; private, public, profit and non-profit, and even religious organization. Fraud can be defined as any action taken to deceive another party to gain benefit (Association of Certified Fraud Examiners (ACFE), 2012). The risk of fraud is in every business and is rampant in both developing and developed nations and differs in its magnitude (Inaya, 2016).

Furthermore, it is also reported that global fraud cases continued to increase every year. For instance, in the United Kingdom cases of fraud increased from 314 cases in 2010 to 354 cases in 2014 (KPMG, 2014a). Likewise in Nigeria, it is reported by the Association of Certified Fraud Examiners (2016) that fraud cases in Nigeria have been on the increase from 21 fraud cases in 2010, to 70 cases in 2016. Seven commercial banks were all closed by the central bank of Uganda; the include, Teefe Bank (1993), International Credit Bank Ltd (1998), Greenland Bank (1999), The Co-operative Bank (1999), National Bank of Commerce (2012), Global Trust Bank (2014) and the sale of Crane Bank Ltd (CBL) to DFCU (2016) which led to the Committee on Commissions, Statutory Authorities and State Enterprises (COSASE) investigation originating from a 2017 forensic Audit Report by the Auditor General on the closure of commercial banks.

These indicate that fraud remains an imminent threat to organizations and this draws the researcher's attention to the growing needs of fraud risk management research and its relationship with financial management practices. The excessive exposure of many financial intermediaries to specific risk profiles, fraud risks in particular, is due to numerous reasons, among which is the proper use of financial management practices. The global financial crisis and corporate scandals of 2008 have highlighted ethical issues in the financial institutions business practices. These have made the concept of risk culture to gain tremendous attention. Levy, Lamarre, and Twining (2010) note that in the aftermath of the 2008 financial crisis, risk culture has been accepted as one of the key contributing factors to the banks collapses.

Pertinent stakeholders, rating agencies, and regulators have conceded that the substantial financial losses incurred by these institutions are due to their weak organizational risk culture which undermined the effectiveness of their risk management frameworks (Wood & Lewis, 2017). The occurrence of substantial corporate scandal cases that triggered the world in recent years, such as those involving Enron in 2001, Parmalat in 2003, Bernie Madoff in 2008, Satyam in 2009, and other giant companies shows that fraud has no boundary. As a result of this menace, in most countries, an organization has been instituted to fight fraud. For instance, in Nigeria, Economic and Financial Crime Commission (EFCC), in Malaysia, Malaysian (C4) Center to Combat Corruption and Cronyism, Anti-Corruption Commission, in India, Serious Fraud Investigation Office (SFIO), in England, UK's National Fraud Authority, and in Arab Gulf region Arab Counter Fraud and Anti-Corruption Commission and in Uganda; The Committee on Commissions, Statutory Authorities and State Enterprises (COSASE). Despite the extensive research on fraud risk management, many studies conducted in the banking sector are not attached to the financial management practices. For instance, Chepkoech and Rotich (2017), Finnerty, Hegde, and Malone (2016), Koong, Liu, Qin, and Tingting Ying (2017),

and Popoola, Che-Ahmad, and Samsudin (2015) all have certain kind of shortcomings such as small sample, convenience samples, limited scope, non-banking sector, addressing issues other than banks' financial management practices, etc.; leaving a gap for this study.

2.2 Fraud

The concept of fraud is found in Greek mythology. Also, some forensic accounting experts believe fraud history can be traced as far back to ancient Egypt to those who took inventory of the pharaohs' valuable assets like grain and gold. Embezzlement and bribes were at least as much a concern in ancient times as today. And the penalties for wrongdoing were often much harsher. For example, in Mesopotamia and Egypt between 3300 B.C. and 3500 B.C., there is archaeological evidence that accountants, or scribes, visually recorded commercial monetary transactions using damp clay tablets or papyrus. To prove records had not been altered, the original document would be enfolded into a clay envelope. Any evidence of tampering would result in an investigation, and any wrongdoing could ultimately result in a fine, or a much worse fate involving mutilation or death (Oyedokun, 2012; Zysman, 2004).

Fraud as a concept has defied all attempts by scholars and policymakers to generate a universal definition. According to the Association of Certified Fraud Examiners (ACFE) (2010), fraud is "the use of one's profession for personal enrichment through the deliberate misapplication or misuse of the employing organization's resources or assets." Similarly, it can also be seen as an act of commission which is planned to cause the illegitimate gain to one person and unfair loss to the other either by the disguise of facts or otherwise (Fynefaceph & Oladutire, 2013). Fraud is perpetrated by organizations and individuals to avoid payment or loss of services; to obtain services, property, or money; to secure personal or business advantage.

Therefore, banking fraud is defined as the use of deliberate misrepresentation to fraudulently obtain assets, money, or other valuable property held or owned by a financial institution. In the perspective of the financial industry and specifically the banking sector, fraud remains a huge issue, especially these turbulent days, mainly driven by the financial crisis (Vousinas, 2016). Also, fraudulent behavior can severely damage a company's reputation, erode shareholder confidence and lead to the collapse of major corporations (O'Reilly-Allen & Zikmund, 2013). The negative economic impact of fraud is more severe in the financial industry than other sectors of the economy. In the banking sector, fraud may cause loss of reputation and lead to loss of potential customers (Vousinas, 2016). In the event of fraud, banks incur substantial operating costs by refunding customers' monetary losses (Gates & Jacob, 2009), while bank customers experience considerable time and emotional losses which damaged a bank-customer relationship because of shattered trust and confidence. This will, in turn, increased dissatisfaction because of a perceived service failure (Hoffmann & Birnbrich, 2012) and may ultimately lead to bank's poor performance and failure.

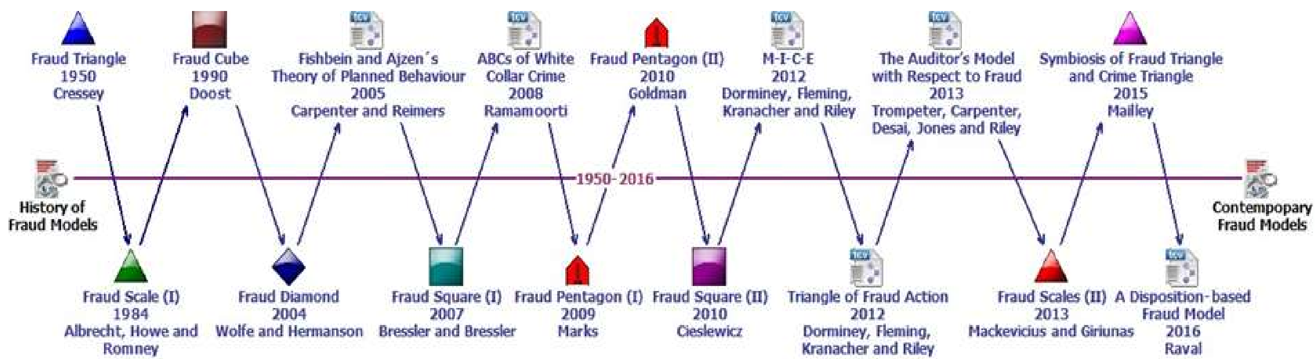

Figure2: The Timeline of the Fraud Models from 1950 to 2016.

Table 1: Chronology and concept of fraud models

No.	Model, Author, (Year)	Concept of the model in comparison with the fraud triangle
1	Fraud Scale (I) Albrecht, Howe and Romney (1984)	Albrecht, Howe and Romney (1984) developed a "fraud scale"relying on two components of the fraud triangle, pressure and opportunity, but replacing rationalization with personal integrity (Free, 2015, p.183)
2	Fraud Cube Doost (1990)	"Underlying this concept is the ideology that there are three dimensions encompassing computer crime – relationship, expertise and motivation" (Tran, 1992, p. 21)
3	Fraud Diamond Wolfe and Hermanson (2004)	In addition to incentive, opportunity, and rationalization, the authors proposed the forth side, which changed the triangle into diamond. Four-sided "fraud diamond" also considers an individual's capability: personal traits and abilities that play a major role in whether fraud may actually occur even with the presence of the other three elements (Wolfe & Hermanson, 2004). "Based on the fraud diamond theory, the person also must have the capability to recognize the open doorway as an opportunity and to take advantage of it" (Ruankaew, 2016, p. 476)

4	Fishbein and Ajzen´s Theory of Planned Behaviour (TPB) Carpenter and Reimers (2005)	"The four dimensions of the TPB are: attitude (toward fraud), subjective norms, perceived behavioural control and moral obligation. The TPB is not a fraud model as such; however, its purpose is to explain any planned, or intentioned, action. Since fraudulent acts are essentially planned behaviours contingent upon the will of the actor, the TPB framework is relevant in financial fraud research (Raval, 2016, p. 2).
5	Fraud Square (I) Bressler and Bressler (2007)	Four elements of the fraud square proposed: incentive, opportunity, capability, and realization (Mackevicius & Giriunas, 2013, p.152).
6	ABCs of White Collar Crime Ramamoorti (2008)	ABC: A – the Bad Apple: individual personality characteristics of those that commit fraud; B – the Bad Bushel: group dynamics of collusive behaviour; C – the Bad Crop: the larger cultural/societal factors that enhance or permit fraud.
7	Fraud Pentagon (I) Marks (2009)	Fraud pentagon consists of five elements: pressure, opportunity, rationalization, competence, and arrogance, where "competence expands on Cressey's element of opportunity to include an individual's ability to override internal controls and social controls to his or her advantage. Arrogance or lack of conscience is an attitude of superiority and entitlement or greed on the part of a person who believes that corporate policies and procedures simply do not personally apply" (Marks, 2009, p. 3).
8	Fraud Square (II) Cieslewicz (2010)	The notion of societal influences added to the fraud triangle (Free, 2015, p.182).
9	Fraud Pentagon (II) Goldman (2010)	Goldman adds the dimensions of personal greed and employee disenfranchisement (Free, 2015, p.182).
10	Triangle of Fraud Action Dorminey, Fleming, Kranacher and Riley (2012)	While the Fraud Triangle identifies the conditions under which fraud may occur, the Triangle of Fraud Action describes the actions an individual must perform to perpetrate the fraud. The three components of the Triangle of Fraud Action are the act, concealment, and conversion. "The act represents the execution and methodology of the fraud, such as embezzlement, check kiting, or material fraudulent financial reporting. Concealment represents hiding the fraud act; examples of concealment include creating false journal entries, falsifying bank reconciliations, or destroying files. Conversion is the process of turning the ill-gotten gains into something usable by the perpetrator in a way that appears to be legitimate; examples include laundered money, cars, or homes. (Dorminey *et al*., 2012, p. 559).
11	M-I-C-E Dorminey, Fleming, Kranacher and Riley (2012)	'M' means 'money', 'I' – 'ideology', 'C' – 'coercion' and 'E' means 'ego' or 'entitlement'. MI-C-E modifies the pressure side of the Fraud Triangle, as it provides an expanded set of motivations beyond a non-shareable financial pressure (Dorminey *et al*., 2012).
12	Fraud Scales (II) Mackevicius and Giriunas (2013)	"The elements of the fraud scales are the following: motives, conditions, capabilities and fulfilment. The first element of the fraud scales is the motive. It determines whether an employee tends to behave unfairly and why. The second element of the fraud scales is the study of the conditions that increase their risk. The third element is the possibilities, which are treated as an option granted to an employee who is hoping to commit a fraud. The fourth element is realization, which is seen as a means by which employees justify unfair behavior" (Mackevicius and Giriunas, 2013, p. 159-160).
13	The Auditor's Model with Respect to Fraud Trompeter, Carpenter, Desai, Jones and Riley (2013)	Is a kind of adopted model of fraud triangle as a pre-fraud state of nature in combination with post-fraud state, which focuses on the specific elements of fraud: the act, the effort to conceal the act and an identification of the benefits that accrue to the fraudster (Trompeter, Carpenter, Desai, Jones, and Riley, 2013, p. 290).
14	Symbiosis of Fraud Triangle and Crime Triangle Mailley (2015)	The Crime Triangle is introduced as a complement to the universally accepted Fraud Triangle. The Crime Triangle's macro view of a fraud event expands the Fraud Triangle's perpetratorcentric (micro) focus to provide a comprehensive perspective of a fraud event (Mailley, 2015, p. 56).
15	A Disposition_based Fraud Model Raval (2016)	"A complete model of human behavior should include the two interacting elements: organism (agent) and environment (context). This model frames financial fraud as an act of indulgence: People commit fraud by indulging in a moral temptation, leading to an intentional act… Thus, the Disposition-based Fraud Model is essentially an interaction between (a) circumstances represented by stimuli that make up the moral temptation on hand, and (b) the actor's character (disposition)" (Raval, 2016, p. 4)

2.2.1 Fraud Risk Management

Managing the risk of fraud requires the same process as managing other business risks. The guidelines on risk management are available in the ISO 31000 (2010) and the COSO framework (2013). Fraud risk management refers to any activities planned and actions taken to minimize risk arising from the potential and actual cases of corporate fraud. The fraud risk management stems from the risk management framework proposed by the Committee of the Sponsoring Organization (COSO). The COSO framework recognizes the fact that all organizations require a formal internal control procedure and recommend that adequate measures are used in evaluating whether objectives are met or not. The COSO framework (2013) under principle 8 outlines four recommendations to mitigate fraud namely: considers various types of fraud, assesses pressures, opportunities, and rationalizations. The recommendations are aligned with the elements of fraud triangle (Mailley, 2015). The organization considers the possibility of fraud in assessing its risks towards achieving its objectives since entities or individuals may act outside of organization's ethical conduct. Therefore, the framework emphasizes compliance and fraud risk to be the new standard for measuring the internal control effectiveness as part of financial year audits. The organization's internal control system needs to be active in adjusting to changes in

regulatory environments, business, and operations (COSO, 2013).

Fraud risk assessment is an integral part of an antifraud program that is based on the COSO framework, which considers the ways that fraud and misconduct can occur by and against the entity. It assists in providing structure to tackling the potential of fraud in a proactive manner, which will also reduce exposure from fraud risk. Additionally, it supplements the internal controls environment in helping to prevent, detect and deter fraud. Organizations are trying to have a proactive strategy to attain higher levels of business integrity through transparency, sound corporate governance, effective and efficient internal control (KPMG, 2014b). Previous literatures indicated that effective fraud risk management approaches encompass controls and measures that can be grouped into three broad dimensions: preventives, detectives, and responsive measures (ACFE, 2015; Alavi, 2016; Albrecht, Albrecht, Albrecht, & Zimbelman, 2012; Boateng, Boateng, & Acquah, 2014; KPMG, 2016; Zhang, 2012). Current researches on fraud and the management of fraud mainly focus on detection and preventive approach. These proactive approaches aim at averting and detecting fraud at an early stage and in line with firm's strategic objectives to tackle the fraud before it occurs. However, responsive measures are no doubt need equal focus to manage residual fraud risks. Thus, an effective business-driven fraud risk management approach is one that is focused on three aspects: detection, prevention, and response (Boateng et al., 2014; KPMG, 2016).

In order to combat bank fraud in the country, a number of approaches needs to be adopted as fraud tends to take different forms which make application of a single approach to combating the vise difficult to commercial banks.

2.2.2 List of statutes applied for fraud risk management in Uganda

- Anti-Corruption (Amendment) Act, 2015
- Anti-Money Laundering Act, 2013
- Bank of Uganda Act, Cap 51
- Computer Misuse Act, 2011
- Constitution of the Republic of Uganda, 1995 as amended
- Contract Act, 2010
- Electronic Signature Act, 2011
- Electronic Transaction Act, 2011
- Financial Institutions Act, 2004
- Foreign exchange Act, 2004
- Micro-finance Deposit taking Institutions (MDI) Act, 2003
- Penal Code Act Cap 120

2.2.3 Preventive fraud risk management

Preventive fraud risk management means avoiding the occurrence of fraud. In other words, it involves the efforts to reduce the frequency of fraud occurrence to zero. Prevention and deterrence measures are less costly than the time and expense required for fraud detection and litigation (Sanusi, Rameli, & Isa, 2015). The best approach to fighting fraud is to prevent it from happening in the first place and preventing it is mostly on improving the key business processes (Albrecht et al., 2012). Prevention of fraud starts with the identification of the weakness in the current systems of an organization and the enforcement of controls if introduced, will reduce the opportunities for fraud and warns potential fraudsters that organization is aggressively monitoring the business and that in turn deters fraud. Therefore, it is imperative to place a strong emphasis on fraud prevention, as it reduces the opportunities for fraud from occurring. However, despite the importance of fraud prevention strategy to organizations, it was reported in a survey of UK FTSE 100 index, that significant number of company surveyed by Button, Gee, and Brooks (2011), 30% did not have a counter fraud strategy.

Various methods of fraud prevention have been proposed by the scholars and professional bodies which if adapted will reduce the occurrence of fraud in an organization. Fraud prevention efforts/activities involve intervention to human, technical, and improving policies of an organization. Employing preventive strategies will prevent bank fraud and preserve the integrity, safety, and authenticity of the financial transactions. Human intervention measures that include surprise audit, fraud prevention training, employee counseling programs, reference checks on employees, review of customers associate, limits and approval authorities, are among the preventive measures of fraud in an organization (Halbouni, Obeid, & Garbou, 2016; N. Omar & Bakar, 2012). In the employee awareness training program, all employees need to be given clear roles and levels and to be familiar with company‘s ethical conduct standards (Freddie Mac, 2016). Other measures include employees' job rotation and engaging more than one person in large-value transactions (Bhasin, 2016). While, the technological methods employed in preventive fraud includes updating the technologies employed periodically, use of transaction limits, control over access to information, fraud hotline, application of security mechanism, virus protection and password protection (Halbouni et al., 2016; M. Omar, Nawawi, & Salin, 2016). KPMG (2006) opined that fraud prevention requires the adoption of a suitable anti-fraud control mechanism which is implemented at the unit, such as access control, implementation and application of security mechanism, and physical security control system.

Establishment of an internal audit or fraud examination department may ensure that the technologies employed are updated periodically, and strict vigil of the working is kept (Bhasin, 2016). In addition, on policy intervention, improving policies of an organization such as reporting policies and procedures employed, and communicate them to employees, anti-fraud policy, fraud vulnerability reviews, whistle-blowing policy, ethics policy, increased the role of audit committee, and imposing a penalty and disciplinary action are among the

effective fraud prevention mechanisms (Halbouni et al., 2016; N. Omar & Bakar, 2012). Fraud prevention may thus entail chances for banks to enhance the relationships with their customers. It gives banks the opportunity to reassure customers' trust in their services (Guardian Analytics, 2011). The financial institution nowadays encountered problems of financial and non-financial, and most are as a result of an ineffective system of fraud prevention such as internal control.

2.2.4 Detective fraud risk management

Fraud detection involves identifying fraud as quickly as possible once it has been perpetrated. Fraud detection strategies are plans implemented to efficiently and promptly identify frauds that have by-passed the preventive measures so that an organization can take proper corrective action (Australian Standard, 2008). Most of the fraud is carried out by insiders as such it takes a longer time to be detected (KPMG, 2017b). Fraud detection which involves mechanisms applicable both at the unit level and bank levels including all controls adopted to mitigate the operational risks that contribute to the detection of potential fraud (Burazeri & Sula, 2015).

Burnaby et al. (2009) [18] in detecting fraud by the organization revealed that review of access control, physical securities and test of controls to the analysis of risk are the most effective means of fraud detection.

However, hotlines, are the only statistically significant control measure of fraud. Also, measure such as regular ethics (fraud) training, external audits and internal audit all reduce fraud losses by detecting fraud when using separately (Chartered Institute of Management Accountant (CIMA), 2008; Dominic & Lanoue, 2015; Halbouni, 2015; Njenga & Osiemo, 2013). Among the essential method of detecting fraudulent transactions is internal control system. This is confirmed from the survey by KPMG in 2013 whom illustrated that the most common detection method is internal control (39%), followed by internal auditor review and employees notification (both 24%), whistle-blowing mechanisms (21%), and tips from an external party (16%). Interestingly, fraud also can be discovered when a company changes the personnel on duty (13%) (KPMG, 2014). An efficient and effective internal control system requires a proper control environment, risk analysis, control proceedings, oversight, and information system. Furthermore, Halbouni et al. (2016) eveal that account reconciliations, electronic surveillance, increased attention of senior management, cash reviews, fraud auditing, internal control review, fraud hotline, fraud detection training, inventory observation, and fraud software are among the effective way of detecting fraud in organizations. However, among the most common method by which fraud is detected is tipped. This can be ascertained from the work of Goldmann and Kaufman (2009)who reported that over 46 percent of identified cases are reported via a tip from an employee, vendor, or another whistleblower.

Despite the importance of fraud detection in organizations, the commitment to countering fraud in most organization is not high enough (Button, Gee, & Brooks, 2011). Many individuals and organizations are reluctant to report frauds, and many also pursue it through the civil courts (Kassem & Higson, 2012). Perhaps most importantly, many frauds are undiscovered and therefore hidden from official returns. Recorded statistics of fraud presented by the police and related bodies only capture the tip of the iceberg (Buton, Gee, & Brooks, 2011).

2.2.5 Responsive fraud risk management

Organizational responses to fraud vary significantly from sector to sector and across countries. According to ACFE (2010), having numerous ways and mechanisms of reporting fraud incidences in an organization leads to effective control of fraud. Organizations should recognize the establishment of fraud response strategy. The tone at the top should define multiple ways of reporting fraud incidences on detection or suspicion (Biegelman & Bartow, 2012). The most effective means of fraud response reported by Kapardis, and Papastergiou (2016) includes internal investigation, referred to the appropriate authority, reviewed by the audit committee, voluntary resignation or retirement, civil action for recovery warning or reprimand, settled before the courts, immediate dismissal, and disciplinary action. Fraud investigation as a response mechanism may involve law enforcement teams and or internal fraud investigators (KPMG, 2006). Biegelman and Bartow (2012) suggest that an organization should be equipped with internal fraud investigators as a response strategy to fraud. It is the mandate of fraud response team to issue preventive and prosecutorial recommendations. Adoption and implementation of the key recommendations remain a daunting task of the top leadership or operational heads (The Institute of Internal Auditors, (IIA, 2007). IIA (2007) further recognizes that most organizations still have challenges implementing actions and recommendations on executives and directors suspected to have perpetrated fraud.

The report of KPMG (2017) revealed that it is essential for an organization to evaluate their risk culture specifically to measure the system of values and behaviors present n an organization that will shape their risk decisions. A good risk culture can be achieved by establishing appropriate risk design, protocol, and strategy (Finucane & Holup, 2005). It must be translated into actions that can ensure the achievement of operational and tactical objectives. Risk culture becomes a basis for allocating risk management accountabilities to business owners throughout the organization. Risk culture should promote operational efficiency at all levels, support performance measurement, accountability, and reward. Ernst and Young (2014); FSB (2014) and IRM (2012) proposed four indicators that should be taken into account in assessing the presence of adequate corporate risk cultures in banks. The indicators are discussed below:

1. The tone from the top: This suggests the essential role played by the board and senior management in the classification of the basic expectations and values concerning corporate risk culture. The behaviors of senior management and board should be persistently aligned with the principles of leading by example. The top management must undertake regular assessments, take control of risk culture, and take care of the promotion to promptly cope with the potential misalignments between principles and behaviors that may occur;

2. Accountability:All employees must be involved in acceptance and understanding the risk approach adopted by the organization; human resources must be aware of the consequences of actions not complying with the rules, as well as capable of acting properly. It is believed that responsibilities of managing risks should be formally added to job descriptions (ownership of risk); Effective communication and challenge: an environment that encourages dialogue, and transparency both vertically (between the management and board, as well as between the staff and management) and horizontally (within the board) is an indicator of sound risk cultures. The mechanisms to facilitate risk communication on the different levels of the organization can have formal (meetings between specific risk-focused committees, people belonging to various functions) or informal characteristics (possibility of direct and immediate contact between risk management functions and line operators when the unexpected situation may occur (raise the hand). In particular, adequate training processes about risk management desired behaviors proved to be an essential tool;

3. Incentives: Proper risk-taking activities largely derive from motivations of individual employees'. They can be encouraged through the use of career advancement, performance assessment, and appropriate remuneration systems. It is rational that these mechanisms should be oriented not to limit itself to the short-term financial results, rather to the long-term interests of the bank and its customers. In operational terms, it would be appropriate that compliance functions and risk management should support the human resource department in the process of assessment, remuneration, employees' promotion, and the recruitment processes, to stimulate their sensitivity to future and current risks;

4. Control Variables:Considering the fact that performance outcomes could be affected by bank-specific characteristics this study introduces size of a bank as a control variable. Previous studies on performance have found that firm size to be a critical firm specific factor that affects the performance of an organization (Ofoeda, 2017; Shin, Sung, Choi & Kim, 2015; Subramaniam & Youndt, 2005). Shin et al. (2015) s used the number of employees a measure of organization's size. The previous findings on the effect of bank size on performance are not uniform. Studies conducted by Ng, Ye, Ong, and Teh (2017); Paul, Devi, and Teh (2012) reported a significant and positive impact of a bank's size on its performance. Conversely, some studies point out that size and performance were closely but inversely related to each other. For instance, studies from Sufian and Chong (2008) for banks in the Philippines show that impact of bank size was negatively related to profitability. This may be due to the fact that once banks have become very large, additional expenses due to some reasons such as an increase in overhead costs and other expenses may lead to negative performance (Nasserinia, Ariff, and Fan-fah, 2017).

In another perspective, Geretto and Pauluzzo, (2015); Levy et al., (2010) suggest main features that should characterize a robust risk culture in the banking sector in the following:

Individual and collective responsibilities: employees should adopt risk management as a direct responsibility and must involve all members of the organization;

The commonality of ethics, values, and purpose: these are traditional characters of the individual or employees that should be aligned with the risk tolerance, approach, appetite, and strategy expressed by the organization;

General application and adoption of risk culture: the risk must be considered at every level of the organization and in any activity, from strategic planning to daily operations;

Understanding the value of effective risk management: employees must be aware of the added value that effective risk management brings to the business organization;

Transparent, timely, and correct communications: employees must be able to discuss openly and transparently about risk, using a common vocabulary that promotes a shared understanding;

The expectation of challenge: employees need to acquire challenging attitudes towards others (even if they are authority figures). The person being challenged must accept the dialogue with a positive approach

Presence of a learning organization: the collective capacity of the organization to effectively manage risks must continuously improve through targeted learning processes;

In 2016, the Committee of Sponsoring Organizations of the Treadway Commission (COSO) released this publication, Fraud Risk Management Guide (guide), which is intended to be supportive of and consistent with the 2013 Framework and can serve as best practices guidance for organizations to follow in addressing this new fraud risk assessment principle. For organizations desiring to establish a more comprehensive approach to managing fraud risk, this guide includes more than just the information needed to perform a fraud risk assessment. It also includes guidance on establishing an overall Fraud Risk Management Program including: Establishing fraud risk governance policies, Performing a fraud risk assessment, Designing and deploying fraud preventive and detective control activities, Conducting investigations, and Monitoring and evaluating the total fraud risk management program.

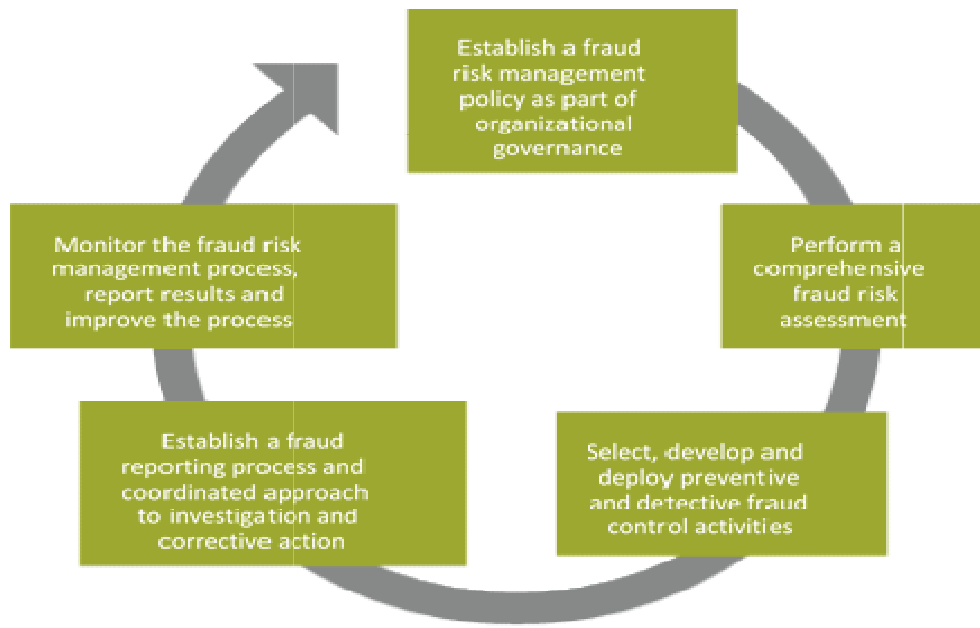

Figure3: ONGOING, Comprehensive Fraud Risk Management Process

Source: COSO/ACFE Fraud Risk Management Guide (2016)

2.3 Financial Management Practices

According to (Moore and Reichert, 1989), financial management practices are defined as the practices performed by the accounting officer, the chief financial officer and other managers in the areas of budgeting, supply chain management, asset management and control. For the purpose of this study, "financial management practices" are defined and demarcated as the practices performed by the accounting officer in the areas of Financial Reporting Analysis, Accounting Information Systems and Forensic Auditing. Accounting Officers must personally give account of all the financial transactions and activities of their departments (Burger & Woods, 2008). The ultimate goal of financial management is to maximize the financial wealth of the business owner(s) (McMahon, 1995). Finance is the lifeblood of business organization. It needs to meet the requirement of the business concern. Each and every business concern must maintain adequate amount of finance for their smooth running of the business concern and also maintain the business carefully to achieve the goal of the business concern. The business goal can be achieved only with the help of effective management of finance.

Finance:Finance may be defined as the art and science of managing money. It includes financial service and financial instruments. Finance also is referred as the provision of money at the time when it is needed.According to Khan and Jain,"Finance is the art and science of managing money".

According to Oxford dictionary, the word 'finance' connotes 'management of money'.

Webster's Ninth New Collegiate Dictionary defines finance as "the Science on study of the management of funds' and the management of fund as the system that includes the circulation of money, the granting of credit, the making of investments, and the provision of banking facilities.

Financial Management: The term financial management has been defined by Solomon, "It is concerned with the efficient use of an important economic resource namely, capital funds". The most popular and acceptable definition of financial management as given by S.C. Kuchal is that "Financial Management deals with procurement of funds and their effective utilization in the business". Howard and Upton: Financial management "as an application of general managerial principles to the area of financial decision-making. Weston and Brigham: Financial management "is an area of financial decision-making, harmonizing individual motives and enterprise goals". Joshep and Massie: Financial management "is the operational activity of a business that is responsible for obtaining and effectively utilizing the funds necessary for efficient operations". Financial management helps to determine the financial requirement of the business concern through:

Acquisition of Funds: Financial management involves the acquisition of required finance to the business concern. Acquiring needed funds play a major part of the financial management, which involve possible source of finance at minimum cost.

Proper Use of Funds:Proper use and allocation of funds leads to improve the operational efficiency of the business concern. When the finance manager uses the funds properly, they can reduce the cost of capital and increase the value of the firm.

Financial Decision:Financial management helps to take sound financial decision in the business concern. Financial decision

will affect the entire business operation of the concern. Because there is a direct relationship with various department functions such as marketing, production personnel, etc.

Improve Profitability: Profitability of the concern purely depends on the effectiveness and proper utilization of funds by the business concern. Financial management helps to improve the profitability position of the concern with the help of strong financial control devices such as budgetary control, ratio analysis and cost volume profit analysis.

Increase the Value of the Firm: Financial management is very important in the field of increasing the wealth of the investors and the business concern. Ultimate aim of any business concern will achieve the maximum profit and higher profitability leads to maximize the wealth of the investors as well as the nation.

Promoting Savings: Savings are possible only when the business concern earns higher profitability and maximizing wealth. Effective financial management helps to promoting and mobilizing individual and corporate savings. Nowadays financial management is also popularly known as business finance or corporate finances. The business concern or corporate sectors cannot function without the importance of the financial management.

2.3.1 Financial Reporting analysis

Financial Reporting analysis in this study focused on; financial statements are accurately prepared in line with GAAP Risk is classified, evaluated and recommendations given for its management, Financial Performance is assessed as per the bank's required standards, Stakeholders' financial expectations are met and Analysis of future risk prospects is done for going concern status. Financial reporting is a vital part of Corporate Governance. Recording and organizing the accounting information systems will not meet objectives unless reports from systems are analyzed and used for making managerial decisions (Gitman, 2011).

Financial statements usually provide the information required for planning and decision making. Information from financial statements can also be used as part of the evaluation, planning and decision making by making historical comparisons (Gitman, 2011). Mona Lebied (2017), in a user's guide; discussed the importance of financial reporting and analysis as one of the bedrocks of modern business. The preparation of the financial statements is the summarizing phase of accounting. A complete set of financial statements is made up of five components: a Statement of Financial Performance/Income Statement, a Statement of Changes in Equity, a Statement of Financial Position/Balance Sheet, a Statement of Cash Flows, and Notes to Financial Statements. These Financial Statements contain five main elements of the entity's financial information; Assets, Liabilities, Equity, Revenue, and Expenses. Below are examples of these elements.

Table 2: Showing the assets, liabilities, Equity, Revenues and Expenses

Assets	Liabilities	Equity	Revenue	Expenses.
Land	Bank Loan	Share capital	Sales revenue	Salaries expenses
Building	Overdraft	Retain earning or retain losses	Interest incomes	Depreciation
Property	Interest payable	Revaluation gain	Dividend received	Interest Expenses
Computer equipment	Tax payable	Dividends payment		Tax expenses
Cash in bank	Account payable			Utility expenses
Cash on hand	Noted payable			Transportation Cost
Cash advance	Borrowing from parent company			Marketing Expenses
Petty cash	Intercompany account payable			Rental Expenses
Inventories	Salary payable			Repair and maintenance
Account Receivables				Internet Fee
Prepaid expenses				Telephone fee
Goodwill				

2.3.1.1 Statement of Financial Performance/Income statement

Income statement is also called as profit and loss account, which reflects the operational position of the firm during a particular period. Normally it consists of one accounting year. It determines the entire operational performance of the concern like total revenue generated and expenses incurred for earning that revenue. Income statement helps to ascertain the gross profit and net profit of the concern. Gross profit is determined by preparation of trading or manufacturing a/c and net profit is determined by preparation of profit and loss account.

2.3.1.2 Statement of Financial Position/Balance Sheet

Also called the Position statement, which reflects the financial position of the firm at the end of the financial year. Position statement helps to ascertain and understand the total assets, liabilities and capital of the firm. One can understand the strength and weakness of the concern with the help of the position statement.

2.3.1.3 Statement of retained earnings

This statement provides information about the changes or position of owner's equity in the company. How the retained earnings are employed in the business concern. Nowadays, preparation of this statement is not popular and nobody is going to prepare the separate statement of changes in owner's equity.

2.3.1.4 Cash Flow Statements

Income statement and position statement shows only about the position of the finance, hence it can't measure the actual

position of the financial statement. Statement of changes in financial position helps to understand the changes in financial position from one period to another period. Statement of changes in financial position involves two important areas such as fund flow statement which involves the changes in working capital position and cash flow statement which involves the changes in cash position.

2.4 Types of Financial Statement Analysis

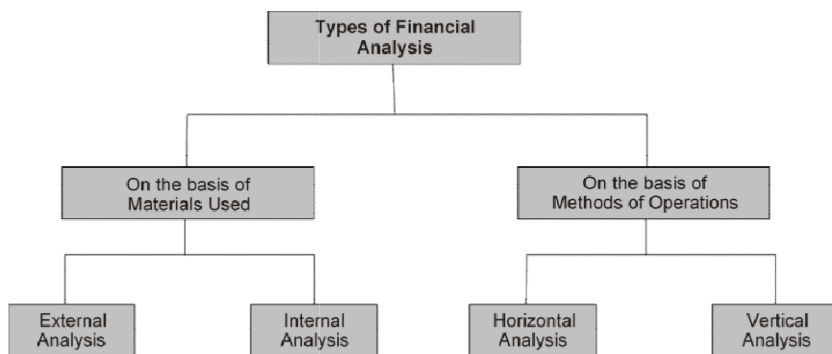

Figure5: Types of financial statement analysis

According to Myres, "Financial statement analysis is largely a study of the relationship among the various financial factors in a business as disclosed by a single set of statements and a study of the trend of these factors as shown in a series of statements". Analysis of financial statement may be broadly classified into two important types on the basis of material used and methods of operations.

1. Based on the material used, financial statement analysis may be classified into two major types such as External analysis and internal analysis.

A. External Analysis: Outsiders of the business concern do normally external analyses but they are indirectly involved in the business concern such as investors, creditors, government organizations and other credit agencies. External analysis is very much useful to understand the financial and operational position of the business concern. External analysis mainly depends on the published financial statement of the concern. This analysis provides only limited information about the business concern.

B. Internal Analysis: The Company itself does disclose some of the valuable information to the business concern in this type of analysis. This analysis is used to understand the operational performances of each and every department and unit of the business concern. Internal analysis helps to take decisions regarding achieving the goals of the business concern.

2. Based on the methods of operation, financial statement analysis may be classified into two major types such as horizontal analysis and vertical analysis.

A. Horizontal analysis:Financial statements are compared with several years and based on that, a firm may take decisions. Normally, the current year's figures are compared with the base year (base year is 100) and how the financial information are changed from one year to another. This analysis is also called as dynamic analysis.

B. Vertical analysis: Financial statements measure the quantities relationship of the various items in the financial statement on a particular period. It is also called as static analysis, because, this analysis helps to determine the relationship with various items appeared in the financial statement. For example, a sale is assumed as 100 and other items are converted into sales figures.

2.5 Techniques of financial statement analysis

Financial statement analysis is interpreted mainly to determine the financial and operational performance of the business concern. A number of methods or techniques are used to analyze the financial statement of the business concern. The following are the common methods or techniques, which are widely used in financial reporting analysis.

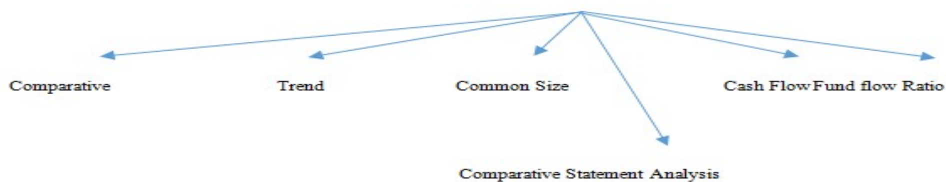

Figure6: Financial Reporting Analysis Techniques

Comparative statement analysis is an analysis of financial statement at different period of time. This statement helps to understand the comparative position of financial and operational performance at different period of time. Comparative financial statements again classified into two major parts such as comparative balance sheet analysis and comparative profit and loss account analysis.

A. Comparative Balance Sheet Analysis: Comparative balance sheet analysis concentrates only the balance sheet of the concern at different period of time. Under this analysis the balance sheets are compared with previous year's figures or one-year balance sheet figures are compared with other years. Comparative balance sheet analysis may be horizontal or vertical basis. This type of analysis helps to understand the real financial position of the concern as well as how the assets, liabilities and capitals are placed during a particular period.

B. Comparative Profit and Loss Account Analysis: Another comparative financial statement analysis is comparative profit and loss account analysis. Under this analysis, only profit and loss account is taken to compare with previous year's figure or compare within the statement. This analysis helps to understand the operational performance of the business concern in a given period. It may be analyzed on horizontal basis or vertical basis.

2. Trend Analysis: The financial statements may be analyzed by computing trends of series of information. It may be upward or downward directions which involve the percentage relationship of each and every item of the statement with the common value of 100%. Trend analysis helps to understand the trend relationship with various items, which appear in the financial statements. These percentages may also be taken as index number showing relative changes in the financial information resulting with the various period of time. In this analysis, only major items are considered for calculating the trend percentage.
3. Common Size Analysis: Another important financial statement analysis techniques are common size analysis in which figures reported are converted into percentage to some common base. In the balance sheet the total assets figures is assumed to be 100 and all figures are expressed as a percentage of this total. It is one of the simplest methods of financial statement analysis, which reflects the relationship of each and every item with the base value of 100%.
4. Funds flow statement: Funds flow statement is one of the important tools, which is used in many ways. It helps to understand the changes in the financial position of a business enterprise between the beginning and ending financial statement dates. It is also called as statement of sources and uses of funds.
5. Cash flow statement: Cash flow statement is a statement which shows the sources of cash inflow and uses of cash out-flow of the business concern during a particular period of time. It is the statement, which involves only short-term financial position of the business concern. Cash flow statement provides a summary of operating, investment and financing cash flows and reconciles them with changes in its cash and cash equivalents such as marketable securities.
6. Ratio analysis: Ratio analysis is a commonly used tool of financial statement analysis. Ratio is a mathematical relationship between numbers. Ratio is used as an index for evaluating the financial performance of the business concern. An accounting ratio shows;
   - Liquidity Ratio: It is also called as short-term ratio. This ratio helps to understand the liquidity in a business which is the potential ability to meet current obligations. This ratio expresses the relationship between current assets and current liabilities of the business concern during a particular period.
   - Activity Ratio: It is also called as turnover ratio. This ratio measures the efficiency of the current assets and liabilities in the business concern during a particular period. This ratio is helpful to understand the performance of the business concern.
   - Solvency Ratio: It is also called as leverage ratio, which measures the long-term obligation of the business concern. This ratio helps to understand, how the long-term funds are used in the business concern.
   - Profitability Ratio: Profitability ratio helps to measure the profitability position of the business concern.

2.6 Accounting Information Systems

The accounting information system is one of the most important systems in any company. Its objective is to provide the needed information to managers at various levels. This information helps them to effectively and efficiently carry out their responsibilities in planning, resource monitoring, performance assessment and decision-making (Saeidi, 2014).

The nature of accounting information is determined as a reliable tool in the use of modern information technology means, which aims at establishing modern accounting information systems; their main role is to improve the usefulness of accounting information (Fuhong, 2012).

From the point of view of Akgün and Kilic (2013), information systems are a system in which data is collected, evaluated and distributed over users when needed, and that is designed to assist the process of decision-making.

Romney and Steinbart (2012) believes that accounting information systems are a system for gathering, recording, storing and processing data to obtain the needed information for decision-making. Knežević and Tepevac (2012) show that an accounting information system is concerned with each of the various business inputs that forms the data that is relied upon in analysis and processing data included in accounting reports, as well as its concern towards the system outputs

represented in the financial statements published and used in the decision-making process by users.

An Accounting Information System (AIS) is generally a computer-based method for tracking accounting activity in conjunction with information technology resources. AIS is responsible for the collection, storage and processing of financial and accounting data that is used for internal management decision making, including nonfinancial transactions that directly affect the processing of financial transactions. Typically an AIS is composed of three major subsystems: Transaction Processing System (TPS) that supports daily business operations, General Ledger System and Financial Reporting System (GLS/FRS) and The Management Reporting System (MRS).

TPS is responsible for supporting daily business operations or transactions. These transactions can be grouped together in three transaction s: the revenue, the expenditure and the conversion. The purpose of the first information systems was to automate business processes, which shows that the accounting domain was one of the very first to use information systems to support its activities. Indeed the era of computer accounting launched with the appearance of the first computers, in particular, with the IBM 702 which became available for accounting use in 1953. Usually seen as a single integrated service, the GLS/FRS are two closely related systems, with the first one dedicated to summarization of transaction activity and the second one to the measurement and reporting of the status of financial resources, generally outputted in the form of financial statements or tax returns to external entities. MRS, in the scope of Management Information Systems (MIS), offers internal management with special purpose financial reports and information needed for decision-making such as budgets, variance reports, and responsibility reports. For almost all professionals from the accounting domain, the main idea about the information system of an organization and particularly an AIS is embraced by the Enterprise Resource Planning (ERP), which encompasses all the essential functions to support an organization and is implemented in almost all large organizations. Current literature is moving away from this established view about AIS domain, considering now a more modular approach to an AIS where new technologies like Business Intelligence (BI) or Balanced Scorecard (BSC) systems play an increasingly important role. The work presented in this paper surged from this idea that there is a huge set of new technologies that can complement or integrate current AIS and its present available facilities.

Accounting information systems assist in the analysis of accounting information provided by the financial statements. Khalid A. Fakeeh (2015) “an Accounting Information System is by and large a PC based system for following accounting activity in conjunction with data innovation assets. Romney et al (2009) purport that the biggest advantage of computer-based accounting information systems is that they automate and streamline reporting. Reporting is a major tool for organizations to accurately see summarized, timely information used for decision-making and financial reporting. Githecha (2014) in his study on the effect of fraud risk management strategies on the financial performance of commercial banks, the correlation analysis showed that technology adoption had the strongest positive Pearson correlation coefficient influence on financial performance of commercial banks. Ngalyuka, (2013) conducted a study to establish the relationship between ICT utilization and fraud losses in commercial banks in Kenya.His main conclusion was that adoption of ICT tends to reduce the chances of Identity theft due to the fact that transactions are online and real time.

2.6.1 Accounting information systems components

Accounting information system is composed of several units, each unit has a specific function. They can be presented as follows (Al-Dahrawi, 2001).

Collecting data unit: This unit collects data from the institution’s surrounding environment. This data is represented in the events and facts that the accountant cares about and considers them important and should be acquired and recorded. The nature of the project’s objectives and the outputs has a great impact over the type of the data collected and recorded in the system, as well as the nature of outputs affects the type of the collected data.

Data operating unit: The collected data by the accounting information system might be used immediately if they were useful for the decision-maker the moment they are collected. But, in most cases, these primary data needs to be operated and prepared to be useful information in the decision-making process, thus it is sent to the storage unit in the accounting information system.

Data storage and retrieval unit: This unit is responsible for storing data in case they were not used immediately and keeping it for future use or to be processed before being sent to decision-makers.

Information delivery unit (information channels): This unit is the mean to transfer and deliver data and information from one unit to another within the accounting information system, until it reaches the makers of administrative decisions. Communication channels might be automatic or manual (monitors or papers) according to the institution’s available means.

When choosing the hardware and software components for the accounting systems, the costs and expenses of such components should be less than the benefit of using the system. Moreover, audit and control members should be knowledgeable of accounting information systems, supporting software, and the used tools because the auditing process will be done through the computer.

Keiso et-al (2010) shows that the quality of accounting information indicates the good performance of the

accounting information system and the appropriateness of the accounting system applied, in order to reach efficiency and effectiveness in the processes and restrictions, continuously, within the company to reach its objectives, protect its assets, serve senior management and help it achieve the maximum productivity, and work to measure the validity of the accounting system. The dimensions of the accounting information quality are determined by:

1. Appropriateness: Means the efficiency of financial statements and reports, and their success in serving their users through their ability to provide adequate and appropriate information to make appropriate decisions, so that this information is recognized for being suitable for decision-making and is presented properly besides its timely availability.
2. Reliability: It is associated with the information integrity and the ability to rely on it. Accounting information is characterized as being reliable or can be relied on if it has the ability to express the veracity of the information, to be free from error and bias, and to represent it fairly and honestly.
3. Consistency or symmetry: This characteristic is realized when the project uses the same accounting treatment for the same event from one period to another without any change.
4. Understandability: Is a qualitative accounting information characteristic that helps a prudent wise user to identify the meaning and importance of financial reporting.
5. Comparability: This characteristic enables users of financial reports to identify similarities and differences between economic phenomena and events. As for the use of an incomparable accounting standard results in increased differences in the expression of economic phenomena and events.

The study of Esmeray (2016) aimed at identifying the impact of the use of accounting information systems on the financial performance of small and medium-sized companies in Turkey. The study of Nwinee, et- al (2016) aimed at identifying the impact of the use of accounting information systems on the organizational effectiveness of small and medium-sized companies in Nigeria. Hezabr & Qatanani (2015) studied the impact of accounting information systems on improving the value chain in companies in the Kingdom of Bahrain. The objective of Rapina's study (2014) was to identify the factors affecting the quality of accounting information systems in Indonesia.

The study of Moqbel (2014) sought to demonstrate the impact of accounting information systems on e-commerce in Jordan.The study of Harash et al (2014) examined the impact of accounting information systems on small and medium-sized companies' performance in Iraq.Rachmawati and Lasniroha (2014) examined the impact of administrative accounting information systems, the quality of accounting information management and the quality of services provided over the users' satisfaction and their effect on Indonesia's decision-making process. These and many other scholars did not research on accounting information systems in relation to fraud risk management thus leaving a gap. Based on this, the following study came to fill the gap existing in the previous studies. Important current tendencies and challenges around accountancy and finance, are respectively linked with some technological approaches with adequate answers to those challenges.

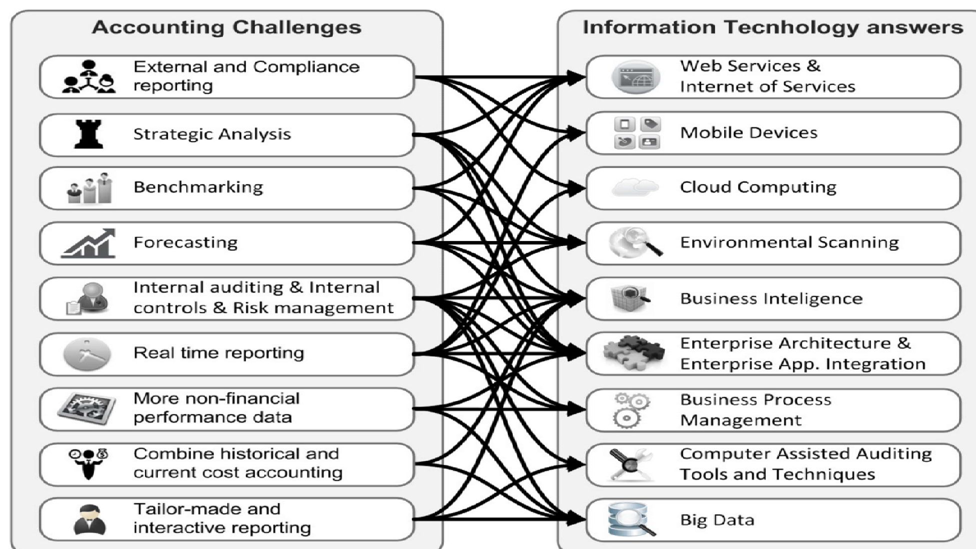

Figure7: Technical approaches to challenges around accountancy and finance.

Source: *Internet.*

2.7 Forensic Accounting

"Forensic" itself means "suitable for use in a court of law". According to ACFE, forensic accounting is the use of professional accounting skills in matters involving potential or actual civil or criminal litigation, including, but not limited to, generally acceptable accounting and audit principles; the determination of lost profits, income assets, or damages; evaluation of internal controls; fraud and any other matter involving accounting expertise in the legal system. Forensic accounting is widely regarded as a specialty practice of accounting, auditing practice where investigative skills are used to analyze information that is suitable for use in a court of law. In support of this, Popoola et al. (2016) Forensic accounting which is sometimes referred to as financial forensic, forensic auditing or investigative accounting is also the "application of investigative and analytical skills for the purpose of resolving financial and accounting matters in a way that the outcome can be used in a court of law". Forensic accounting has also been defined as the action of identifying, recording, settling, extracting, sorting, reporting and verifying past financial data or other accounting activities for settling current or prospective legal disputes or using such past financial data for projecting future financial data to settle legal disputes.

The finding of the study indicates that forensic accounting has a significant effect on reducing financial fraud in corporate organizations. The finding of this study has a positive relationship with the result of Enofe et al. (2013) who also found forensic accounting has the impact of detecting fraud. Another work by Alabdullah, Alfadhl, Yahya and Rabi (2013) also investigate the role of forensic accounting in reducing financial fraud in Iraq. Using correlation research design through administrating interviews and questionnaires. The findings of the study revealed that the forensic accounting method is effective in the control of financial fraud cases. The study also indicates fraud is easy to be narrowed and detected using forensic accounting service. The study further shows the need for forensic accounting investigation as a result of widespread of false accounting information, Weakness in traditional accounting and auditing which limited fraud detection and lack of professional institutions to provide forensic accounting consultation.

Another empirical study by Popoola et al. (2016) examines whether forensic accountants knowledge, skills and competence are basically required for fraud prevention and detection in Nigeria. The findings of the study revealed that forensic accountants have a high level of knowledge, skills, and experience in fraud prevention and detection. The findings of the study highlight the impact and influence of forensic accounting service towards fraud prevention and detection in both public and private organization. In the same context, the study of Suleiman, Othman and Ahmi (2018) analyzed the expert perception on the impact of forensic accounting investigation techniques in mitigating corruption in Nigeria.

Furthermore, a study by Nwaiwu and Aaron (2018) have also documented empirical evidence about the impact of a forensic accounting investigation. The authors found that forensic accounting is the best mechanism for fraud detection and prevention in an organization. Also, the findings of the study show that forensic accounting service improves the company overall performance. Additionally, Akhidime (2018) has also found that forensic accounting service produces appropriate outcomes interms of fraud prevention and detection capability. The study indicates that forensic accounting provides a more desirable process in understanding fraud has occurred. These studies highlighted the needs of forensic accounting investigation towards uncovering fraud issues. Similarly, Mukherjee (2018) examine fraud in banking industries and the role of forensic accounting in India. The study found widespread banking fraud in Indian corporate banking. The study indicates that fraud is a growing concern to the business organization. Furthermore, the study shows that the application of forensic accounting is a much-needed area in reducing and detecting corporate baking fraud and other related fraudulent activities in today's business world.

According to CIMA (2009), and Suleiman et al. (2018), the word fraud usually consists of actions such as partaking in stealing, collusion, money laundering, dishonesty, bribery and extortion, abuse of office, insider trading and misappropriation of the assets. Many of the previous studies recognized that fraud can be reduced through the influence of forensic accounting investigation (Enofe, Okpako, & Atube, 2013; Eliezer & Emmanuel, 2015; Efosa & Kingsley, 2016), Efosa and Kingsley (2016). Furthermore, according to the American Institutes of Certified Public Accountants (AICPA) (2014), forensic accounting investigations considerably provide the following objectives; evaluating the risk of fraud and other illegal acts, assessing the adequacy of the internal control systems, evaluating Company codes of business ethics and conduct and substantive testing of transactions.

Apart from the financial impact on individuals, businesses and governments, there is also a risk of damage to reputation, client confidence and violation of regulations. Organizations who adopt a proactive and counter-response to fraud have a real competitive advantage with tangible and intangible benefits. In this present world, forensic accounting and anti-fraud Organizations are also springing up to educate researchers and professionals on what fraud entails including the tools and the techniques to fight fraud all over the world. It is worthy of mentioning that to prevent and detect fraud, proper understanding of fraud is necessary. It starts from understanding why people commit fraud, knowing the negative effect of fraud, different fraud types, the schemes and their red flags (ACFE, 2018. Albrecht, 2005).

Forensic accountants have been around for nearly 200 years. The earliest reference was found in 1824 in an accountant's advertising circular in Glasgow, Scotland. These special accountants gave testimony in court and in arbitration proceedings. Interest in forensic accounting spread through

the United States and England early in the twentieth century. Forensic accounting is a profession that is evolving but in recent years, financial institutions, police agencies and regulatory authorities have continually increased the use of fraud examiners and forensic accountants. "The American Institute of Certified Public Accountants (AICPA) called forensic accounting one of the "hot" new careers in accounting and indicated that there will be a shortage of fraud professionals in the next decade" Journal of Forensic & Investigative Accounting (2010).

Forensic Accounting is in its current state due to a few factors- one of which is the rise of a new generation of hopeful entrepreneurs and business professionals. With the new reliance on technology, the role of the forensic accountant has expanded into the digital world. Information stored online regardless of the strength of passwords and other security features is always at some level of risk and the modern forensic accountant has evolved their skills to include various methods of investigation that apply to the ever-changing digital world (Dada, Enyi, & Owolabi, 2013). Researches have shown that the need for fraud examiners and forensic accountants are growing as a result of need and demand by stakeholders to have trustworthy financial statements amidst widespread corporate scandals. The increase in white collar crime and the difficulties faced by law enforcement agencies in uncovering fraud have also contributed to the growth of the profession. Many accounting firms believe that the market is sufficiently large to support an independent unit devoted strictly to forensic accounting (Oyedokun, 2017).

Forensic accounting is widely regarded as a specialty practice of accounting, auditing practice where investigative skills are used to analyze information that is suitable for use in a court of law. In support of this, Popoola et al. (2016) consider forensic accounting as a process of using accounting skills and knowledge to investigate fraud or misappropriation of fund and to analyze the financial information for use in legal proceedings. Another empirical evidence documented by Singleton and Singleton (2010) who consider forensic accounting as a form of comprehensive fraud investigation and analyzing anti-fraud control through an audit of accounting records in search of evidence of fraud.

The authors further emphasized that forensic accounting investigation include writing a report to management or court of law to determine certain evidence and the forensic accountant should serve as an expert in a court. In most of the corporate organizations, forensic accounting investigation is widely believed as a mechanism that provides more comprehensive details information concerning financial fraud (Eliezer & Emmanuel, 2015; Efosa & Kingsley, 2016). This indicates that forensic accounting investigation deals with the application and use of accounting knowledge and skills to determine financial facts and evidence to legal problems.

In the same way, the view of Modogu and Anyaduba (2013) consider forensic accounting as the special investigation process through the utilization of accounting skills, auditing skills, and investigative skills to determine the extent of financial fraud in legal matters. The importance of forensic accounting should also consider as details form of investigating fraud and trying to determine why fraud has occurred (Crumbley, 2009). In view of that, the process by which forensic accounting to be conducted is through a forensic accountant. Therefore, a forensic accountant should be a professional accountant with certain knowledge, skills and capability requirement in fraud investigation. Investigation categorized forensic accountants as being trained, knowledgeable and experienced in the various process of fraud investigation procedure (Singleton & Singleton, 2010).

Importantly, most of the previous scholars have acknowledged relevant in accounting knowledge and skills into forensic accounting investigation. For example, the studies of Pedneault, Silverstone, Rudewicz and Sheetz (2012) and Popoola et al. (2016) have emphasized that no fraud investigation should be undertaken without certain accounting knowledge, skills, experienced and basic accounting principle. Forensic accounting investigation reflects the shifting of the scope, characteristics, traits and the skills of the forensic accountants (Popoola et al., 2016). This indicates that a forensic accounting investigation has put the accounting profession go beyond the traditional statutory audit. Oyedokun (2013) once stated that "forensic accounting is a scientific accounting method of uncovering, analyzing, resolving and preventing fraud matters in a manner that is acceptable in the court of law" but is hereby criticized as not covering the intent of forensic accounting and its full scope. Limiting the definition to fraud matter skewed it too close to the meaning of fraud examination or fraud investigation, but he extended the frontiers of knowledge in year 2018 with a comprehensive definition of forensic accounting as "a scientific accounting method of uncovering, analyzing, resolving and preventing fraud and white-collar crime matters in a manner that produces admissible evidence which is capable of proving or disproving facts in issue suitable in the court of law (Oyedokun, 2018). According to Oyedokun (2017), the forensic accounting profession is beginning to see many avenues for additional proficiencies that go beyond skill sets and it plays a crucial role in determining the outcome of courtroom events. Similarly, in his study, Oyedokun (2018) contributed to the existing knowledge in terms of forensics concepts, where new definitions were brought forward as a result of the findings herein.

These are tax accounting, forensic taxation, forensic tax audit, forensic tax investigation, and forensic tax justice among others. Litigation support provides assistance of an accounting nature in a matter involving existing or pending litigation. It deals primarily with issues related to the quantification of economic damages. Investigative accounting is often

associated with investigations of criminal matters (Hecht, & Redmond, 2010; Dada, 2014). A Forensic Accountant must have skills in many areas (Oyedokun, 2018; Okoye, & Gbegi, 2013). However, all well-trained Forensic Accounting should have at least a minimum level of knowledge and skills in the following areas: Auditing skills, Investigative knowledge and skills Criminology, Accounting knowledge, Legal knowledge, Information technology (IT) knowledge and skills, Communication skills, Report Writing Skill.

2.7.1 Components of forensic accounting

There are two major components of Forensic accounting as stated by ICMAI (2014):

1. Litigation services: the litigation service component of forensic accounting recognizes the role of an accountant as an expert consultant.
2. Investigative services: requires the use of forensic accountants' skills and may require courtroom testimony.

Oyedokun (2017) discussed that the components of forensic accounting encompass both litigation support and investigative accounting. Litigation support provides assistance of all nature in a matter involving existing or pending litigation. It deals primarily with issues related to the quantification of economic damages, while investigative accounting is associated with the investigation of criminal matters (Zysman, 2001).

Under litigation support, forensic accountant assists in: Obtaining documents necessary to support or refute a claim, Reviewing the relevant documentation to form an initial assessment of the case in an identified area of loss, Examination for discovering, including the formulation of the act regarding the financial residence and Attendance at the examination for discovery to review the testimony, assist with understanding the financial issues and to formulate additional questions to be asked. While investigative forensic accounting services, on the other hand, Reviews factual situation and provides suggestions regarding possible courses of action, assist with the protection and recovery of assets, coordinate other experts (Zysman, 2001).

2.7.2 Forensic accounting skills

Auditing skills are of paramount importance to the forensic accountant because of the information-collecting and verification nature of forensic accounting. Well-trained forensic accountants must be able to collect and analyze relevant information so that the cases on which they are working will be well supported in court.

Investigative knowledge and skills; such as surveillance tactics and interviewing and interrogation skill, assist the forensic accountant beyond the skills related to auditing and blend the financial and legal aspects of forensics.

Criminology; particularly the study of the psychology of criminals, is important to the forensic accountant because effective investigative skills often rely on knowledge of the motives and incentives experienced by the perpetrator.

Accounting knowledge; helps the forensic analyze and interpret the financial information necessary to build a case in a financial investigation, whether it is a bankrupt setting, a money-laundering operation, or an embezzlement scheme. This includes knowledge of proper internal controls such as those related to corporate governance.

Knowledge of laws and court procedures; enables the forensic accountant to identify the type of evidence necessary to meet the legal standards of the jurisdiction in which the case is to be adjudicated and preserve evidence in a manner that meets the criteria of the court.

Information technology (IT) knowledge and skills; are necessary tools of the forensic accountant in a word filled with paperless crimes. At a minimum, a forensic accountant must know the point at which they should contact an expert in computer hardware or software. Forensic accountants use technology skills to quarantine data, extract data through data mining, design and implement controls over data manipulation, accumulate baseline information for comparison purpose, and analyze data.

Forensic Accountant are usually involved in; assisting in initial fraud discovery, applying commercial knowledge and expertise, providing expert evidence both written and oral. Independent Criminal Investigations, Shareholders' and Partnership Disputes, Personal Injury Claims / Motor Vehicle Accidents, Business Interruption / Other Types of Insurance Claims, Business/Employee Fraud Investigations, Matrimonial Disputes, Business Economic Losses, Professional Negligence, Mediation and Arbitration.

2.7.3 Objectives of forensic accounting

The following are the objectives of forensic accounting as espoused by ICMAI (2014):

- To use the forensic accountant's conclusions to facilitate a settlement, claim, or jury award by reducing the financial component as an area of continuing debate
- To avoid fraud and theft iii. To restore the downgraded public confidence iv. To formulate and establish a comprehensive corporate governance policy
- To create a positive work environment

2.7.4 Differences between Fraud Examination and Forensic Accounting

Table 2: Differences between Fraud Examination and Forensic Accounting

Issue	Fraud Examination	Forensic Accounting
Uses	To determine the perpetrator of fraud	To provide a forensic report that is tenable in a law court.

Scope	It is a restricted and narrow discipline that deals entirely with the issue of fraud	It is a broad discipline with a wide range of issues.
Nature	Reactive	Proactive
Information	It deals with financial and non-financial information.	It focuses mainly on financial information
Nature	It focuses on the past, present and future events	It addresses a past event only
Guidelines	Principle and Rule-Based	Principle-Based
Timing	Historical	Future and Historical

Source: Internet

2.7.5 Forensic terminologies

Forensic:

The word forensic is derived from the Latin adjective "forensis", meaning "of or before the forum." In early Roman times, a criminal charge against a person meant presenting the case before a group of public individuals in the forum.

Forensic Accounting Investigation:

Forensic accounting investigation is an aspect of forensic accounting that refers to the practical steps Certified Fraud Examiners take in order to gather evidence relevant to alleged fraudulent activities.

Forensic Investigation: The utilization of specialized investigative skills in carrying out an inquiry conducted in such a manner that the outcome will have an application to a court of law. A Forensic Investigation may be grounded in accounting, medicine, engineering or some other discipline.

Forensic Audit: An examination of evidence regarding an assertion to determine its correspondence to established criteria carried out in a manner suitable to the court. An example would be a Forensic Audit of sales records to determine the quantum of rent owing under a lease agreement, which is the subject of litigation.

Forensic Auditing: Forensic auditing is an aspect of forensic accounting that applies auditing, accounting and investigative skills to situations that have legal consequences

Investigative Accounting:"Investigative accounting", is often associated with investigations of criminal matters. A typical investigative accounting assignment would be an investigation of employee theft. Other examples include securities fraud, insurance fraud, kickbacks and proceeds of crime investigations.

Litigation Support: "Litigation Support", provides assistance of an accounting nature in a matter involving existing or pending litigation. It deals primarily with issues related to the quantification of economic damages. A typical litigation support assignment would be calculating the economic loss resulting from a breach of contract.

Fraud Examination: According to the Association of Certified Fraud Examiners' Manual, "Fraud examination is the methodology of resolving allegations from inception to disposition including obtaining evidence, interviewing suspects, writing reports and assisting in detection and deterrence of fraud".

Tax Accounting: Tax accounting is the accounting process that focuses on tax issues including the filing of tax returns and planning for future tax responsibilities - as opposed to the preparation of financial statements. Tax accounting is a specialized field of accounting where accountants focus on the preparation of tax returns as well as tax planning for future taxable years while considering the skills in preparation of financial accounting.

Forensic Taxation: Forensic taxation is the application of taxation skills, accounting skills, auditing skills and investigative skills for the purpose of ensuring that the taxes due by taxpayers are adequately assessed, collected, accounted for and that taxpayers remit their tax returns to the tax authorities as at when due in a manner suitable to law.

Forensic Tax Audit: Forensic tax audit is the integration of taxation skills, auditing skills, accounting skills and investigative skills by tax authorities in examining taxpayers' tax affairs, closely and verifying that the income and deductions are accurate stated.

Forensic Tax Investigation: Forensic tax investigation is the application of auditing skills, accounting skills and investigative skills in taxation by tax authorities for an in-depth examination in tax affairs of the taxpayers, in order to uncover and recover tax undercharged in previous years of assessment.

Forensic Tax Justice: Forensic tax justice is the application of taxation and forensic investigative skills in ensuring that those charged with governance of stated are examined with a view to reinstating the utilization of tax revenue in a manner that brings about development in the state.

2.8 Potential Fraud Indicators

Here, we are going to look at the inexhaustible compendium of potential fraud indicators. By potential fraud indicators, we mean warning signs and fraud alerts. Warning signs are signals or indicators that might create an opportunity for fraud in an organization, their presence can create an enabling environment for all kinds of fraud and are usually regarded as potential risks for any business. Fraud alerts, on the other hand, are red flags, the one that signifies that fraud might have probably occurred. Management can only prevent fraud only if they can identify these potential fraud indicators. However, the presence of those symptoms does not in and of itself signify that a fraud is occurring or will occur in the future.

Table 3: Potential Fraud Indicators

Warning Signals	Fraud Alerts/Red Flags
The absence of an anti-fraud policy	Unusual or unexplained increase in expense
Failure to establish or lack of commitment to the internal control system	Rejection of transfers, promotion or other job offers.

Poor documentation of internal controls	Customers with missing data
Low salary levels for employees most especially key and sensitive staff.	The frequent increase over liability limits
An unusual close relationship, for example between employee and third party i.e. vendors.	Problems or delays in providing requested information
Lack of job segregation and the unwillingness of employees to share or delegate duties.	Unusual close association with suppliers
Lack of management supervision of staff	Disqualification of suitable tenderers.
Poor documentation and implementation of internal controls.	Short invitation to tender list
Unusual staff behavior patterns	Violation of GAAP
Breaches in data security and privacy	Irregular or poorly explained management activities.
Loss of sensitive data and business information	Unchanging list of preferred suppliers.
Significant changes in customer demand	Alteration or suppression of documents and records
Unauthorized access to systems by employers or third parties.	An unusually large volume of transactions with a particular vendor.
Poor recruitment process of employees	The discrepancy between earnings and lifestyles
Bonus schemes linked to unrealistic targets	Addiction to drugs, alcohol or gambling
Presence of disgruntled staff in the organization	An unexplained change in certain relationship or ratio trends e.g. revenue grows but account receivable does not.
Employees not taking or complying with annual leave requirements	Unusual close association with suppliers.
The strained relationship between management and staff	Confirmation letters not returned or sighted
Poor physical security of assets	Unexplained fluctuations in stock account balances, inventory variances and turnover rates
The existence of complex transactions	Transaction initiation without approval
Poor documentation of transactions	Controls or audit logs being switched off
The existence of the personal or corporate guarantee	Unusual, irrational or inconsistent behavior.
The possibility of unauthorized transactions	Inappropriate or unusual journal entries.
Management overriding established controls	Extensive use of suspense account
Inadequate staffing for strategic and sensitive functions	Missing approvals or authorization signatures

Source: Internet

A forensic accountant can ensure the integrity and transparency of financial statements by actively investigating for fraud, identifying areas of risk and associated fraud symptoms and a good fraud prevention program can help to create a positive working environment where employees do not indulge themselves to abuse their responsibilities. So, by helping companies to prevent and detect fraud the forensic accountants can help to establish a comprehensive corporate governance policy (Davis, & Farrell, 2009).

However, none of these researchers addressed the variables in this particular study which focused on Financial Management Practices (Independent Variable) defined and demarcated as the practices performed by the accounting officer in the areas of Accounting Information Systems, Financial Reporting Analysis, and Forensic Auditing and Fraud Risk Management (Dependent Variable) in commercial banks in Kampala. This research gap prompted the researcher to investigate and give a report based on the findings of the study.

III. METHODOLOGY

3.0 Introduction

The chapter entails the research design, target population, sample size and sampling strategies, data collection, instruments and analysis procedures are discussed in addition to the limitations or factors that could affect the representativeness of the findings.

3.1 Research Design

According to Oso and Onen (2008) a research design is an outline of how an investigation is carried and indicates how data was collected, what instruments were used, and how the data was used. This study employed a multi-research design. Exploratory study which provided essential background information preceding the descriptive study. According to Gossa (2016), research classification means understanding of a specific kind of research that was used. This study used a highly descriptive and explanatory research whose process was made easy with the use of questionnaires and interview guides as instruments of data collection. The exploratory research design was imperative, to grasp a better understanding of fraud risk management in the study context based on actual, current and relevant information.

Two techniques of descriptive research exist: cross sectional and longitudinal. Cross sectional studies collect information from a given sample of the population at only one point in time, while the latter deals with the same sample units of the population over time (Sarantokos, 2005). The cross sectional study design also referred to as a sample survey was used in the study; this type of research design aids the collection of a large amount of data from a large number of respondents in a highly fast and economical way. It is critical in determining the quality of research.

The study adopted the primary source of data and secondary data was collected and used for other purposes than the specific study; it was documented in the form of reports, books, journals and the internet. In order to get an overview of the subject and ideas on how to carry out the study, the researcher started by using secondary sources such as books, articles and the internet. The theoretical part of this study therefore included books and articles by many different authors. The questionnaire and interview guide were the research instruments engaged. The questionnaire was designed using the five point likert scale and it was divided

into six sections with each section comprising questions on each of the objectives.

3.2 Research Approach

According to Kothari (2008), this means the development of a theory or a pattern of meaning on the basis of the data that they have collected. Given that this study is concerned with the relationship between financial management practices and fraud risk management, therefore the study used the both positivist view which is quantitative in nature and interpretivist which is qualitative in nature.This study was guided by the philosophy of social sciences. Different points of view concerning the most appropriate philosophical position have been the substance of debate to date. As a result within management and organizational studies two schools of thought or inquiry paradigms, that is the logistical positivism and the phenomenological schools have emerged. Most fraud risk management studies adopt the positivistic approach.

According to Saunders (2003), research strategy is a general plan that helps the researcher in answering the research questions in a systematic way. As such, the study was done in commercial banks in Kampala. This helped the researcher to find detailed information in relation to the research topic.

The study focused on five financial years, from 2014 to 2019 and data was collected at one single point in time. The researcher believed that this is enough time to gather reliable information about the research variables. More so, it was imperative to investigate extensively about Forensic Accounting being a relatively new phenomenon in Uganda's banking industry.

3.3 Study Area

The study was done within 24 commercial banks at their main branches all located in Kampala. ABC Capital Bank Limited, Bank of Africa Uganda, Barclays Bank of Uganda Limited, Bank of Baroda Uganda Limited, Bank of India Uganda Limited, Cairo International Bank Limited, Centenary Rural Development Bank Limited, Citibank Uganda Limited, Guaranty Trust Bank / GT Bank (Uganda), DFCU Bank Limited, Diamond Trust Bank Uganda Limited, Ecobank Uganda Limited, Equity Bank Uganda Limited, Fina Bank Uganda Limited, Finance Trust Bank, Housing Finance Bank Limited, Imperial Bank Uganda Limited, KCB Bank Uganda Limited, NC Bank Uganda Limited, Orient Bank Limited, Stanbic Bank Limited, Standard Chartered Bank Uganda Limited, Tropical Bank Limited, United Bank for Africa (Uganda) Limited.

3.4 Study population

According to Ngechu (2004), a population is a well-defined set of people, services, elements, and events, group of things or households that are being investigated. A population of 24 licensed commercial banks regulated by the Bank of Uganda was the unit of analysis in this study.

3.5 Sampling design

3.5.1 Sample Size

A sample of 24 Commercial banks were selected and considered appropriate for this study according to the Krejcie and Morgan table (1970). Stratified random sampling was used whereby commercial banks were represented by a sample of their main branches all located in Kampala.The unit of inquiry included; Accounts, Finance, Audit, Risk and Branch Managers who are well informed about the variables in this study. 5 respondents were purposively selected from each main branch of the 24 sampled banks totaling to 120 respondents.

Table 4: Purposively selected respondents from each of the 24 commercial banks in Kampala.

Item	Unit of inquiry	Accountant	Finance Manager	Auditor	Risk Manager	Branch Manager
1	ABC Capital Bank Limited	1	1	1	1	1
2	Bank of Africa Uganda	1	1	1	1	1
3	Barclays Bank of Uganda Limited	1	1	1	1	1
4	Bank of Baroda Uganda Limited	1	1	1	1	1
5	Bank of India Uganda Limited	1	1	1	1	1
6	Cairo International Bank Limited	1	1	1	1	1
7	Centenary Rural Development Bank Limited	1	1	1	1	1
8	Citibank Uganda Limited	1	1	1	1	1
9	Guaranty Trust Bank / GT Bank (Uganda),	1	1	1	1	1
10	DFCU Bank Limited	1	1	1	1	1
11	Diamond Trust Bank Uganda Limited	1	1	1	1	1
12	Ecobank Uganda Limited	1	1	1	1	1
13	Equity Bank Uganda Limited	1	1	1	1	1

14	Fina Bank Uganda Limited	1	1	1	1	1
15	Finance Trust Bank	1	1	1	1	1
16	Housing Finance Bank Limited	1	1	1	1	1
17	Imperial Bank Uganda Limited	1	1	1	1	1
18	KCB Bank Uganda Limited	1	1	1	1	1
19	NC Bank Uganda Limited	1	1	1	1	1
20	Orient Bank Limited	1	1	1	1	1
21	Stanbic Bank Limited	1	1	1	1	1
22	Standard Chartered Bank Uganda Limited	1	1	1	1	1
23	Tropical Bank Limited	1	1	1	1	1
24	United Bank for Africa (Uganda) Limited.	1	1	1	1	1

3.5.2 Sampling Procedure

The researcher used purposive sampling to select respondents who have information on the study variables in the sampled commercial banks.Commercial banks staff who have financial management experience ranging from one year and above were selected. Five copies of the questionnaire and 5 copies of the interview guide were administered to each of the twenty four commercial banks giving a total of 120 copies of the questionnaire and 120 copies of the interview guide administered in totality. Questionnaires and Interview guides were administered to respondents who in this case were; Accounts, Finance, Audit, Risk and Branch managers of these selected banks. Out of the 120 distributed questionnaires, 120 usable questionnaires were returned giving a response rate of 100% which was acceptable for the study according to Sekaran (2003).

3.6 Data Collection Methods

A researcher is expected to adopt the most appropriate approach for their study (Babbie, 2014). Both primary and secondary data were used in the study. Qualitative research aims at gathering an in-depth understanding of the 'why' and 'how' of decision making. Since qualitative research usually involves a small but focused sample group, data collected can vary considerably. This is the reason why the role of the researcher in qualitative research is vital. Data collected through qualitative research cannot always be put into a context that can be graphed or displayed as a mathematical term. Quantitative research on the other hand seeks to measure and analyze data in a mathematical manner. The subject at hand in quantitative research is usually familiar. The target research group can be quite large, depending on the research topic and purpose of the study. Glenn (2010) Data was collected by use of primary and secondary sources for both the qualitative and quantitative approaches. Quantitative data from primary sources was obtained by administering questionnaires while for qualitative data it was by interviewing of key informants by use of interview guide which helped in getting narrative statements that were common base for reaching conclusions as they provided collaborative evidence on data obtained from questionnaires. The face sheet was used to gather data on commercial banks.

3.7 Measurement of Variables

A questionnaire was used to examine the different variables under study and the respondents were required to state the degree to which they agree with the statements. The scoring guide with options for rating the responses were as follows; 1=Strongly Disagree, 2=Disagree, 3=Average level of approval, 4=Agree, 5=Strongly Agree. The likert scale has the following advantages: (1) It is a relatively quick method of collecting information and the responses are gathered in a standardized way, (2) Questionnaires are relatively easy to construct and responses can be collected from a large proportion of a sample. (3) It gives participants a wide range of choices which makes them feel more comfortable in responding to questions. Cooper and Schindler (2003). From the conceptual framework, a functional relationship between Financial Management Practices and Fraud Risk Management was developed as shown below:

3.8 The model specification

Fraud Risk Management = IFS = $\alpha_0 + \beta_1 FPDDS + \beta_2 FAIIS + \beta_3 LMAS + \mu_0$

Dependent Variables

Y = Fraud Risk Management

Therefore $Y = y_1 + y_2 + y_3$ (Dependent Variables)

Where:

Y = Fraud Risk Management

Y_1= Prevention

Y_2 = Detection

Y_3 = Response

Independent Variables

X = Financial Management Practices

Where:

$X = X_1 + X_2 + X_3 + \mu$ (Independent Variables)

X_1 = Financial Reporting Analysis (FRA)

X_2 = Accounting Information Systems (AIS)

X_3 = Forensic Accounting (FA)

f = Functional dependency of the relationship

μ = Random Variable (error term) which stands for other possible factors of concern left out in this regression model. In estimating the extent to which the dependent variable (Fraud Risk Management) can be predicted by the independent variables (X_1, X_2 and X_3), the error term is assumed to be constant. The model assumes that all variables positively influence the dependent variable.

3.9.1 Validity of the Instrument

Cook and Campbell (1979) define validity as the "best available approximation of the truth or falsity of a given inference, proposition or conclusion". In short validity determines whether the instrument truly measures what it was intended to measure or how truthful the results are.A pre-test was done to assess the validity of the questionnaire. For content validity the researcher devised questionnaire was reviewed by content experts such as professors, associate professors, and senior lecturers (based on their experience). Necessary adjustments were done following the supervisor's views and recommendations to ensure clarity, relevance, specification and logical arrangement. Content validity of the two instruments was also ensured through use of valid concepts which measure the study variables. Variables were measured using the likert scale, valid research instrument were reviewed by content experts and adjustments done as per their recommendations. Reliability of the instruments was tested with the Cronbach's Alpha using the SPSS package. The content validity results were obtained and for all the constraints were above 0.7 as recommended by (Sekaran, 2000).

3.9.2 Reliability of the Instrument

According to Shanghverzy (2003) reliability refers to the consistency of measurement and is frequently assessed using the test–retest reliability method. Reliability is increased by including many similar items on a measure, by testing a diverse sample of individuals and by using uniform testing procedures. Cronbach's alpha (Cronbach, 1951) determines the internal consistency or average correlation of the items in the survey. The alpha coefficient ranges between 0 and 1 and may be used to describe the reliability of factors extracted from dichotomous (that is questions with two possible answers and/or multipoint formatted questionnaires). Cronbach's alpha was used to test the reliability of the instruments using SPSS. Andy Field (2013), in Discovering Statistics using IBM SPSS Statistics, quoted that Nunnaly (1978) and Grayson (2004) recommend a cut-off coefficient point of 0.7 to be an acceptable reliability coefficient. Any question with an alpha above 0.7 will be retained and considered reliable. All questions in this study had a reliability coefficient of 0.7 and above as shown in table 1 below; they were therefore retained and considered reliable.

Table 5: Reliability of the Instrument

Variable	Cronbach's Alpha	Number of items
Causes of Bank Fraud	.889	11
Types of Fraud	.805	23
Accounting Information Systems	.831	10
Financial Reporting Analysis	.700	5
Forensic Accounting	.750	5
Fraud Risk Management	.720	7
Preventive Fraud Risk Management Practices	.857	12
Detective Fraud Risk Management Practices	.759	15
Responsive Fraud Risk Management Practices	.806	9

3.10 Data Gathering Procedures

Before the administration of the questionnaires: An introduction letter was obtained from the school of graduate studies and research of Team University for the researcher to solicit approval to conduct the study from respective commercial banks in Kampala. The researcher secured a list of the qualified respondents from the selected commercial banks and selected them through purposive sampling to arrive at the minimum sample size. The respondents were briefed about the study and were requested to sign the informed consent form. The researcher reproduced enough questionnaires for distribution and selected research assistants who assisted in data collection, briefed and oriented them in order to be consistent in administering the research instruments.

During the administration of the questionnaires: The respondents were requested to answer completely and not to leave any part of the questionnaires unanswered. The researcher and assistants emphasized retrieval of the questionnaires within two weeks from the date of distribution. On retrieval, all returned questionnaires were checked for quality, content and usability as per the purpose of this study.

After the administration of the questionnaires: The raw data was cleaned, sorted and condensed into systematically comparable data. Data cleaning involved cross checking of collected questionnaires for errors before data entry. The data gathered was encoded into the computer and statistically treated using the statistical package for social sciences (SPSS). Data on completed questionnaires was edited categorized and summarized using tables. The frequency counts and percentage distributions were used to determine the profile of the respondents. The SPSS Package was used to

determine Means and standard deviations for the degree of financial management practices and fraud risk management. An item analysis based on mean scores, standard deviation and ranks reflected the strengths and weaknesses of Commercial banks in terms of financial management practices and fraud risk management. From these strengths and weaknesses, the recommendations were derived.

3.11Data Analysis

Data analysis is the process of organizing, summarizing and making data clear and meaningful (Mugenda, 1999). The findings in this study are based on the study hypotheses which included; significant influence of financial management practices on fraud risk management; accounting information systems, financial reporting analysis and forensic accounting andhow they significantly affect fraud risk management. The variables were measured using a five point Likert scale and the results presented in item means of responses under each variable.

The results are further explained using correlation in order to show relationships between the study variables whereas, to study the predictive power of the dimensions of financial management practices on fraud risk management (accounting information systems, financial reporting analysis and forensic accounting) on fraud risk management, a regression analysis was carried out. The results from the quantitative source are compared with qualitative ones. Statistical tables were used for easier understanding and interpretation of the results of this study.

3.12 Ethical Considerations

According to (Creswell, 2012) a researcher is expected to observe ethical principles throughout the study. To ensure confidentiality of the information provided by the respondents and ascertain the practice of ethics in this study, the following activities were implemented by the researcher: The respondents and institutions were coded to ensure their anonymity, permission was solicited through a written request to the sampled commercial banks, and respondents were requested to sign the informed consent form voluntarily. Intellectual property and authorship was acknowledged through citations and referencing, findings were presented in a generalized manner adhering to requirements in the Team University Graduate Handbook.

3.13 Limitations of the study

For the purpose of this study, “financial management practices” are defined and demarcated as the practices performed by the accounting officer in the areas of Accounting Information Systems, Financial Reporting Analysis and Forensic Auditing only.

Previous literatures indicated that effective fraud risk management approaches encompass controls and measures that can be grouped into three broad dimensions: preventives, detectives, and responsive measures (ACFE, 2015; Alavi, 2016; Albrecht, Albrecht, Albrecht, & Zimbelman, 2012; Boateng, Boateng, & Acquah, 2014; KPMG, 2016; Zhang, 2012). This study considered only the preventive, detective and responsive components of fraud risk management.

In view of the following threats to validity, the researcher claimed an allowable 5% margin of error at a 0.05 level of significance. Measures are also indicated in order to minimize if not to eradicate the threats to the validity of the findings of this study. There were extraneous variables beyond the researcher’s control such as; respondents’ honesty, personal biases and uncontrolled setting of the study. The study was largely quantitative, cross sectional and limited to Kampala. This study was limited to the requirements of Team University Graduate Handbook.

Fraud risk management in commercial banks is very volatile since fraudsters change their tactics with the new and improved technology. New fraud risks and fraud risk management measures were not represented in this study.

IV. PRESENTATION, ANALYSIS AND INTERPRETATION OF RESULTS

4.0 Introduction

This chapter presents the findings of the study in accordance with the research variables and research questions of the study. It gives the demographic characteristics of the respondents, descriptive and factor analysis, correlation statistics and regression analysis. The variables included financial reporting analysis, accounting information systems forensic accounting, and fraud risk management.

The presentation was guided by the following objectives;to examine the relationship between accounting information systems and fraud risk management, to establish the relationship between financial reporting analysis and fraud risk management and to identify the relationship between forensic accounting and fraud risk management.

4.1 Background Information

In this study, the profile information about commercial banks was established. The three background variables being; position in the bank, Level of education and number of years worked as indicated in table 6.

In this study, the profile information about commercial banks was established. The three background variables being; position in the bank, Level of education and number of years worked as indicated in table 6.

Table 6: Background Information

(N=120)	Variable	Frequency	Percent
Position in the bank	Strategic	35	29.2%
	Tactical	68	56.7%
	Operational	13	10.8%
	others	4	3.3%

Level of Education			
	Certificate	1	0.8%
	Diploma	18	15%
	Degree	83	69.2%
	Masters	18	15%
Years worked			
	1-5 years	69	57.5%
	6-10 years	45	37.5%
	11-15 years	1	0.8%
	Above 15 years	5	4.2%

Source: Primary

Position in the Bank: Table 6 shows that most of the respondents are in the tactical level of management (56.7%), followed by strategic level (29.2%), operation (10.8%), and only 3.3% represented other positions. This shows that the respondents where well informed and therefore provided reliable information relating to the variables in this study.

Education level: As seen in the table above, most of the respondents had a bachelor's degree (69.2%). Followed by masters (15%), diploma (15%). This shows that respondents had the required level of education to understand instruments used to collect data for this research.

Number of years in the organization: As in the table above, most of the respondents have worked in the organization for 1-5 years (57.5%), followed by 6-10 years (37.5). This generally shows that the respondents' were experienced enough to give appropriate answers to the questions in the research instruments used for this study.

4.2 Descriptive Analysis of the Causes of Fraud

Respondents were requested to reveal the major causes of fraud in the Commercial banks where they are employed. These causes of fraud were ranked as shown in the table 7 below.

Table 7: Descriptive analysis of Causes of Fraud

Variable (N=120)	Mean	Std. Deviation
Greed	4.22	.712
Poor Record keeping	3.53	1.243
Poor Internal Controls	3.58	1.261
Inadequate staffing	3.29	1.239
Inadequate training and retraining	3.67	1.246
Poor salaries	3.86	1.204
Lack of appropriate punishment to fraudsters	3.78	1.146
Lack of reporting mechanism	3.60	1.103
Disgruntled Staff	3.82	1.051
Intelligent staff who want to check whether controls are existing	3.78	1.090

Source: Primary

The descriptive analysis of the causes of fraud as shown in table 3 shows that the most common causes of fraud include; greed (Mean=4.22, SD=.712). Poor salaries (Mean=3.86, SD= 1.204). Disgruntled staff (Mean=3.82, SD=1.051), and lack of appropriate punishment for fraudulent staff (Mean=3.78, SD =1.146). The results show that the common causes of fraud to watch out for are greed, poor salaries, disgruntled staff, and less or no punishment for fraudulent staff. It is therefore important to detect greed of staff, pay staff appropriate salaries and ensure that there are laws in place to handle fraudulent people. Research shows that there is not a single financial organization that is immune to fraud, and that the typical organization loses 5-7% of its annual revenues to fraud (Samociuk, Iyer & Doody, 2010).

4.2.1 Descriptive Analysis of the Types of Fraud

Respondents were requested to reveal the common types of fraud in the Commercial banks where they are employed. Their responses are represented in table 8 below.

Table 8: Descriptive Analysis on the types of Fraud

Variable (N=120	Mean	Std. Deviation
Cheque kiting	3.81	.964
Forgery and altered Cheque	4.46	.580
Accounting fraud	3.94	.905
Uninsured deposits	3.55	1.044
Demand draft fraud	3.57	1.207
Rogue traders	3.67	1.007
Fraudulent loans	3.89	1.019
Fraudulent loan applications	4.04	.902
Forged or fraudulent documents	4.08	.862
Wire transfer fraud	4.06	.910
Bill discounting fraud	3.67	1.015
Payment card fraud	3.73	1.012
Booster Cheque	3.63	1.062
Stolen payment cards	3.68	1.012
Duplication or skimming of card information	3.53	1.053
Empty ATM envelope deposits	3.77	.923
Impersonation	3.77	.968
Stolen checks	3.66	1.000
Prime bank fraud	3.62	1.108
The fictitious 'bank inspector'	3.87	.978
Phishing and Internet fraud	3.96	.893
Money laundering	4.06	.892

Source: Primary

The descriptive analysis of types of fraud as shown in table 4 show that the most common type of fraud include; forgery and altering cheques (Mean=4.46, SD=.540). Forging of fraudulent documents (Mean=4.08, SD=.862). Wire transfer

fraud (Mean=4.06, SD=.910), and money laundering (Mean=4.06, SD =.892). The results show that types of fraud to watch out for are forged cheques and documents, wire transfer fraud, and money laundering.

4.3Descriptive Analysis of Financial Management Practices

Respondents were requested to reveal the financial management practices of the commercial banks where they are employed and they responded as shown in the table below.

Table 9: Descriptive Analysis of Financial Management Practices

Variable (N=120	Mean	Std. Deviation
Accounting Information Systems		
There are competent people to manage the Accounting Information System	4.18	.635
Clear procedures and instructions are given to the system users	4.19	.598
Reliable and cost effective Software is used in the bank	4.17	.714
Information Technology Infrastructure is well repaired and maintained	4.20	.681
Internal Controls exist, are monitored and evaluated regularly	4.18	.710
Financial Reporting Analysis		
Financial statements are accurately prepared in line with GAAP	4.34	.558
Risk is classified, evaluated and recommendations given for its management	4.42	.681
Financial Performance is assessed as per the bank's required standards	4.17	.763
Stakeholders' financial expectations are met	3.92	.975
Analysis of future risk prospects is done for going concern status	4.18	.886
Forensic Accounting		
The bank uses litigation to manage fraud	4.01	.783
The bank prefers to settle fraud issues outside the court	3.57	1.326
Competent accountants are available to handle forensic cases	4.17	.827
Fraudsters are everywhere, the bank has capacity for inter-jurisdiction	4.03	.939
Investigation evidence gathered is admissible in a court of law	3.68	1.159

Source: Primary

The descriptive analysis of financial management practices as shown in table 5 show that; accounting information system is important if Information Technology Infrastructure is well repaired and maintained (Mean=4.20, SD=.681). Financial reporting analysis mainly helps as financial management practices if risk is classified, evaluated and recommendations given for its management (Mean=4.42, SD=.681), and forensic accounting is important most especially if competent accountants are available to handle forensic cases (Mean=4.17, SD =.827). The findings show that forensic accounting must be considered by mangers for better financial management practices. These results explain the quantitative interpretation/representation of a behavioral phenomenon; financial management practices.

4.3.1 Factor analysis of financial management practices

Table 10: Factor Analysis of financial management practices

Item/Factor	Accounting Information system	Financial Reporting analysis	Forensic Accounting
There are competent people to manage the Accounting Information System	.666		
Clear procedures and instructions are given to the system users	.481		
Reliable and cost effective Software is used in the bank	.640		
Information Technology Infrastructure is well repaired and maintained	.745		
Internal Controls exist, are monitored and evaluated regularly	592		
Financial statements are accurately prepared in line with GAAP		0.531	
Risk is classified, evaluated and recommendations given for its management		0.404	
Financial Performance is assessed as per the bank's required standards		0.726	
Stakeholders' financial expectations are met		0.739	
Analysis of future risk prospects is done for going concern status		0.78	
The bank prefers to settle fraud issues outside the court			0.526
Competent accountants are available to handle forensic cases			0.582
Fraudsters are everywhere, the bank has capacity for inter-jurisdiction			0.623
Investigation evidence gathered is admissible in a court of law			0.753
Eigen Value	2.335	2.128	2.175
Variance (%)	46.703	42.557	43.505
Cumulative variance (%)	46.703	42.557	43.505

Source: Primary

Results in table 10 revealed the factor structure for financial management practices. In their order of importance; accounting information system (Eigen value = 2.335, Variance = 46.703%), forensic accounting (Eigen value = 2.175, Variance = 43.505%), and financial reporting analysis (Eigen value = 2.128, Variance = 42.557). The results show that for better fraud risk management, accounting information systems must be in place, and this is followed by proper and continuous forensic audits, and finally ensuring that financial reporting analysis is done. This means that every organization must have a better accounting system for better fraud risk management. Factor analysis was done to find the order of importance of the independent hidden variables of financial management practices.

4.4 Descriptive analysis of fraud risk management

Table 11: Descriptive analysis of fraud risk management (preventive, detective and responsive)

Variable (N=120)	Mean	Std. Deviation
Fraud is stopped before it is attempted.	4.64	.197
Fraud is prevented from occurring.	3.85	.932
Fraud is identified prior to, during, subsequent to its completion.	3.83	.914
Losses due to fraud are stopped from occurring or continuing.	3.84	1.037
Losses that occurred are identified and studied.	4.02	.850
Policies are created, evaluated, communicated to reduce fraud.	4.11	.877
Enough evidence relating to fraudulent activities is obtained.	4.13	.744

Source: Primary

The descriptive analysis of detective fraud risk management as shown in table 7 show that; stopping fraud before it is attempted is very important in fraud risk management (Mean=4.64, SD=.197). Obtaining enough evidence relating to fraudulent activities (Mean=4.13, SD=.744). Creating policies, evaluating, and communicating them (Mean=4.11, SD=.877), and identifying and studying the losses that occur (Mean=4.02, SD =.850). The results show that fraud risk management mainly helps in stopping the risk before it occurs, identifying and studying the losses that occur, and creating policies, evaluate, communicated to reduce fraud. This means that every fraud risk management process must try to stop the fraud before it is attempted.

4.4.1 Factor analysis of fraud risk management

Table 12: Factor analysis of Fraud risk management

Item/Factor	Fraud Risk Management
Fraud is stopped before it is attempted.	0.96
Fraud is prevented from occurring.	0.702
Fraud is identified prior to, during, subsequent to its completion.	0.638
Losses due to fraud are stopped from occurring or continuing.	0.675
Losses that occurred are identified and studied.	0.836
Policies are created, evaluated, communicated to reduce fraud.	0.831
Enough evidence relating to fraudulent activities is obtained.	0.773
Eigen Value	*3.075*
Variance (%)	*43.927*
Cumulative variance (%)	*43.927*

Source: Primary

Results in table 12 revealed the factor structure for fraud risk management. The results show that fraud risk management mainly helps in stopping the risk before it attempted, identifying and studying the losses that occur, and creating policies, evaluate, communicated to reduce fraud. This means that every fraud risk management process must try to stop the fraud before it is attempted. Fraud risk management was broken in seven major constraints of preventive, detective and responsive fraud risk management. This section concentrates on describing the level of these seven constraints as perceived by the commercial banks' staff. Results show the level of importance for each of the variables in the fraud risk management process of the sampled commercial banks.

4.4.2 Descriptive Analysis of Preventive Fraud Risk Management Practices

Table 13: Descriptive Analysis of Preventive Fraud Management

Variable (N=120)	Mean	Std. Deviation
Fraud risk assessment program.	4.10	.715
Board, audit committee and senior management oversight	4.13	.898
Use of information technology to prevent fraud.	4.15	.729
Establishment of strong internal controls	4.18	.718
Establishment of effective code of conduct and related standards	4.18	.895
Specific and General training	4.23	.877
Employment Screening	4.16	.799
Surprise audits	4.21	.798
Reward for whistle blower	4.18	.682
Fraud Department	3.98	.907
Antifraud policy	4.01	.835
Employee support program	4.00	.850

Source: Primary

The descriptive analysis of preventive fraud risk management practices as shown in table 9 shows that; specific and general training is very important in preventive fraud risk management practices (Mean=4.23, SD=.877). Surprise audit is also crucial in preventive fraud risk management practices (Mean=4.21, SD=.798). Establishment of strong internal controls (Mean=4.18, SD=.718), reward for whistle blowers (Mean=4.18, SD=.682), and establishment of effective code of conduct and related standards (Mean=4.18, SD =.895). The findings show that it is important to conduct both specific and general training in in order to prevent fraud risk, other factors that the managers should consider include; surprise audits, establishment of strong internal controls, reward for whistle blowers, and establishment of effective code of conduct and related standards.

4.4.3 Descriptive Analysis of Detective Fraud Risk Management Practices

Table 14: Descriptive Analysis of Detective Fraud Risk Management Practices

Variable (N=120)	Mean	Std. Deviation
Monitoring systems designed to detect fraud	4.13	.849
External audits	4.32	.745
Management review	4.22	.871
Account reconciliation	4.26	.692
Confessions	4.06	.910
Proactive data analysis	4.13	.721
Fraud risk awareness training.	4.18	.840
Performance appraisal on fraud prevention.	4.18	.816
Whistleblowing hotline	4.17	.718
Internal tip-off	4.13	.784
External tip-off	4.16	.756
Law enforcement investigation	4.22	.758
Job rotation	4.15	.827
Internal audit	4.23	.530
Corporate security	4.11	.776

Source: Primary

The descriptive analysis of detective fraud risk management practices as shown in table 10 show that; external audits is very important in detective fraud risk management (Mean=4.32, SD=.745). Conducting internal audit is also very crucial in detective fraud risk management practices and hence in fraud risk management (Mean=4.23, SD=.530). Accounts reconciliation (Mean=4.26, SD=.692), management review (Mean=4.22, SD=.871), and law enforcement investigation (Mean=4.22, SD =.758). The findings show that external audits is very important in detective fraud risk control, other factors that the managers should consider include; conducting internal audits, performing accounts reconciliation, management review, and law enforcement investigation.

4.4.4 Descriptive Analysis of Responsive Fraud Risk Management Practices

Table 15: Descriptive analysis of Responsive Fraud Risk Management Practices

Variable (N=120)	Mean	Std. Deviation
Conducting internal investigation	4.23	.590
Progressive sanctions	4.02	.869
Disclosing the results of internal investigations to the regulator	4.16	.722
Prosecution of the offender	4.05	.887
Remedying the harm caused	4.06	.853
Strengthening controls	4.27	.914
Communicating to the employees that management took appropriate action	4.08	.894
Public disclosure of fraud and misconduct	4.16	.767
Recovery of the stolen funds	4.07	.790

Source: Primary

The descriptive analysis of responsive fraud risk management practices as shown in table 11 show that; Strengthening controls is very important in responsive fraud risk management (Mean=4.27, SD=.914). Conducting internal investigations is also very crucial in responsive fraud risk management practices and hence in fraud risk management (Mean=4.23, SD=.590). Disclosing the results of internal investigations to the regulator (Mean=4.16, SD=.722), Public disclosure of fraud and misconduct (Mean=4.16, SD=.767), and communicating to the employees that management took appropriate action (Mean=4.08, SD=.894). The findings show that strengthening controls is very important in responsive fraud risk control, other factors that the managers should consider include; conducting internal investigation, disclosing results from internal investigation both internally and in public, and communicating to the employees that the management took appropriate decision.

4.5 Correlation analysis of financial reporting analysis, accounting information systems, forensic accounting, and fraud risk management

Table 16: Correlation Analysis

No	Variable (N=120)	1	2	3	4
1	Accounting Information Systems	1			
2	Financial Reporting Analysis	.406**	1		
3	Forensic Accounting	.519**	.326**	1	
4	Fraud Risk Management	0.153	.186*	.403**	1
	** Correlation is significant at the 0.01 level (2-tailed).				
	* Correlation is significant at the 0.05 level (2-tailed).				

Source: Primary

Objective One: Relationship between accounting information systems and fraud risk management

According to table 16, there was a relative relationship between accounting information systems and fraud risk management ($r = .153$, $p<.01$). This implies that for any fraud risk management accounting information systems may help to reduce the risk.

Objective Two: Relationship between financial reporting analysis and fraud risk management

Findings in table 16 show a significant relationship between financial reporting analysis ($r = .186$*, $p<.01$). This implies that fraud risk management can be managed well through risk analysis.

Objective Three: Relationship between forensic accounting and fraud risk management

Table 16 shows a positive significant relationship forensic accounting and fraud risk management (r = .403**, p<.01). This implies that with forensic accounting, risk of fraud can be well managed.

4.6 General Objective: Regression analysis of financial reporting analysis, accounting information systems forensic accounting, and fraud risk management.

Table 17: Regression Analysis

	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	1.101	1.169		0.949	0.345
Accounting Inform Systems	-0.310	0.301	-0.106	-1.030	0.305
Financial Reporting Analysis	0.229	0.240	0.089	0.953	0.343
Forensic Accounting	0.844	0.196	0.430	4.303	0.000
R Square	.174		F Statistic		8.821
Adjusted R Square	.152		Sig.		.000

Source: Primary

The findings in table 17 showed that fraud risk management was significantly influenced by the forensic accounting (beta = .430, p<.01). Other factors such as Accounting Inform Systems (beta = -.106, p = .305), Financial Reporting Analysis (beta = .089, p=.343), also slightly contribute to fraud risk management. This therefore implies that financial management practices and fraud risk management of commercial banks must consider forensic accounting as very crucial in fraud risk management. For every 1-unit increase in the predictor variable, the outcome variable will decrease by the beta coefficient value.

Table 18: Anova Relationship between financial management practices and fraud risk management

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	35.513	3	11.838	8.121	.000b
	Residual	169.082	116	1.458		
	Total	204.595	119			
a. Dependent Variable: Fraud Risk Management						
b. Predictors: (Constant), Forensic Accounting, Fraud Risk Analysis, Accounting, Information System Source: Primary						

The F statistic in ANOVA table (table 14) is significant (F=8.121, sig =.000) which is an indication of a significant linear relationship between financial management practices and fraud risk management.

Table 19: Anova Relationship between Accounting Information Systems and Fraud risk management

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	16.499	20	0.825	10.755	0.000b
	Residual	7.594	99	0.077		
	Total	24.093	119			
a. Dependent Variable: Fraud Risk Management						
b. Predictor: Accounting Information System						

Source: Primary

The F statistic in ANOVA above is significant (F=10.755, sig =0.000) which is an indication of a significant linear relationship between accounting information systems and fraud risk management.

Table 20: ANOVA Relationship between Financial reporting analysis and Fraud Risk management

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	16.299	20	0.850	6.040	0.000b
	Residual	13.925	99	0.141		
	Total	30.917	119			
a. Dependent Variable: Fraud Risk Management						
b. Predictor: Financial Reporting Analysis						

Source: Primary

The F statistic in ANOVA above is significant (F=6.040, sig =0.000) which is an indication of a significant linear relationship between financial reporting analysis and fraud risk management.

Table 21: Relationship between forensic accounting and fraud risk management

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	35.438	20	1.772	9.969	0.000^{b}
	Residual	17.597	99	0.178		
	Total	53.035	119			
a. Dependent Variable: Fraud Risk Management						
b. Predictor: Forensic Accounting						

Source: Primary

The F statistic in ANOVA above is significant (F=9.969, sig =0.000) which is an indication of a significant linear relationship between forensic accounting and fraud risk management

4.7 Qualitative analysis

Table 22: Qualitative analysis of qualitative data collected from 120 respondents.

1	**What other financial management practices do you recommend for fraud risk management?**	• Use the right sources of finance; securities, shares, Retained earnings, Loans. • Proper capital management; Fixed and working capital • Use the right capital structure • Minimize the cost of capital • Leverage • Ensure proper dividend decisions are taken by the bank managers • Pay particular attention to Capital budgeting • Efficient accounting and Finance information systems
2	**How are employees and customers of the bank informed about changing trends of fraud?**	• SMS fraud alerts on customers' phones • Toll free lines to call in case of fraud • Training bank employees to inform and guide customers in case of fraud. • Through articles in the media
3	**Is reward of staff or customers part of the bank's policy to frustrate fraud?**	• 60% - Agreed • 40% - Policy but not done.
4	**What are the new developments in the bank's fraud risk management process?**	• Multi-Factor Authentication / Multi-layered security structure • Aggressive monitoring of bank transactions like batch limits • Daily reconciliation of corporate accounts and transactions for recall or reversal of a fraud transaction. • Dual to triple controls such as One person creates the transaction, a second person approves it and the third person actually sends the transaction followed by a call to confirm that the correct information was received. • Raise customer fraud awareness • Combat fraud through integration of technology • Use sanction screening for Money laundering to lower false alerts, avoid compliance fines and catch fraudsters ready handed. • Analyze data for patterns to manage workplace fraud. • Use more advanced algorithms to separate acceptable and potentially fraudulent credit card transactions. • In mobile banking, check out for remote deposit capture (RDC) which allows remote scanning and deposit of a cheque through encrypted internet connection. • Involve mobile devices as part of the authentication systems. • Use software with deep learning algorithms for sophisticated systems that can match sequences and identity recognition in many ways.
5	**Are fraudsters punished to prevent others from engaging in fraud?**	• 50% agreed • 30% did not know • 20% said no.
6	**Is it possible to have a fraud free environment in the bank?**	• 90 % No. • 10% only for a limited time while fraudsters devise new and better ways of attacking.
7	**At what stage of the fraud risk management cycle is fraud usually identified in this bank?**	• 60% - Detection Stage – Fraud has already occurred • 30% - Prevention Stage – Stop before it happens • 10% - Response Stage – One fraud case triggers off others.
8	**Mention one major cause of fraud in your bank.**	• Greed - 40% • Poor Internal Controls - 20% • Poor salaries - 30% • Others – 10%
9	**Mention the major constraints to fraud risk management in the bank.**	• Opting to settle fraud cases outside the court for fear of reputational damage • No system of internal control can absolutely work against fraud • Improved and readily accessible information technology • Volatility of fraudsters' measures • Complexity of the transactions • Poor ethics – Fraudsters perceived as brilliant individuals
10	**Does the bank have enough competent personnel to manage the risk of fraud?**	• Yes 70% • No – 30% Otherwise, why would fraud still happen at such high rates even when the causes, types and trends of fraud are known?

Other than the variables studied, government policies, literacy level, and area of specialization were some of the other variables mentioned by respondents for further research in fraud risk management.

Qualitative data also emphasized that customers and employees need to be informed about the changing trends of fraud in a timely and consistent manner. The study recommended anti-fraud hotlines and workshops as some of the ways through which this can be achieved.

Most of the respondents interviewed agreed that reward of staff or customer should be part of the banks' policy to frustrate fraud and enhance fraud risk management awareness to the general public.

The study indicates that banks are in a better position to manage the fraud risk if strong controls are integrated with new and improved information technology infrastructure.

Several fraud cases as quoted in the contextual background of this study were also references as evidence that bank fraudsters are punished to prevent others from engaging in bank fraud.

The study confirmed several other studies which indicate that it is not possible to have a fraud free environment in the commercial banks.

Fraud is usually identified at the detective stages of the fraud risk management and the major causes of fraud in commercial banks include the fact that it is difficult to detect and there are possibilities of personal gains.

Most respondents agreed that banks have enough competent personnel to manage the risk of fraud. However they also suggested that it is important to detect gaps in the anti-fraud controls and always investigate cases of alleged or confirmed fraud for better fraud risk management.

Major constraints to fraud risk management in the bank were identified as conflict of interest, strategic personnel and corruption.

Conclusively, the qualitative analysis results show that it is important to study bank fraud cases in order to detect the gap, and to inform the bank staff about the frauds, there should be workshops and anti-fraud documentation circulated. It's also very important to identify fraud in the early stages in order to avoid any risks that may result from the delays.

V. DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

5.0 Introduction

This chapter presents the discussion of the findings, conclusion, and the recommendations of the study. As indicated, the research evaluated the relationship between accounting information systems, financial reporting analysis, forensic analysis, and fraud risk management.

The discussion was guided by the objectives and research questions stated in chapter one of this report. The study aimed at getting answers to research questions referred to above. Guidance was derived from analysis of recognized scholars in the area of fraud risk management. The research was guided by the following objectives;to examine the relationship between accounting information systems and fraud risk management, to establish the relationship between financial reporting analysis and fraud risk management and to identify the relationship between forensic accounting and fraud risk management.

5.1 Discussion of major findings

The findings of this report indicated that; of the 120 respondents, 56.7% were in the tactical level of management, 69.2% had a bachelor's degree and 57.5% had worked in the bank for 1-5 years. The respondents were well versed with the information required for this study. Descriptive Analysis showed that; Greed was the most common cause of fraud, forgery and altering cheques was the most common type of fraud.

Four hypotheses were formulated and tested using simple regression at a significant level of 5%, Independent T-test and Oneway Anova. Correlation findings revealed a positive significant relationship between; accounting information systems and fraud risk management ($r = .153$, $p<.01$), financial reporting analysis and fraud risk management ($r = .186^*$, $p<.01$) and forensic accounting and fraud risk management ($r = .403^{**}$, $p<.01$). Regression analysis showed that fraud risk management was strongly influenced by forensic accounting (beta = 0.430, $p<.01$), followed by financial reporting analysis (beta = 0.089, p=0.343) and accounting information systems (beta = -0.106, p = 0.305). Holding forensic accounting and financial reporting analysis constant, a unit change in accounting information systems will reduce or decrease fraud risk management.

The F statistic in ANOVA table 14 was significant (F=8.121, sig =0.000) indicating a significant linear relationship between financial management practices and fraud risk management. The F statistic in ANOVA table 15 is significant (F=10.755, sig =0.000) which is an indication of a significant linear relationship between accounting information systems and fraud risk management. The F statistic in ANOVA table 16 is significant (F=6.040, sig =0.000) which is an indication of a significant linear relationship between financial reporting analysis and fraud risk management. The F statistic in ANOVA table 17 is significant (F=9.969, sig =0.000) which is an indication of a significant linear relationship between forensic accounting and fraud risk management.

The model specification summary for accounting information systems, financial reporting analysis, and forensic accounting was 15.2% (Adjusted R square= 0.152) predictive potential for fraud risk management. The regression model was significant (sig. <.000) and therefore fit for the study. The remaining 84.8% change in predictive potential for fraud risk management can be attributed to other factors not covered in this model. This signifies, however, the existence of low explanatory power between the independent and dependent variables.

5.2 Conclusion

The study aimed at evaluating the relationship between financial management practices; accounting information systems, financial reporting analysis, forensic analysis, and fraud risk management. The research also aimed at responding to the gap in the scholarly work in the area of fraud risk management. The inferential statistical data analysis provided evidence of existing relationships amongst the variables. The nature of bank fraud trend has become more complex with the development and innovation of technology that makes detecting and combating of the bank fraud more complex even the existing legal framework further exposes that bank fraud is more committed in connivance with the bank staff which implies that legal, policies and rules on bank staff needs to be strengthened.

5.3 Recommendations

There are different types of fraud. Bank managers should be able to tell the major types of fraud in their particular banks in order to effectively and efficiently manage the fraud risk.

Causative factors of fraud vary from bank to bank. Bank managers need to pay attention to the causes of fraud and address them to enhance proper fraud risk management.

Commercial banks should consider proper accounting information systems management such that; there are competent people to manage the accounting information system, clear procedures and instructions are given to the system users, reliable and cost effective Software is used in the bank, information technology infrastructure is well repaired and maintained and internal controls exist, are monitored and evaluated regularly.

Adoption of new and improved accounting information systems should be combined with strong fraud risk controls to boost fraud risk management such that a unit change in accounting information systems will positively influence fraud risk management.

Effective financial reporting analysis measures should be incorporated into the bank's fraud risk management process. These include; accurate preparation of financial statements in line with GAAP, risk classification, evaluation and recommendations for its management, assessment of financial performance as per the bank's required standards, ensuring that stakeholders' financial expectations are met and analysis of future risk prospects for the bank's going concern status.

Forensic accounting is important in fraud risk management for commercial banks in Kampala. This can be achieved through using litigation to manage fraud, having competent accountants to handle forensic cases, ensuring that the bank has capacity for inter-jurisdiction and investigation evidence gathered is admissible in a court of law. Preference to settle fraud cases outside the court had the lowest descriptive mean; banks should avoid it.

The weak predictive potential relationship between financial management practices and fraud risk management in commercial banks can be improved by further research using more or even different financial management predictors.

Fraud risk management calls for strategized efforts from all levels of staff. Fraud occurs due to loopholes in the controls of banking activities, hence, concerted efforts to address the weaknesses in the internal control systems should be enhanced to include advancement of information technology applications, for instance by utilizing automated risk screening system.

It is impossible to achieve zero fraud risk in the banking institutions. Fraudsters will always find their ways and there is no guarantee that fraud can be eradicated even with the most advanced information technology applications. There is no single known remedy of eradicating bank frauds. However, customers and banks must exercise due care whenever handling cheques. While the customers must exhibit due diligence, the banks too ought to have robust systems / procedures, policies and guidelines in place to mitigate frauds

Banking institutions staff should take heed of the lessons learned from previous fraud occurrences and execute the preventive measures in their daily course of work. Senior management should be the advocators that push the importance of the staff to properly assess fraud risk. Every fraud is unique in itself, but the fraudsters can never be too smart.

5.4 Suggested Areas for Further Research

The study revealed empirical evidence of the existence of a relationship as mentioned in the preceding chapters. This evidence is apparent in the correlation and regression coefficients derived in the study as shown in tables 12 and 13. It is therefore, recommended that further research be conducted on the effect of other financial management practices on fraud risk management.

This study was conducted using qualitative and quantitative approach, additional research efforts like longitudinal evidence might enhance the understanding of the causality and the interrelationships between variables that are important in fraud risk management. Similar studies may also be carried out in other organizations in other sectors other than Commercial banks in Kampala or elsewhere.

The current study exhausted all measures of fraud risk management in commercial banks in Kampala. Prospective researchers may wish to adopt other studies to find out factors that affect fraud risk management of commercial banks in Uganda and elsewhere other than financial management practices, for example; Corporate Governance, Area of Specialization, Financial Literacy Levels, Fraud Awareness Training, Risk Management Training.

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REFERENCES

[1]. ACFE, 2015; Asia-Pacific Fraud Conference, Singapore

[2]. ACFE, 2018. Albrecht, 2005). The international journal of business & management. ProQuest LLC, 789 East Eisenhower Parkway, PO Box 1346, Ann Arbor, Michigan.

[3]. ACFE, (2018) Fraud risk management Summit: Overview: The United States of America, New York.

[4]. AICPA (2014). Forensic accounting-fraud investigation. Retrieved from https://www.aicpa.org/membership/downloadabledocuments/forensic-accounting-fraud investigations-chapter1.pdf

[5]. Ajzen, I. (1985). From intentions to actions: A theory of planned behavior. In J. Kuhl & J. Beckmann (Eds.), Action control: From cognition to behavior. Berlin, Heidelber, New York: Springer-Verlag.

[6]. Akhidime, A. E. (2018). Bridging audit expectation gap with the integration of forensic accounting: A review. Aefunai Journal of Accounting, Business, and Finance.

[7]. Alabdullah, T. T. Y., Alfadhl, M. M. A., Yahya, S., & Rabi, A. M. A. (2013). The role of forensic accounting in reducing financial corruption: A study in Iraq. International Journal of Business and Management.

[8]. Albrecht, C. C., Albrecht, W. S., & Dunn, S. G. (2001). Can auditors detect fraud? A review of the research evidence. Journal of Forensic Accounting.

[9]. Albrecht, W., Howe, K. and Romney, M. (1984), Deterring Fraud: The Internal Auditor's Perspective. Institute of Internal Auditors Research Foundation, Altamonte Springs, FL.

[10]. Albrecht, W.S., Albrecht, C.C., Albrecht, C.O., Zimbelman, M.F., 2012. Fraud Examination (4th Ed.). Mason: Thomson South-Western Publishing.

[11]. Al-Jabari, M. (2014) The Relationship between the Information Systems of Accounting,

[12]. Alleyne, P. and Howard, M. (2005), "An exploratory study of auditors' responsibility for fraud detection in Barbados", Managerial Auditing Journal, Vol. 20 No. 3.

[13]. Andy Field (2013), Andy Field (2009) Discovering Statistics Using SPSS. Sage Publications Ltd., London.

[14]. Bank of Uganda, (2018) Financial Stability Report. Issue No. 10

[15]. Beck, T and Hesse H. (2006) "Bank Efficiency, ownership and market structure: Why are Interest Spreads so high in Uganda?" World Bank working paper Series WPS 4027. The World Bank. Washington DC

[16]. Bhasin, M.L. (2016) Survey of Creative Accounting Practices: An Empirical Study. Wulfenia.

[17]. Blanchard Danielle and Dionne Georges (2003, 2004), Risk Management and Corporate Governance

[18]. Boateng AA, Boateng GO, Acquah H. (2014) A literature review of fraud risk management in microfinance institutions in Ghana. Research Journal of Finance and Accounting.

[19]. Boateng, & Acquah, 2014; KPMG, 2016; Zhang, 2012). Fraud Risk Management.

[20]. Burazeri A, Sula A. (2015) Fraud risk score card: How to structure and quantify fraud risk. In The 4th International Virtual Scientific Conference on Informatics and Management Sciences.

[21]. Burger & Woods, 2008:317). Burger, A.P.J. & Woods, G. 2008. Financial management and cost accounting module. Honours Programme in Public & Development Management. Stellenbosch: School of Public Management and Planning, University of Stellenbosch.

[22]. Button M, Gee J, Brooks G. Measuring the cost of fraud: an opportunity for the new competitive advantage. Journal of Financial Crime.

[23]. Button, Gee, and Brooks (2011) [19-20], Buton M, Gee J, Brooks G. Measuring the cost of fraud: an opportunity for the new competitive advantage. Journal of Financial Crime.

[24]. C. Levy, E. Lamarre, and J. Twining, "Taking Control of Organizational Risk Culture" (New York: McKinsey & Co., February 2010).

[25]. Carpenter and Reimers (2005) Unethical and Fraudulent Financial Reporting: Applying the Theory of Planned Behavior, Journal of Business Ethics.

[26]. Chartered Institute of Management Accountant (CIMA), (2009). Corporate Fraud. Gateway Series, 1-17.

[27]. Chepkoech F, Rotich G. (2017), Effect of risk management process on motor insurance fraud in Kenya. International Journal of Social Science and Information Technology.

[28]. Cieslewicz (2010) Automatic contention detection and amelioration for data-intensive operations SIGMOD '10 Proceedings of the 2010 ACM SIGMOD International Conference on Management of data Pages 483-494 Indianapolis, Indiana, USA.

[29]. Cook, T.D. & Campbell, D.T. (1979). Quasi-experimentation: Design and analysis issues for field settings. Chicago: Rand McNally.

[30]. Cooper, D.R. and Schindler, P.S. (2003) Business Research Methods. 8th Edition, McGraw-Hill Irwin, Boston.

[31]. Creswell, J. W. (2012). Educational research: Planning, conducting, and evaluating quantitative and qualitative research (4th ed.). Boston, MA: Pearson.

[32]. Crockford, G.N. (1982). The bibliography and History of Risk Management: Some Preliminary Observations, The Geneva Papers on Risk and Insurance.

[33]. Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. Psychometrika.

[34]. Cullinan, C. and Sutton, S. (2002). Defrauding the public interest: A critical examination of reengineered audit processes and the likelihood of detecting fraud. Critical Perspectives on Accounting.

[35]. Dada, Enyi, & Owolabi, 2013)."Forensic accounting: A relevant tool for effective investigation of bribery cases in Nigeria"

[36]. Defining and Understanding Fraud: A South African Case Study G. J. Rossouw, L. Mulder and B. Barkhuysen Business Ethics Quarterly Vol. 10, No. 4 Cambridge University Press.

[37]. Deusidedit, S. (2014) Computerized Accounting System on Effectiveness of Financial Emerald insight journal of management accounting Global Institute of Research and Education.

[38]. Doost, R. (1990), "Accounting irregularities and computer fraud", National Public Accountant, Vol. 35 No. 5.

[39]. Dorminey, J., Fleming, S., Kranacher, M., and Riley, R. 2012. "The Evolution of Fraud Theory," Issues in Accounting Education.

[40]. Esmeray, A. (2016).The Impact of Accounting Information Systems on Firm Performance: Empirical Evidence in Turkish Small and Medium Sized Enterprises. International Review of Management and Marketing.

[41]. Finnerty JD, Hegde S, Malone CB. (2016), Fraud and firm performance: keeping the good times (apparently) rolling. Managerial Finance. Finucane & Holup, 2005) [32].

[42]. Fishbein, M. & Ajzen, I. (1975). Belief, attitude, intention, and behavior: An introduction to theory and research. Reading, MA: Addison-Wesley.

[43]. Harrington, S., and Neihaus G.R.(2003). Risk Management and Insurance, Irwin/McGraw-Hill, USA.

[44]. Hochberg, Sapienza & Jorgensen (2009), A lobbying Approach to Evaluating the Sarbanes-Oxley Act of 2002 Journal of Accounting Research.

[45]. Idowu, F.C. (2010) Impact of Microfinance on Small and Medium-Sized Enterprises in Nigeria. AL-Dahrawi. Inaya, 2016).

[46]. J. F. Weston, S. Besley and E. F. Brigham, 1996. "Essentials of Managerial Finance," 11th Edition, The Ddryden Press, New York.

[47]. Jack Dorminey,A. Scott Fleming,Mary-Jo Kranacher,Richard A. Riley, Jr. (2012) The Evolution of Fraud Theory. Issues in Accounting Education: Vol. 27.

[48]. Kent Grayson (2004) Journal of Consumer Research, Volume 31, Issue 2.

[49]. Knapp, C.A. and Knapp, M.C. (2001), “The effects of experience and explicit fraud risk assessment in detecting fraud with analytical procedures”, Accounting, Organizations and Society, Vol. 26.
[50]. Knežević, S., & Tepavac, R. (2012). Accounting ınformation system as a platform for business and financial decision-making in the company. Management.
[51]. Koong KS, Liu LC, Qin H, Tingting Ying. (2017) Occurrences of online fraud complaints: 2002 through 2015. International Journal of Accounting & Information Management.
[52]. Kothari, C.R., (2008). Research Methodology: Methods and Techniques, New Age International Publishers
[53]. KPMG. ,(2016) Global profiles of the fraudster.
[54]. KPMG. Culture is Key : Assessing/Auditing Culture within Your Organization, 2017a.
[55]. KPMG. KPMG survey reveals surge in fraud in Australia. Australia, 2017b.
[56]. Kranacher, M.J., Riley, Jr., R.A., and Wells, J.T. 2011. Forensic Accounting and Fraud Examination, New York.
[57]. Krejecie, R. V. & Morgan, D. W. (1970). Determining sample size for research activities. Educational and Psychological Measurement.
[58]. Kronfost (2014) the complexity of the research area of accounting information systems.
[59]. Mackevicius, J., & Giriunas, L. (2013). Transformational Research of the Fraud Triangle, ISSN Vol. 92.
[60]. Mailley GMJ. A tale of two triangles: comparing the Fraud Triangle with criminology’s Crime Triangle. Accounting Research Journal.
[61]. Marks, J. 2009. Playing Offense in a High-Risk Environment, Crowe Horwath, NewYork,
[62]. Martin Samociuk, Nigel Iyer & Helenne Doody (2010, 11). A short Guide to Fraud Risk;
[63]. Martin T. Biegelman Joel T. Bartow (2012) Executive Roadmap to Fraud Prevention and Internal Control: Creating a Culture of Compliance. John Wiley & Sons, Inc.
[64]. Merle Erickson, Michelle Hanlon and Edward L. Maydew Journal of Accounting Research, 2006, vol. 44.
[65]. Miller (2006). MILLER, K. (2006). Organizational communication: approaches and processes. Belmont, CA, Thomson/Wadsworth.
[66]. Modern Financial Theory, Corporate Strategy, and Public Policy: Another Perspective John W. Peavy, III The Academy of Management Review Vol. 9.
[67]. Moore, J. & Reichert, A. (1989).A Multivariate Study of Firm Performance and the Use of Modern Analytical Tools and Financial Techniques. Interfaces; Vol. 19.
[68]. Moqbel Akram, (2014), The Impact Of Accounting Information Systems (AIS) On Ecommerce Analytical Study-Service Sector-Jordan ASE, International Journal of Scientific & Technology Research, Volume 3.
[69]. Mugenda, O.M. and Mugenda, A.G. (1999) Research Methods: Quantitative and Qualitative Approaches. Acts Press, Nairobi.
[70]. Mui, G. and Mailley, J. (2015), "A tale of two triangles: comparing the Fraud Triangle with criminology’s Crime Triangle", Accounting Research Journal, Vol. 28.
[71]. Mukherjee (2018) Frauds in Corporate Banking and role of forensic accounting research journal of social sciences.
[72]. Myers, S. (1984). Finance Theory and Financial Strategy. Interfaces 14.
[73]. Nasserinia, Ariff, and Fan-fah, 2017) [79]. Nasserinia A, Ariff M, Fan-fah C. Relationship between participation bank performance and its determinants. Pertanika Journal of Social Sciences & Humanities.
[74]. Ng, Ye, Ong, and Teh (2017) [80]; Ng SH, Ye C, Ong TS, The BH. The impact of working capital management on firm’s profitability : Evidence from Malaysian listed manufacturing firms. International Journal of Economics and Financial Issues.
[75]. Ngalyuka, (2013) The Relationship Between ICT Utilization And Fraud Losses In Commercial Banks In Kenya, University Of Nairobi
[76]. Ngechu, M. (2004). Understanding the Research Process and Methods: An Introduction to Research Methods Nairobi, Acts Press.
[77]. Njenga & Osiemo, 2013) Njenga N, Osiemo P. Effect of fraud risk management on organization performance: A case of deposit taking microfinance institutions in Kenya. International Journal of Social Sciences and Entrepreneurship.
[78]. Nunnally, J. C. (1978). Psychometric theory (2nd ed.). New York: McGraw-Hill.
[79]. Nwaiwu, J. N., & Aaron, F. C. (2018). Forensic accounting relevance and fraud detection process and financial performance in Nigeria. International Journal of Advanced Academic Research/Accounting and Economic Development.
[80]. Nwinee, K., Akpos, Y., Vincent, N., & Ibibio, T. (2016). Impact of Accounting Information System on Organizational Effectiveness: A Study of Selected Small and Medium Scale Enterprises in Woji, Portharcourt. International Journal of Research.
[81]. O’Reilly -Allen M, Zikmund PE. (2013) Whose Responsibility is it to Deter and Detect Fraud ? The Role of Management, the Auditor and the Fraud Examiner. Journal of Global Business Management.
[82]. Ofoeda, 2017; Shin, Sung, Choi & Kim, 2015; Subramanian & Youndt, 2005)
[83]. Oso and Onen (2008) Oso W.K and Onen D. 2008: A General guide to writing research proposals and report. (2nd ed) Kampala: Makerere University.
[84]. Owolabi M. Bakre (2007) The unethical practices of accountants and auditors and the compromising stance of professional bodies in the corporate world: Evidence from corporate Nigeria, Accounting Forum.
[85]. Oyedokun, 2018; Okoye, & Gbegi, 2013). Forensic Accounting: Curbing Fraudulent Activities
[86]. Oyedokun, G. E. (2013). The integrity of financial statements and forensic accounting techniques in internal control of business organizations. (Master’s thesis), Babcock, Nigeria.
[87]. Oyedokun, G. E (2012). Compendium of writings on forensic accounting &fraud examination. ASCO Publishers, Lagos. Nigeria.
[88]. Oyedokun, G. E (2012). Fundamentals of forensic accounting & fraud examination. AARON Publishing Company, Lagos. Nigeria.
[89]. Oyedokun, G. E. (2014). Forensic accounting and investigation: A means of curbing money laundering activities. Being a paper delivered at the Nigerian Students' Economic and Finance Summit (UNICEF) 2014; of Obafemi Awolowo University's Chapter of the Nigeria University, Accounting Students' Association.
[90]. Oyedokun, G. E. (2015). Approach to forensic accounting and forensic audit. Being a lecture delivered by the staff of internal audit department of Niger Delta Development Commission.
[91]. Oyedokun, G. E. (2017). Forensic accounting techniques, tax justice and federally collected tax revenue in Nigeria (2000-2016). Unpublished PhD Thesis, Babcock University.
[92]. Oyedokun, G.E. (2013). Audit, investigation and forensic accounting: Similarities and differences. Being a lecture delivered at the Institute of Chartered Accountants of Nigeria’s forensic accounting certification Programme
[93]. Paul, Devi, and Teh (2012) [88] Paul SY, Devi SS, Teh CG. Impact of late payment on Firms’ profitability: Empirical evidence from Malaysia. Pacific Basin Finance Journal.
[94]. Peltier-Rivest, D. and Lanoue, N. (2015), "Cutting fraud losses in Canadian organizations", Journal of Financial Crime, Vol. 22.
[95]. Popoola OMJ, Che-Ahmad AB, Samsudin RS.(2015) An empirical investigation of fraud risk assessment and knowledge requirement on fraud related problem representation in Nigeria. Accounting Research Journal.
[96]. Popoola, O., Che-Ahmad, A., Samsudin, R., Salleh, K., & Babatunde, A. (2016). Accountants’ capability requirements for fraud prevention and detection in Nigeria. International Journal of Economics and Financial Issues.

[97]. Rachmawati, R., & Lasniroha, T. (2014). The Effect of Management Accounting Information System, Management Accounting Information Quality, Services Quality to User Satisfaction and Implications on Decision Making Process. International Conference on Trends in Multidisciplinary Business and Economics Research, 27-28, March, Bangkok, Thailand, 66-74.
[98]. Rapina's study (2014) Factors Influencing the Quality of Accounting Information System and Its Implications on the Quality of Accounting Information. Research Journal of Finance and Accounting.
[99]. Raval (2016) A Disposition-Based Fraud Model: Theoretical Integration and Research Agenda. Journal of Business Ethics.
[100]. Reporting: A case Study Of Stanbic Bank, Mbarara Branch. [E-journal]. Bishop Stuart University.
[101]. Romney and Steinbart (2012, p.686) The Impact of the Use of Accounting Information Systems on the Quality of Financial Data.
[102]. Romney et al (2009) Accounting Information Systems: Lessons in State-Owned Enterprise in Developing Economies. Journal of Finance and Management in Public Services. Volume 12.
[103]. S.C. Kuchal (1998) Financial Management. EW fact professional studies series Chaitanya Publishing House.
[104]. Saeidi, H (2014) The Impact of Accounting Information Systems on Financial Performance – a case Study of Tes – India. Indian Journal of Fundamental and Applied Life Sciences. Vol. 4.
[105]. Salehi, M. and Torabi, E (2016) The Role of Information Technology in Financial Reporting
[106]. Sanusi, Rameli, & Isa, 2015) [92]. Fraud Schemes in the Banking Institutions: Prevention Measures to Avoid Severe Financial Loss 7th International Conference On Financial Criminology
[107]. Sarantakos, S. (2005) Social Research. 3rd Edition, Palgrave Mac-Millan, New York.
[108]. Saunders, M., Lewis, P., & Thornhill, A. (2003). Research Methods for Business Students (3rd edition.). England: Prentice Hall.
[109]. Sawsan Saadi Halbouni, 2015; The Role of Auditors in Preventing, Detecting, and Reporting Fraud: The Case of the United Arab Emirates (UAE)
[110]. Sekaran, U. (2003) Research Methods for Business: A Skill Building Approach. 4th Edition, John Wiley & Sons, Ltd., Hoboken.
[111]. Shanghverzy &Small Business Administration. (2003). Definition of Small Business in the United States: Frequently Asked Questions.US Small Business Administration.
[112]. Sridhar Ramamoorti (2008) The Psychology and Sociology of Fraud: Integrating the Behavioral Sciences Component Into Fraud and Forensic Accounting Curricula. Issues in Accounting Education: November 2008, Vol. 23.
[113]. Sufian and Chong (2008) [99] Determinants of Bank Profitability in a Developing Economy: Empirical Evidence from the Philippines. Asian Academy of Management Journal of Accounting and Finance AAMJAF, Vol. 4.
[114]. Suleiman, Othman and Ahmi (2018) Suleiman, N., Othman, Z., & Ahmi, A. (2018). Mitigating Corruption Using Forensic Accounting Investigation Techniques. Indian-Pacific Journal of Accounting and Finance.
[115]. The Bank Scene Newsletter February 2019 Uganda Institute of Banking and Financial Services.
[116]. The Observer July 1, 2014). Literature about bank behavior in Uganda is limited (Mugume, 2010).
[117]. Trompeter, Carpenter, Desai, Jones and Riley (2013) Symbiosis of Fraud Triangle and Crime Triangle.
[118]. Vanguard News (2016). Corruption to cost Nigeria up to 37% of GDP reduction. Retrieved from http://www.vanguardngr.com/2016/10/corruption-cost-nigeria-37-gdp-study/
[119]. Vanguard News (2017). Capital Market Scandals. Retrieved from https://www.vanguardngr.com/2017/12/capital-market-scandal-oandos-inquiry-secreveals breach-isa-act-2007-investigations/
[120]. Vousinas GL. (2016) The critical role of Internal Auditing in addressing bank fraud : A conceptual framework. Journal of Economics Literature.
[121]. William A., and Heins, M.H. (1995), Risk Management and Insurance, McGraw-Hill, New York.
[122]. Wolfe, David T., and Dana R. Hermanson. "The Fraud Diamond: Considering the Four Elements of Fraud." CPA Journal 74.
[123]. Wood & Lewis, (2017). International Journal of Multidisciplinary Research and Development Online ISSN: 2349-4182, Print ISSN: 2349-5979; Impact Factor: RJIF 5.72 Received: 11-11-2018; Accepted: 12-12-2018 www.allsubjectjournal.com Volume 6.
[124]. Wood A. Lewis A. 2017 Risk culture development within the Caribbean development bank. The Businessand Management Review.
[125]. Zhang, (2012).A Robust Unsupervised Method for Fraud Rate Estimation.Journal of Risk and Insurance Volume 80.
[126]. Zysman, A., (2004). Forensic accounting demystified. World investigators network standard practice for investigative and forensic accounting engagement? Canadian Institute of Chartered Accountants.

APPENDIX 1: QUESTIONAIRE

Dear Respondent,

Greetings! I am a student of Team University pursuing a Master's of Science in Finance. My research topic is, *"FINANCIAL MANAGEMENT PRACTICES AND FRAUD RISK MANAGEMENT IN COMMERCIAL BANKS IN KAMPALA"*. You are identified as a key and valuable respondent in carrying out this research. Your honest responses will be completely anonymous, confidential and used for academic purposes only. You are highly appreciated for cooperating and taking part in this study. I humbly request you to complete this questionnaire. Please tick *(√)* the appropriate answer where applicable.

SECTION A: FACE SHEET / GENERAL INFORMATION

1. What is your position in the bank?
   Strategic [ ] Tactical [ ] Operational [ ]
2. What is your highest level of Education attained?
   Certificate [ ] Diploma [ ] Degree [ ] Masters [ ] PHD [ ]
3. How long have you worked in the bank?
   1-5 [ ] 6-10[ ] 11-15[ ] Above 15[ ]
4. Fraud in banks varies; items on the list below are considered to be the main causes of fraud in this commercial bank. Indicate your level of agreement.

   Kindly tick *(√)* the choice closest to your view using the Likert scale of 1 to 5 below
   Scale: 1=Strongly Disagree, 2=Disagree, 3=Average level of approval, 4=Agree, 5=Strongly Agree

Causes of Bank Fraud	5	4	3	2	1
Greed					
Poor Record keeping					
Poor Internal Controls					
Inadequate staffing					
Inadequate training and retraining					
Poor salaries					
Lack of appropriate punishment to fraudsters					
Lack of reporting mechanism					
Disgruntled Staff					
Intelligent staff who want to check whether controls are existing					

5. What is the prevalence of these fraudulent activities faced by your commercial bank?
   Please tick *(√)* appropriately using the Likert scale of 1 to 5 below.
   Scale: 1=Strongly Disagree, 2=Disagree, 3=Average level of approval, 4=Agree, 5=Strongly Agree

Types of Fraud	5	4	3	2	1
Cheque kiting					
Forgery and altered Cheque					
Accounting fraud					
Uninsured deposits					
Demand draft fraud					
Rogue traders					
Fraudulent loans					

Fraudulent loan applications					
Forged or fraudulent documents					
Wire transfer fraud					
Bill discounting fraud					
Payment card fraud					
Booster Cheque					
Stolen payment cards					
Duplication or skimming of card information					
Empty ATM envelope deposits					
Impersonation					
Stolen checks					
Prime bank fraud					
The fictitious 'bank inspector'					
Phishing and Internet fraud					
Money laundering					

SECTION B: FINANCIAL MANAGEMENT PRACTICES

The following financial management practices are well utilized in the fraud risk management process of the bank. Do you agree with this statement?

Please tick (√) appropriately using the Likert scale of 1 to 5 below.

Scale: 1=Strongly Disagree, 2=Disagree, 3=Average level of approval, 4=Agree, 5=Strongly Agree

Accounting Information Systems	5	4	3	2	1
There are competent people to manage the Accounting Information System					
Clear procedures and instructions are given to the system users					
Reliable and cost effective Software is used in the bank					
Information Technology Infrastructure is well repaired and maintained					
Internal Controls exist, are monitored and evaluated regularly					

Financial Reporting Analysis (FRA)	5	4	3	2	1
Financial statements are accurately prepared in line with GAAP					
Risk is classified, evaluated and recommendations given for its management					
Financial Performance is assessed as per the bank’s required standards					
Stakeholders’ financial expectations are met					
Analysis of future risk prospects is done for going concern status					

Forensic Accounting	5	4	3	2	1
The bank uses litigation to manage fraud					
The bank prefers to settle fraud issues outside the court					
Competent accountants are available to handle forensic cases					
Fraudsters are everywhere, the bank has capacity for inter-jurisdiction					
Investigation evidence gathered is admissible in a court of law					

SECTION C: FRAUD RISK MANAGEMENT

Fraud risk management measures are practiced in this bank; indicate your opinion.

Please tick (√) appropriately using the Likert scale of 1 to 5 below.

Scale: 1=Strongly Disagree, 2=Disagree, 3=Average level of approval, 4=Agree, 5=Strongly Agree

Fraud Risk Management	5	4	3	2	1
Fraud is stopped before it is attempted.					
Fraud is prevented from occurring.					
Fraud is identified prior to, during, subsequent to its completion.					
Losses due to fraud are stopped from occurring or continuing.					
Losses that occurred are identified and studied.					
Policies are created, evaluated, communicated to reduce fraud.					
Enough evidence relating to fraudulent activities is obtained.					

SECTION D: PREVENTIVE FRAUD RISK MANAGEMENT

The following preventive fraud risk management practices are used in the bank. What is your opinion?

Please tick *(√)* appropriately using the Likert scale of 1 to 5 below.

Scale: 1=Strongly Disagree, 2=Disagree, 3=Average level of approval, 4=Agree, 5=Strongly Agree

Preventive Fraud Risk Management	5	4	3	2	1
Fraud risk assessment program.					
Board, audit committee and senior management oversight					
Use of information technology to prevent fraud.					
Establishment of strong internal controls					
Establishment of effective code of conduct and related standards					
Specific and General training					
Employment Screening					
Surprise audits					
Reward for whistle blower					
Fraud Department					

Antifraud policy					
Employee support program					

SECTION E: DETECTIVE FRAUD RISK MANAGEMENT

The following detective fraud risk management practices are used to manage fraud incidents in the bank. Indicate your opinion.

Please tick (√) appropriately using the Likert scale of 1 to 5 below.

Scale: 1=Strongly Disagree, 2=Disagree, 3=Average level of approval, 4=Agree, 5=Strongly Agree

Detective Fraud Risk Management	5	4	3	2	1
Monitoring systems designed to detect fraud					
External audits					
Management review					
Account reconciliation					
Confessions					
Proactive data analysis					
Fraud risk awareness training.					
Performance appraisal on fraud prevention.					
Whistleblowing hotline					
Internal tip-off					
External tip-off					
Law enforcement investigation					
Job rotation					
Internal audit					
Corporate security					

SECTION F: RESPONSIVE FRAUD RISK MANAGEMENT

Indicate your opinion about the extent to which these fraud risk management practices used in responding to fraud incidents in the bank.

Please tick (√) appropriately using the Likert scale of 1 to 5 below.

Scale: 1=Strongly Disagree, 2=Disagree, 3=Average level of approval, 4=Agree, 5=Strongly Agree

Responsive Fraud Risk Management	**5**	**4**	**3**	**2**	**1**
Conducting internal investigation					
Progressive sanctions					
Disclosing the results of internal investigations to the regulator					
Prosecution of the offender					
Remedying the harm caused					
Strengthening controls					
Communicating to the employees that management took appropriate action					
Public disclosure of fraud and misconduct					
Recovery of the stolen funds					

APPENDIX II: INTERVIEW GUIDE

1. What other financial management practices do you recommend for fraud risk management?
2. How are employees and customers of the bank informed about changing trends of fraud? Banks take different approaches to fraud.
3. Is reward of staff or customers part of the bank's policy to frustrate fraud?
4. What are the new developments in the bank's fraud risk management process?
5. Are fraudsters punished to prevent others from engaging in fraud?
6. Is it possible to have a fraud free environment in the bank?
7. At what stage in fraud risk management is fraud usually identified in this bank?
8. Mention one major cause of fraud in your bank.
9. Mention the major constraints to fraud risk management in the bank.
10. Does the bank have enough competent personnel to manage the risk of fraud?

Thank you.

APPENDIX III: TRANSMITTAL LETTER FOR THE RESPONDENTS

Contents

Dear Sir/Madam,

Greetings! I am studying for a Master of Science in Finance of Team University. Part of the requirements for the award is a thesis. My study is entitled, *Financial Management Practices and Fraud Risk Management in commercial banks in Kampala.* Within this context, I request you to participate in the study by answering questionnaires. Kindly answer all options. Any data you will provide shall be for academic purposes only and all information of such kind shall remain confidential.

I will retrieve the questionnaire within (1) one week.

Thank you very much in advance.

Yours sincerely,

…………………………..

Angellah MaryNakkungu Ssekamwa

APPENDIX IV: INFORMED CONSENT

I am giving my consent to be part of the research study of Mrs. Nakkungu Mary Angellah Ssekamwa that will focus on Financial Management Practices and Fraud Risk Management in Commercial Banks in Kampala. I shall be assured of privacy, anonymity and confidentiality and that I will be given the option to refuse participation and right to withdraw my participation anytime. I have been informed that the research is voluntary and that the results will be given to me if I ask for them.

Initials: ____________________________ Date_______________________________

APPENDIX V: BUDGET

ASPECTS	COST CENTRE	COST
Proposal Stage	Library survey, transport and typing	750,000
Fieldwork Stage	Transport to and from the research corporations	600,000
Report Preparation	Data Entry and Analysis	750,000
Secretarial Services	Draft report	200,000
Secretarial Services	Final Report-binding	200,000
TOTAL		2,500,000

APPENDIX VI: RESEARCH SCHEDULE

Activity		Time in Months: 1 Month = 4 Weeks											
1	Topic Selection												
2	Formulation of objectives	1st											
3	Questionnaire Design												
4	Proposal submission			2nd									
5	Data collection												
6	Data analysis					3rd							
7	Draft Findings												
8	Literature update							4th					
9	Discussion of findings												
10	Submission of 1st report draft									5th			
11	Revised draft for submission												
12	Print, Bind and Submit											6th	

APPENDIX VII: KREJCIE AND MORGAN TABLE

Table for Determining Sample Size from a Given Population

N	*S*	*N*	*S*	*N*	*S*
10	10	220	140	1200	291
15	14	230	144	1300	297
20	19	240	148	1400	302
25	24	250	152	1500	306
30	28	260	155	1600	310
35	32	270	159	1700	313
40	36	280	162	1800	317
45	40	290	165	1900	320
50	44	300	169	2000	322
55	48	320	175	2200	327
60	52	340	181	2400	331
65	56	360	186	2600	335
70	59	380	191	2800	338
75	63	400	196	3000	341
80	66	420	201	3500	346
85	70	440	205	4000	351
90	73	460	210	4500	354
95	76	480	214	5000	357
100	80	500	217	6000	361
110	86	550	226	7000	364
120	92	600	234	8000	367
130	97	650	242	9000	368
140	103	700	248	10000	370
150	108	750	254	15000	375
160	113	800	260	20000	377
170	118	850	265	30000	379
180	123	900	269	40000	380
190	127	950	274	50000	381
200	132	1000	278	75000	382
210	136	1100	285	1000000	384

Note.—*N* is population size.
S is sample size.