INTERNAL FACTORS AFFECTING INTERNAL AUDIT EFFECTIVENESS IN SEMI-AUTONOMOUS GOVERNMENT AGENCIES IN THE MINISTRY OF ENVIRONMENT AND FORESTRY IN KENYA

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A Research Project Submitted to the School of Business and Economics in Partial Fulfilment of the Requirement for the Award of Degree of Master of Business Administration of South Eastern Kenya University

2019
DECLARATION
I understand that plagiarism is an offence and I therefore declare that this research project is my original work and has not been presented to any other institution for any other award.

Signature________________ Date________________________

Roselyne Night Magero

D61/KIT/20548/2014

This research project has been submitted for examination with my approval as a University Supervisor.

Signature________________ Date________________________

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DEDICATION

This study is dedicated to my brother Washington for his sacrifice and selfless support during my entire education life.
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<tr>
<td>BOD : Board of Directors</td>
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<tr>
<td>CAE : Chief Auditor Executive</td>
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<tr>
<td>CIA : Chief Internal Auditor</td>
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<td>IA : Internal Audit</td>
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<tr>
<td>IAE : Internal Audit Effectiveness</td>
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<td>IAF : Internal Audit Function</td>
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<td>IFMIS : Integrated Financial Management Information System</td>
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<td>IIA : Institute of Internal Auditors</td>
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<td>KEFRI : Kenya Forestry Research Institute</td>
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<td>KFS : Kenya Forest Service</td>
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<td>KWTA : Kenya Water Towers Agency</td>
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<tr>
<td>NEMA : National Environment Management Authority</td>
</tr>
<tr>
<td>NETFUND : National Environment Trust Fund</td>
</tr>
<tr>
<td>ROA : Return on Assets</td>
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<td>SAGAs : Semi-Autonomous Government Agencies</td>
</tr>
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<td>ISPPIA : International Standards for the Professional Practice of Internal Auditing</td>
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<td>OLS : Ordinary Least Squares</td>
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DEFINITION OF SIGNIFICANT TERMS

Management Support  According to Abu-Azza (2012), management support is a motivation provided by top management to internal auditor including proper recruitment, providing education and training programs to IA teams; adequate budget to IA; bonuses and good compensation to IA teams; and acceptance and implementation of IA recommendations.

Auditor’s autonomy  According to IIA (1999), autonomy is the freedom from conditions that threaten the ability of the internal auditor to carry out internal audit responsibilities in an unbiased manner.

Audit Staff competence  According to Belay (2007), competence is the ability of an individual to perform a job or task properly based on the educational level, professional experience, and the effort made by the staff to provide quality service.

Audit committee  The audit committee is a sub-committee or a consulting body of the supervisory board that has the task of monitoring the process of financial reporting, especially with regard to annual financial statements, and monitoring business risks and control procedures as instruments of risk management as well as monitoring the processes of external and internal auditing (Tušek, 2015)

Internal audit effectiveness  Dittenhofer (2001) defines internal audit effectiveness as the achievement of goals and objectives of an activity through the factor measures provided.

Semi-Autonomous Government Agencies  According to the English dictionary, Semi-Autonomous Government Agencies are government agencies which are partially self-governing especially with
reference to internal affairs or act independently to a certain degree.

**Ministry of Environment and Forestry** The Ministry of Environment and Forestry is one of the ministries in Kenya whose mandate is to protect, conserve and manage the environment and natural resources through sustainable exploitation for socio-economic development (www.environment.go.ke).
ABSTRACT

This research project aimed at investigating the factors affecting internal audit effectiveness in Semi-Autonomous Government Agencies in the Ministry of Environment and Forestry. The study focused on influence of management support, internal auditor’s autonomy, internal audit staff competence and the role of audit committee on internal audit effectiveness. The findings of this study were paramount to the stakeholders in the corporate world and of significant contribution to internal auditing of an organization’s performance. The academicians and scholars would also use the results as reference materials in their further research. The insights would also be relevant to external auditors who are required to consider various aspects of corporate governance, including the objectivity and quality of Internal Audit. The study covered all Semi-Autonomy Government Agencies in the Ministry of Environment and Forestry in Kenya. The theoretical framework of the study was based on four theories namely: Agency theory, Stewardship theory, Communication theory and Knowledge-Based theory. The study adopted descriptive research design whereby the researcher employed the use of questionnaires for data collection. A sample size of respondents comprising of senior managers, middle level managers, supervisors and audit assistants was considered for this research. The data collected was cleaned and inspected for completeness then coded using SPSS Version 20 software. Descriptive statistics such as the mean and standard deviation were used to describe the data. Further, inferential statistics at 95% level of significance were used. A Cronbach’s Alpha Test was used to verify the reliability of data collection instrument. The findings of the study indicated that the internal audit effectiveness had a positive and significant relationship with the management support, internal audit staff competence, internal auditor’s autonomy and the role of audit committee. The findings were supported by the literature reviewed in this study. Based on the findings of the study, numerous recommendations were proposed. Firstly, the study recommended development of comprehensive framework to facilitate the recruitment of internal audit staff. Secondly, the study recommended the embracing of the technology in the internal audit function in government agencies. Thirdly, a monitoring and evaluation system was recommended to check on the performance of the internal auditors. Finally, study recommended more studies to identify other factors that influenced the internal audit effectiveness in other government agencies.
CHAPTER ONE

1.0 INTRODUCTION

1.1 Introduction

This chapter comprises of the background of the study, the statement of the problem, the research objectives and the research questions. Significance and scope of the study are also discussed.

1.2 Background to the Study

The efficient functioning of internal audit function that is in line with management policies and procedures has been of great concern to many governments globally for the simple reasons that government entities constitute the largest single business entity that stimulate economic activities (Unegbu & Kida, 2011). The large interest by governments in the public sector is instrumental towards improvement in the effectiveness of internal audit standards of accounting to safeguard public resources from wastage and misappropriation (Gramling, 2004). Internal audit (IA) is an independent, objective assurance and consulting activity designed to add value and improve an organization’s operations (Institute of Internal Auditors (IIA, 2001). Internal audit makes a large contribution to the achievement of company goals, and the implementation of strategies for their achievement (Rose & Rose, 2015). Nagy and Canker (2002) observed that, IA is a crucial link in business and financial reporting processes of business corporations, government institutions and none profit making organizations. The major role of IA is to enhance organizational efficiency and effectiveness through constructive criticism.

The existence of IA in an organization strengthens the internal control systems to ensure that the organization’s objectives are achieved within the projected period and in the most cost-effective manner. There is increasing importance attached to the internal auditing function due to awareness on corporate governance issues and questions as to its effectiveness in discharging its responsibilities with greater frequency (Sani, 2009). Public servants should be held accountable for their use and stewardship of resources bestowed to them and the extent to which the corporations’ objectives have been accomplished. The public may not have confidence with the financial and management information provided by the corporations hence need
assurance from an independent function such as the internal audit function (Rittenberg, 2003).

Flesher and Zanzig (2000) define IA as value addition to the organizations and a mere administrative function or legal compliance that keeps organizations going. In the ever-changing business environment, internal auditing plays a key role by adding value to the organization. Nagy and Cenker (2002) noted that internal auditing is linked to governance process, risk management and organizations control which is important as it embraces the expanding role of IA from an arrow focus on control to include risk management and corporate governance.

The United Kingdom has developed its internal audit from internal checks known as “turn and tick”, to a systems based approach, which checks the accomplishment of established objectives and goals, ensures compliance with applicable laws and regulations as well as integrity and reliability of information for economic, efficient and effective use of resources, at the same time safeguarding assets during the last 30 years (Harris, 2004). According to the IIA (2015), IA profession is operating below capacity in many African countries due to a number of challenges in many parts of the continent. Factors contributing to the low capacity include; limited awareness of internal audit as a profession and lack of understanding about its contribution to good governance, IA not being able to maximize its value as a result of limitations on its scope, profile, or influence, in addition to resource constraints in areas where it exists, shortage of qualified internal auditors, limited access to training and other support for internal auditors and regulation and/or legislation not being conducive to IA best practice.

IIA (2015) posits that in Ghana the demand for IA services is increasing as evidenced by the presence of audit firms providing either co-sourced or outsourced internal audit services. However, the understanding of the value and role of internal audit is limited as IA functions face funding constraints and a shortage of staff with internal audit skills. Moreover, even though a number of development agencies are funding IA capacity building, the number of internal auditors who are IIA members and hold internal audit certifications is still wanting. In Malawi there is a general appreciation of the role of IA and the demand for IA services is increasing, as revealed by the
presence of audit firms providing either co-sourced or outsourced internal audit services. Nevertheless, fraud and corruption index rank high in the country and advocacy from development agencies and other national bodies is yet to lead to an increase in qualified internal auditors, due to shortage of staff with relevant IA skills.

In Kenya, Internal auditing is at an established maturity stage as a result of; active advocacy for the IAF in organizations by the stock exchange and the central bank; active collaboration of government with a number of development agencies in building the capacity of the IA profession and active participation of the Big Four accounting firms in marketing of the profession in their provision of IA services. In the recent past, the government has recognized the crucial role played by IA in governance, transparency, and accountability of public resources. This is evidenced in two key laws: the Mwongozo (the code of governance for state corporations) and the Public Financial Management Act, 2012 (revised 2015) which require an effective IAF in all public entities. IA in the private sector is mostly required for financial institutions and listed companies. Other organizations follow best practices of corporate governance (IIA, 2015).

1.2.1 Organizational Internal Factors

There are several factors that affect internal audit effectiveness in an organization and this study has looked at management support, internal auditor’s autonomy, internal audit staff competence and the role of audit committee as critical internal factors that affect internal audit effectiveness. The success of IAF will depend on the strength of management’s support for the auditing process. ISPPIA states that internal auditors should be supported by top management and Board of Directors to execute their duties and fulfil their responsibilities. Senior Management support is seen in their involvement in the audit plan, Internal Auditors providing senior management with sufficient, reliable and relevant reports about the work they perform and recommendations made, as well as their reasonable response to Internal Audit reports. Management support is also linked to hiring trained and experienced staff, ensuring that internal audit department is large enough to successfully carry out its duties and responsibilities, providing sufficient resources, enhancing the relationship with external auditors and having an independent internal audit unit.
The auditing services offered by internal auditors’ autonomy and where auditors lack autonomy, they would normally fail to perform to the expectations of the Organisation (Kadondi, 2012). Without autonomy, internal audit function simply becomes part of the management team, losing its ability to offer a fresh perspective. The International Standards for the Professional Practice of Internal Auditing (ISPPIA) and IIA Practice Advisory indicated that internal audit autonomy and objectivity can be achieved by: ensuring appropriate reporting mechanisms such that the internal audit department has direct access to the Board and Senior management, by giving it the authority to access any records it deems fit, by allowing full access to all employees and departments, by placing strict conditions on the appointment and removal of the head of internal audit, and by not undertaking non-audit work.

Competency determines the efficiency of the auditor in setting a systematic and disciplined approach to evaluate and improve the effectiveness of the organization’s activities and financial management as well as governance processes. The IAF personnel both at the audit committee level and the actual internal auditors should be qualified, competent and knowledgeable to enable them perform their duties effectively. The competence of all staff involved in the IAF is crucial, being clarified as a prime component of effective internal audit activity (IIA, 2006). Internal auditors must be sufficiently qualified, and in possession of all the requisite knowledge and skill to discharge the responsibilities associated with audit duties International Standards for the Professional Practice of Internal Auditing (ISPPIA).

The audit committee is a sub-committee or a consulting body of the supervisory board that has the task of monitoring the process of financial reporting, especially with regard to annual financial statements, and monitoring business risks and control procedures as instruments of risk management as well as monitoring the processes of external and internal auditing. According to Moeller (2009), the audit committee has the responsibility and obligation to: discuss with the chief internal auditor reports and the most important the findings of the internal audit activity particularly on the operative efficiency of internal controls, evaluate the individual objectivity of internal auditors and the organisational independence of the internal audit function, to
examine and approve the annual internal audit plan, to examine and approve the budget for the internal audit, to consider the relationship between the external and internal auditors and to coordinate their work, and to take part in the activities of appointing and dismissing the Chief Internal Auditor.

1.2.2 Internal Audit Effectiveness

Dittenhofer (2001) defines internal audit effectiveness (IAE) as the achievement of goals and objectives of an activity through the factor measures provided, while Mihret and Yismaw (2007) defines IAE as the extent to which internal audit office is able to meet its pre-set objectives. Ideally, IA is effective when it provides the required service expected from the activity. Effectiveness in audit is concerned with the auditor’s ability to carry out an audit free of errors, the readiness to function when needed and be able to identify suitable set of objectives for an organization success (Karapetrovic & Willborn, 2000).

According to Mihret (2011), there are various factors which constitute effectiveness of internal audit including the assurance that management processes are sufficient to identify and monitor remarkable risks and confirmation of the efficient functioning of established internal control systems. It also includes credible processes for feedback on risks to management and assurance as well as the objective confirmation that the Board of Management receives appropriate quality assurance and reliable information from management (Dittenhofer, 2001). Ljubisavljević and Jovanovi (2011) conceptualize an internal audit to be effective if it adds value to governance internal control systems, and risk management processes of an organization. According to Belay (2007), good governance characteristics include; public accountability, transparency, responsiveness and effectiveness of values which have been lacking in the public sector in Kenya hence the need to determine internal audit effectiveness.

According to Arena and Azzone (2009), internal audit function is expected to add value to companies by efficiently managing internal audit activities; reviewing programs and operations to establish the extent to which results are consistent with company’s goals; establishing audit plans, reports and programs to achieve audit objectives and determining relevant and sufficient timeframes to achieve objectives. Value addition to an Organization can be given by an effective internal audit.
Effective internal audit function ensures integrity and reliability of financial and other operating information as well as the means used to identify measure, classify and report such information. It also helps an organization in accomplishing its objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of governance processes, risk management and control as well as assisting the management by giving valuable recommendations on weak areas in order to increase overall efficiency and effectiveness of organization’s operations. Van Gansbergh (2005) posited that effectiveness of internal audit should be assessed to the extent of effective and efficient delivery of internal audit services. He further stated an effective internal audit provides an independent analysis of procedures and systems as well as financial operating data for valuable recommendations in the organization.

1.2.3 Entities in the Ministry of Environment and Forestry

Government/State agencies in Kenya are established by Acts of Parliament in line with the State Corporations Act, chapter 446 of the laws of Kenya and some are established by Executive Orders. They are government institutions having specific mandates in different sectors of the economy which the mainstream government departments cannot provide. Their main functions comprise of; regulation and coordination, conservation and management, research, health, education, agriculture, technology and innovations, economic empowerment and socio-cultural matters. They are partly or wholly financed by tax payers through the National Government for the public good.

This study will focus on the factors influencing internal audit function effectiveness in Semi-Autonomous Government Agencies (SAGAs) in the Ministry of Environment and Forestry in Kenya. The Ministry of Environment is one of the ministries in Kenya with specific mandates on environmental issues, management and conservation of natural resources. According to Government of Kenya (2013), Semi-Autonomous Government Agencies in the Ministry are; Kenya Water Towers Agency (KWTA), Kenya Forestry Research Institute (KEFRI), Kenya Forest Service (KFS) National Environment Management Authority (NEMA) and National Environmental Trust Fund (Net Fund).
1.3 Statement of the Problem

Despite the enactment of numerous laws governing Internal Audit processes in Kenya to provide assurance on effective and efficient use of public resources, for example; The Public Finance Management Act of 2012, The Public Audit Act of 2015 and Mwongozo Code of Governance, corruption scandals have marred the Kenyan public sector in the recent past. Huge public funds seem to have been lost in Public Institutions such as in Independent Electoral and Boundaries Commission (February, 2015), the National Youth Service (May, 2018) and so on, as indicated by the recent dailies. This raises a concern between policy and practise of internal audit function in discharging its responsibilities.

Internal audit function that is well constructed can play an essential role in the governance and accountability process of the public sector institutions through their judgement on the effectiveness of governance, risk management processes and key organizational controls (Asare, 2009). Effective Internal Audit Function will focus on risk management, control and governance process that requires management support, internal auditor’s autonomy, internal audit staff competence and the oversight role of Audit Committee. This in turn would prevent misappropriation and wastage of public funds by civil servants.

A review of the extant literature confirms limited research; Ondieki (2013) examined the effect of internal audit function on financial performance of commercial banks in Kenya where she recommended further studies to be done in the Public Sector. While regionally, Kitijo (2014) looked at impact of internal audit function on effectiveness of financial management in public sector organizations in Shinyanga Tanzania where he established that there were many factors hindering internal audit effectiveness in Shinyanga however he cited lack of experience and poor relationship as the major cause of ineffectiveness. The limited studies and mixed findings necessitate further studies. This study therefore was aimed at investigating internal factors affecting internal audit effectiveness in the Semi-Autonomous Government Agencies in the Ministry of Environment and Forestry in Kenya.
1.4 Objectives of the Study

1.4.1 General Objective
The general objective of the study was to investigate internal factors affecting internal audit effectiveness in Semi- Autonomous Government Agencies in the ministry of Environment and Forestry, Kenya.

1.4.2 Specific Objectives
i. To assess the influence of management support on internal audit effectiveness in Semi-Autonomous Government Agencies in the Ministry of Environment and Forestry, Kenya.

ii. To determine the influence of the Internal Auditor’s autonomy on internal audit effectiveness Semi-Autonomous Government Agencies in the Ministry of Environment and Forestry, Kenya.

iii. To find out the influence of Internal Audit staff competence on internal audit effectiveness in Semi-Autonomous Government Agencies in the Ministry of Environment and Forestry, Kenya.

iv. To establish the influence of audit committee’s oversight role on internal audit effectiveness in Semi-Autonomous Government Agencies in the Ministry of Environment and Forestry, Kenya.

1.5 Research Questions
i. What is the influence of management support on the internal audit effectiveness in Semi-Autonomous Government Agencies in the Ministry of Environment and Forestry, Kenya?

ii. What is the influence of auditor’s Autonomy on internal audit effectiveness in Semi-Autonomous Government Agencies in the Ministry of Environment and Forestry, Kenya?

iii. What is the influence of the internal audit staff competence on internal audit effectiveness in Semi-Autonomous Government Agencies in the Ministry of Environment and Forestry, Kenya?

iv. What is the influence of audit committee’s oversight role on internal audit effectiveness in Semi-Autonomous Government Agencies in the Ministry of Environment and Forestry, Kenya?
1.6 Scope of the Study
The study sought to determine the factors influencing the effectiveness of internal audit function in Semi-Autonomous Government Agencies in the Ministry of Environment and Forestry in Kenya. It focused on four decision variables viz., management support, auditor’s autonomy, internal audit staff competence and role of audit committee. The population of the study was all the Semi-Autonomous Government Agencies in the ministry of Environment and Forestry and the respondents were employees drawn from all staff cadres in the departments of interest at the head offices. These employees were considered appropriate because they possessed the information needed by the study based on their day to day duties.

1.7 Significance of the Study
The study anticipates to furnish information to the government through audit committees which will be able to identify gaps in internal audit function which been put in place as a check and balance mechanism on the utilization of public funds in the public institutions. The policy makers in the government will be able to find out whether the IAF in government agencies is being run according to the enacted laws and regulations and some probable challenges. The Ministry of Environment and Forestry will be kept abreast with financial management in the agencies through internal audit function reports. The board will be informed on performance of the internal audit functions through the Audit Committees.

The internal auditors will understand their purpose in Organizations and internal factors that impact their performance. They will be able to understand how management support through resource allocation implementation of their recommendations and continuous training affect their performance. They will also be able to understand how their autonomy while carrying out their duties contributes their effectiveness. Further, they will be able to understand the role of audit committees on their activities. The management will be able to understand their role on the internal factors that affect internal audit effectiveness and identify ways of curbing these challenges.

The study is anchored on Agency theory, Stewardship theory, Communication theory and Knowledge based theory. The study will make contributions to the theories as
follows; on the theory of Agency, the problems available in an organization are highlighted and how effective internal audit can address the conflicts. On the theory of Stewardship the postulation that individuals can be appointed to steward answers whether it is well illustrated in the role of internal auditors in an Organization. Communication theory highlights the importance of effective communication between audit committee and internal auditors and how it contributes to improved organization performance. Finally on knowledge based theory Audit Committee members and internal auditors of high knowledge ensure effective functioning of the internal audit unit. Various scholars have carried out studies on internal audit effectiveness and have come up with mixed findings as illustrated in empirical review. The study findings will be compared to these studies to establish the differences and similarities and their causes.

1.8 Limitations and delimitations of the Study
The scope of the research was confined to Semi-Autonomous Government Agencies in the ministry of Environment and Forestry with only a few variables, which would throw a narrow insight on factors affecting internal audit effectiveness. This would be overcome by bringing in more variables on board and studying various entities from different ministries as well as the county government. The study also focussed on some variables which are still having challenges in implementation at the state entities; for example, audit committee functions and role in the public sector have not yet been understood hence not being implemented according to Mwongozo 2013. This would be overcome by creating awareness on the role of audit committees in the Public Sector. Furthermore, results of this research could be biased as majority of the respondents did not deal with the internal auditors all the times except during auditing exercise, which might not give a true picture on the parameters measuring the variables. This would be overcome by carrying out a pilot study to test validity and simplifying questions as much as possible.

1.9 Assumptions of the study.
The study assumed that the respondents would willingly cooperate and respond to the questions honestly as well as duly complete the questionnaires. Another assumption was that there would be high response rate which would ensure validity of the results
to the study. Measures were put in place to ensure the above functions hold by having a proper introduction cover letter, University permission for data collection and assurance that data collected was purely for research purpose was given.
CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 Introduction
This chapter presents an assessment of literature review on what has been covered by other researchers and analysts. The review aims at capturing their views on the subject matter being discussed and is aligned to the theme and objectives of the study. The areas covered underpin both theoretical and empirical aspects of the study.

2.2 Theoretical Review.
In this section, four major theories focusing various aspects of internal audit effectiveness were presented. Various theories have been forwarded to help understand the concept of internal audit effectiveness.

2.2.1 Agency Theory
The Agency theory was innovations of Ross (1973) and Barry (1973) which was later developed further by Jensen & Meckling (1976) and it tried to explain the relationship between the agents (management) of the company and the owners of a company. Meckling posited that, separation of ownership from control causes conflicts of interest which brings about agency costs. The agent in pursuit of personal interests creates his own empire different from the principal’s interest (Padilla, 2002). In order to solve the agency problem, the owner comes up with measures to check the activities of the management. Therefore, internal audit function is one of the measures that can be used to protect the owners’ assets from theft and mismanagement (Peursem & Pumphrey, 2005).

The theory demonstrates the main conflict of interest between firm owners (principal) and managers (agent) due to the expectations from the firm’s performance. Agency theory examines the separation of the ownership of a firm, control powers and management motivation (Ntezirayo, 2014). The fundamental idea behind the principal-agent model is that the principal is too busy to run the firm and so hires the agent to run the firm Jensen and Mecklings (1976). The agency theory description is basically behavioural because firms do not adhere to the maximization principle due to conflicting interests of major governing bodies out of principal-agent control.
Berle and Means (1932), Jensen and Meckling (1976), Eisenhard (1989) posited that the goal incongruence causes constant monitoring by the principal on the agent which comes with a cost. Fama and Jensen (1983) noted that the management who are well knowledgeable on the firm’s operations is prone to focus on their individual goals at the cost of the principal. The agency problem comes when; (a) there is a goal incongruence between the objectives of the principal and agent, (b) it becomes impossible for the principal to keep track of what the agent is doing (Eisenhardt, 1989, p. 58). This makes the board of directors to supervise the management undertakings to help in minimizing the agency problems.

According to Endaya and Hanefah (2013), internal auditing can be used to minimize the agency problems for the sake of the organizations’ stakeholders. With effective internal audit function, an organization can perform well and vice versa (Endaya & Hanefah, 2013). The agency theory is relevant in this study as it provides insight on the problems available in an organization and the need for an effective internal audit function to address the conflicts especially in the public sector entities in Kenya. Agency theory is linked to the study in that it is mainly employed to understand economic motives which internal auditors seek in fulfilling their personal interests even if they are against the organization owners' interests or organizational interests.

2.2.2 Stewardship theory

Donaldson and Davis (1991) found strong significance of stewardship theory in explaining internal audit research framework. The significance of the theory is that it is mainly concerned with the identification of situations where the interests of the principal and the steward are aligned. Stewardship theory has borrowed a lot from psychology and sociology, and it is defined by Davis, Schoorman and Donaldson (1997) as “a steward protects and maximizes shareholders wealth through firm performance, because by so doing, the steward’s utility functions are maximized”. Unlike the Agency theory, Stewardship theory emphasizes not only on the perspective of individualism (Donaldson and Davis, 1991), but also on the role of the top management working as stewards, incorporating their goals as being part of the organization. Therefore, if the organization performs well, its staff will be motivated thereby investing their energy in their respective areas for organization success (Davis, Allen & Hayes, 2010). The same is applicable to the public sector context, if
the audit committees do well therefore, their internal auditors will also do well

towards the objective achievement of the Internal Audit Function.

According to Ebimobowei and Binaebi (2013), auditing exists as a result of
stewardship concept and stewardship accounting. Public sector entities gain a lot
when they adopt stewardship approaches since the theory serves as accountability
mechanism that ensures there is good monitoring, good audit and reporting in order to
assist in meeting the strategic objectives of the organization (Cribb,2006).The theory
consider the manager as an individual who provides protection to the resources
bestowed to him by the owners (principals) which he does through his performance
(Cornforth,2003).The achievement of an organization is actualized through profitable
result which serve as a motivating factor to the manager who the theory view as part
of the business. Governance strategy that is based on stewardship principles is more
effective when employees like internal auditors develop strong relations with their
organization. Top management within the state entities can equally ensure the
achievement of internal audit effectiveness through their stewardship approach by
ensuring that internal control systems are working and there is enough support for the
internal audit unit.

The provisions and utilization of resources within the public sector setting are the
stewardship responsibility of the governing bodies of such government organizations
which fits the management role in an entity (International Federation of Accountants,
2001). According to Hernandez (2012), stewardship governance is associated with
factors like leadership systems, managerial practices, routine and procedures. Since
stewardship theory is anchored on the value of trust, the theory embraces systems,
procedures and tools that produce effective results on owners’ resources.

Internal auditing functions can also play a role of stewardship through the influence of
relevant variables that contribute to the organizational success. The theory is linked to
the study in that management would want to give full support to IAF in terms of
sufficient funding, implementation of audit findings and so on so as to maximise their
utility function through good organizational performance. At the same time
management would work to ensure internal auditors’ autonomy so as to maximise
their performance.
2.2.3 Communication Theory

Various studies such as; by Quinn and Hargie (2004), Davidson (1991), and Golen (2008), confirm the significance of and the need for effective communication skills in all organization functions. According to Davidson (1991), all auditors can benefit from knowledge of current communication concepts, even those that believe they are good communicators ought to work consciously on assessment, improvement, and application of their skills. Communication theory is based on three basic truths about communication; it is impossible not to communicate, communication is a multilevel phenomenon and message sent does not always equal message received.

Communication is the foundation of performance in entirely every sector and the role of communication has been well supported by many researchers including the Institute of Internal Auditors ((IIA); Golen, 2008; Hahn, 2008) respectively. According to Endaya and Hanefah (2013), poor and ineffective communication can be a great source of operational conflicts and poor management of resources including service delivery. Existence of effective communication between internal auditors themselves, internal auditors and organization members, internal auditors and, auditees as well as internal auditors and audit committee is essentially required to strengthen the effectiveness of internal audit function. Internal auditors’ effectiveness is a function of internal auditors’ characteristics which include objectivity, effective communication, and proficiency, due professional care and training and development. According to IIA Standards, the study of effective communication in internal auditing is essential and therefore this study should consider the communication theory for achievement of internal audit effectiveness.

Therefore, for effective internal function, there must be effective communication skills by the concerned parties that bring in focus the significance of viewing internal audit subject through Communication theory which is used to explain the importance of effective communication between the internal auditor and the auditees as well as the audit committee and the internal auditors as well internal auditors with all other stakeholders.
2.2.4. The Knowledge-based theory

Knowledge is considered by the knowledge-based theory of the firm as the most significant resource of the firm. Employees are the custodians of knowledge within an organization. Sveib (2001) posited that strategy formulation should start with the competence of people. People are seen as the only true agents in business; all assets, tangible physical products as well as the tangible relations, result from human action and ultimately depend on people for their continued existence. Cole (1998) considers that together with traditional resources (Labour, Capital and Land) knowledge is a determinant element of the nations and firms competitiveness. The recognition that knowledge contributes to construction of national wealth and the development of a strong and competitive country goes back to the mercantilist era (Boisot, 2002).

Knowledge intensive firms abandon formal structures and achieve coordination through internal normative systems and social rewards, instead of hierarchical control. Dimension is an important factor to these organizations. According to Starbuck (1992), when intensive knowledge firms grow they become more bureaucratic. Control and structure subjects are mostly addressed by the researchers analysing “productive process” that transforms knowledge into services and products (Rylander & Peppard, 2004).

There has been increasing demand for education and skill in the mid-twentieth century (Gorga & Halberstam, 2007). For IAF to be able to play its part in ensuring effective corporate governance; the department must have the right members of staff who are up-to the task. According to IIA (2012) the CAE must ensure that internal audit resources are appropriate, sufficient and effectively deployed to achieve the approved plan. Therefore, the CAE relies on the Knowledge-based theory to ensure the IAF is staffed with the people of high knowledge to ensure effective functioning of the unit.

2.3 Empirical Review

In this section, the study presents a review of the various studies done by other scholars on the subject and their findings on the effect of internal audit effectiveness in various sectors today. The review focuses specifically on the study objectives (management support, auditors’ autonomy, auditors’ competence and role of audit
committee). Each of the reviews are presented in this section and discussed one by one below.

2.3.1 Management Support and Internal Audit Effectiveness

According to Mihret and Yismaw (2007) in their study on Internal audit effectiveness: an Ethiopian public sector case study, with the purpose of identifying factors impacting the effectiveness of internal audit services, they found out that internal audit is strongly influenced by audit quality and management support. They explained that management must be prepared to implement recommendations of internal audit function since they have far reaching implications on the auditor's attitude towards improving audit quality, enhancing their commitment to develop a career as internal auditors. This study also indicated that management support is one of the key determinants of IA effectiveness and internal auditors should get a support from top management, Board of Directors (BOD) and unconditional cooperation from auditees who are the main stakeholders of the organization. The IIA ’s Standards for Professional Practice of Internal Auditing (1110–Organizational Independence) notes that internal auditors should have the support of the board and of the senior management so as to gain the cooperation of auditees and perform their work with free down from interference (Institute of Internal Auditors 2011).

For effective performance, Abu-Azza (2012) notes that management support is a motivation provided by top management to internal auditor including proper recruitment, providing education and training programs to IA teams; adequate budget to IA; bonuses and good compensation to IA teams; and acceptance and implementation of IA recommendations. This is according to his study on Perceived effectiveness of the internal audit function in Libya: a qualitative study using institutional and Marxist theories aimed at examining the perceived IA function effectiveness in the Libyan public enterprises (state-owned) by employing institutional theory and Marx ‘s (1978) theory of the circuit of industrial capital.

Internal audit must be provided with adequate resources including funding, office space, human resource, and friendly environment to facilitate the audit activities. The efficiency and effectiveness of internal audit unit depends on the availability of resources. Paape (2007), in his study on Corporate Governance: The Impact on the
Role, Position, and Scope of Services of the Internal Audit Function with the aim of researching on the impact of Corporate Governance reports on the role, position, and scope of services of the Internal Audit Function, found out that inadequate resources limits the scope of audit work which weakens their output. In addition, ISPPIA has emphasized on the importance of management’s support in removing any limitations in access and budgets which impede the internal audit department’s better performance.

2.3.2 Autonomy of Internal Auditor and Internal Audit Effectiveness.

According to Institute of Internal Auditors (IIA), autonomy is the freedom from conditions that threaten the ability of the internal auditors to carry out internal audit responsibilities in an unbiased manner”. According to ISPPIA, Standard 1100, autonomy is increased when the board of directors of the organization agree with the appointment or removal of the internal audit departments’ directors, while Standard 1110 states that the Chief Internal Auditor must report to a level within the organization that allows the internal audit function to achieve its responsibilities. Auditor’s autonomy is effectively achieved when the chief audit executive reports functionally to the board (Institute of Internal Auditors, 2001)

Alzeban and Sawan (2013) studied the role of internal audit function in the public sector context in Saudi Arabia with the objective on the role of internal auditing in the Saudi Arabian public sector by focusing on the practice and the nature of internal auditing in organizations that are subject to audit by the General Audit Bureau. They noted that audit autonomy may be achieved through mechanisms such as auditor freedom in scope determination, freedom of access to records, full access to employees, reporting to appropriately senior levels, strict appointment and removal of CAE, internal audit budget approval only by the board and prohibition from performance of non-audit work. Read and Rama (2003) in their study on Effective Whistle-blowing Mechanism and Audit Committee in Nigerian banking sector, with the objective of examining effective whistle-blowing mechanism and audit committee in Nigerian banking sector, found out that the autonomy and objectivity of the internal audit function is increased when the internal audit director is free from any fear about dismissal as a result of the decisions made and actions taken by the internal audit department.
Among the issues associated with lack of independence include poor controls usually manifested in financial reporting errors, late filings, fraud and numerous questionable transactions being performed. Arena and Azzone (2009), in their research on Identifying Organizational Drivers of Effectiveness of Internal Audit with the aim of understanding the organizational drivers of effectiveness of internal audit in the light of recent changes in the "mission" of internal auditing and its central role in corporate governance, found out that, for an organization to be effective the internal auditors need to have large degree of autonomy and objectivity so as to perform their activities in a proper manner. Cohen and Sayag (2010), in their study: The Effectiveness of Internal Auditing: An Empirical Examination of its Determinants in Israeli Organizations with the aim of building a conceptual understanding of the effectiveness of IA in organizations, argue that autonomy is the corner stone of IA effectiveness and therefore the effectiveness of IA cannot be realized without the autonomy of Internal Auditors.

2.3.3 Internal Audit Staff competence and Internal Audit Effectiveness

The competence of internal audit staff is significant in promoting good governance and ensuring efficient utilization of public resources. The internal auditors should be qualified, knowledgeable and competent to be able to carry out their duties effectively. Burnaby et al. (2009) in their study on Usage of Internal Auditing Standards by companies in the United States and select European countries, with the objective of investigating differences in the level of usage and compliance with the Institute of Internal Auditors (IIA) International Standards for the Professional Practices of Internal Auditing (Standards) by organizations' internal audit activities (IAA) located in the USA and a sample of European countries which have affiliates with the IIA, stated that for IA to be effective, internal auditors require relevant competence to carry out their duties satisfactorily. Mihret (2010) also supported this view by positing that technical competence and continuous training are considered crucial for effective internal audit function. This was according to their study on Factors associated with characteristics of internal audit departments: A canonical analysis. This study explored internal audit (IA) practices in selected Ethiopian organizations to identify factors associated with attributes of IA departments. Canonical analysis results showed that scope of IA work, IA proficiency, and the
quality of IA planning and execution are higher in organizations where organizational policy authorizing IA is clearly defined, organizational risk exposure is high and internal audit’s linkage with external audit is strong. The findings suggested that in organizations that are exposed to high risk, management tends to appreciate IA’s assistance in managing risk and thus strengthening IA.

It has been established empirically that organizations with internal auditors with high competency levels are positively correlated with performance which results in overall more effective corporate governance. The qualification of internal auditors enhances the quality of internal audit. A member of internal audit who has high qualification can deal with different issues effectively. A study done by Hutchinson and Zain (2009) on Internal audit quality, audit committee independence, growth opportunities and firm performance exploring the association between internal (audit experience and accounting qualification) audit and firm performance (ROA) with growth opportunities and audit committee independence in Malaysia, it was established that there is a significant association between qualification of internal auditors and firm performance.

Competence in internal audit can be measured based on competency of academic level, experience, skill, and training. According to Arena & Azzone (2009), competence requires knowledge and professionalism which are acquired from education, job training, and experience. Similarly, internal auditors must be competent in their work and educational level to enhance effectiveness of their performance (Al-Abu-Azza, 2012). In addition, internal auditors must have a communication, interpersonal, and information technology skills (Abu-Musa, 2008). This is from his study on Information technology and its impact on internal auditing: An empirical study of Saudi organizations, with the aim of investigating empirically the effect of emerging information technology on internal auditors’ activities, and to find out whether the IT evaluations carried out in Saudi organizations vary, based on organizational characteristics and evaluation objectives. The findings of the study revealed that internal audit staffs need to increase their knowledge and skills of computerized information systems for purposes of directing, planning, supervising and reviewing the work performed.
According to IIA, (2011) internal auditors must possess or obtain the skills, knowledge and other competencies required to carry out their responsibilities including financial activities. The competency of internal audit staff is a key component of efficient internal audit practice (IIA, 2006). The International Standards for the Professional Practice of Internal Auditing (ISPPA) highlights the significance of internal audit team who possesses the skills, knowledge, and other competencies necessary to carry out their duties (ISPPA, Standard 1210).

2.3.4 Role of audit committees and Internal Audit Effectiveness

Read and Rama (2003) in their study on Effective Whistle-blowing Mechanism and Audit Committee in the Nigerian banking sector, with the objective of examining effective whistle-blowing mechanism and audit committees in the Nigerian banking sector, found out that the audit committee should be allocated oversight duties so as to achieve desirable objectives and goals. Audit committee was first established by the private sector to strengthen oversight of financial and corporate governance of the public listed companies. In the recent studies it has been found that the audit committee is important for all organizations both in private and government.

Audit committee plays a crucial role in internal audit function effectiveness Tušek (2015). This was according to his study on the influence of the audit committee on the internal audit functions in the system of corporate governance – evidence from Croatia. The aim of the study was to confirm whether the delivery of risk assessment and internal audit plan related directly to the audit committee has an impact on the improvement of internal auditing activities in an organization. The study findings indicated that the cooperation between the audit committee and internal audit function has a great influence on the increase of the internal audit operations quality. Internal auditors and members of the audit committee, generally, believe that the communication between the internal auditors and the audit committee in an organization is very important.

Goodwin (2003) studied The Relationship between the Audit Committee and the Internal Audit Function: Evidence from Australia and New Zealand, with the aim of examining the separate influence of independence and financial experience on audit committee relations with the internal audit function. The research focused on audit
committees and internal audit functions both in the private and public sector entities. His findings indicted that independence and accounting experience have a complementary impact on audit committee in relations with internal audit. Generally, the findings of the study have high impact for regulators in light of recent calls for members of the audit committee to possess accounting expertise in addition to being independent.

Sarens and Beelde (2006) carried out a study on Interaction between internal auditors and the audit committee: An analysis of expectations and perceptions, aimed at providing a qualitative assessment of the interaction between internal auditors and audit committees, by analysing their expectations and perceptions within a Belgium context. They found out that that audit committee members want internal auditors to be crucial information providers and hence they expect them to demonstrate and communicate their contributions to monitoring and functioning of the organization as much as possible, at the same time carry out an active and proactive role in risk management. They also found that the maturity or strength of the audit committee, generally determines the strength of its interaction with internal auditor(s).

In measurement of professional qualifications of audit committee members in the relevant field of accounting and finance with competence, Raghunandan et al. (2001), researched Audit Committee Composition, “Gray Directors,” and Interaction with Internal Auditing, the study examining the association between audit committee composition and the committee's interaction with internal auditing. The findings revealed that committees comprising solely of independent directors and with at least one member with a finance or accounting background are more likely to have longer meetings with the Chief Internal Auditor, provide private access to the Chief Internal Auditor and review internal audit proposals and results of internal auditing function. This implied that there is positive correlation between the audit committee with members having the above professional qualifications and competence and the results of internal audit operations. The committee members with the relevant experience help the committee in review the work of internal audit function. In this context the internal audit will benefit more when the audit committee is involved in the audit functions.
2.4 Conceptual Framework

A conceptual framework is a structure that explains possible connections between variables under study (Smyth, 2004). It is a framework or set of ideas used in a relevant filed of enquiry. Figure 1 below presents the relationship between variables under study (Management support, Internal Auditor’s autonomy, internal audit staff competence and Role of audit committee being the independent variables and internal audit effectiveness as the dependent variable).

### Independent Variables

**Management support**
- Funding and Resource allocation To audit department
- Recruitment and training for internal auditors
- Implementation of internal audit recommendations

**Internal Auditor’s Autonomy**
- Access to information
- Scope of Reports
- Reporting level

**Internal audit staff competence**
- Knowledge & Awareness of standards
- Staff professional and academic qualifications
- Experience in audit

**Role of Audit Committee**
- Communication and interaction
- Accounting and Financial expertise
- Cooperation with IA staff

### Dependent Variable

**Internal Audit Effectiveness**
- Integrity of information
- Risk mitigation

*Figure 2.1: Conceptual Framework*

*Source: Author (2018)*
Management support is linked to providing sufficient resources, hiring trained and experienced staff, creating awareness of IAF within an Organization, and having an independent IA department. Internal auditor autonomy refers to freedom from interference or threat from anybody. It entails integrity and an objective approach to the audit process. Staff competence refers to; qualifications, skills and knowledge that enable an individual to perform a task efficiently and effectively. It also includes experience gained after performing a particular task repeatedly. An audit committee is a submit-committee established to; evaluate the organizational independence of the internal audit function and the individual objectivity of the internal auditor, discuss the internal audit reports and their significant findings and the management implementation of the audit findings.

2.5 Research Gap
Most of the literature reviewed is from developed countries operating in different business environment from that of Kenya. However, despite the overwhelming interest on the internal audit function in Kenya, there is very little evidence from the researcher’s knowledge that similar studies exist on the subject in non-commercial entities in Kenya with regard to state corporations which makes it an ideal study area. The government of Kenya considers public sector entities as important components in the realization of the Vision 2030 and has also invested substantially towards its success for provision of public services where the proper utilization of those resources is critical to that vision.

2.6 Summary of Literature Review
Internal Audit function has drawn attention globally, but limited literatures have been examined in the public sector entities. The other studies analysed in this chapter have provided the insight of various views of different authors in regard to internal audit effectiveness in a company. The study was guided by four theories (Agency theory, Stewardship theory, Communication theory and Knowledge-based theory) which helped in demonstrating the importance of internal audit effectiveness in the public sector resource utilization. The empirical reviews have shown IAF as value addition to the management of the organization in an organization is important by increasing likelihood of detecting and self-reporting fraud rather than outsourcing functions.
CHAPTER THREE

3.0 RESEARCH METHODOLOGY

3.1 Introduction
This chapter presented the plan that was going to be used during the study. The specific steps included: research design, target population, sampling method, research instruments, data collection methods, data analysis and presentation. This plan enabled the researcher to determine the relationship between the variables under study.

3.2 Research Design
The study used descriptive design. According to Cooper & Schindler (2003) a descriptive design is concerned with finding out the what, where, and how of a phenomenon. This design was preferred because it would enable the study to generalize the findings to a larger population. In addition, it would allow the collection of quantitative data, which would be analysed using descriptive and inferential statistics (Saunders, Thornhill & Lewis, 2007). In descriptive design, the characteristics of the variables do not change much within the data collection period (Kothari, 2004)

3.3 Target Population
The population of study is the entire set of individuals, events or subjects with common characteristics whereas the target population is the population of interest which the researcher wants to make statistical inference (Mugenda, 2003). The study targeted five Semi-Autonomous Government Agencies in the Ministry of Environment and Forestry. These agencies were KFS, KEFRI, NEMA, KWTA and NETFUND. The target respondents were drawn from all levels of management in the following departments: Finance, Internal Audit, Supply Chain Management, Human Resource and Administration and Technical. Audit assistants too formed part of the target population. The agencies have different staff cadres in different departments ranging from Senior Managers, Middle level managers, Supervisors. According to the available records from the agencies, there are a total of 161 managers holding the desired ranks and 15 audit assistants. The table below represents the distribution of population size of the agencies:
Table 3.1: Population Size

<table>
<thead>
<tr>
<th>Organization</th>
<th>Senior Managers</th>
<th>Middle Level Managers</th>
<th>Supervisors</th>
<th>Audit Assistants</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>KFS</td>
<td>11</td>
<td>13</td>
<td>28</td>
<td>6</td>
<td>58</td>
</tr>
<tr>
<td>KEFRI</td>
<td>8</td>
<td>8</td>
<td>20</td>
<td>3</td>
<td>39</td>
</tr>
<tr>
<td>NEMA</td>
<td>7</td>
<td>7</td>
<td>16</td>
<td>3</td>
<td>33</td>
</tr>
<tr>
<td>KWTA</td>
<td>7</td>
<td>8</td>
<td>15</td>
<td>2</td>
<td>32</td>
</tr>
<tr>
<td>NETFUND</td>
<td>3</td>
<td>5</td>
<td>5</td>
<td>1</td>
<td>14</td>
</tr>
<tr>
<td>Total</td>
<td>36</td>
<td>41</td>
<td>84</td>
<td>15</td>
<td>176</td>
</tr>
</tbody>
</table>


3.4 Sample and Sampling Design

A sample in a survey research is a collection of elements drawn from a larger population (Lavtrakas, 2008) while Kothari (2004), describes a sample as a collection of units chosen from the universe to represent it. The population was stratified into four companies and a proportionate sampling technique was applied in each stratum to select the individuals that ensured equal opportunity of being selected. According to Mugenda and Mugenda (2013), a sample size of between 10 & 30% is a good representation of the target population in a study with of less than 10,000 units. Therefore 30% of the target population was used as a sample size in this study as follows: Senior managers (36*0.3), Middle level mangers (41*0.3), Supervisors (84*0.3) and Audit assistants (15*0.3). Table 2 below presents the summary of the population and sample size of the proposed study.
Table 3.2: Sample Size

<table>
<thead>
<tr>
<th>Category</th>
<th>Population Size</th>
<th>Sample Size (30%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Senior Managers</td>
<td>36</td>
<td>10</td>
</tr>
<tr>
<td>Middle Level Managers</td>
<td>41</td>
<td>12</td>
</tr>
<tr>
<td>Supervisors</td>
<td>84</td>
<td>25</td>
</tr>
<tr>
<td>Audit Assistants</td>
<td>15</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>176</strong></td>
<td><strong>51</strong></td>
</tr>
</tbody>
</table>


3.5 Data Collection Instrument

The study used questionnaire as the main research instrument. The questionnaire is preferred as the most suitable instrument for the data collection because it allows the researcher to reach many correspondents within limited time (Mugenda & Mugenda, 2003). It also ensures confidentiality hence provide objectivity. The questionnaire was made up of structured and closed ended questions. According to Saunders et al, (2012) structured questionnaires are techniques of data collection in which each person is asked to respond to the same set of questions. The questionnaire adopted a 5-point Likert scale, where 1 represent strongly disagree, 2 disagree, 3 neutral, 4 agree, and 5 strongly agree as well as open ended questions. The study collected primary data whereby questionnaires were used. The questionnaires were self-administered by the researcher. The selected respondents were visited in person and after their consent they were requested to complete the questionnaire.

3.5.1 Validity

A pilot test was done to check the questionnaire for validly. The validity test is used to find out the extent to which the set of measures correctly represents the concept of the study. According to Fairchild (2002), face validity is a non-statistical assessment of whether the test is valid or not. The face validity test was undertaken by administering the questionnaire to four (4) people, one person from each cadre in one
of the companies who was not be part of the sample. The test was used to improve the content of the questionnaire before it was finally administered.

3.5.2 Reliability
The questionnaire was also tested for reliability. A reliability measure is the degree to which research instrument yields consistent results after several trials (Fairchild, 2002). Reliability analysis was done using Cronbach’s Alpha which measured the internal consistency by establishing if certain item within a scale measured the same construct. According to Field (2005) a Cronbach’s α > 0.7 implies the instrument is relatively good measurement tool therefore reliable.

\[
\alpha = \frac{N \cdot \bar{c}}{\bar{v} + (N - 1) \cdot \bar{c}}
\]

Where: -

N= Number of items.

C-bar= Average inter-item covariance among the items.

V-bar=average variance.

3.6 Data Analysis
The purpose of data analysis was to elicit meaning from research data collected (Polit &Beck, 2008). After fieldwork, the data was checked for errors, completeness, and legibility. The data collected was analysed using Statistical Package for Social Sciences (SPSS). The data was evaluated, assessed and comparison made so as to select the most accurate and quality information from the feedback given by various respondents. The quantitative data was analysed using linear regressions since it involved one dependent variable and several independent variables.

For background information, descriptive statistical analysis was used and analysed to provide a profile of respondents. The study used multiple regression analysis to determine the relationship between internal audit and effectiveness in non-commercial state entities in Kenya. Multiple regression analysis was used to determine the effect
of four independent variables on the dependent variable that guided by the following regression model:

\[ Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \epsilon. \]

Where:
- \( Y = \) IA effectiveness
- \( \beta_1, \beta_2, \beta_3, \beta_4 = \) Regression coefficients of factors affecting of internal audit effectiveness
- \( X_1 = \) Management support
- \( X_2 = \) IA Autonomy
- \( X_3 = \) IA Staff Competence
- \( X_4 = \) Audit Committee
- \( \alpha = \) Constant term representing other factors other than the above internal audit effectiveness which are not defined in the model.
- \( \epsilon = \) error term

### 3.7 Ethical Consideration

In order to safeguard the privacy of the respondents and that of the organizations, the researcher gave assurance to the correspondents that the study was only meant for academic purpose which meant that their responses would remain confidential and only a summary of the data would be used. Before the exercise, the researcher sought for approval from the management of the respective organizations by submission of the introduction letter from the University together with a copy of the questionnaire.
CHAPTER FOUR

4.0 DATA ANALYSIS AND PRESENTATION

4.1 Introduction
The chapter entails the data analysis procedures and findings as proposed under the methodology chapter. The chapter is divided into various sections commencing with the response rate of the questionnaire, the reliability and validity test, the background information of the respondents, the explanatory variables and the explained variable. The independent variables are; management support, internal Auditor’s autonomy, internal audit staff competence and the role of audit committee. The dependent variable is the internal audit effectiveness in Semi- Autonomous Government Agencies in the ministry of Environment and Forestry, Kenya.

4.2 The Questionnaire Response Rate
Fifty-one questionnaires were issued to the senior managers, middle level managers, supervisors and audit assistants in the Semi- Autonomous Government Agencies in the ministry of Environment and Forestry. Forty-seven questionnaires were returned as depicted in the table 4.1 below.

Table 4.1: The Response Rate

<table>
<thead>
<tr>
<th>Respondents</th>
<th>Sample Size</th>
<th>Returned</th>
<th>Response rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>51</td>
<td>47</td>
<td>92.16%</td>
</tr>
</tbody>
</table>

Source: Primary data (2019)

The questionnaire response rate of 92.16% exceeded the recommended verge of 30% by Saunders and Lewis (2009). This implied that data collected would be relied to conduct this research.

4.3 Data Reliability Test
Reliability is the level at which the data gathering methods used in the study compare to the expected results. Measurement of reliability essentially provides a measure on the consistency of the variables under consideration. The Cronbach’s Alpha test was used to assess the data reliability against the explanatory variables as displayed in table 4.2 below.
Table 4. 2: Cronbach’s Alpha Test

<table>
<thead>
<tr>
<th>Independent variables</th>
<th>Number of items</th>
<th>Cronbach’s Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Management Support</td>
<td>5</td>
<td>0.935</td>
</tr>
<tr>
<td>Internal Auditor’s Autonomy</td>
<td>5</td>
<td>0.789</td>
</tr>
<tr>
<td>Internal Audit Staff Competence</td>
<td>4</td>
<td>0.862</td>
</tr>
<tr>
<td>Role of Audit Committee</td>
<td>5</td>
<td>0.781</td>
</tr>
</tbody>
</table>

Source: Primary data (2019)

The Cronbach’s Alpha Statistics for the explanatory variables surpassed the recommended threshold of 0.7. This signifies that data collected was consistent and reliable for the study. Moreover, validity refers to the legitimacy of an inquiry (Khan, 2011). Specifically, it alludes to the idea of determining if the data collections instruments are true estimate of what they should enumerate. The researcher with the approval of her supervisor was concerned with content validity by essentially looking at the substance of information gathering instruments to find out if they were legitimate.

4.4 General information

The researcher aimed at assessing the management level of the respondents. The levels of management applicable to this research were senior level, middle level, supervisor level and the audit assistants’ level.

Table 4. 3: Level of Management

<table>
<thead>
<tr>
<th>Level</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Senior</td>
<td>9</td>
<td>19.1</td>
</tr>
<tr>
<td>Middle level</td>
<td>20</td>
<td>42.6</td>
</tr>
<tr>
<td>Supervisor</td>
<td>11</td>
<td>23.4</td>
</tr>
<tr>
<td>Audit assistant</td>
<td>7</td>
<td>14.9</td>
</tr>
<tr>
<td>Total</td>
<td>47</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: Primary data (2019)

The majority of the respondents were under middle level management represented by 42.6%, followed by supervisor level represented by 23.4%. Moreover, 19.1% were
under the senior level while 14.9% were under the audit assistant level as depicted in the table 4.3 above.

4.5 Management Support
Regarding the first objective of this study, the influence of management support on the internal audit effectiveness in Semi-Autonomous Government Agencies in the ministry of Environment and Forestry was assessed through various questions. The findings of the research were tabulated in the sections below.

Audit assistants were asked whether training in audit related issues had been carried out in the last one year and the responses are as follows:

Table 4.4: Training carried out in audit related issues

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>30</td>
<td>63.8</td>
<td>1.36</td>
<td>.486</td>
</tr>
<tr>
<td>No</td>
<td>17</td>
<td>36.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>47</td>
<td>100.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: (Author, 2019)

From the table 4.4 above, 63.8% of the respondents indicated that they had been trained in audit related issues in the last one year while 36.2% of the respondents indicated that they had not been trained. This indicates that training which is necessary for staff development is not carried out in all government agencies on regular basis.

The respondents were also asked how often the trainings were carried out and they responded as follows:

Table 4.5: The frequency of the training carried out

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monthly</td>
<td>5</td>
<td>10.6%</td>
<td>2.43</td>
<td>.683</td>
</tr>
<tr>
<td>Quarterly</td>
<td>17</td>
<td>36.2%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Annually</td>
<td>25</td>
<td>53.2%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>47</td>
<td>100.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Primary data (2019)
Regarding how often the training was carried out; 53.2% of the respondents indicated that training was carried out annually with only 10.6% indicating that training is carried out monthly as shown in the table 4.5 above. Annual training might not equip the staff with the necessary development and advancement of knowledge in the auditing field.

Further, the researcher used statements to evaluate the extent of management support towards the internal audit effectiveness. The respondents were required to indicate the degree of agreement to the given statements. The Likert scale of 1-5 was used to assess the responses where; 1- strongly disagree, 2- disagree, 3- Not sure, 4- agree and 5- strongly agree. The responses were aggregated, and the descriptive statistics computed to determine the level of management support on internal audit effectiveness

**Table 4.6: Descriptive Statistics**

<table>
<thead>
<tr>
<th>Statement</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Coefficient of Variation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Management has put up well-established policies and regulations in recruitment of Internal Audit staff.</td>
<td>2.72</td>
<td>1.4101</td>
<td>0.5184</td>
</tr>
<tr>
<td>Management allows internal audit employees to participate in training and development program in order to improve their skills and keep up the rapid changes in the field.</td>
<td>3.23</td>
<td>1.3602</td>
<td>0.4211</td>
</tr>
<tr>
<td>The management allocates enough resources to internal audit function to hire the right number of high-quality audit staff.</td>
<td>2.91</td>
<td>1.3200</td>
<td>0.4536</td>
</tr>
<tr>
<td>Management accepts and implements internal audit findings to the latter and on time.</td>
<td>2.74</td>
<td>1.3300</td>
<td>0.4854</td>
</tr>
<tr>
<td>Management supports internal audit function by allocating sufficient funds annually to enhance achievement of its operation and work plans.</td>
<td>2.96</td>
<td>1.4001</td>
<td>0.4730</td>
</tr>
</tbody>
</table>

**Source:** Primary data (2019)
The highest mean of 3.23 depicted by the table above implies the respondents are in agreement that management allows internal audit employees to participate in training and development programs in order to improve their skills and keep up with the rapid changes in the field since it is above the threshold of 3. However responses do not vary much since it has the lowest coefficient of variation of 0.4211. On the other hand the respondents disagree that management has put up policies and procedures on recruitment of internal audit staff with a mean of 2.72 with responses varying considerably the highest coefficient of variation of 0.5184.

4.6 Internal Auditor’s Autonomy

Based on the second objective of the study, the influence of autonomy of the internal auditor on the internal audit effectiveness was assessed through the determination of the internal auditing procedures, the extent to which the reporting level of the Chief Internal Auditor and a set of statements. The overall efficiency of the internal audit function was in establishing the effectiveness of the internal audit. The sections that follow present the findings on each of the three criteria used to evaluate autonomy of the internal audit function.

4.6.1 Determination of Internal Auditing Procedures

The researcher sought to establish the overall authority which determined the scope, time, the extent of internal audit procedures and reports in Semi- Autonomous Government Agencies. The results are tabulated below.

Table 4.7: Determination of Procedures and Reports

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Audit charter</td>
<td>13</td>
<td>27.7</td>
<td>2.36</td>
<td>1.051</td>
</tr>
<tr>
<td>Management</td>
<td>11</td>
<td>23.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Audit Committee</td>
<td>16</td>
<td>34.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The Chief</td>
<td>7</td>
<td>14.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internal Auditor</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>47</strong></td>
<td><strong>100.0</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Source: Primary data (2019)*
The findings of the research revealed that the audit committee was tasked with coming up with audit procedures and reports to be followed in the agencies represented by the highest percentage of 34.0, with the least being the Chief Internal Auditor at 14% implying that audit committees are tasked with major decision making in internal audit departments.

4.6.2 Reporting level of the Chief Internal Auditor

The researcher sought to find out how the reporting level of the Chief Internal Auditor affects internal audit effectiveness as shown in the table below.

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percent</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>75-100%</td>
<td>16</td>
<td>34.0</td>
<td>2.32</td>
</tr>
<tr>
<td>50-74%</td>
<td>11</td>
<td>23.4</td>
<td></td>
</tr>
<tr>
<td>25-49%</td>
<td>9</td>
<td>19.1</td>
<td></td>
</tr>
<tr>
<td>Below 25%</td>
<td>11</td>
<td>23.4</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>47</strong></td>
<td><strong>100.0</strong></td>
<td></td>
</tr>
</tbody>
</table>

Source: Primary data (2019)

The findings revealed that 34.0% of the respondents indicated that the reporting level of the Chief Internal Auditor to the highest authority in the government agencies affects internal audit effectiveness to a great extend as depicted in the table 4.8 above. This implies that the Chief Internal Auditor is free to perform his/her duties without manipulation.

4.6.3 Extent of Agreement

Moreover, the researcher used a given set of statements to investigate the degree of agreement amongst the respondents. A Likert Scale of 1-5 where; 1-strongly disagree, 2- disagree, 3- not sure, 4- agree and 5- strongly agree was used. The responses were aggregated, and the descriptive statistics computed to assess internal audit autonomy as shown in table 4.9 below.
Table 4. 9 Descriptive Statistics

<table>
<thead>
<tr>
<th>Description</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Coefficient of Variation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal auditors have free access to records and people during auditing process</td>
<td>2.94</td>
<td>1.4100</td>
<td>0.4796</td>
</tr>
<tr>
<td>The Chief Internal Auditor has freedom in scope determination</td>
<td>3.23</td>
<td>1.4299</td>
<td>0.4437</td>
</tr>
<tr>
<td>The Chief Internal Auditor reports directly to the board</td>
<td>3.19</td>
<td>1.38932</td>
<td>0.4357</td>
</tr>
<tr>
<td>Reports prepared by internal auditors are always objective</td>
<td>2.91</td>
<td>1.4899</td>
<td>0.5120</td>
</tr>
<tr>
<td>IA autonomy always determines audit effectiveness</td>
<td>3.02</td>
<td>1.3400</td>
<td>0.4437</td>
</tr>
</tbody>
</table>

Source: Primary data (2019)

The Chief Internal Auditor has freedom in determination of scope of his work in the agencies as depicted by the highest mean of 3.23 as compared to the lowest mean of 2.91 recorded for objectivity of reports prepared by internal auditors. This indicates that majority of the respondents were in agreement that the Chief Internal Auditors have freedom in scope determination across the agencies, implying that they are in full control of the internal audit departments. The variation across agencies are closely related, with the highest being 0.5120 and 0.4357 being the lowest.

4.7 Internal Audit Staff Competence

The competence of the internal audit staff was fundamental in addressing the third objective of this study. The relevant skills and expertise of the audit staff was essential in the overall effectiveness of the audit function in the government agencies. The respondents were required to respond through closed ended questions as well as a set of statements.
The respondents were asked whether they had Internal Audit department in their Organizations and the table below shows the response.

### Table 4.10: Existence of an Internal Audit Department

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>47</td>
<td>100%</td>
<td>1.09</td>
<td>.282</td>
</tr>
<tr>
<td>No</td>
<td>0</td>
<td>0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>47</td>
<td>100.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Source: Primary data (2019)**

The findings as depicted by table 4.10 above indicated that all the agencies under study had Internal Audit departments. This implies that government agencies are in consistent with the government regulation which states that every agency should have an internal audit unit to act as a check and balance mechanism in financial management.

The respondents were also asked to indicate the highest level of education of their internal audit staff and the table 4.11 reveals the findings.

### Table 4.11: Internal audit staffs’ highest educational qualification

<table>
<thead>
<tr>
<th>Qualification</th>
<th>Frequency</th>
<th>Percent</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diploma in accounting</td>
<td>4</td>
<td>8.5</td>
<td>2.72</td>
<td>1.015</td>
</tr>
<tr>
<td>Bachelor’s degree</td>
<td>20</td>
<td>42.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Master’s degree</td>
<td>8</td>
<td>17.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CPA K</td>
<td>15</td>
<td>31.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>47</td>
<td>100.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Source: Primary data (2019)**
The highest level of education of internal audit staff was Bachelor’s degree at 42.6% followed by CPA K at 31.9%, implying that the internal audit staff were equipped with the right staff in terms of academic and professional skills.

Experience of the internal audit was also paramount to the study and the table 4.12 below reveals the findings

**Table 4.12: Experience of your internal audit staff in Internal Audit department**

<table>
<thead>
<tr>
<th>Experience of Internal Audit Staff</th>
<th>Frequency</th>
<th>Percent</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 2 years</td>
<td>10</td>
<td>21.3</td>
<td>2.72</td>
<td>1.097</td>
</tr>
<tr>
<td>2-6 years</td>
<td>6</td>
<td>12.8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6-10 years</td>
<td>18</td>
<td>38.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>More than 10 years</td>
<td>13</td>
<td>27.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>47</strong></td>
<td><strong>100.0</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Source: Primary data (2019)**

From table 4.12 above, the highest mean of 38.3% of the respondents indicated that internal audit staff had an experience of between 6-10 years, followed by those with working experience of more than 10 years at 27.7%.12.8%, implying that the agencies has the right staff in terms of skills gained through experience. It is also evident that those with less than 2 years’ experience are at a high percentage, implying that the internal audit departments have a future in terms of professional experience in the government agencies.

The respondents too were required to indicate on a Likert Scale of 1-5 where; 1- strongly disagree, 2- disagree, 3- not sure, 4- agree and 5- strongly agree. The responses obtained were analysed and the descriptive statistics computed as shown in the table 4.13 below.
Table 4. 13: Descriptive Statistics

<table>
<thead>
<tr>
<th>Description</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Coefficient of Variation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal audit staff has professional experience and expertise in areas of governance, risk, finance, and technical knowledge required in the field of auditing.</td>
<td>3.04</td>
<td>1.3013</td>
<td>0.4276</td>
</tr>
<tr>
<td>Internal Audit employees regularly advance their knowledge through participating in training, seminars, sharpen their skills for better productivity</td>
<td>3.25</td>
<td>0.8301</td>
<td>0.2554</td>
</tr>
<tr>
<td>All the audit staff are affiliated to at least one of the professional body necessary in enhancing professionalism</td>
<td>2.98</td>
<td>1.3899</td>
<td>0.4664</td>
</tr>
<tr>
<td>Staff competence in a key factor in enhancing internal audit effectiveness</td>
<td>3.52</td>
<td>0.9453</td>
<td>0.2670</td>
</tr>
</tbody>
</table>

**Source: Primary data (2019)**

From the table 4.13 above, respondents were in agreement that internal audit staff competence was a key factor with the highest mean of 3.52 as compared to affiliation to a professional body by audit staff which recorded the lowest mean of 2.98. However, the coefficient of variation differed considerably, the highest being 0.4664 against 0.2554 meaning that respondents do not seem to agree across the board. Competence therefore, needs to be impacted in internal audit staff through continuous trainings and further studies to enhance internal audit effectiveness. However it was noted that not all audit staff were affiliated to a professional body which compromises enhancement of professionalism in the agencies.

**4.8 The role of Audit Committee**

In order to determine the influence of the audit committee on the internal audit effectiveness, the researcher used closed ended questions as well as a given set of questions on a Likert Scale.
The respondents were asked whether they had audit committees in their Organizations and responses were as follows in the table below.

Table 4. 14: Existence of an Audit Committee

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>37</td>
<td>78.7</td>
<td>1.19</td>
<td>.398</td>
</tr>
<tr>
<td>No</td>
<td>10</td>
<td>21.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>47</strong></td>
<td>100.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Primary data (2019)

From table 4.14 above 78.7% of the respondents indicated that Audit Committees existed in their Organizations as compared to 21.3% of the respondents that responded otherwise. On average Audit committees existed in most government agencies according to the requirement by the Mwongozo Code of Governance.

The table below indicates the responses that were given as regards qualification criteria used to appoint Audit Committee members

Table 4. 15: Qualification criteria used to appoint members to the Audit Committee

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finance related academic qualification</td>
<td>10</td>
<td>21.3</td>
<td>2.66</td>
<td>1.147</td>
</tr>
<tr>
<td>Audit related academic qualification</td>
<td>11</td>
<td>23.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Experience in Accounting and Finance areas</td>
<td>11</td>
<td>23.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>All the three above</td>
<td>15</td>
<td>31.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>47</strong></td>
<td>100.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Primary: Primary data (2019)

From table 4.15 above, the highest mean of 31.9% of the respondents indicated that Finance and Audit related academic qualifications as well as experience in
Accounting and Finance areas were key areas considered while appointing Audit Committee members. These areas are paramount to the efficient functioning of Audit Committees in government agencies.

The respondents under this question were required to indicate the extent to which Audit Committee members interacted with internal audit staff and below are the responses

**Table 4.16: Extent audit committee communicate with internal audit staff**

<table>
<thead>
<tr>
<th>Extent audit committee communicate</th>
<th>Frequency</th>
<th>Percent</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>75-100%</td>
<td>7</td>
<td>14.9</td>
<td>2.77</td>
<td>1.047</td>
</tr>
<tr>
<td>50-74%</td>
<td>11</td>
<td>23.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>25-49%</td>
<td>15</td>
<td>31.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Below 25%</td>
<td>14</td>
<td>29.8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>47</td>
<td>100.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Source: Primary data (2019)**

Table 4.16 reveals that 31.9% of the respondents indicated that the extent of interaction between Audit Committee members and internal audit staff was 25-49% which was below average meaning that interaction is not satisfactory which could affect internal audit effectiveness negatively.

The respondents were required to indicate the percentage of Audit Committee members who were in possession of Accounting and Finance Management Skills and they respondent as follows

**Table 4.17: Audit committee members with Accounting and Finance management skills**

<table>
<thead>
<tr>
<th>Accounting and Finance management skills</th>
<th>Frequency</th>
<th>Percent</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Above 70%</td>
<td>12</td>
<td>25.5</td>
<td>2.17</td>
<td>.816</td>
</tr>
<tr>
<td>50-69%</td>
<td>15</td>
<td>31.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Below 49%</td>
<td>20</td>
<td>42.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>47</td>
<td>100.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Source: Primary data (2019)**
42.6% of the respondents indicated that below 49% of the Audit Committee members were in possession of Accounting and Finance management skills followed with 25.5% at above 70% as depicted in table 4.7.4 above. This shows that majority of Audit Committee members lack Accounting and finance management skills which could affect their competence while carrying out their oversight role in IAF.

Additionally, the researcher used a set of statements with the scale ranging from 1 to 5 where; 1- strongly disagree, 2- disagree, 3- not sure, 4- agree and 5- strongly agree. The level of satisfactory was above 3 while the level of dissatisfactory was below 3. The responses obtained were aggregated to compute the descriptive statistics for the audit committee.

**Table 4. 18: Descriptive Statistics**

<table>
<thead>
<tr>
<th>Statement</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Coefficient of Variation</th>
</tr>
</thead>
<tbody>
<tr>
<td>There is adequate cooperation between audit committee and internal auditors</td>
<td>3.36</td>
<td>1.3601</td>
<td>0.4048</td>
</tr>
<tr>
<td>Audit committee members are well versed in accounting and finance areas</td>
<td>2.89</td>
<td>1.4800</td>
<td>0.5121</td>
</tr>
<tr>
<td>There is always a healthy communication between the audit committee and internal audit staff</td>
<td>2.83</td>
<td>1.4201</td>
<td>0.5018</td>
</tr>
<tr>
<td>The audit committee wholly depends on internal auditors’ reports for their work</td>
<td>2.57</td>
<td>1.5099</td>
<td>0.5875</td>
</tr>
</tbody>
</table>

**Source: Primary data (2019)**

From the table 4.18 above, it was noted that the audit committee members cooperated adequately with internal auditors since an average of 3.36 as compared to disagreement on dependence on internal auditors’ reports by audit committee which has the lowest mean of 2.57. The respondents also disagree to a great extent with the highest coefficient of variation being 0.5875 against 0.4048 being the lowest.
4.9 Internal Audit Effectiveness

To assess the internal audit effectiveness of the Semi-Autonomous Government Agencies in the ministry of Environment and Forestry in Kenya, the researcher used closed ended questions as well as a set of statements based on a Likert Scale. The respondents were asked whether Internal Audit Function was involved in setting of Organization goals in their Organization and the responses were as follows.

Table 4.19: Internal Audit Function is involved in setting Organizational goals

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>32</td>
<td>68.1</td>
<td>1.32</td>
<td>.471</td>
</tr>
<tr>
<td>No</td>
<td>15</td>
<td>31.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>47</td>
<td>100.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Primary data (2019)

From the table 4.19 above, it can be noted that majority of the respondents with the highest mean of 68.1 revealed that Internal Audit Function is involved in setting of Organizational goals while 31.9% of the respondents responded otherwise. Therefore Internal Audit Function is part and parcel of the management in goal setting which makes it easier in appraising these goals.

The respondents were required to indicate the extent to which internal audit function reviews the integrity of financial and non-financial information and responded as follows.
Table 4.20: Reviews of reliability and integrity of financial information

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percent</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>75-100%</td>
<td>15</td>
<td>31.9</td>
<td>1.98</td>
</tr>
<tr>
<td>50-74%</td>
<td>22</td>
<td>46.8</td>
<td>.897</td>
</tr>
<tr>
<td>25-49%</td>
<td>6</td>
<td>12.8</td>
<td></td>
</tr>
<tr>
<td>Below 25%</td>
<td>4</td>
<td>8.5</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>47</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Source: Primary data (2019)

The findings in the table 4.20 above indicated most of the respondents with the mean of 46.8 revealed that an effective internal audit function reviews the reliability and integrity of financial and non-financial information at a large extent of 50-74% and the least which is 8.5% at below 25%. This implies that internal audit function is mainly responsible for review of reliability and integrity of financial and non-financial information.

The respondents were asked whether internal audit function was wholly, partially or never at all responsible for reviewing programs and operations and the responses were as follows

Table 4.21: Internal audit function review of programs and operations

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percent</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wholly</td>
<td>19</td>
<td>40.4</td>
<td>1.89</td>
</tr>
<tr>
<td>Partially</td>
<td>14</td>
<td>29.8</td>
<td>.840</td>
</tr>
<tr>
<td>Not at all</td>
<td>14</td>
<td>29.8</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>47</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Source: Primary data (2019)

From the table 4.21 above, it can be noted that 40.4% of the respondents revealed that internal audit function is wholly responsible for reviewing of programs and operations
with a tie of 29.8% indicating that internal audit function is partially or not at all responsible.

The respondents were required to indicate the level of agreement to the statements in a scale of 1-5 where; 1- strongly disagree, 2- disagree, 3- not sure, 4- agree and 5- strongly agree. The descriptive statistics for the aggregated responses are tabulated below.
Table 4.22: Descriptive Statistics

<table>
<thead>
<tr>
<th>Internal audit effectiveness contributes to the achievement of company objectives</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Coefficient of Variation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2.06</td>
<td>0.8201</td>
<td>0.4981</td>
</tr>
<tr>
<td>Internal audit effectiveness ensures that fraud is minimized in your Organization</td>
<td>2.83</td>
<td>1.3700</td>
<td>0.4841</td>
</tr>
<tr>
<td>Good management of organization resources is as a result of internal audit effectiveness</td>
<td>3.06</td>
<td>1.5199</td>
<td>0.4967</td>
</tr>
<tr>
<td>Internal audit effectiveness ensures your organization exceeds its set targets</td>
<td>3.00</td>
<td>1.2699</td>
<td>0.4233</td>
</tr>
<tr>
<td>Management of resources in your organization has improved because of effective internal audit function</td>
<td>3.04</td>
<td>1.2500</td>
<td>0.4112</td>
</tr>
</tbody>
</table>

Source: Primary data (2019)

From the table 4.22 above, the highest mean of 3.06 is recorded by the view of the respondents that were in agreement that good management of organization resources is as a result of internal audit effectiveness. However, the respondents disagreed that internal audit effectiveness contributes to the achievement of company objectives as depicted by the lowest mean of 2.06 as indicated above with close variations across the board.

4.10 Inferential statistics

The diagnostic tests were performed in order to assess the suitability of carrying out the inferential statistics. Normality test of the study variables was carried out, then correlation and regression analysis were performed to infer about the population parameters. The results and findings were tabulated below.
Since the dataset is less than 2000 observations, the researcher used the Shapiro-Wilk scale to assess the normality of the variables. Internal Audit Effectiveness, Internal Auditor's Autonomy, Internal Audit Staff Competence, Management support and Audit Committee were normally distributed since their significant values of 0.059, 0.070, 0.081, 0.063 and 0.052 respectively were more than Alpha Value of 0.05. This implied that the researcher would carry out inferential statistics such as correlation analysis and regression since the variables met the test of normality assumption.
Table 4.24: Pearson Correlation

<table>
<thead>
<tr>
<th></th>
<th>Internal Audit Effectiveness</th>
<th>Management Support</th>
<th>Internal Auditor's Autonomy</th>
<th>Internal Audit Staff Competence</th>
<th>Audit Committee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal Audit Effectiveness</td>
<td>1</td>
<td>.361</td>
<td>.521</td>
<td>.263</td>
<td>.724</td>
</tr>
<tr>
<td>Management Support</td>
<td></td>
<td>1</td>
<td>.614</td>
<td>.452</td>
<td>.491</td>
</tr>
<tr>
<td>Internal Auditor's Autonomy</td>
<td></td>
<td></td>
<td>1</td>
<td>.753</td>
<td>.569</td>
</tr>
<tr>
<td>Internal Audit Staff Competence</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Audit Committee</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Primary data (2019)

Given that the all the variables were normally distributed, the correlation analysis was carried out to establish the relationship between the variables. From the table 4.24 above, the internal audit effectiveness is positively related with all the independent variables. However, the internal audit effectiveness has a strong correlation with internal auditor’s autonomy and audit committee since their correlation coefficients of 0.521 and 0.724 respectively are greater than 0.5. Additionally, the internal audit effectiveness has moderate degree of association with management support and internal audit staff since their correlation coefficients of 0.361 and 0.263 respectively is less than 0.5.
Table 4.25: Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.652&lt;sup&gt;a&lt;/sup&gt;</td>
<td>.257</td>
<td>.245</td>
<td>5.71787</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Audit Committee, Management Support, Internal Auditor's Autonomy, Internal Audit Staff Competence

Source: Primary data (2019)

From the table 4.25 above, the correlation coefficient (R) is 0.652 implying that there is a strong positive correlation between the dependent and the independent variables. The correlation of determination (R Square) is 0.257 implying that 25.7% of changes of the dependent variable are influenced by the independent variables holding all other factors constant. Moreover, an Adjusted R Square of 0.245 infers that 24.5% of the changes in the dependent variable are accounted for by the independent variables ceteris paribus when adjusted for the degrees of freedom. The disturbance term of the overall regression model is 5.71787.

Table 4.26: ANOVA Table

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Regression</td>
<td>7.468</td>
<td>4</td>
<td>1.867</td>
<td>3.623</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>21.644</td>
<td>42</td>
<td>.515</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>29.112</td>
<td>46</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Internal Audit Effectiveness
b. Predictors: (Constant), Audit Committee, Management Support, Internal Auditor's Autonomy, Internal Audit Staff Competence

Source: Primary data (2019)

Table 4.26 above is used to verify the significance of the overall regression model. At 95% level of significance, the significant value of 0.013 is less than the Alpha Value of 0.05.

Null hypothesis: The regression model is non-significant
Alternative hypothesis: The regression model is significant
Since the significant value of 0.013 is less than the Alpha Value of 0.05, we reject the null hypothesis and conclude that the regression model is significant.

The significant of the regression model infers that the model can be used to forecast the internal audit effectiveness based on the explanatory variables.

Table 4. 27: Regression Coefficients

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>.059</td>
<td>.937</td>
<td>.063</td>
<td>.038</td>
</tr>
<tr>
<td>Management Support</td>
<td>.437</td>
<td>.142</td>
<td>.416</td>
<td>3.087</td>
</tr>
<tr>
<td>Internal Auditor's Autonomy</td>
<td>.144</td>
<td>.138</td>
<td>.140</td>
<td>1.046</td>
</tr>
<tr>
<td>Internal Audit Staff Competence</td>
<td>.332</td>
<td>.136</td>
<td>.330</td>
<td>2.436</td>
</tr>
<tr>
<td>Audit Committee</td>
<td>.056</td>
<td>.144</td>
<td>.052</td>
<td>.390</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Internal Audit Effectiveness

Source: Primary data (2019)

From the 4.27 above, the regression coefficients were interpreted at 95% level of significance thus the Alpha value 5%.

To start with, a positive and significant relationship was established between the management support and internal audit effectiveness since significant value of 0.004 was less than the Alpha Value of 0.05. Therefore, a unit increase in management support triggers 43.7% increase in the level of internal audit effectiveness.

Additionally, a positive and significant association was identified between the internal auditor’s autonomy and internal audit effectiveness since the significant value of 0.042 was less than Alpha Value of 0.05. Therefore, a unit increase in internal auditor’s autonomy leads to 14.4% increase in the level of internal audit effectiveness.

Moreover, a positive and significant relationship was established between the internal audit staff competence and internal audit effectiveness since the significant value of
0.019 is less than the Alpha value of 0.05. Thus, a unit increase in internal audit staff competence results to 33.2% increase in the level of internal audit effectiveness. Finally, a positive and significant association was established between the audit committee and internal audit effectiveness since the significant value of 0.031 was less than Alpha Value of 0.05. Therefore, a unit increase in the performance of the audit committee yields to 5.6% increase in the level of internal audit effectiveness.

\[ Y = 0.059 + 0.437 X_1 + 0.144 X_2 + 0.332 X_3 + 0.056 X_4 + 5.71787 \]

The above model illustrates that internal audit effectiveness (Y) is a function of internal factors (X₁, X₂, X₃ & X₄). When all internal factors are held constant, there is still 0.059 change in internal audit effectiveness while 5.71787 as indicated by the error term is a proportion of change in audit effectiveness that cannot be attributed to internal factors.
CHAPTER FIVE

5.0 DISCUSSION OF FINDINGS

5.1 Introduction

The chapter discusses the findings established in the previous chapter. Generally, the study aimed to investigate the factors affecting the internal audit effectiveness in Semi-Autonomous Government Agencies in the ministry of Environment and Forestry. The discussions are based on the specific objectives of the study; the influence of management support, internal auditor’s autonomy, internal audit staff competence and the role of Audit Committee.

5.2 Management Support and Internal Audit Effectiveness

The study findings established that management allows internal audit employees to participate in training and development programs in order to improve their skills and keep the pace with the rapid changes in the auditing field. This is in consistent with the study carried out by Abu-Azza (2012) who noted that providing education and training programs to internal audit teams is a motivation provided by top management.

The findings established that the management lacked sound policies and regulations to ensure proper recruitment of the internal audit staff. Additionally, the study found out that the management failed to allocate adequate resources for the internal audit function. The findings were echoed by Abu-Azza (2012) who identified lack of internal audit framework and clear policies was a major drawback to the internal audit effectiveness. Moreover, he discovered that the management overlooked the functions of internal audit thus ended up under funding it. Paape (2007) too alluded that inadequate resources limits the scope of audit work which weakens their output. Moreover, the study revealed that the management failed to implement fully the recommendations of the internal audit function on timely basis. This was established by Institute of Internal Auditors (2011) which faulted the management for the lack of will to implement the recommendations of the internal audit function. Finally, the study discovered a positive and significant relationship between the management support and internal audit effectiveness, assertions supported by Mihret and Yismaw (2007).
The findings are in contrast with the Stewardship theory which postulates that a steward (manager) protects and maximizes shareholders wealth through firm performance, because by so doing, the steward’s utility functions are maximized. This according to (Davis,Schoorman and Donaldson,1997).The top management which is supposed to motivate internal auditors for example through acceptance and implementation of audit findings, provision of adequate budget and resources which are paramount to the effective and efficient functioning of the internal audit function. The study also indicate that management has not put up established policies and regulation on recruitment of internal audit staff which could affect audit autonomy. However the management is applauded for allowing internal audit employees to participate in training and development which contribute immensely to the internal audit effectiveness.

5.3 Internal Auditor’s Autonomy and Internal Audit Effectiveness

The research findings revealed that the Chief Internal Auditor had freedom in scope determination as well as direct reporting to the board. Similar findings were established by Alzeban and Sawan (2013). The study also found that the Chief Internal Auditor reports directly to the board which increases auditor autonomy and allows internal audit function to achieve its responsibilities according to ISPPIA,Standard 1110. The Institute of Internal Auditors (2001) also posited that Auditor’s autonomy is achieved when the Chief Audit Executive reports functionally to the board. Further, the findings established that the autonomy of the internal auditor positively influenced the effectiveness of the internal audit. This was in line with Arena and Azzone (2009).

The study findings indicated that internal auditors did not have free access to records and people during auditing process. This is in contrast with the study of Alzeban and Sawan (2013) who noted that audit autonomy may be achieved through freedom to access records and full access to employees. The study findings also established that audit reports are not always objective. This is in contrast with Arena and Azzone (2009), who found out that, for an Organization to be effective, the internal auditors need to have a large degree of autonomy and objectivity so as to perform their activities in a proper manner.
The study findings are in contrast with Agency theory which states that the agent, in pursuit of personal interests creates his own empire different from the principal’s interest (Padilla, 2002). The conflict of interest is that the principal has set up an internal audit function as a measure to check the activities of the management. Therefore internal audit function is one of the measures that can be used to protect the owners ‘assets from theft and mismanagement (Peursen and Pumprey, 2005). The management however will try to thwart the efforts of internal auditors by not allowing them to operate in an environment that promote autonomy with the aim of fulfilling their own interests. The study findings indicated internal auditors are free to determine the scope of their work as well determination of internal procedures and reports is left in the hands of the audit committee. The Chief Internal Auditor also reports directly to the board thereby enhancing audit autonomy increasing effectiveness of the function.

5.4 Internal Audit Staff Competence and Internal Audit Effectiveness

The findings of the research found out that the professional and technical expertise of the internal audit staff was fundamental in ensuring the effectiveness of the audit process. Additionally, the expertise in the governance, risk management and evaluation, and financial literacy were major contributors to the effectiveness of the internal audit function. The findings were in agreement with Burnaby et al. (2009). Moreover, the study discovered that the audit staff advanced their knowledge through trainings and seminars to sharpen their auditing skills and remain relevant to the current audit environment. The findings were similar to another research by Hutchinson and Zain (2009) who postulated that audit staff career growth and development was inevitable in order to ensure internal audit effectiveness. This study also established competence requires knowledge and professionalism which are acquired from education, experience and job training which were in line with Arena & Azone (2009). Further; the study established that staff competence was key in enhancing internal audit effectiveness. This was in line with IIA (2006) which established that the competence of the internal audit staff immensely contributed to the efficiency of the internal audit practice. Additionally, Mihret (2010) discovered that technical competence and continuous training were critical in effective internal audit function.
The study findings on the other hand established that not all internal audit staff are affiliated to at least one of the professional bodies. Affiliation of internal auditors to a professional body promotes member’s competency and professionalism in the internal auditing field. Professional bodies impart members with educational experience, applicable knowledge, and business tools that can deliver a positive impact in any organization or business environment.

The study findings are in line with the knowledge-based theory which considers knowledge to be the most significant resource of the firm. Employees are the custodians of knowledge within an organization. For internal audit function to be able to play its part in ensuring effective corporate governance, the department must have members with the right knowledge. The study findings established that the agencies have staff that have the right and education and professional qualification with skills acquired through experience. It was also established that internal audit employees advance their knowledge through continuous training and development which conforms to the theory.

5.5 Role of Audit Committee and Internal Audit Effectiveness

The research findings revealed that there was cooperation between the audit committee and internal auditors. This assertion was supported by Goodwin (2003) in his study of determining the relationship the audit committee and the internal audit function. He further established a positive relationship between the two variables, a similar finding by this study. Tušek (2015) too posited that cooperation between the audit committee and internal audit function has a great influence on internal audit operations quality. This study revealed that accounting, finance and audit qualifications were crucial during selection of audit committee members. This was echoed by Raghunandan et al. (2001) who posited that there was a positive correlation between audit committee with members having finance accounting background and internal audit effectiveness.

The study on the other hand found out that there was no healthy communication between the audit committee and internal auditors to enhance efficiency and effectiveness in audit process. Contrary to this was the study of Tušek (2015) who posited that communication between internal auditors and audit committee in an
organization is very important. The study established that audit committee did not wholly depend on internal auditors reports for their work. The sentiments were supported by Sarens and Beelde (2006) who assessed the interaction between the internal auditors and audit committee and found out that audit committee was interested in the crucial information from the auditors.

The study findings contravenes the Communication theory which postulates that for effective internal audit function, there must be effective communication skills by the parties concerned for example the Audit Committee and internal auditors. According to Endaya and Hanefah (2013), poor and ineffective communication can be a great source of operational conflicts and poor management of resources including service delivery. Therefore communication between internal audit and audit committee is necessary so as to ensure effectiveness of the audit function leading to improved organizational performance.
CHAPTER SIX

6.0 CONCLUSION AND RECOMMENDATIONS

6.1 Introduction

This chapter includes the conclusions drawn from the findings of the study and discussion from the preceding chapters. The policy implications and recommendations are based on the conclusions of the research. The sections below include the conclusions drawn with respect to each objective of the study.

6.2 Conclusion

The study will make conclusion based on the four objectives as follows;

6.2.1 Management Support and Internal Audit Effectiveness

Mihret and Yismaw (2007), found out that internal audit effectiveness is strongly influenced by audit quality and management support. They postulated that management must be prepared to implement recommendations of internal audit function since they have far reaching implications on the auditor’s attitude towards improving audit quality, enhancing their commitment to develop a career as internal auditors. Abu-Azza (2012) notes that management support is a motivation provided by top management to internal auditor including proper recruitment, providing education and training programs to IA teams; adequate budget to IA; bonuses and good compensation to IA teams; and acceptance and implementation of IA recommendations. Paape (2007, found out that inadequate resources limits the scope of audit work which weakens their output. In addition, ISPPIA has emphasized on the importance of management’s support in removing any limitations in access and budgets which impede the internal audit department’s better performance.

The study concluded that the management need to come up sound framework and policies regarding the recruitment of the internal audit staff for the Semi-Autonomous Government Agencies. The recruitment procedures and regulations would increase efficiency and effectiveness of the internal audit function. Additionally, the research concluded that the internal audit staff require regular trainings and participate in the development programs to boost their skills and expertise thus increase the effectiveness of the internal audit function. Moreover, the study concluded that the management need to implement fully the recommendations of the internal audit
function on timely basis so as to serve a motivation to the internal audit staff and achieve internal audit function effectiveness. Finally, the study concluded that the management need to allocate adequate funds for the internal audit function to carry out its activities without compromise and financial hitches.

6.2.2 Internal Auditor’s Autonomy and Internal Audit Effectiveness

According to ISPPIA, Standard 1110 states that the Chief Internal Auditor must report to a level within the organization that allows the internal audit function to achieve its responsibilities. Auditor’s autonomy is effectively achieved when the chief audit executive reports functionally to the board (Institute of Internal Auditors, 2001). Alzeban and Sawan (2013), noted that audit autonomy may be achieved through mechanisms such as auditor freedom in scope determination, freedom of access to records, full access to employees, reporting to appropriately senior levels, strict appointment and removal of CAE, internal audit budget approval only by the board and prohibition from performance of non-audit work. Arena & Azzone (2009) postulated that for an organization to be effective the internal auditors need to have large degree of autonomy and objectivity so as to perform their activities in a proper manner. Cohen & Sayag (2010), argued that autonomy is the corner stone of IA effectiveness and therefore the effectiveness of IA cannot be realized without the autonomy of Internal Auditors.

This study concluded that the audit committee played a key role in determining extent of the internal audit process and the reports. The committee devised that the rules of engagement and procedures to be followed to conduct an internal audit process. Additionally, the study concluded that the Chief Internal Auditor is answerable to the board of the entity. This helped to safeguard the integrity and independence of the Chief Internal Auditor. The study also concluded that the Chief Internal Auditor is free to determine the scope of auditing process which leads to freedom in performance of his duties. Further, the study concluded that internal auditor’s autonomy determined the internal audit function effectiveness. The auditors are able act independently and without fear or favour. Finally, the study concluded that there was a positive relationship between the internal auditor’s autonomy and internal audit effectiveness.
6.2.3 Internal Audit Staff Competence and Internal Audit Effectiveness

The competence of internal audit staff is significant in promoting good governance and ensuring efficient utilization of public resources. The internal auditors should be qualified, knowledgeable and competent to be able to carry out their duties effectively. Burnaby et al. (2009), stated that for IA to be effective, internal auditors require relevant competence to carry out their duties satisfactorily. Mihret (2010) also supported this view by positing that technical competence and continuous training are considered crucial for effective internal audit function. It has been established empirically that organizations with internal auditors with high competency levels are positively correlated with performance which results in overall more effective corporate governance. The qualification of internal auditors enhances the quality of internal audit. A member of internal audit who has high qualification can deal with different issues effectively.

Hutchinson and Zain (2009), established that there is a significant association between qualification of internal auditors and firm performance. Competence in internal audit can be measured based on competency of academic level, experience, skill, and training. According to Arena & Azzone (2009), competence requires knowledge and professionalism which are acquired from education, job training, and experience. According to IIA, (2011) internal auditors must possess or obtain the skills, knowledge and other competencies required to carry out their responsibilities including financial activities. The competency of internal audit staff is a key component of efficient internal audit practice (IIA, 2006).

The study concluded most of the internal audit staff possessed a bachelor’s degree hence they had high educational and professional qualifications leading to high technical competence. Additionally, the research concluded that the internal audit staff had professional and technical experience in governance, risk mitigation and finance knowledge relevant to the auditing field. The risk management and finance skills improved the productivity of the internal audit staff in government agencies. Further, the study concluded that the competence and expertise of the internal audit staff positively enhanced the internal audit effectiveness. Finally, it was concluded that the there was a positive and significant relationship between the internal audit staff competence and the internal audit effectiveness in an organization.
6.2.4 Role of Audit Committee and Internal Audit Effectiveness

Read and Rama (2003) posited that the audit committee should be allocated oversight duties so as to achieve desirable objectives and goals. Tušek (2015) established that the cooperation between the audit committee and internal audit function has a great influence on the increase of the internal audit operations quality. Internal auditors and members of the audit committee, generally, believe that the communication between the internal auditors and the audit committee in an organization is very important.

Goodwin (2003), indicted that independence and accounting experience have a complementary impact on audit committee in relations with internal audit. Sarens and Beelde (2006) found out that that audit committee members want internal auditors to be crucial information providers and hence they expect them to demonstrate and communicate their contributions to monitoring and functioning of the organization as much as possible, at the same time carry out an active and proactive role in risk management. They also found that the maturity or strength of the audit committee, generally determines the strength of its interaction with internal auditor(s).

Raghunandan et al. (2001), posited that committees comprising solely of independent directors and with at least one member with a finance or accounting background are more likely to have longer meetings with the Chief Internal Auditor, provide private access to the Chief Internal Auditor and review internal audit proposals and results of internal auditing function. This implied that there is positive correlation between the audit committee with members having the above professional qualifications and competence and the results of internal audit operations. The committee members with the relevant experience help the committee in review the work of internal audit function.

It was concluded that the possession of accounting and financial expertise of the audit committee influenced the effectiveness of the internal audit operations. Moreover, the study concluded that adequate cooperation between the audit committee members and internal auditors improved internal audit function effectiveness. Additionally, a healthy communication between the audit committee members and the internal audit staff, however not noted in the study was crucial in internal audit effectiveness. Further, the study concluded that the audit committee held the internal auditors
accountable for critical information in an organization. The audit committee was perceived as a control and check off mechanism for the internal auditors in the government. Also, the research concluded that the audit committee was tasked with designing internal audit procedures and determining the extent of the audit report. Finally, the study concluded that there existed a positive association between the audit committee and the internal audit effectiveness. Thus, a direct influence of audit committee contributed to the internal audit effectiveness.

6.3 Implications of the study findings

6.3.1 Implication to Policy

The findings indicate that Audit Committee seems to be making major decisions as pertains to the internal audit function. This therefore calls for members of the Audit Committee to actually understand their mandate and work towards internal audit effectiveness. The findings also indicate that management has not put policies and regulations as pertains to recruitment of internal auditors. This calls for development of a framework by the government to facilitate the recruitment of the internal audit staff in its agencies. The policies and regulations governing the recruitment process would promote uniformity and professionalism in the internal audit function.

The findings indicated that trainings are done on annual basis and in some agencies not done at all. This calls for management to provide regular training to internal auditors o that they can be exposed to developments in the internal audit framework pronounced by professional bodies like the Institute of Certified Public Accountants of Kenya, the Institute of Internal Auditors and those promulgated by development agencies such as IMF, the World Bank and UNDP which support the improvement of corporate governance in the public sector.

6.3.2 Implication to Practice

The study findings indicate that management does not allocate adequate resources to internal audit function which impact its performance negatively. This calls on the management to come up with a policy on the allocation of resources to the internal audit function to ensure that the internal audit function is sufficiently funded to enhance its operations and to safeguard its independence and integrity. Moreover, the study findings indicate that management does not implement internal audit findings
and recommendations to the latter. Therefore there is need for a mechanism from the management team to ensure that the recommendations of the internal audit function are implemented on timely basis to facilitate efficiency and effectiveness in the internal audit.

The study findings indicate internal audit functions in the agencies do not enjoy the autonomy necessary for efficient functioning of their operations. This calls for monitoring and evaluation system to assess the autonomy of the internal auditors. The internal auditor’s autonomy was key contributor to the overall the effectiveness of the internal audit function. Additionally, there is need for management to devise ways of ensuring internal auditors have free and easy access to records and employees within the organization to facilitate the internal audit process. There is also need for ensuring objectivity of internal audit reports in enhancing the effectiveness of the internal audit function.

### 6.3.3 Implication to Academia

The study indicated that management who are the stewards of organization in government agencies work contrary to the principle of Stewardship theory by not providing adequate resources to internal audit function which could affect organization performance. This calls for strict measures to be put in place by audit committees to ensure management accords the internal audit function necessary support through provision of adequate budget and implementation of audit findings. The study also indicated that there was no healthy communication between internal auditors and the audit committee. This calls for enhancement of communication systems by the management according to Communication theory.

The study indicated that internal auditors are free to determine the scope of their work as well determination of internal procedures and reports is left in the hands of the audit committee. The Chief Internal Auditor also reports directly to the board thereby enhancing audit autonomy increasing effectiveness of the function. This is in line with the existing literature according to Alzeban and Sawan (2013). Further the study indicated that competence is a key factor in internal audit effectiveness as echoed by
Burnaby et al. (2009) who posited that for internal audit to be effective, internal auditors require relevant competence to carry out their duties satisfactorily.

6.4 Recommendations for Further Research
Based on the findings of the study and conclusions, further studies are recommended to investigate the role of the Government in the internal audit function of the agencies. This is due to the fact that the Government has set up mechanisms to ensure internal audit function is conducted in all the government agencies, yet the agencies fail to comply with the auditing standards leading to misuse and embezzlement of the public funds.

Further, since this study focused on the influence of the management support, internal auditor’s autonomy, the internal audit staff competence and the role of audit committee on the internal audit effectiveness in government agencies, other studies are recommended to establish other factors that affect the internal audit effectiveness in government agencies. It is also recommended that similar studies should be carried in the county governments.
REFERENCES


Control and Audit at Local Levels, World Bank Publications Boakye-Bonsu.


Institute of Internal Auditors (2015), *the state of the Internal Audit Profession in Africa*.


Moeller, R. (2009). *Brink’s modern internal auditing, a common body of knowledge*


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APPENDIX I

UNIVERSITY PERMISSION FOR DATA COLLECTION

SOUTH EASTERN KENYA UNIVERSITY
OFFICE OF THE DIRECTOR
BOARD OF POST GRADUATE STUDIES

Our Ref: D6/KIT/20548/2014

Magero Roselyne Nig:  
Reg No. D6/KIT/20548/2014  
Masters of Business Administration  
C/O Dean, School of Business and Economics  

Dear Nig:

RE: PERMISSION TO PROCEED FOR DATA COLLECTION

This is to acknowledge receipt of your Master in Business Administration Proposal document entitled: “Factors Affecting Internal Audit Effectiveness in Semi-Autonomous Government Agencies in the Ministry of Environment and Forestry, Kenya”.

Following a successful presentation of your Masters Proposal, the School of Business and Economics Board of Examination in conjunction with the Directorate, Board of Postgraduate Studies (BPS) have approved that you proceed on and carry out research data collection in accordance with your approved proposal.

During the research work, you will be closely supervised by Dr. Susan Wamitu. You should ensure that you liaise with the supervisor at all times. In addition, you are required to fill in a Progress Report (SEKU/ARSA/BPS/P-02) which can be downloaded from the University Website.

The Board of Postgraduate Studies wishes you well and a successful research data collection exercise as a critical stage in your Master of Business Administration.

Prof. Felix Ngunzo Kioli  
Director, Board of Postgraduate Studies

Copy to: Deputy Vice Chancellor, Academic, Research and Students Affairs (Note or File)  
Dean, School of Business and Economics  
Director, Kitui Campus  
Chairman, Department of Business and Entrepreneurship  
Dr. Susan Wamitu  
BPS Office  

ARD TO GREEN  ISO 9001:2015 CERTIFIED TRANSFORMING LIVES

DATE: 15th January, 2019
Dear Respondent,

My name is Roselyne Magero a student at South Eastern Kenya University, pursuing a degree of Master of Business Administration (MBA). As partial fulfilment for the award of the degree, I am carrying out a study towards my master academic requirement and my topic is: **Internal factors affecting internal audit effectiveness in Semi-Autonomous Government Agencies in the Ministry of Environment and Forestry in Kenya.** Your organization has been identified to participate in this study and your contribution is considered very important to make this study complete.

Please note that there are no right or wrong answers. Your information will remain anonymous, confidential and strictly be used for academic purpose only. Thank you for participating in this exercise.

Yours Faithfully,

Roselyne Magero,

P.O Box 892-90200,

Kitui.

Cell: 0720233118

Email:roseline.magero@yahoo.com
APPENDIX III
RESEARCH QUESTIONNAIRE

This questionnaire is designed to evaluate effectiveness of internal audit function. Please take your time to fill it. The information provided will be kept confidential and will only be used for the purpose of this research.

SECTION A: GENERAL INFORMATION

Name of the Organization (Stamp)……………………………………………………………………

1. Level of management

   a) Senior [ ]
   b) Middle level [ ]
   c) Supervisor [ ]
   d) Audit Assistant [ ]

SECTION B: MANAGEMENT SUPPORT

2. Have you been trained on audit related issues in the last year?

   a) Yes [ ]
   b) No [ ]

3. How often is the training carried out?

   a) Monthly [ ]
   b) Quarterly [ ]
   c) Annually [ ]

4. Please indicate to what extent you agree or disagree with the following statements on the influence of Management Support on Internal Audit Effectiveness in your organization by putting a tick against the options provided below.
1=strongly disagree (SD) 2=Disagree (D) 3=Neutral (N) 4=Agree (A) 5= Strongly Agree (SA)

<table>
<thead>
<tr>
<th>NO</th>
<th>STATEMENT</th>
<th>SD</th>
<th>D</th>
<th>N</th>
<th>A</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>Management has put up well established policies and regulations in recruitment of Internal audit staff.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b.</td>
<td>Management allows internal audit employers to participate in training and development program in order to improve their skills and keep up the rapid changes in the field.</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>c.</td>
<td>The management allocates enough resources to internal audit function to hire the right number of high-quality audit staff.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d.</td>
<td>Management accepts and implements internal audit findings and recommendations to the latter and on time.</td>
<td></td>
<td></td>
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<tr>
<td>e.</td>
<td>Management supports internal audit function by allocating sufficient funds annually to enhance achievement of its operation and work plans.</td>
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<td></td>
</tr>
</tbody>
</table>
SECTION C: INTERNAL AUDITOR’S AUTONOMY

5. Who/What determines the scope, time and extent of internal auditing procedures and reports?

a) Audit Charter [ ]          
   b) Management [ ]          
   c) Audit committee [ ]     
   d) Chief Internal Auditor [ ]

6. Please indicate the extent to which the reporting level of the Chief Internal Auditor affects the effectiveness of internal audit function

a) 75-100% [ ]         
   b) 50-74% [ ]          
   c) 25-49% [ ]          
   d) Below 25% [ ]

7. To what extent are the following statements true regarding internal auditors autonomy in your organization? Use the following scale provided. 1=strongly disagree (SD) 2=Disagree (D) 3=Neutral (N) 4=Agree (A) 5= Strongly Agree (SA)

<table>
<thead>
<tr>
<th>INTERNAL AUDITOR’S AUTONOMY NO.</th>
<th>STATEMENT</th>
<th>SD</th>
<th>D</th>
<th>N</th>
<th>A</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>Internal auditors have free access to records and people during auditing process</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b.</td>
<td>The Chief Internal Auditor has freedom in scope determination</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>c.</td>
<td>The Chief Internal Auditor reports directly to the board</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>d.</td>
<td>Reports prepared by internal auditors are always objective</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>e.</td>
<td>IA autonomy always determines audit effectiveness</td>
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<td></td>
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</tbody>
</table>
SECTION D: INTERNAL AUDIT STAFF COMPETENCE

8. Do you have an Internal Audit Department?
   a) Yes [ ]
   b) No [ ]

9. Please describe your internal audit staffs’ highest educational qualification:
   a) Diploma in accounting [ ]
   b) Bachelor’s degree [ ]
   c) Master’s degree [ ]
   d) CPA K [ ]

10. Please describe the length of service/experience of your internal audit staff in internal audit department by indicating the number in the box provided:
    a) Less than 2 years [ ]
    b) 2-6 years [ ]
    c) 6-10 years [ ]
    d) More than 10 years [ ]

11. Please indicate to what extent you agree or disagree with the statements provided on the effect of Internal Audit staff competence on internal audit effectiveness by putting a tick against the options provided:

   1=strongly disagree (SD)  2=Disagree (D)  3=Neutral (N)  4=Agree (A)  5= Strongly Agree (SA)

<table>
<thead>
<tr>
<th>STATEMENT</th>
<th>SD</th>
<th>D</th>
<th>N</th>
<th>A</th>
<th>SA</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Internal audit staff has professional experience and expertise in areas of governance, risk, finance, and technical knowledge required in the field of auditing.</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>b) Internal Audit employees regularly advance their knowledge through participating in training, seminars, sharpen their skills for better productivity</td>
<td></td>
<td></td>
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<tr>
<td>c) All the audit staff are affiliated to at least one of the professional body necessary in enhancing professionalism</td>
<td></td>
<td></td>
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<tr>
<td>d) Staff competence in a key factor in enhancing internal audit effectiveness</td>
<td></td>
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</tbody>
</table>
SECTION E: AUDIT COMMITTEE

12. Do you have an Audit Committee?
   a) Yes [ ]
   b) No [ ]

13. Indicate the qualification criteria used to appoint members to the Audit Committee
   a) Finance related academic qualification [ ]
   b) Experience in audit area [ ]
   c) Experience in Accounting and Finance areas [ ]
   d) All the above [ ]

14. Indicate to what extent audit committee communicate and interact with internal audit staff
   a) 75-100%
   b) 50-74%
   c) 25-49%
   d) Below 25%

15. Kindly indicate the percentage of the audit committee members who possess Accounting and Finance management skills and experience necessary for effective oversight role.
   a) Above 70%
   b) 50-69%
   c) Below 49%

16. What is your rating of the following statements with regard to audit committee and internal audit effectiveness in your organization? Use the following scale:
1 = Strongly Disagree (SD) 2 = Disagree (D) 3 = Not Sure (N) 4 = Agree (A) and
5 = Strongly Agree (SA)

<table>
<thead>
<tr>
<th>AUDIT COMMITTEE STATEMENT</th>
<th>SD</th>
<th>D</th>
<th>N</th>
<th>A</th>
<th>SA</th>
</tr>
</thead>
</table>
| a There is adequate cooperation between audit
  committee and internal auditors which
  greatly impacts effectiveness of internal audit
  function | | | | | |
| b Audit committee members are well versed in
  accounting and finance | | | | | |
| c There is always a healthy communication
  between the audit committee and internal
  audit staff | | | | | |
| d The audit committee wholly depends on
  internal auditors reports for their work | | | | | |
| e Audit committee’s role directly influences
  the effectiveness of internal audit function in
  your organization | | | | | |

SECTION F: INTERNAL AUDIT EFFECTIVENESS

17. When setting Organizational goals, is Internal Audit Function involved?
   a) Yes [ ]
   b) No [ ]

18. Please indicate the extent to which an effective internal audit function reviews the
    reliability and integrity financial and non-financial information leading to
    credibility.
   a) 70-100%
   b) 50-69%
   c) 25-49%
   d) Below 25%
19. Internal audit function is responsible for reviewing programs and operations to establish the extent to which results are consistent with organization’s goals.
   a) Wholly  [ ]
   b) Partially  [ ]
   c) Not at all  [ ]

20. To what extent are the following statements true regarding internal audit effectiveness in your organization? Use the following scale provided. 1 = Strongly Disagree (SD) 2 = Disagree (D) 3 = Not Sure (N) 4 = Agree (A) and 5 = Strongly Agree (SA)

<table>
<thead>
<tr>
<th>INTERNAL AUDIT EFFECTIVENESS</th>
<th>SD</th>
<th>D</th>
<th>N</th>
<th>A</th>
<th>SA</th>
</tr>
</thead>
<tbody>
<tr>
<td>NO STATEMENT</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>a Internal audit effectiveness contributes to the achievement of company objectives</td>
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<tr>
<td>b Internal audit effectiveness ensures that fraud is minimized in your Organization</td>
<td></td>
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<td>c Good management of organization resources is as a result of internal audit effectiveness</td>
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<tr>
<td>d Internal audit effectiveness ensures your organization exceeds its set targets</td>
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<td></td>
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<tr>
<td>e Management of resources in your organization has improved because of effective internal audit function</td>
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</table>

Thank You for Your Co-Operation!
## APPENDIX IV
### WORK PLAN

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<thead>
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<tbody>
<tr>
<td>Concept paper development</td>
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<tr>
<td>Proposal writing</td>
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<tr>
<td>Proposal presentation</td>
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<td>Data collection</td>
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<tr>
<td>Data analysis</td>
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<td></td>
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<tr>
<td>Report presentation</td>
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</tbody>
</table>
## APPENDIX V
### BUDGET

<table>
<thead>
<tr>
<th>No.</th>
<th>Item</th>
<th>Cost (KSh)</th>
<th>Total cost (KSh)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Proposal writing and presentation</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Printing and binding services</td>
<td>3,000</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Internet services</td>
<td>2,000</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Travelling costs</td>
<td>2,000</td>
<td>7,000.00</td>
</tr>
<tr>
<td>2</td>
<td>Data collection and analysis</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Printing questionnaires</td>
<td>1,000</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Travelling and accommodation costs</td>
<td>4,000</td>
<td></td>
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<tr>
<td></td>
<td>Consultation costs</td>
<td>2,000</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Internet services</td>
<td>1,000</td>
<td>8,000.00</td>
</tr>
<tr>
<td>3</td>
<td>Report presentation</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Printing and binding services</td>
<td>2,000</td>
<td>2,000.00</td>
</tr>
<tr>
<td>4</td>
<td>Publishing</td>
<td></td>
<td>10,000.00</td>
</tr>
<tr>
<td>5</td>
<td>Miscellaneous</td>
<td></td>
<td>2,500.00</td>
</tr>
<tr>
<td></td>
<td>TOTAL</td>
<td></td>
<td>29,500.00</td>
</tr>
</tbody>
</table>
APPENDIX VI
LIST OF SEMI-AUTONOMOUS GOVERNMENT AGENCIES IN THE MINISTRY OF ENVIRONMENT AND FORESTRY IN KENYA

<table>
<thead>
<tr>
<th>S/No</th>
<th>State Entity Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Kenya Forest Service</td>
</tr>
<tr>
<td>2.</td>
<td>Kenya Forestry Research Institute</td>
</tr>
<tr>
<td>3.</td>
<td>National Environment Management Authority</td>
</tr>
<tr>
<td>4.</td>
<td>Kenya Water Towers Agency</td>
</tr>
<tr>
<td>5.</td>
<td>National Environment Trust Fund</td>
</tr>
</tbody>
</table>