

**THE RELATIONSHIP BETWEEN AUDIT COMMITTEE
EFFECTIVENESS AND RISK MANAGEMENT PRACTICES IN THE
PUBLIC SECTOR**

(A Case Study of the Government Ministries in Kenya)

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DECLARATION

Declaration by the Student

I declare that this thesis is my original work and has not been previously published or submitted elsewhere for award of a degree. I also declare that this proposal contains no material written or published by other people except where due reference is made, and author duly acknowledged.

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Declaration by the Supervisor

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DEDICATION

This research proposal is dedicated to my loving parents who instilled in me love for education and the desire to pursue knowledge. Special appreciation goes to all my friends who offered a hand towards the completion of this work.

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I foremost thank the Almighty God Father for the strength and good health to undertake this project. Much thanks to my Supervisor Dr. Bunyasi for her dedication in criticizing my work positively, giving suggestions and immense guidance to me. My appreciation also goes to my loving husband for the unwavering moral and financial support that saw this work to completion. Finally, I thank all my dear classmates who provided ideas where I needed them. Your support will forever be appreciated.

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OPERATIONAL DEFINITION OF TERMS

Audit Committee - an operating Board of Directors charged with oversight of financial reporting and disclosure (Odoyo, Omwono & Okinyi, 2014).

Enterprise Risk Management – This entails the process through which an organisation is able to manage and reduce risk by carefully putting into plan, organizing, controlling and deciding the activities of the organisation (Olson & Wu, 2015).

Risk Management – These are the various techniques borrowed from financial risk management as well as asset liability management. (Olson & Wu, 2015).

Corporate Governance – These are the laid down policies and rules that guide the operations of corporations, organisations and businesses. (Tricker & Tricker, 2015).

Financial Performance – This is a yardstick by which a firm is evaluated through the use of its assets and generate revenues from its core business. (Saeidi, et al., 2015).

Government Policy – These entails all the decisions and implementations that a government employs in order to turn around a specific situation. (Rydqvist, Spizman & Strebulaev, 2014).

Parastatal –This is any corporation, business or any agency that is owned or controlled wholly or partly by the government (Sheppard & Smith, 2017).

State Corporation – Its a legal person responsible for carrying out commercial activities on behalf of government (Njiru, 2010).

ABBREVIATIONS AND ACRONYMS

AC	Audit Committee
AIS	Accounting Information System
CAE	Chief Audit Executive
CEO	Chief Executive Office
CFO	Chief Financial Officer
CG	Corporate Governance
CMA	Capital Markets Authority
CPAK	Institute of Certified Public Accountants of Kenya
ERM	Enterprise risk management
EU	European Union
GAAS	Generally Accepted Auditing Standards
IMF	International Monetary Fund
IIA	Institute of Internal Auditors
IT	Information Technology
NSE	Nairobi Stock Exchange
PAC	Public Accounts Committee
PFM	Public Finance Management
PM	Performance Management
UK	United Kingdom
USA	United States of America

ABSTRACT

The motive of public sector enterprises is driven by the desire to deliver services that are of benefit to the larger public- an interest that is largely considered social as opposed to commercial motive of maximizing profits. In so doing, the enterprises encounter risks that are either external or internal. Important aspects that determine the achievement of these motives successfully is the ability of an enterprise to predict risk as well as managing these risks. An enterprise therefore employs various control tools to manage these risks. A popular control is use of internal audit function that helps in the management of risks of the different functions of an enterprise including financial, legal, operations and regulatory risks. The internal audit also has an added value of aiding in formulation of strategic policies that consequently lead to achieving the goals set by the enterprise. The audit committee is mandated to advise the board on matters regarding risk management, governance and internal controls in place. The audit committee plays the role of ensuring the public sector adopt sound risk management practices, however they are faced with various challenges that could hinder their effectiveness. This study aims to find out the relationship between the effectiveness of audit committees and the risk management practices in the public sector enterprises. The researcher will use the following objectives to guide the study to its completion: committee independence, number of meetings and member's financial expertise to determine the relationship of the audit committee's effectiveness to the risk management practises in the Kenyan Public Sector. The study used a descriptive research design. The target population was all the members of the audit committees in the 22 government ministries. Comprehensive sample of 132 respondents was purposively selected to participate in the study. This was generated by sampling all the six members of each audit committee in the 22 ministries. Primary data was used in this study and collected using questionnaires. The questionnaires were administered to the selected audit committee members and analysed using SPSS software version 21. Data was analysed and presented in tables and figures. The identity of the respondents to the questionnaire was kept confidential for security purposes and to motivate openness. The study findings will enable future scholars to make reference on the subject matter and provide recommendations on ways of strengthening audit committees in the public sector entities and thus improve risk management. Results indicated that the rate of meetings of the committee, independence and financial expertise influenced risk management practices in the public sector. Correlation and regression results indicated a positive and statistically significant association between audit committee meetings, audit committee independence and audit committee members financial expertise. The findings indicate that when all factors are held constant and there is no audit committee, the risk management practises in the public sector will decrease. On the other hand, an increase in the frequency of the committee meetings affected the risk management practices in the public sector positively while any change in the independence of the audit committee affects the risk management practices negatively. Where the members of the audit committee have financial expertise, the risk management practices in the public sector are affected positively. It was recommended that the government should ensure that the audit committees meet regularly; members have financial expertise and their independence be upheld at all times so as to enhance the risk management practices in the public sector. The study has also recommended further research in other public entities such as parastatals.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

The role of audit committees in public sector organisations entails the provision of governance, managing of risks as well as management of internal control practices. When establishing audit committees, it is important for those in charge to take into consideration the importance of having independent audit committees in the public sector. The persons in charge of establishing the committees must also be provided with insights and the benchmark practices. (Mutua and Kilika, 2016).

The audit committee comprises of independent and non-executive members whose responsibility is to ensure that an enterprise has financial reporting processes that are reliable, that corporate governance is observed, there are sound internal control processes and that there exists a whistle-blower complaint process. According to Mutua and Kilika (2016), the committee also ensures the public sector adheres to a suitable code of business ethics to enforce long-term stakeholder value while at the same time ensuring that the interests of other stakeholders are kept

Internal auditing is regarded as a consulting activity that is independent and objective. Its core role regarding Enterprise Risk Management (ERM) is to give management objective information about the effectiveness of risk management. Most scholars reveal that the internal auditors are responsible in ensuring that management are adequately informed that major business risks are being handled as expected, that the internal audit function is effective and give an assurance that the risk management is also performing effectively. By doing so the internal audit brings value addition to the enterprise. ERM is seen as a process of risk management that undergoes a natural transformation. (Njiru, 2010). According to Oduyo, Omwono and Okinyi

(2014), ERM is “a process, affected by an entity’s executive management, applied in strategy setting and across the enterprise to identify potential events that may affect the entity, and manage risk to be within its risk appetite, to provide reasonable assurance regarding the achievement of entity objectives.” Public sector is part of the whole economy that does not include the private sector and usually provides services as well as goods that cannot be provided by the private sector. It includes both national and county governments and State-Owned Enterprises (SOEs) commonly known as parastatals.

Kenya’s internal audit system was abolished in 1962 and this gave the Office of Controller and Auditor General the “domineering” prominence. The system was re-introduced in 1984 after it emerged that public resources were not being managed properly as there was laxity from the persons in charge of managing these resources.

Even after re-introduction heavily leaned towards pre-auditing (Tanui, 2009). In 2000, a joint report of the IMF / World Bank reported areas of Kenya’s internal audit that were not functioning as expected. As a result, the Government launched a concerted effort to modernize internal audit function and government oversight in general. Acts of parliament were enacted and various circulars issued. In 2000, the enactment of the Government Financial Management Act set out the legal mandate of Internal Audit. Treasury Circular No.16/2005, issued for establishment of Audit Committees in all public institutions. Treasury Circular no.18/2005 was issued requiring management to act on audit reports within two weeks (Hope, 2017). The audit committee was composed of the staffs that are part of management in the particular ministry.

However, in 2012, another Government Financial Management Act was enacted followed by the Government Financial Regulations (2015). This set out the legal mandate of Internal Audit and the composition of the Audit committee. Gazette notice Vol CXV111 No.40 of 15th April 2016 provided the guidelines concerning appointments, mandate and composition of the

Audit committee. The National Treasury through a public notice on the local dailies of 29th June 2016 (Copy of the Standard newspaper advert attached) directed all public entities to establish their audit committee by 1st July 2016 in order to comply with sec 73(5) and 155(5) of the Public Finance Management Act, 2012 and section 174 of the Public Financial Regulations 2015.

In recent times the taxpayers' demands have been on the rise especially on issues regarding transparency and accountability. The independent audit committee therefore is obligated to meet these demands through various means including provision of oversight of management processes. Important areas of interest include value and ethical issues, management of risks, designing the governance structure, internal audit processes, internal control processes, assurance provision, management action plans, financial reporting and accountability. (Mutua and Kilika, 2016).

The audit committee charter highlights the committees' mandate, composition of members, authority of each member, obligations and the procedures needed to develop, review and improve the audit charter. One of the issues highlighted in the charter is the independence of the audit committee members. One of the ways the members are independent is in the sense that they are independent from the organisation. The members are therefore obliged to handle their work in a professional, diligent and confident manner. The members should have an inquisitive approach to issues and also confident. A must element with all members is expertise in finance and or accounting, auditing, management of risk, information technology as well as compliance. (Mulili, 2011).

According to Hines et al. (2015), the transparency in public sector organisations in areas of managing risk, internal controls and governance is improved through an audit committee. While the role of making decisions is left to the management of an organisation, the committee should be expected to undertake an advisory role while remaining independent. One of the

reasons the committee should not be involved in decision making is to avoid the committee getting compromised and hence losing their independence.

In any organisation, the audit committee forms a big component of the corporate governance structure. The committee plays the role of facilitating decision making by Chief Audit Executive(CAE),Forming systems and processes of risk oversight while ensuring there is quality internal and external reporting. The audit committee also enables the audit activity to be strong. Another critical factor is the audit committee composition where it is expected that the committee should have more external members where they are expected to be inquisitive and possess courage. (Cohen, Krishnamoorthy and Wright, 2017).

Worldwide, a guiding principle of public sector organisations is accountability and transparency through audit committees. Effective and efficient committees are aligned to each organisations characteristics and uniqueness while at the same time maintaining transparency and accountability. In public sector, the audit committee has the responsibility of identifying any risks associated with financial statements, audit activities; internal control measures external assurance providers as well as compliance. (Coetzee, 2016). There are viewpoints of looking at risk. However there has not been a consensus as to a definite definition. Risk however is considered an important tool for creating a common focal point (Mulili, 2011).

The audit committee carries out the risk management role through reviewing, providing oversight, maintaining, implementing, and assessment of risks and reporting processes.

According to Vinnari and Skærbæk (2014), the committee is also mandated to examine and give reports on the internal control structure of an organisation. Further; they also keep the management informed about all important matters arising in the course of their work by any governance, risk, and control assurance providers.

The internal auditor should be well versed with knowledge on issues of risk management and internal controls. Such auditors should increasingly improve on this knowledge and identify any emerging risks and factors while management should put effort to support them achieve this knowledge. The position of an internal auditor should be one handled by a senior officer who must be able to interact effectively with the risk owners in the organisation. (Lam, 2014).

Internal auditing is an independent role that provides objective assurance as well as serving as a consulting activity. The internal auditing keeps the board information regarding the soundness and efficiency of risk management. The auditing function is most important when it comes to provision of objective assurance where they inform the board and assure them that major business risks faced by the organisation are handled efficiently and also confirming that the risk management and the internal control frameworks are effective.

Risk Management involves a consistent approach in assessing the risks, minimizing the probability of occurrence of the risk, and taking measures in dealing with any risk that occurs. (Gao, 2006). Risk management is a process of predicting potential risks that an organization is exposed to and develop appropriate measures to deal with these risks.(Berg, 2010)Risk management entails all the actions continuously taken to prevent these risks spread across all the activities of an organization. Vaughan (1997), puts forward the definition of risk management as the scientific approach to the exposure of a firm with an aim of reducing or totally getting rid of the risk. Risk process includes the following; identification of the risk, carrying out analysis of the risk, evaluating it, controlling and thereafter monitoring the risk. (Berg, 2010)

Risk management in the public sector earlier concentrated on the areas of cash management, procurement and human resource management. The responsibility of risk management had been left to the risk manager mainly the internal audit unit alone to manage.

The traditional approach to risk entailed avoiding the risk, separating the function and internally managing the risk. With time the public sector initiated the integration of risk and concentrating more on management of the risk rather than avoiding the risk.

Organizations adopting Enterprise Risk management (ERM) where risks have become a daily concern have incorporated this process as part of their operations. There is a paradigm shift in the last decade in risk management to manage the public service risk in a holistic manner which involves risks in key business processes and areas (Hissom and Tilly, 2007).

Previously the public sector concentrated on managing the hazard risk and insurable financial risks. However firms have extended to managing other forms of risks including financial, reputational, operational and strategic risks. The responsibility of risk management has now taken a broader approach with the Accounting Officer having a responsibility towards risk management. According to the Public Financial Regulation Sec 165, it is the role of the Accounting Officer to ensure that the risk management strategies, fraud prevention mechanism and robust internal controls are put in place for effective and efficient delivery of services in all the departments in identification and ranking risks in their various departments. Consequently, the Accounting Officer appoints risk champions to spearhead identification of risks in the Department and develop a risk register and a risk management policy.

The risk register is used by the internal audit unit to develop their strategic plan, this outlines the major areas where they will concentrate on, identify the risks and recommend the mitigating factors. The Audit committee goes through the audit reports and follows up on the implementation of the recommended mitigating factors by the management. Risk management policy is a written agreement of the commitment of the entity to a holistic, efficient and effective

approach to risk management. Its aim is to providing the assurance that risks are managed efficiently and that the effects of risks are greatly reduced. (COSO, 2004).

This is application of holistic approach to management of risks is known as Enterprise Risk Management (ERM). It can be defined as a branch that aids an organization to realize its objectives by analyzing all an organizations risks broadly and managing the effects of those risks.

Enterprise Risk Management integrates the management of both pure and speculative risks. It is the means through which an organizations' board and management that aims to identify potential risks and threats that the entity is exposed to and contain the risks within its risk profile and provide reasonable assurance regarding the achievement of entity objectives.(COSO, 2004).

The management of an organization has the responsibility of engaging the audit committee in order to identify, manage and take action on the risks that are faced by the entity and risks that jeopardize the achievement of the Organizations' goals, objectives and opportunities. One of the approaches that management uses is the risk based approach commonly referred to as Enterprise Risk Management (ERM).Research carried out by Contesrotto and Moroney (2014) established that audit committee effectiveness is negatively related to audit risk.

They put emphasis that the audit committee is relevant when enhancing the integrity of financial statements and where non-financial topics are involved.

The effectiveness of audit committees is vital in ensuring effective risk management practices in public entities. The more the number of meetings in a year is normally used as a measure of determining how effective the committee is. (Raghunandan, Rama, and Scarbrough, 1998).

These studies hold that having frequent meetings by audit committees reduces financial reporting risk. This is because, the regular meetings with both management and external auditors informs the committee of the current accounting and risk management issues, and thus be able to tackle the issues effectively (Raghunandan, et al., 1998). In Kenya, the Kenya Public Finance Management Act Regulations (PFMR) number 18 (2012 stipulates that audit committees shall meet at least once every three months thus making a minimum total of four per year (PFMR, 2012). If the audit committees' meet this minimum number of times and additional when necessary, they'll be able to be up-to-date with the risk management practices of the public entity.

Audit committee independence is also crucial in ensuring an effective risk management practice in public entities (Yatim, 2009). This is because the audit committee is expected to play an independent oversight and advisory role to the management of the public entity. The Kenya PFMR stipulates that audit committee chairperson must not have any relations with government entities, and shall not be a political office holder (PFMR, 2012). In addition, the committee members should be independent of the organization they are auditing to avoid conflict of interest, ensure professionalism and integrity (Mulili, 2011).

Audit committees provide oversight on the on areas of financial reporting as well as performance of internal audit, therefore financial or accounting expertise is necessary in understanding issues surrounding technical and control areas. (Mulili, 2011). A research show that occupational qualification is plays a major role in ensuring quality of the audit and eventually the financial statements of a business. (Dui and Sy Trung, 2015). Specifically, audit committees' financial expertise influences the financial reporting incidences; studies by Lisic et al., (2011), found that financial expertise of the audit committee was negatively related to incidences of reinstatements.

Therefore, for effective risk management practices to ensure accuracy and transparency in financial reporting, the audit committee expertise is a key element.

1.2 Statement of the Problem

Recently, there have been extensive cases of corruption, fraud and misappropriation of funds in the public sector with several ministries and state corporations being at the centre stage of numerous allegations of the same. These are mainly caused by unmitigated risks which hinder the attainment of the set objectives. As stated by Wachira (2017), the public sector has experienced various complaints and disgruntlement touching the performance of state-run institutions as recorded at the Ombudsman's office and the media at large. Outa et al (2016) also state that various parties allied to the public sector have filed various complaints at the Ethics and Anti-corruption Commission, with members of parliament also addressing the same at the floor of the house. This has led to a heightened need for the audit committee to ensure the public sector adopt sound risk management practices, including good corporate governance and accounting practices in their organizations.

According to Opiyo (2013), In Kenya, businesses are facing the 'going concern' problems which have been aggravated by the credit crunch and recessionary conditions in the country. The resulting effect is that businesses are unable to settle their obligations as they fall due which directly impacts on the government activities such as spending. Further the continued cases of mismanagement in government have largely impaired service delivery to the public. (Barako, 2007). It is therefore important to engage the services of an audit committee to assist the government in risk management in order to deliver services effectively. However, there is inadequate research on the status of the audit committees activities in public entities and how their effectiveness affects risk management practices. Hence, from the foregoing appraisal of the

of the risk management policy and risk register in the Government ministries together with the reports on the audit outcomes, this study seeks to investigate the relationship between audit committee effectiveness and risk management in public sector taking a survey of government ministries in Kenya.

1.3 Objectives of the Study

1.3.1 General Objective

The general objective of the study is to investigate the relationship between audit committee effectiveness and risk management practices in public sector taking a survey of government ministries in Kenya.

1.3.2 Specific Objectives

The specific objectives of the study include:

- I. To determine the effect of the frequency audit committee meetings on risk management practices in government ministries in Kenya.
- II. To determine the relationship between audit committee independence and risk management practices in government ministries in Kenya.
- III. To determine the relationship between audit committee financial expertise and risk practices management in government ministries in Kenya.

1.4 Research Hypotheses

The study sought to test the following null hypotheses:

H₀₁: The frequency of audit committee meetings does not have a significance effect on risk management practices in the government ministries in Kenya

H₀₂: Audit committee independence does not have a relationship with the risk management practices in government ministries in Kenya

H₀₃: Audit committee members financial expertise does not have a relationship with the risk management practices in government ministries in Kenya

1.5 Significance of the Study

1.5.1 To the Government ministries

The significance of this study will be helpful to Government ministries and its partners. This study will also be of help since the findings will put to light how effective governance by the audit committee promotes risk management in the public sector. The study aims at changing the perception of other organisations' leaders about their leadership styles.

1.5.2 To the Public Sector

This study also aims to contribute to the public sector body of knowledge by covering new grounds in terms of corporate governance and the improvement of risk management practices in Kenya. Furthermore, this study will help to generate greater awareness of the ways used to strengthen Audit Committees in the public sector entities and in turn elicit enthusiasm to improve risk management leading to the formation of new partnerships (Malta and Kilika, 2016). Through this study finding, the audit committee will be able to know how to be more effective in their risk management roles and thus improving organizational performance. Consequently, improve the trust of the public to the public entities.

1.5.3 To the Government.

The result of this study will also help officers in in the government to become conscious of their roles as the propelling force towards risk management. The researcher believes that the research

findings will assist the national and county governments to appoint steadfast audit committees and adopt effective risk management practices that can propel them towards achieving their goals and objectives.

Other government institutions and the private sector will benefit by understanding corporate governance practices and the importance of an effective Audit Committee in fostering corporate safeguarding public funds and stakeholders' interests. Transparency and accountability can be enhanced in the public sector by having in place an efficient audit committee in place.

1.5.4 Future Researchers

This study will benefit future researchers and students intending to study the link between an effective audit committee and risk management. Costs are reduced and time is also availed to future researchers through the past research since much time is spent in data collection and analysis. The future researcher is therefore able to get answers to research questions raised.

This work will serve as an example for others in not only the Kenyan public sector, but also the academia. These groups can then assess more projects and programs and further refine the lens if necessary. With the sustained amount of interest, the Kenyan government continues with its concerted effort to modernize internal audit function and government oversight in general. Kiragu, Gikiri and Iminza (2015).

1.6 Justification of the Study

In the recent times, several audits carried out by the Auditor General revealed differences in financial management systems of the national Government. Major areas of weaknesses were seen in terms of failure in accountability ranging from making unsupported payments, missing receipts from providers of goods and services, asset registers that remain un-updated even when

assets have been purchased to risk management policies that are weak. Others areas include failure in observing procurement procedures and weak systems of ensuring debts are recovered. It is observed that the presence of an effective audit committee ensures that internal control systems are in place and functional therefore improving the entities performance.

Furthermore, this study bases its findings on the statutory role of the Audit Committee in advising on matters relating to accountability in all sectors of the economy.

1.7 Study Scope

The study was confined to 21 government ministries as per the executive order of July 2018.

The study focused on relationship between the audit committee effectiveness and risk management in 3-year period that is 2015 to 2018. The study also concentrated on the variables highlighted in the conceptual framework as follows: committee independence, number of meetings and member's financial expertise.

1.8 Assumptions of the Study

There are no assumptions in this study. The study has been deliberately designed to avoid subjective measurement, proxy indicators, errors in measurement or and non-cooperation of respondents among others.

1.9 Summary

This chapter has discussed the background of the study and presented the problem statement. The chapter has also highlighted the research objective, research questions as well as the significance, justification and scope of the study. It has also defined some key terms used in the study. This research has four other additional chapters: Chapter Two will present the review of theoretical literature, review of critical literature, summary highlighting key issues raised in the

study and the conceptual framework of the study; Chapter Three will present the research design, target population, sampling procedure, research instruments, and data analysis procedures.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter provides previous literatures analysed from textbooks or manuscripts related to the current study. Literature review entails a deeper look at the existing literature relevant to the topic under study. This chapter covers review of theoretical literature, review of critical literature, summary highlighting key issues raised in the study and the conceptual framework of the study. It incorporates literature on audit committee effectiveness and risk management practices. In addition, this chapter contains the conceptual framework. The researcher believes that reviewing existing information and other study findings will help to highlight existing gaps in literature pursuant to this subject of concern.

2.2 Review of Theoretical Literature

This section outlines two theoretical approaches for the appreciation of audit committees. The study will focus on the agency theory and the institutional theory since they are well represented in the audit literature.

2.2.1 Agency Theory

Agency Theory owes its origin from Adam Smith in the 18th Century. His theory was based on the literature on firms, organisations, incentives and information. In 1970's scholars; Ross and Mitnick worked independently and developed the agency theory. The theory brings out the relationships, extent of the relationships of principals and agents in the business world. A major discussion of the agency theory is the incentives between financial planners and fund managers.

(Fayezi, O'Loughlin and Zutshi, 2012), which relates to the issues faced by audit committees in their bid to mitigate risks.

Agency theory explains the concept of associations between two parties and how these associations can be improved. (Schneider, 1984). According to Lin, Vargus and Bardhan (2007), in the absence of complete information and where uncertainty exists, there arise problems of adverse selection and Moral Hazard. The theory therefore highlights the principal and agency conflicts of interest that affect management practices as well as financial reporting processes of an enterprise. Consequently other aspects like corporate governance and business norms tend to be affected. Other cost implications may also arise from agency relationships; agency costs for example are considered as expenses that must arise as a way of sustaining an efficient relationship between the agent and the principal. This theory has therefore dominated the economic literature on areas of both management practices as well as financial reporting processes adopted by the public sector.

Internal audit evaluates business processes and also analyses the strategic analysis that helps in measuring the goals risks and controls that are critical in determining an organisations' success. Brown, (1983), highlighted that the adequacy of resources and priorities can be achieved through identification, assessment and closely monitoring a company's risks .Areas that have heightened risk and continuous risk assessments are done through risk based auditing. (Goodwin, 2004).

The management has the right to be informed of the extent of the assessment of risks carried out annually and before commencement of any audit engagement. (Hung and Han, 1998)

To reduce agency costs emphasis is put on the need to have an effective corporate governance structure which connects management interests with stakeholders' interests. (IIA,

2004). To evaluate the behaviour of management, controls can be put in place including having board directors who are independent, a board chair who is independent, a sound audit committee and strong internal and external audit functions. According to Hung and Han (1998) the wider relations between these governance mechanisms are referred to as the “corporate governance mosaic”.

2.2.2 Institutional Theory

Established by Schneider (1984), the institutional theory points out that there exist social expectations as far as the operations of an organisation are visible to the public. Since the internal processes are hidden from the public, are complex and un-identifiable, there is a tendency for an entity to treat the expectations as second priority as far as external legitimacy is concerned. (Goodwin, 2004).

It is observed that there may exist a weak bond between the external image of an organisation and its operating processes. (Sterck, and Bouckaert, 2006). Institutional theory observes that in such instances, organisation structures tend to be mere formalities of accountability and compliance. Therefore the actual work in an organisation is only achieved through internal operating processes. In-depth and frequent investigations by external parties such as the external auditors can be avoided by organisations through them having effective structures in place. This idea has been useful in various fields including decision making about accounting methods, whether to adopt innovative technologies and the choice on whether to use accounting by public sector organisations. (Sultana, et al., 2015).

The internal audit function has basically formed part of an organisation rather than an external party. The internal audit engages the organisation into detailed audit processes and there after

gives recommendations on areas of improvement. The internal auditors must therefore take much caution not to compromise their independence and objectivity in the course of carrying out their duties as they operate closely with the management. The internal auditors can maintain their independence by observing good governance practices such as transparency, efficiency, accountability and responsiveness while at the same time putting much focus on the functioning and performance of the public sector. (Hung, and Han, 1998).

Government auditing forms a foundation of good public sector governance. The auditors enable government organisations to be more accountable and exercise integrity there by winning the confidence of stakeholders and the public at large. To achieve these goals the auditors should offer unbiased services; carry out un-impaired assessments on the use of public resources and whether the resources are utilized in a responsible manner. The government auditor is also responsible in ensuring that organisations are carrying out their mandate in the manner they are expected to and shun out any corrupt practices. (Samaha, Khelif and Hussainey, 2015).

2.3 Empirical Review

The section reviews various studies which are relevant to the study variables.

2.3.1 Committee Meetings and Risk Management practices

Research has shown that board decisions are impacted highly where the meetings of the audit committee are more frequent. (Abbott et al., 2004; Arel et al., 2006; DeZoort et al., 2002 and Robinson and Owens-Jackson, 2009). A number of scholars have also advocated for due diligence of the audit committee while in course of duty. (Beasley, Carcello, and Hermanson, 1999; Horton et al., 2000; Blue Ribbon Committee, 1999). Any challenging issues are resolved when the audit committee holds frequent meetings. (Raghunandan, Rama, and Scarbrough, 1998).

Most studies have linked the effectiveness and efficiency of audit committees to the cycle in the number of meetings in a year. It is stated that the more the meetings that a committee holds the less the errors and incidences appear in financial reporting processes. Further where there are several meetings with external auditors and the management keeps the audit committee in the forefront of identifying the risk management as well as accounting issues. Any difficult matters arising can therefore be handled in an efficient ways. (Raghunandan, Rama, and Scarbrough, 1998).

More and more literature also advocate for the need to have due diligence of the audit committee. (Beasley, Carcello, and Hermanson, 1999; Horton et al., 2000; Blue Ribbon Committee, 1999). Yatim's (2009) provides evidence regarding that a strong relationship exists between frequency of meetings and risk management efficiency.

The Kenya Public Finance Management Act Regulations number 18 (2012 stipulates that audit committees shall meet at least once every three months (PFMR, 2012); this means that the minimum number of meetings that a committee should hold in a year are four, however, there can be more meetings on a need basis for different entities. ACs might find it useful and necessary to hold separate private meetings with both the internal and external auditors without the presence of the management at least twice a year. In meeting the internal auditors without the presence of the management gives them the freedom to express themselves on issues that are affecting their delivery in the entity. For an internal audit unit to be effective in its oversight role it should be properly facilitated and independence maintained. Without independence, the internal audit will be limited in their scope during their various audit activities hence hindering their effectiveness in the entity. The AC has a role in ensuring that the internal audit is given a conducive atmosphere.

A key role of the audit committee is ensuring that the independence of the internal auditor is maintained in order to create a viable environment to carry out their mandates. The head of the Internal Audit function is supervised by Audit Committee and in terms of administrative duties, reports to the CEO. This ensures that internal auditors remain independent. The head of Internal Audit and his or her team are expected to be competent and be professional at all times. (Locatelli, 2002).

The audit committee acts as a communication broker between the board of directors and the external auditors and are constantly invited in the meetings held by these two parties. In the meetings, the audit committee is able to read the external audit reports and discuss any matters arising with the board of directors. The suggestions are given to the management for execution. Just like with the internal auditors, the audit committee meeting with the external auditors will be able to express any hindrances to their performance brought about by the management without fear of victimization. Risk management activities tend to be well monitored when a committee is diligent.

While studies have been done on the importance of frequent audit committee meetings, limited literature is available in the Kenyan context. Therefore, this study seeks to assess the frequency of meetings of the audit committees and how it influences the risk management practices of public entities in Kenya.

2.3.2 Audit Committee Independence and risk management practices

One of the aspects that has been supported by most literature and has dominated the literature world is the independence of the audit committee. (Klein, 2002; Robinson and Owens-Jackson, 2009). The Kenya Public Finance Management Act Regulations (PFMR) number 18 (2012) states that the chair of an audit committee should be free from any engagement with national

government entities, possess relevant business knowledge and adequate information about the organization, he or she must have strong leadership skills and must not have any political affiliations. Members of an audit committee must not be employees or agents of the entity in question for the past two years. (PFMR, 2012).

These independent members guarantee superior monitoring of management. This idea is supported by the agency theory in various ways; Independent audit committees tend to have a high level commitment as far as managerial discretions are concerned by ensuring that they include risk-taking activities through which management engage. Further, members of an audit committee are likely to improve their service delivery through consideration of the reputational capital. (Fama and Jensen, 1983a; Gilson, 1990) .The need to maintain high level reputational capital by members of the audit committee will push them to offer higher quality monitoring. The resulting effects are that high quality monitoring leads to an enterprise achieving strong internal controls. In agreement with the risk based approach, a firm's risk assessment process is strengthened when the audit committee is independent and is able to monitor all risk management processes. Yatim (2009) puts emphasis on the value of the independence of an audit committee on the risk management activities of an enterprise.

The preceding argument leads to the conclusion that a highly independent audit committee has more dedication in monitoring risk management activities.

Research done in Kenya showed that audit committee independence influences the financial management in government ministries (Ruto, 2016). However, few studies have been done on how audit committee effectiveness influences the risk management practices in public entities in Kenya, hence the need for this study.

2.3.3 Audit Committee Financial Expertise and Risk Management practices

Research done on the factors influencing the audit of financial statements of businesses in Vietnam concluded that occupational qualification has a significant impact on the audit quality of the financial statements. (Hui and Sy Trung, 2015). Another study by Lisic et al. (2011) in Johannesburg, South Africa looks the extent to which the audit committee independence affects the occurrence of incidences of financial statement restatements through the CEO's power. He found that the financial expertise of the audit committee did not have a significant influence on the incidences of restatements of the financial statements. Moreover it is negatively associated when the CEO power is low. They conclude that financial expertise of the audit committee does not always guarantee effective monitoring of risk management activities and that the monitoring effectiveness depends heavily on the power vested on the top management.

Rashidahand Mohamed (2006) examined the association between the level of earnings management and financial expertise of the audit committee but did not provide any proof of existing relationship. It is therefore important that more research is carried out to determine the extent to which financial expertise of an audit committee on performance of an enterprise. In Kenya studies show that audit committee membership composition contributes most to the financial management (Ruto, 2016). However, other studies done in public entities in Kenya showed that there is no appropriate combination of capacity and skills, in the audit committees as well as lack of opportunity for continuous trainings for skill enhancement (CPAK, 2016).

According to researchers Carcello and Neal (2003) and Lee et al., (2004) financial expertise of the audit committee has been used as a measure of its effectiveness in an audit committee in carrying out its roles. Further, Fama and Jensen (1983) observe that, audit committee members desire to maintain their reputation in their field of occupation and as a result

they put more effort to build quality financial expertise and therefore get motivated to exercise the monitoring responsibility.

The Kenya Public Finance Management Act Regulations number 18 (2012) mandates that all members of the audit committee shall have a good understanding of government financial reporting and auditing (PFMR, 2012).

Members of audit committee who possess the relevant financial expertise have the ability to identify audit risks as well as procedures needed to handle different risks and associated issues. (DeZoort and Salterio, 2001). Further having a financial background gives a member more experience and the ability to understand risk management processes.

It is widely known that the audit committees' has two main responsibility that are monitoring of risk management and overseeing the financial reporting of an entity. In this regard a member or all members of the audit committee must possess accounting or financial expertise which will enable such a member(s) to perceive the control issues related to internal audit. Financial expertise of members of an audit committee is therefore important in predicting the performance in reviewing the reports of the internal audit.

In light of the above argument, there is a audit committee members 'financial expertise is important in the monitoring of risk management practices, however this is yet to be established in the context of the Kenyan public entities.

2.4 Research Gap.

As seen from the background, the responsibility of overseeing corporate governance in organisations in both public and private sector lies with the audit committee. The committee also has the obligation of providing assurance on financial and compliance issues through risk

management monitoring through improved accountability, increased scrutiny of activities and using resources in a more efficient manner.

The inadequacy in quality research on Audit Committee activities means that a gap exists. The empirical review reveals that an audit committee also improves performance in an organisation since it takes an advisory role. However, the lack of managerial abilities coupled with the accepted auditing standards leads to problems in information transfer in a non-structured environment. (Byrnes et al.,2018).

Failure of effective measurement ability gives the agent the opportunity to provide dismal results on the tasks given. (Goodwin, 2004). In addition, Zangiabadi (2014) examined the factors influencing the quality of IT audit in Iran. He stated that inadequate skills and knowledge in accounting, business processes and ineffectiveness of an audit team belittles risk management practices in public institutions. However, this study is specific to this region and due to the differences in organizational culture, policy and practices, cannot be generalized for Kenya, thus the need for this study.

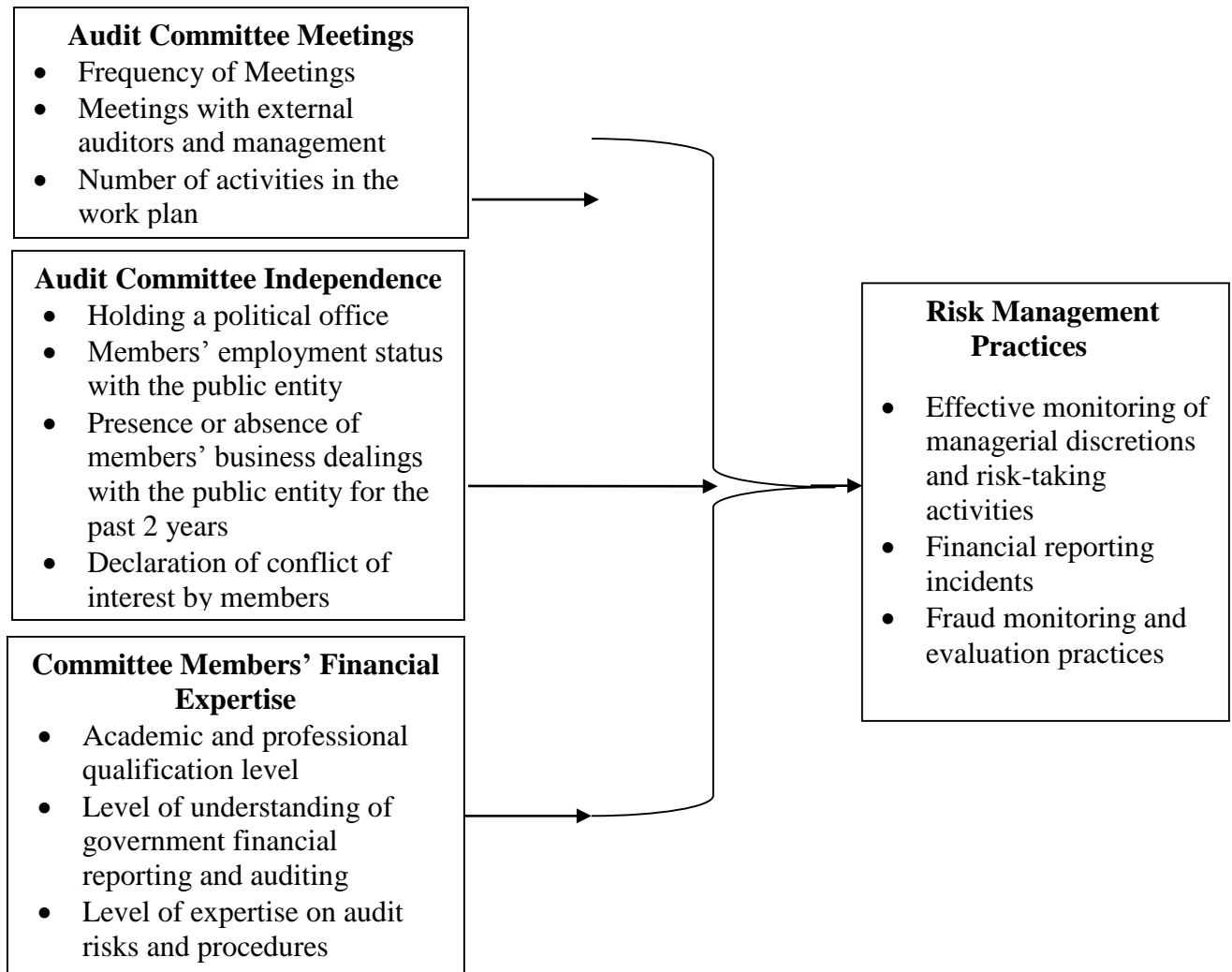
2.5 Conceptual Framework

The conceptual framework is developed to examine the relationship between risk management in the public sector and audit committee functions. The link between the dependent variable, risk management practices and the independent variables, audit committee meetings, independence and members' financial expertise are illustrated in Figure 1. In this conceptual framework, the causal relationships between the constructs/variables seem to be straightforward, however, in order to make practical conclusions about the audit committee activities and its relationship with risk management practices in public entities audit committee activities, the conceptual framework requires further analysis.

FIGURE 1: Conceptual Framework

Independent variables

Dependent variable



Source: Author (2018)

2.6 Operationalization of Variables

The operational framework illustrates the measurement of the independent and dependent variables (Table 1). The independent variable, audit committee meetings will be assessed using variables such as frequency of meetings, presence or absence of meetings with external auditors and management and the number of activities in their work schedules. To measure the independence of the audit committee, the study will use indicators measuring conflict of interest of members such as having had previous business dealings with the public entity, or being a previous or current employee, or holding a political office. Lastly, to assess the audit committees' financial expertise, the study will use indicators such as the members' level of education/professional qualification, their level of understanding of government financial reporting and auditing their level of understanding of issues related to risks of auditing and all procedures followed for audit. These three independent variables will then be correlated with the dependent variable; risk management practices in the public entities. This variable will be assessed using indicators such as effective monitoring of managerial discretions and risk-taking activities, the incidence of financial reporting issues and fraud monitoring and evaluation practices. All these variables will be measured using ordinal and ratio scales as shown in Table 1 below.

TABLE1: Operational Framework

Independent variables	Indicators	Scale	Type of analysis
Audit Committee Meetings	<ul style="list-style-type: none"> • Frequency of Meeting • Meetings with external auditors and management • Number of activities in the work plan 	Ordinal Ordinal Ratio	Frequencies, Percentages, Means and Standard deviations
Audit Committee Independence	<ul style="list-style-type: none"> • Holding a political office • Members' employment status 	Ordinal	Frequencies,

	<ul style="list-style-type: none"> with the public entity • Presence or absence of members' business dealings with the public entity for the past 2 years • Declaration of conflict of interest by members 	Ordinal Ordinal Ordinal	Percentages Means and Standard deviations
Committee Members 'Financial Expertise	<ul style="list-style-type: none"> • Academic and professional qualification level • Level of understanding of government financial reporting and auditing • Level of knowledge in areas of risks and audit processes. 	Ordinal and Nominal Ordinal Ordinal	Frequencies, Percentages, Means and Standard deviations
	Dependent variables		
Risk Management Practices	<ul style="list-style-type: none"> • Effective monitoring of managerial discretions and risk-taking activities • Financial reporting incidents • Fraud monitoring and evaluation practices 	Ordinal Ordinal Ordinal	Frequencies, Percentages, Means and Standard deviations

CHAPTER THREE

METHODOLOGY

3.1 Introduction

This chapter highlights and expounds more on the procedures that will be for data collection, measurement and analysis. It also highlights the methods of data gathering, the target population, the study design, the sampling method, collection and analysis of data as well as methods of presentation.

3.2 Research Design

Research design is the compilation of the various components of the study in a logical sequence in order to meet the study objectives. (Bachman and Schutt, 2016).

This research employed the use of a case study by adopting a descriptive study design to collect, analyse and present data. A case study isolates an individual and carries out an analysis.(Lee and Lings, 2008). The researcher used the descriptive design to describe the on-going situation in government ministries in relation to their risk management practices. As such, it reduces the bias during data collection by focusing on a representative sample of the study (Oso and Onen, 2008).

3.3 Target Population

A target population is the total number of elements about which inferences are made and refer to all possible cases which are of interest to the study (Sekaran, 2010). In this study the target population consisted of all the members of the 22 audit committees in the 22 government ministries (Executive Order No.1 of July 2018).

3.4 Sampling design and Sample Size

A sample is a sub-set of a population (Serakan, 2010). Cooper and Schilder (2011) defined a sample is a proportion of the total population under study. It should form a good representation of the entire population, should have minimal sampling error, economical, and systematic and its results can be acceptable at all levels. (Leary, 2001).

Stratified sampling technique was used in this study. In this technique, the sampling frame was divided into strata, which are homogeneous and non-overlapping subgroups, then simple random technique was used to draw the sample within each strata (Bhattacharjee et al., 2012). This allowed for selection of a representative sample of the population (Kothari, 2004). This method was preferred because the research targeted the members of the 22 audit committees in the public entities who were able to provide all the required information for this study. This different committee was the strata. All the 6 members from each of the audit committees in the 22 government ministries were selected to participate in the study thus making a total of 132 respondents.

3.5 Research Instrument

Primary data was collected in this study by use of questionnaires. A questionnaire was considered the most efficient method of collecting data from the respondents. Mugenda and Mugenda (2003) observe that a questionnaire require less time and maintains confidentiality. Hair, Bush and Ortinau (2000) also agree that questionnaires are most suitable in a survey scenario since they need less time and have ease of analysis owing to their readily usable form.

The questionnaire (appendix III) is divided in two sections to collect information on all the objectives of the study. The sections include; general information on the study participants, audit

committee independence and risk management, audit committee meeting and risk management and lastly, committee members expertise and risk management.

3.6 Data Collection Procedure

The study employed primary data to answer research questions. The basis of the questionnaires was the study objectives. The researcher was assisted by two assistants to administer the questionnaires through a drop and pick later method. The questions were designed to obtain opinions on the study topic from the respondents. It was therefore possible to separate the variables. A pre-test was done on five respondents who were not part of the sample before they were finally administered.

3.7 Validity and Reliability

Validity refers to how accurate the inferences are as obtained by study results. (Mugenda and Mugenda, 2003). To measure the validity of the measurement scales, each of the constructs were evaluated by looking at past relevant theories and research findings under the topic of study.

Additionally, Zikmund et al. (2013) argues that pre-testing the research instruments reduces biases that may be caused by measurement errors. A pilot test/pre-test was therefore be conducted on 13 respondents to test validity of the research instruments. The respondents participating in the pilot study were not included in the final study. The focus of the pre-test was to ensure relevance, wording and sequence of questions to avoid response bias and ambiguity. The research tool was be modified accordingly after the pilot study.

Testing for reliability of the research instrument is paramount in research. Reliability seeks to determine if scores to items on a research instrument are internally consistent, stable, and whether the test administration and scoring is consistent (Creswell, 2014). Saunders, Lewis and Thornhill (2009) defined reliability as the degree to which a research instrument produces

consistent results after repetitive trials. A test-retest method was used to determine the reliability of the tool. Thirteen respondents (10% of sample size) were randomly selected from the respondents and a retest done then analysed using SPSS software to determine their reliability. The researcher used Cronbach's Alpha to test for internal consistency. (Cronbach's, 1951). It is a measure of the degree of measure of items by a single variable. (Cronbach, 1951).The benchmark value is 0.7 for the reliability co-efficient.

3.8 Data Analysis and Presentation

According to Steelman, Hammer and Limayem (2014), data analysis entails the organisation of the information collected from the field in a manner that can be understood .The researcher first edited the raw data to eliminate any errors and inconsistencies. The researcher perused through filled questionnaires and document sheets used to record the data for analysis. The data collected was entered in an excel sheet and analysed using Statistical Packages for Social Sciences (SPSS) software Version 21.Descriptive statistics were carried out for the quantitative data acquired. To determine and test the relationship between the dependent variable and each independent variables, correlation analysis was done and regression. In particular, the following regression model will be used:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + e$$

Where:

Y= Risk Management practices

X₁=Audit Committee meetings

X₂=Audit Committee Independence

X₃= Audit Financial Expertise

α = constant

e=Error term

The data has been presented using tables and figures.

3.9 Diagnostic Testing

The results of the regression analysis was interpreted based on the, Pearson's Correlation Analysis, ANOVA, and significance of F statistics and the significance of beta values from the coefficients of the X variables. The significance will be tested at 95% confidence interval.3.9.

3.9.1 Normality Test

Normality tests are important during data analysis to determine the distribution of the data. They determine the kind of tests that can be done in the data; whether parametric or non-parametric tests. Samuel Sanford Shapiro and Martin Wilk (1965) came up with Shapiro–Wilk test of normality in frequents statistics. It tests the null-hypothesis that the population has a normal distribution. If the p-value falls below the acceptable level (0.05), null hypothesis is rejected and the conclusion give that the data residuals are not normally distributed. On the other hand, if the p-value is greater than the chosen alpha level (e.g. 0.05), then the null hypothesis that the data came from a normally distributed population cannot be rejected thus its concluded that the data is normally distributed (Shapiro & Wilk, 1965). This test was useful to the researcher while choosing which correlation tests can be done in the data.

3.9.2: Homoscedasticity test

Tests for homoscedasticity and multicollinearity were conducted to minimize the chances that the data collected may have to influence the decisions to reject or not to reject the hypothesis. To test for homoscedasticity, Levene test (1960) for equality was computed using one-way ANOVA procedure. It was used assess the equality of variances for a variable calculated for two or more groups. The level of significance for the study will be $\alpha=5\%$, for $p \geq 0.05$ fail to reject, while for

$p < 0.05$ will be rejected and conclude that there is a difference between variances of the population.

3.9.3: Multicollinearity test

Multicollinearity in this study was tested using variance inflation factor (VIF) and Tolerance levels. The reciprocal of tolerance which is known as the variance inflation factor (VIF) indicated how much the variance of the coefficient estimate is being inflated by multicollinearity. A VIF for all the study variables less than 3 ($VIF \leq 3$) will indicate no multicollinearity while a VIF of ≥ 3 will indicate collinearity and more than 10 will indicate a problem with multicollinearity. Established Tolerance Statistics values below 0.1 will indicate a serious problem while Tolerance statistics below 0.2 will indicate a potential problem.

3.10 Ethical Considerations

Ethical considerations in research are the norms or standards that help to determine the difference between acceptable and unacceptable behaviours (Steelman, Hammer and Limayem, 2014). Since this research uses human as subjects, the researcher ensured that human rights are not violated by reviewing the research methodology. The researcher obtained permission from the relevant departments in the public ministries before commencing the research. Informed consent was also obtained from the respondents before the questionnaire was administered.

DATA ANALYSIS FINDINGS AND DISCUSSIONS

4.1: Introduction

This chapter discusses analysis, findings and their interpretation and further presents the analysis of data on the audit committee effectiveness and risk management practice in the public sector among the government ministries. The chapter provides the results of demographic, descriptive, correlation analysis and major findings of the study. The analysis established the relationship between the dependent and independent variables by use of a regression model.

4.2: Response Rate

The researcher targeted internal auditor, Board members, audit committee members, Management and staff of the Government Ministries in Kenya. These were the target population knowledgeable in the area of research. Out of the 132 questionnaires distributed 124 respondents were willing and responsive; they adequately filled and returned the questionnaires as required. 93% response rate realized in this study is considered reliable and useful for data analysis. Mugenda and Mugenda (2003) point out that 50% generalization rate is adequate for analysis and reporting; while 60% is considered good while above 70% is considered excellent.

Table 4.1: Response Rate

	Returned	Not Returned	Total Disbursed
Respondents	124	8	132
Percentage	93%	7%	100%

4.3: Demographic information

This study embarked examination of demographic information to determine the existence of the relationship between the audit committee effectiveness and risk management practices in the public sector. This demographic information for respondents includes Gender, Age, and education level and year of experience in the public sectors as presented in Table 4.2 below:

Table 4.2: Demographic Information

Gender	Frequency	Percent
Male	64	51.6
Female	60	48.4
Age		
25-35 years	19	15.3
36-40 years	46	37.1
41-45 years	22	17.7
46-50 years	15	12.1
51-55 years	14	11.3
56-60 years	8	6.5
Minimum level of education		
Secondary	31	25.0
University degree	24	19.4
Postgraduate	23	18.5
others	46	37.1
Years of Experience		
0-5 years	14	11.3
6-10 years	39	31.5
11-15 years	32	25.8
16-20 years	10	8.1
21-25 years	15	12.1
Over 25 years	14	11.3
Total	124	100.0

4.3.1: Gender

The study examines the gender of the respondents. The findings tabulated above revealed that Majority of the respondents at 51.6% were male while 48.4 % were female, this indicates that the respondents were fairly distributed in terms of gender representation in public sector

4.3.2: Age

The study sought to establish the age bracket of respondents and revealed that a majority of respondents 37 % were aged between age brackets 36-40 years, while 17% were in the age bracket of 41-45 years,15% were aged between 25-35 years,12% were aged between 46-50 years,11% were aged between 51-55 years, While only 8% were above 55 years old. This further indicates that the respondents were fairly distributed age wise and shows that the respondents consisted of the productive and active age brackets

4.3.3: Education Level

The study also to establish the Education level of the respondents. The research revealed that a majority respondents 37% were fall under others which represented other professional course like CPA,CISAandCFA holders,cDegree holders were 19%, 18% were Post graduate degree holders, 25% were secondary school , Diploma holders and Certificate holders, this indicates that the respondents were fairly distributed in terms of their education level in addition to being well educated and qualified for their respective positions.

4.3.4: Years OF Experiences

The study solicited to establish the experience of the respondents reflected in the number of years of service in public sector in their respective ministries. The study revealed that majority of the respondents at 31% had worked in their public sector for 6-10 years, 25% had worked for 11-15 years, and 12% had worked 21-25 years , for Over 25 were 11% years while 11% had worked for less than a five year. This gave reliability. And strength to the information provided by the respondents and implies that the managers involved in the study have good experience in relation to the respective positions they hold.

4.2: Descriptive Statistics

This chapter provides information on the outcomes, established by the use of a five point Likert scale where: (1) represented very small extent, while (5) represented very large extents. The analysis was based on mean and standard deviation whereby the scores of more than to 3.5 were taken to represent positive response while scores of 2.6 to 3.5 represented moderate response, scores of 2.5 and below represented negative responses. A standard deviation of > 0.9 implied a significant deviation of the variable among respondents.

4.1.1: Audit Committee Meeting

An examination of the statements made up of effectiveness of audit committee meeting and risk management in the public sector corporations based on the mean and standard deviation are summarized in Table 4.3 below

Table 4.3 Audit Committee Meeting

	N	Mean	Std. Deviation
Do you have a work plan	124	1.1290	.33660
How many meetings have you held 2015	124	2.5484	1.07714
How many meetings have you held 2016	124	2.8387	.79005
How many meetings have you held 2017	124	3.0161	1.17552
The committee have regular meetings with external auditors and management	124	3.7016	1.20958
During its meetings Carries out periodic reviews of its written charter to ensure that it remains relevant with the committee's authority, objectives and responsibilities	124	3.7742	1.09573
To facilitate regular engagement with the Ministry, the audit committee meets at least quarterly with the authority to convene additional meetings as circumstances require	124	3.8629	.96554
The committee prepares a work plan that outlines the activities to be undertaken to achieve the committee's functions	124	3.9516	1.11789
Valid N (listwise)	124		

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The study was inquisitive to determine the effectiveness of the audit committee on risk management practice the table above depicts the summary of findings on effectiveness of audit committee meeting and risk management as effective depicted by a mean score ranging between 1.1290 and 3.9516.

This means that most of the respondents were in agreement that The committee prepares a work plan that outlines the activities to be undertaken to achieve the committee's functions with mean score of 3.9516, To facilitate regular engagement with the Ministry, the audit committee meets at least quarterly with the authority to convene additional meetings as circumstances require with mean score 3.8629, further During its meetings Carries out periodic reviews of its written charter to ensure that it remains relevant with the committee's authority, objectives and responsibilities mean of 3.7742, in addition The committee have regular meetings with external auditors and management with mean score of 3.0161. This reveals that the audit committee meeting were effective in risk management within public sector .the low standard deviation of 0.3366 mean there was low variation in audit plan.

4.1.2: Audit Committee independence

An examination of the statements made up of effectiveness of audit committee independence meeting and risk management in the public sector corporations based on the mean and standard deviation are summarized in Table 4.4 below

Table 4.4; Audit Committee Independence

	N	Mean	Std. Deviation
Is the first agenda item of every meeting a request for audit committee members to declare any potential conflict of interest with any of the business items on the audit committee agenda	124	1.2581	.53906
There are sufficient processes in place to manage any real or perceived conflict of interest in your ministry	124	1.3145	.64224
The extent to which adoption of a phased approach is allowed and the rotation of members exists to preserve an acceptable level of knowledge and expertise of committee members in your ministry	124	3.4194	1.25651
Most members have not served as an employee or owner of a business which has been in business with the entity for the past 2 years	124	3.4516	1.28376
A written declaration of conflict of interest through the chair by the members is done periodically	124	3.5242	1.20611
Most members not past or present employees of the entity	124	3.5484	1.11425
The performance evaluation of the audit committee is carried out annually by treasury to ensure that the performance of work of the committee is efficient and meets the objectives	124	3.7016	1.14750
Chairman of the committee was properly vetted and is not political office holder minimizing the risk of conflict of interest.	124	3.7581	1.04664
Valid N (listwise)	124		

The study was inquisitive to determine the audit committee independence effectiveness on the risk management practice in Public Sector Corporation. The table above depicts the summary of findings on effectiveness of audit committee independence on risk management practice as effective depicted by a mean score ranging between 3.7581 and 1.2581. The high standard deviation of 1.28376 mean there was highest variation in Most members have not served as an employee or owner of a business which has been in business with the entity for the past 2 years. This also mean that respondent were in agreement that Chairman of the committee was properly vetted and is not political office holder minimizing the risk of conflict of interest with mean

score of 3.7581,The performance evaluation of the audit committee is carried out annually by treasury to ensure that the performance of work of the committee is efficient and meets the objectives with mean score of 3.7016,Most members not past or present employees of the entity mean score of 3.5484.A written declaration of conflict of interest through the chair by the members is done periodically with mean score of 3.5242 ,in addition respondent were in agreement Most members have not served as an employee or owner of a business which has been in business with the entity for the past 2 years with mean of 3.4516,the extent to which you agree in adoption of a phased approach to the rotation of members to preserve an appropriate level of knowledge and expertise of committee members in your ministry with mean score of 3.4194,There are sufficient processes in place to manage any real or perceived conflict of interest in your ministry mean score 1.3145.the low standard of 0.5396 .The audit committee members are made to declare any existing conflicts of interest in the committee agenda items with a low variation

4.1.3: Committee member’s expertise

An examination of the statements made up of effectiveness of committee members expertise and risk management in the public sector corporations based on the mean and standard deviation are summarized in Table 4.5 below

Table 4.5: Committee member’s expertise

	N	Mean	Std. Deviation
Have you undertaken any training	124	1.2742	.44792
The performance evaluation of the audit committee is carried out annually by treasury to ensure that the performance of work of the committee is efficient and meets the objectives	124	1.3387	.69711
your work experience	124	2.5242	.59077

highest attained level of education	124	3.2742	.91366
Members have appropriate predefined qualifications to meet the objectives of the charter that is degrees or levels of education in accounting, audit or financial related area and membership of professional bodies	124	3.8065	.89876
Members have a good understanding of government financial reporting and auditing procedures.	124	3.8548	.96856
The audit committee has facilitated members understanding in accounting, auditing and regulatory areas through consistent education programs to members.	124	3.8629	.97393
Valid N (listwise)	124		

The study was inquisitive to determine the committee members expertise on the risk management practice in public sector corporation. The table above depicts the summary of findings on effectiveness of committee members expertise on risk management practice as effective depicted by a mean score ranging between 3.8629 and 1.2742. The high standard deviation of 0.96856 mean there was high variation in Members have a good understanding of government financial reporting and auditing procedures. The respondents were in agreement that The audit committee has developed a continuing education program to enhance its members understanding of relevant auditing, accounting and regulatory issues with mean score of 3.8629, Members have a good understanding of government financial reporting and auditing procedures with mean score of 3.8548, Members have appropriate predefined qualifications to meet the objectives of the charter that is degrees or levels of education in accounting, audit or financial related area and membership of professional bodies with mean of 3.8065, highest attained level of education with mean score 3.2742. the low standard deviation of in members undertaken any training 0.44795 mean there was very low variation.

4.1.4: Risk Management

The study sought to measure risk management in the public sector institutions undertaken in the study. A total of three statements were presented to the respondents based on a five point Likert scale. The results obtained are presented in the Table 4.6 below.

Table 4.6: Risk Management

	N	Mean	Std. Deviation
Financial reporting issues/incidents are minimal in public entities	124	3.4597	1.03121
There is effective monitoring of managerial discretions and risk-taking activities in public entities	124	3.5645	1.03784
Fraud monitoring and evaluation practices in public entities are efficient	124	4.0000	1.11165
Valid N (listwise)	124		

The study aimed to investigate risk management practice in the public sector state corporation in government ministries. From the findings tabulated above most respondents pointed out Fraud monitoring and evaluation practices in public entities are efficient with mean score of 4.00, There is effective monitoring of managerial discretions and risk-taking activities in public entities with mean score of 3.5645 and Financial reporting issues/incidents are minimal in public entities with mean score of 3.4597

4.5: Diagnostic tests

In order to proceed with the linear regression analysis using the Ordinary least square method, this study ensured that the data conforms to the classical linear regression assumptions. The pre-estimation and post-estimation tests were performed to establish the linear regression assumptions.

4.5.1:Pre-estimation tests

This diagnostic test involves checking the data to ensure normality and multicollinearity before fitting the model. This procedure is carried out using two tests which are explained in detail below.

4.5.1.1: Schapiro Wilk Test For Normal Data

This is a non-graphical test whereby if the test results are above 0.05 i.e. insignificant then it implies that data being used follows a normal distribution. On the other hand, when the p value is less or equal to 0.05 i.e. significant then it implies that the data is not good enough for OLS analysis. The Schapiro Wilk test results for normal data are presented in Appendix IV. The results obtained indicated that all variables in this study had a p-value greater less 0.05 except committee member's expertise. This means that the variables in the study follow a normal distribution making the Ordinary Least Squares (OLS) method suitable for analysis of the data.

4.5.1 .2; Pearson Correlation Test

Explanatory variables should not exhibit high correlation with each other as this will result to unrealistic regression results. To avoid this high correlation the variables used were tested for relationship between dependent variable and independent using the Pearson correlation technique. The results of the Pearson correlation are presented in Table 4.7 below

Table 4.7: Pearson correlation test

		Risk management	Audit committee meeting	Audit committee independence	Committee Members expertise
Risk management	Pearson Correlation	1			
	Sig. (2-tailed)				
	N	124			
Audit Committee meeting	Pearson Correlation	.634**	1		
	Sig. (2-tailed)	.000			
	N	124	124		
Audit committee independence	Pearson Correlation	.370**	.509**	1	
	Sig. (2-tailed)	.000	.000		
	N	124	124	124	
Committee Members expertise	Pearson Correlation	.660**	.605**	.645**	1
	Sig. (2-tailed)	.000	.000	.000	
	N	124	124	124	124

** . Correlation is significant at the 0.01 level (2-tailed).

The results from the table above indicate that the three independent variables are moderately correlated to each other and none had exceeded 0.8 and therefore the OLS technique was appropriate. Correlation above 0.8 may lead to spurious results.

4.6.1: VIF test for Multicollinearity

This test was carried out after regression to confirm the pretest indicated earlier on normality and multicollinearity of data. The results obtained are presented in Appendix iv and give a mean VIF of 1.83 which is less than the set threshold of 10 when the variables are perfectly collinear. Sosa-Escudero (2015) is moderate correlation and if VIF is greater than 10 then this indicates high on

the data. multicollinearity correlation. This therefore confirms that there is in the variables used in line with the pre-test done

4.6.2: Test for Heteroscedasticity

Ordinary least square results are rendered biased if the pattern of errors does not remains constant throughout the observations (Gujarati, 2009). This is referred to as the Heteroskedasticity problem, and to minimize these residuals were subjected to graphical and non-graphical Breusch-Pagan test after regression. The Breusch-Pagan test tested that the error variances were constant throughout the observation unless the results prove otherwise. The results obtained and presented in Appendix vi posted a p value of 0.0007 at 95% confidence level therefore the study concluded that there was no possible presence of Heteroskedasticity in the model. The residual plots showed that the error term (ϵ) was normally and identically distributed with constant variance and a mean of zero. This means that the error variance was constant in operational risk performance hence the data was homoscedastic.

4.5.3: Model fitting

4.5.3.1 :Coefficient of determination (R-Squared)

Table 4.8: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.735 ^a	.540	.529	.64220

a. Predictors: (Constant), committee members expertise, audit committee meeting, audit committee independence

This coefficient of determination shows the proportion of variance in the dependent variable (risk management practice in the public sector) that is explained by the independent variables in the study. It is used to evaluate the model

fit; R-square is one less the ratio of residual variability. The Adjusted R^2 (coefficient of multiple determinations) refers to the proportion of variance in the dependent variable explained by the

independent variables. From table 4.8 above 54 % of the changes in risk management practice in public sector could be attributed to the combined effect of the dependent variables. However 46 % of the variance is explained by other factors not covered in this study. The adjusted R-squared results indicate that 52.9% of the variance in the exploratory variables is attributed to independent variables in the study.

4.5.3.2: Analysis of variance (ANOVA)

Significance testing of the values indicates the level of relationship between the dependent and independent variables. If the significance number is less than the critical value – probability (p) value set at 0.05 the model is significant. From Table 4.9 below shows that the model is significant and that the predictor variables are good indicators of risk management practice in the public sector. This is further supported by the F statistic 47.013 and the reported value of 0.000 which is less than conventional probability of 0.005significance level.

Table 4.9: Analysis of Variance (ANOVA)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	58.168	3	19.389	47.013	.000 ^b
	Residual	49.491	120	.412		
	Total	107.659	123			

a. Dependent Variable: Risk management

b. Predictors: (Constant), committee members expertise, audit committee meeting, audit committee independence

4.5.3.3: Regression coefficients

The findings on the individuals’ coefficients shown in the Table 4.10 below revealed that the independent variables: audit committee meeting, audit committee independence and committee members expertise significantly influence risk management practice in public sector corporation

(0.561 p – values = 0.000: -0.0330P-value = 0.000 and 1.110, p-value 0.000) at 5% significance level. The results presented show that independent variable significant in explain the relationship with dependent variable.

Table 4.10: Regression coefficients

Model		Unstandardized Coefficients		Standardized Coefficients		t	Sig.
		B	Std. Error	Beta			
1	(Constant)	-.605	.415			-1.457	.148
	Audit committee meeting	.561	.110	.402		5.076	.000
	Audit committee independence	-.330	.153	-.178		-2.159	.033
	Committee members expertise	1.110	.186	.532		5.956	.000

a. Dependent Variable: Risk management

4.6: Interpretation of the results

Based on the results, the model below was derived expanding the relationship between the factors identified in the study and risk management practice in public sector as fitted below:

The regression equation: $Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \epsilon$ will become:

$$Y = -0.605 + 0.51ACM - 0.330ACI + 1.100CME$$

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + e$$

Where:

$\beta_1, \beta_2,$ and β_3 = Regression Coefficients

Y= Risk Management

X₁=Audit Committee meetings

X₂=Audit Committee Independence

X₃= Audit Financial Expertise

α = constant

e=Error term

The model shows that there was positive significant relationship between the risk management practice and audit committee meeting this implied that a unit change in audit committee will increase the risk management practice by 0.561 unit.

The study also shows there was negative significant relationship between the risk management practice and audit committee independence this implied a unit change in audit committee independence the risk management practice will decrease by 0.330unit.

Similarly the study indicate the positive significant relationship between the risk management practice and committee member's expertise this implied a unit change in committee member's expertise will lead to a 1.100increase in risk management practice in public .

Finally the studies indicate that when all the factors are held constant then risk management practice in public sector will decrease by 0.605 Units.

In conclusion, the inferential statistic showed the risk management practice was explained by independent variable; Audit Committee meetings, audit committee independence and committee

member's expertise, therefore appreciating that all the independence factors were the good predictor of risk management practices .

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This section provides information about the findings, conclusions and the recommendations of the study.

5.2 Summary of Findings

A summary of the findings from the analysis is given under this section. The findings are based on the study objectives.

5.2.1 Audit Committee Meetings

The first objective of the study was to determine the effect of the frequency audit committee meetings on risk management practices in government ministries in Kenya. Results revealed that frequency of audit committee meetings have a positive and significant effect on risk management practices carried out in government ministries. The study also revealed that it is through meetings it has been able to prepare a work plan that outlines the activities to be undertaken to achieve the committee's functions. The findings also revealed that periodic reviews of its written charter is done to promote relevancy in areas of responsibilities. The agreement from the majority of respondents supported this hypothesis.

These finding agree with that of Beasley, Carcello, and Hermanson, 1999; Horton et al., 2000; Blue Ribbon Committee, 1999 which stated that a number of studies and guidelines of government practices advocate for diligence of the members of the audit committee when carrying out duties.

In addition, the study agrees with that of Raghunandan, Rama, and Scarbrough, 1998) that regular meetings between the committee and external auditors and management would shed

more light on accounting issues and challenges facing the management risks consequently promoting efficiency.

5.2.2 Audit Committee Independence

The second objective of the study was to determine the audit committee independence effectiveness on the risk management practice in Public Sector Corporation. The findings revealed that most of the respondents were in agreement that there was a positive and significant relationship between audit committee's independence and risk management. The study revealed that the respondents were in agreement that chairman of the committee was properly vetted and is not apolitical office holder minimizing the risk of conflict of interest thereby depicting committee's independence. The findings also revealed that periodic reviews of its written charter are done so as to ensure that it remains relevant with the committee's authority, objectives and responsibilities.

The study further revealed that a written declaration of conflict of interest through the chair by the members is done periodically and also confirmed that most members have not served as an employee or owner of a business which has been in business with the entity for the past 2 years. The study agree with(PFMR,2012)that the majority of the members should not have worked with the organization at any one point, must have not acted on behalf of an organization as an agent soliciting business for a period of two years.

These findings also agree with that of Hines et al. (2015) that transparency, management of risk, governance and internal controls are enhanced by having an audit committee in place.

In addition, the findings agreed with aresearch done by Ruto (2016) in Kenya that showed that audit committee independence influences the financial management in government ministries.In

this light, presence of an independent audit committee is key factor to consider in public sector organizations risk management.

5.2.3 Audit Committee Financial Expertise

The third objective of the study was to determine the relationship between audit committee financial expertise and risk practices management in government ministries in Kenya.

The audit committee financial expertise has a significant and positive effect on risk practices management in government ministries in Kenya. The study revealed that Members have a good understanding of government financial reporting and auditing procedures and that the audit committee has developed a continuing education program to enhance its members understanding of relevant auditing, accounting and regulatory issues.

This finding agree with that of Fama and Jensen (1983), that the need for the members of the committee to maintain a good reputation, confers on them more responsibility in ensuring that their role of monitoring risks is efficient. Therefore the members tend to improve on their financial expertise.

5.3 Conclusions

The study concludes that frequency of audit committee meetings will increase its effectiveness through periodic reviews of its written charter which is done to ensure that it remains relevant with the committee's authority, objectives and responsibilities thus advocating for good practices in risk management.

Equally, audit committee independence is key when it comes to risk management practices in the Public Sector Corporations therefore there is need to have a written declaration of conflict of interest through the chair by the members .

Finally; the study concluded that the audit committee financial expertise an important factor to consider when forming an audit committee due since it has a positive effect on risk practices management in government ministries in Kenya.

5.4 Recommendations

The Audit committee plays the role of ensuring the public sector adopts sound risk management practices. Its independence, a member with relevant financial expertise and frequency in which the audit committee meets is vital when we talk about risk management practices.

The study established that how frequent the audit committee meets has a positive effect on risk management. The Government Financial Regulations should ensure that audit committee members meet as frequent as possible.

The study also recommends that the Government Financial Regulations should ensure qualified personnel with relevant expertise are recruited and appointed to the audit committee so as to mitigate risks and maximize on revenue collection.

5.5 Limitations of the study

Some audit committee members were reluctant to fill in the questionnaires and some did not return them at all. Some of the questionnaires I had issued were not given back.

The study concentrated on government ministries only, the study of audit committees in state owned corporations as well may have provided greater insights to the study topic.

5.6 Areas for Further Studies

The study sought to determine the relationship between audit committee effectiveness and risk management practices in the public sector. Further research must consider other state owned corporations that is the parastatals and also private owned corporations in different sectors.

REFERENCES

- Alban, A., and Sawan, N. (2015). The impact of audit committee characteristics on the implementation of internal audit recommendations. *Journal of International Accounting, Auditing and Taxation*, 24, 61-71.
- Amin, H. M., and Mohamed, E. K. (2016). Auditors' perceptions of the impact of continuous auditing on the quality of Internet reported financial information in Egypt. *Managerial Auditing Journal*, 31(1), 111-132.
- Atela, J. O., Quinn, C. H., Minang, P. A., Duguma, L. A., and Houdet, J. A. (2016). Implementing REDD+ at the national level: Stakeholder engagement and policy coherences between REDD+ rules and Kenya's sectoral policies. *Forest Policy and Economics*, 65, 37-46.
- Badolato, P. G., Donelson, D. C., and Ege, M. (2014). Audit committee financial expertise and earnings management: The role of status. *Journal of Accounting and Economics*, 58(2-3), 208-230.
- Barako, D. G. (2007). Determinants of voluntary disclosures in Kenyan companies annual Reports. *African Journal of Business Management*, 1(5).
- Bartlett, G. D., Kremin, J., Saunders, K. K., and Wood, D. A. (2016). Factors influencing recruitment of non-accounting business professionals into internal auditing. *Behavioral Research in Accounting*, 29(1), 119-130.
- Bhattacharjee, A., Morphet, R., Gutiérrez Bayo, J., Nam, T., & Pardo, T. A. (2012). Social science research: Principles, methods, and practices. Proceedings of the 12th Annual International Digital Government Research Conference on Digital Government Innovation in Challenging Times - dg.o '11. <https://doi.org/10.18235/0000407>
- Byrnes, P. E., Al-Awadhi, A., Gullvist, B., Brown-Liburd, H., Teeter, R., Warren Jr, J. D., and Vasarhelyi, M. (2018). Evolution of Auditing: From the Traditional Approach to the Future Audit 1. In *Continuous Auditing: Theory and Application* (pp. 285-297). Emerald Publishing Limited.
- Caldwell, F. (2008). Risk intelligence: applying KM to information risk management. *Vine*, 38(2), 163-166.
- Coetzee, P. (2016). Contribution of Internal Auditing to Risk Management: Perceptions of Public Sector Senior Management. *International Journal of Public Sector Management*, 29(4), 348-364.

Cohen, J., Krishnamoorthy, G., and Wright, A. (2017). Enterprise risk management and the Financial reporting process: The experiences of audit committee members, CFOs, and external auditors. *Contemporary Accounting Research*, 34(2), 1178-1209.

CPAK. 2016. Effectiveness of audit committees in the public sector. Institute of Certified Public Accountants of Kenya.

Hai, Do & Sy Trung, Ngo. (2015). The Factors Affect the Quality of Financial Statements Audit in Vietnam Businesses. *Asian Social Science*. 12. 172. 10.5539/ass.v12n1p172. *Contemporary Accounting Research*, 31(1), 230-252.

Dowling, C., and Leech, S. A. (2014). A Big 4 firm's use of information technology to control the audit process: How an audit support system is changing auditor behavior. *Contemporary Accounting Research*, 31(1), 230-252.

Durbin, James (1954). "Errors in variables". *Review of the International Statistical Institute*. 22 (1/3): 23–32. doi:10.2307/1401917

Fayezi, S., O'Loughlin, A., and Zutshi, A. (2012). Agency theory and supply chain management: a structured literature review. *Supply chain management: an international journal*, 17(5), 556-570.

Georgopoulos, A., Lalountas, D. A., and Salavrakos, I. D. (2014). Foreign versus domestic survival in a changing environment. *International Journal of the Economics of Business*, 21(2), 209-229.

Goodwin, J. (2004). A comparison of internal audit in the private and public sectors. *Managerial Auditing Journal*, 19(5), 640-650.

Greene, William (2012). *Econometric Analysis* (7th ed.). Pearson. pp. 234–237. ISBN 978-0-273-75356-8.

Hall, J. A. (2015). *Information technology auditing*. Cengage Learning.

Hung, J.-H., and Han, H.-L. (1998). *An empirical study on effectiveness of internal auditing for listed firms in Taiwan*. Retrieved November 4, 2008.

He, X., Pittman, J. A., Rui, O. M., and Wu, D. (2017). Do social ties between external auditors and audit committee members affect audit quality?. *The Accounting Review*, 92(5), 61-87.

Hines, C. S., Masli, A., Mauldin, E. G., and Peters, G. F. (2015). Board risk committees and audit Pricing. *Auditing: A Journal of Practice and Theory*, 34(4), 59-84.

Kiragu, D. N. U., Gikiri, L. W., and Iminza, W. N. (2015). Operational Governance and Occupational Fraud Risk in Commercial Banks in Kenya: A Positivism Approach. *European Journal of Business Management Vol*, 2(1).

Krishnan, G., and Visvanathan, G. (2009). Do auditors price audit committee's expertise? The case of accounting versus nonaccounting financial experts. *Journal of Accounting, Auditing and Finance*, 24(1), 115-144.

IIA, (2004). *The standards for the professional practice of internal auditing*. Altamonte Springs: The Institute of Internal Auditors, Research Foundation.

Lam, J. (2014). *Enterprise risk management: from incentives to controls*. John Wiley and Sons.

Lin, S., Pizzini, M., Vargus, M., and Bardhan, I. (2007). *An investigation of internal audit characteristics and material weakness disclosures*.

Lisic, L. L., Neal, T. L., Zhang, I. X., and Zhang, Y. (2016). CEO power, internal control quality, and audit committee effectiveness in substance versus in form. *Contemporary Accounting Research*, 33(3), 1199-1237.

Mahdavi, GH. and Mansouri Sh. (2012). "Information Technology and its impact on improving audit quality", *auditor*, No. 51, 82-89.

Merhout, J. W., and Havelka, D. (2008). Information technology auditing: A value-added IT governance partnership between IT management and audit. *Communications of the Association for Information Systems*, 23(1), 26.

Mulili, B.M. (2011). Corporate Governance Practices in Developing Countries: The Case for Kenya. *International Journal of Business Administration*, Vol. 2, No. 1

Mutua, N. M., and Kilika, S. K. (2016). A Survey of the Role of Audit Committees in Promoting Corporate Governance and Accountability in Constituency Development Fund Management: A Case Study of Nairobi Province, Kenya. *International Journal of Finance and Banking Studies (2147-4486)*, 2(3), 34-56.

Njiru. E. (2010). The Role of State Corporations in a Developmental State: The Kenyan Experience, Presented Paper at the African Association for Public Administration and Management 30th Aapam Annual Roundtable Conference, Accra, Ghana.

Odoyo, F. S., Omwono, G. A., and Okinyi, N. O. (2014). An Analysis of the Role of Internal Audit in Implementing Risk Management-a Study of State Corporations in Kenya. *International Journal of Business and Social Science*, 5(6).

Olson, D. L., and Wu, D. D. (2015). *Enterprise Risk Management* (Vol. 3). World Scientific Publishing Company.

Opiyo, E. (2013). Effects of corporate governance on insider trading. A case of listed companies on Nairobi securities exchange. *Prime Journal of Business Administration and Management (BAM)*. ISSN, 2251-1261.

Outa, E. R., Outa, E. R., Waweru, N. M., and Waweru, N. M. (2016). Corporate governance Guidelines compliance and firm financial performance: Kenya listed Companies. *Managerial Auditing Journal*, 31(8/9), 891-914.

Reid, L. C., Carcello, J. V., Li, C., and Neal, T. L. (2016). Impact of auditor and audit committee report changes on audit quality and costs: Evidence from the United Kingdom.

Ruto Veronica. 2016). The relationship between audit committee effectiveness and financial management in government ministries in Kenya. KCA University, Nairobi, Kenya.

Rydqvist, K., Spizman, J., and Strebulaev, I. (2014). Government policy and ownership of equity securities. *Journal of Financial Economics*, 111(1), 70-85.

Saeidi, S. P., Sofian, S., Saeidi, P., Saeidi, S. P., and Saeidi, S. A. (2015). How does corporate social responsibility contribute to firm financial performance? The mediating role of competitive advantage, reputation, and customer satisfaction. *Journal of Business Research*, 68(2), 341-350.

Samaha, K., Khlif, H., and Hussainey, K. (2015). The impact of board and audit committee characteristics on voluntary disclosure: a meta-analysis. *Journal of International Accounting, Auditing and Taxation*, 24, 13-28.

Schneider, A. (1984). Modeling external auditors evaluations of internal auditing. *Journal of Accounting Research*, 22(2), 657-678.

Shapiro, S. S., & Wilk, M. B. (1965). An analysis of variance test for normality (complete samples). *Biometrika*, 52(3/4), 591. <https://doi.org/10.2307/2333709>

Sharma, V. D., and Kuang, C. (2014). Voluntary Audit Committee Characteristics, Incentives, and Aggressive Earnings Management: Evidence from New Zealand. *International Journal of Auditing*, 18(1), 76-89.

Sterck, M., and Bouckaert, G. (2006). International audit trends in the public sector. *The Internal Auditor*, 63(4), 49-53.

Sultana, N., Singh, H., der Zahn, V., and Mitchell, J. L. (2015). Audit committee characteristics and audit report lag. *International Journal of Auditing*, 19(2), 72-87.

Sheppard, R., and Smith, R. F. (2017). Parastatal agencies. *Modern Mexico*, 78.

Tanui, A.K. (2009). 'Promoting Better Management and Good Corporate Governance': The Government: Its Complex Structure on Good Corporate Governance in Public Enterprise. *Professional Management*, a Journal of the Institute of Certified Public Secretaries of Kenya.

United Nations, (2006). United Nations Conference on Trade and Development: Guidance on Good Practices in Corporate Governance Disclosure: UNCTAD Publication

UNCTAD (2015). Case study on corporate governance disclosures in Kenya, UNCTAD Public Financial Management Act 2012 Public Financial Management Act and Regulations 2015 Gazette notice Vol CXV111 No.40.

Vinnari, E., and Skærbæk, P. (2014). The uncertainties of risk management: A field study on risk Management internal audit practices in a Finnish municipality. *Accounting, Auditing and Accountability Journal*, 27(3), 489-526.

Wachira, M. (2017). Determinants of Corporate Social Disclosures in Kenya: A Longitudinal Study of Firms Listed on the Nairobi Securities Exchange. *European Scientific Journal, ESJ, 13*(11).

Waweru, N. (2014). Determinants of quality corporate governance in Sub-Saharan Africa: Evidence from Kenya and South Africa. *Managerial Auditing Journal, 29*(5), 455-485

World Bank (2016). Report on the Observance of Standards and Codes (ROSC) Kenya: Accounting and Auditing: World Bank Publication

Wu, C. Y. H., Hsu, H. H., and Haslam, J. (2016). Audit committees, non-audit services, and auditor reporting decisions prior to failure. *The British Accounting Review, 48*(2), 240-256.

Zangiabadi, M. (2014) "Factors affecting audit quality information technology", Master's thesis audit, Allameh Tabatabai University in Tehran.

APPENDICES

Appendix I: List of Kenyan Government Ministries

1. Ministry of Interior and Coordination of National Government
2. Ministry of Defence
3. The National Treasury and planning
4. Ministry of Devolution and the ASALS
5. Ministry of Foreign Affairs
6. Ministry of Education
7. Ministry of Health
8. Ministry of Transport, Infrastructure, Housing, Urban Planning and Public Works.
9. Ministry of Information, Communication and Technology
10. Ministry of Environment and Forestry.
11. Ministry of lands and Physical Planning
12. Ministry of Labor and Social Protection.
13. Ministry of Sports, Culture and Heritage.
14. Ministry of Energy
15. Ministry of Agriculture, Livestock Fisheries and Irrigation.
16. Ministry of Industry, Trade and Cooperatives
17. Ministry of East Africa Community and Regional Development
18. Ministry of Petroleum and Mining
19. Ministry of Public Service Youth and Gender.
20. Ministry of Tourism and Wildlife
21. Ministry of Water and Sanitation.

22. State Law Office and Department of Justice.

Source:Executive Order No.1 July 2018

Appendix II: Letter of Introduction

Dear Sir/Madam

REF: REQUEST FOR RESEARCH DATA

I am a post graduate student studying Master of Science in commerce (Finance and Investment Option) at Kenya College of Accountancy University, Kenya. I am undertaking a research project which is a requirement for the award of the degree. The topic of my research is ‘‘the relationship between audit committee effectiveness and risk management in the public sector (A Case Study of the Government Ministries in Kenya)’’ . I kindly request your assistance by availing time to respond to the questionnaire. All data collected will be treated in strict confidence and used only for purpose of this study.

Your co-operation will be highly appreciated.

Yours faithfully

Carolyn Maina

11/01732

Appendix III: Questionnaire

SECTION A: GENERAL INFORMATION

1) Gender Male [] Female []

2) Age 25-35 [] 36-40 [] 41-45 [] 46-50 [] 51-55 [] 56-60 [] Over 60 []

3) Minimum level of education

Secondary [] University degree [] Postgraduate [] others

specify _____

4) Years of Experience 0-5 [] 6-10 [] 11-15 [] 16-20 [] 21-25 [] Over 25 []

SECTIONB: ANALYSIS OF AUDIT COMMITTEE EFFECTIVENESS AND RISK MANAGEMENT

This subsection is concerned with assessing the independent variables and their effect on RISK management in government ministries.

Section B1: Audit Committee Meeting and Risk Management

5) Please mark (x) in the box which best describes the extent to which you agree with each of the following statements. Rate your response on a scale of 1 to 5; (1= Very Small Extent; 2= Small Extent; 3= Undecided; 4= large Extent; 5= Very Large Extent)

Statement	1	2	3	4	5
To facilitate regular engagement with the Ministry, the audit committee meets at least quarterly with the authority to convene additional meetings as circumstances require					
The committee prepares a work plan that outlines the activities to be undertaken to achieve the committee’s functions					
During its meetings Carries out periodic reviews of its written charter to ensure that it remains relevant with the committee’s authority, objectives and responsibilities					
The committee have regular meetings with external auditors and management					

6) How many meetings have you held in each of the following years(tick as appropriate)

Years	None	1-4	5-9	10-14	Over 15
2015					
2016					
2017					

7) Do you have a work plan Yes [] No []

a) If No, what is the reason for not preparing a work plan? briefly explain.

b) If yes, how many activities do you have in the work plan? _____

8) How often do you review the audit committee charter? _____

Section B2: Audit Committee Independence and risk management

9) Please mark (x) in the box which best describes the extent to which you agree with each of the following statements. Rate your response on a scale of 1 to 5; (1= Very Small Extent; 2=Small Extent; 3=Undecided; 4=Large Extent; 5=Very Large Extent)

Statement	1	2	3	4	5
Chairman of the committee was properly vetted and is not political office holder minimizing the risk of conflict of interest.					
Most members not past or present employees of the entity					
A written declaration of conflict of interest through the chair by the members is done periodically					
Most members have not served as an employee or owner of a business which has been in business with the entity for the past 2 years					
The performance evaluation of the audit committee is carried out annually by treasury to ensure that the performance of work of the committee is efficient and meets the objectives					

10) Please describe the extent to which you agree in adoption of a phased approach to the rotation of members to preserve an appropriate level of knowledge and expertise of committee members in your ministry (tick as appropriate)

Very Small Extent [] Small Extent [] Undecided [] Large Extent [] Very Large Extent []

11) There are sufficient processes in place to manage any real or perceived conflict of interest in your ministry (tick as appropriate)

Agree [] Neutral [] Disagree []

12) Is the first agenda item of every meeting a request for audit committee members to declare any potential conflict of interest with any of the business items on the audit committee agenda (tick as appropriate)

Yes [] No [] Not Applicable []

13) The performance evaluation of the audit committee is carried out annually by treasury to ensure that the performance of work of the committee is efficient and meets the objectives

Yes [] No [] Not Often [] Not Applicable []

Section B3: Committee Members expertise and risk management

14) Please indicate your highest attained level of education

Certificate [] Diploma [] Degree [] Master's Degree [] Doctorate []

15) Please specify your professional qualification

16) Please indicate your work experience

Below 4 years [] 4-10 [] above 10 years []

17) Have you undertaken any training? Yes [] No [] If yes, please specify

18) Please mark (x) in the box which best describes the extent to which you agree with each of the following statements. Rate your response on a scale of 1 to 5; (1= Strongly Disagree; 2= Disagree; 3= Undecided; 4= Agree; 5= Strongly Agree)

Statement	1	2	3	4	5
Members have appropriate predefined qualifications to meet the objectives of the charter that is degrees or levels of education in accounting, audit or financial related area and membership of professional bodies					
Members have a good understanding of government financial reporting and auditing procedures.					
The audit committee has developed a continuing education program to enhance its members understanding of relevant auditing, accounting and regulatory issues					

Section B4: Risk Management Practices

19) Please mark (x) in the box which best describes the extent to which you agree with each of the following statements. Rate your response on a scale of 1 to 5; (1= Strongly Disagree; 2= Disagree; 3= Undecided; 4= Agree; 5= Strongly Agree)

Statement	1	2	3	4	5
There is effective monitoring of managerial discretions and risk-taking activities in public entities					
Financial reporting issues/incidents are minimal in public entities					
Fraud monitoring and evaluation practices in public entities are efficient					

THANK YOU

Appendix IV SHAPIRO WILK W TEST

```
. swilk auditcommitteemeeting auditcommitteeindependence committeememberexpertise riskmanagement
```

Shapiro-Wilk W test for normal data

Variable	Obs	W	V	z	Prob>z
auditcommi~g	124	0.97052	2.916	2.402	0.00815
auditcommi~e	124	0.92662	7.260	4.449	0.00000
committeem~e	124	0.98266	1.715	1.211	0.11294
riskmanage~t	124	0.89938	9.954	5.158	0.00000

Appendix V :VIF test for Multicollinearity

```
. vif
```

Variable	VIF	1/VIF
committeem~e	2.08	0.479985
auditcommi~e	1.78	0.562837
auditcommi~g	1.64	0.608721
Mean VIF	1.83	

Appendix V1 Test for Heteroscedasticity

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity

Ho: Constant variance

Variables: fitted values of riskmanagement

chi2(1) = 9.00

Prob > chi2 = 0.0027

