

**EFFECTIVENESS OF INTERNAL CONTROL SYSTEMS IN MANAGEMENT OF
FUNDS IN PUBLIC SECTOR AT NATIONAL SUB- COUNTY TREASURIES IN
KENYA**

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DECLARATION

I declare that this dissertation is my original work and has not been previously published or submitted for award of degree. I also declare that the works of others have been referenced and authors duly acknowledged.

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DEDICATION

My dedication goes to mywife Nancy Wangechi and my daughter Stephanie Nyevufor their endless support both morally and financially.

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LIST OF ABBREVIATIONS AND ACCRONYMS

AG	Auditor General
COSO	Committee of Sponsoring Organizations of Treadway Commission
ERM	Enterprise Risk Management
ICS	Internal Control Systems
ICT	Information and Communication Technology
IFMIS	Integrated Financial Management Information System
PPOA	Public Procurement Oversight Authority
SPSS	Statistical Package for Social Sciences
USAID	United States Agency for International Development

DEFINITION OF TERMS

Internal Control Systems – are a group of interrelated elements that align the performance of an organization with established strategies and ensure rational used of funds, assets, and accuracy in accounting data (Lakis, 2007).

Fund Management – involves planning, organizing, directing, monitoring and controlling monetary resources to ensure they are utilized appropriately in order to achieve their intended purpose at the least possible cost (Horne, 2011).

Integrated Financial Management Information System – is an electronic system that boosts efficiency in the management of public funds by enforcing higher levels of accountability and transparency in budgeting, expenditure control, and financial reporting (USAID, 2008).

Risk – is an action or event that can generate or cause hindrances to the achievement of the set objectives (Huang, 2008).

Risk Assessment – involves analyzing and identifying relevant risks that forms the basis for organizing and planning activities that will help monitor, manage and control risks (D'Aquila, 2013).

Control Environment – includes management and governance functions; the awareness, actions and attitudes of the people charged with governance and management concerning the entity's internal control systems and the importance of those systems to the entity (ACCA, 2014).

Control Activities – constitute rules, procedures and policies that help to minimize risks and ensure that the management's directives are implemented efficiently and effectively across the entire organization (D'Aquila, 2013).

ABSTRACT

The national sub county treasuries in Kenya are responsible for managing public funds at the sub county level. To translate this responsibility into concrete reality, the national sub county treasuries employ internal control systems. It is still not clear whether internal control systems have been effective in the management of public funds. This study therefore sought to examine the effectiveness of internal control systems in management of funds in the public sector at national sub county treasuries in Kenya. The study was guided by three objectives which include: to determine the effectiveness of control environment on management of funds; to establish the effectiveness of risk assessment on management of funds and to examine the effectiveness of control activities in management of funds. The study was based on the assumption that all independent variables would remain constant through the period of the study. The study employed a descriptive research design using qualitative and quantitative approach. The target population was 620 accountants and internal auditors from 310 national sub county treasuries. The study used cluster and purposive sampling techniques to select a representative sample of 184 respondents. Both primary and secondary sources of data were used: primary data was collected using questionnaires while secondary data was gathered from findings of previous studies on internal control systems and reports related to funds management at the sub county treasuries. The primary data obtained was analyzed through quantitative and qualitative analysis. Regression analyses were used to examine whether risk assessment, control activities, and control environment had an influence on funds management. The study revealed that internal control systems had a significant relationship with the management of funds. The research findings imply that internal control systems are a significant positive predictor of funds management. It was revealed that national sub county treasuries had challenges with risk assessment. The study findings indicated that internal control systems; more specifically, risk assessment, control environment, and control activities are significant areas that national sub county treasuries should focus greatly to improve the management of public funds. The findings are valuable to managers of national sub county treasuries and are a basis for enhancing the management of public funds at the national sub county treasuries in Kenya. It is recommended that national sub county treasuries should ensure that the right structures are established to support internal control systems including control environment, control activities, and risk assessment.

CHAPTER ONE

INTRODUCTION

1.1 Background of the study

Historically, the public sector has experienced capacity constraints coupled with inadequate information systems. Furthermore, noncompliance with internal controls has resulted to lack of analytical capacity and poor predictability of government expenditure.

Many organizations in the world recognize the importance of setting up controls as an integral part in achieving their objectives, increase shareholders' wealth and ensure a smooth flow of operations by detecting and preventing any irregularity. The responsibility of setting up these controls lies with the management of organizations (Aziz, 2013; Wardiwyono, 2012). Internal controls can either be financial or administrative. Financial controls entail all activities that deal with finances in an organization while administrative controls are activities that indirectly affect financial activities. Examples include control of assets, access to information, material and information management, and many others (Reid & Ashelby, 2002).

Employing financial controls in the public sector is a key element in sound management whose aim is to ensure funds are used for the intended purpose. Managers are tasked with putting up necessary controls in organizations. However, all the other personnel in an organization play important roles to ensure accountability happens. The role of internal control therefore is to provide support for management in safeguarding the company's assets (Musya, 2014). The financial resource is an important resource to many organizations and governments. Thus it must be managed effectively and efficiently to bring about the expected results and change from the

activities for which money was made available. Of great concern is the misuse of public funds by employees of Government who are tasked to manage those (Rosen & Gayer, 2010).

The perpetual misappropriation of funds from public institutions, especially in essential services, has raised concerns about their internal control systems. The public are concerned on how funds are being used with Governments put to task so that public funds are used well (Almquist, Grossi, VanHelden & Reichard, 2013). Good cultural practices in any organization enables employees ensure the effectiveness of internal controls. The public sector is largely affected by political interference thus managing funds in such a situation necessitates the need for confidence when carrying out financial transactions (Prowle, 2010). This is because politicians are known to influence the use of public funds.

A strong financial control system promotes an organization's ability to reach its objectives. To meet these objectives, a number of things must be done. They include error free financial records, good record keeping, good asset management, budgetary controls and upholding policies and regulations. According to Khoove (2010), the financial controls employed by any organization play an important role in ensuring risks do not derail the success of the organization. Having adequate knowledge of the effectiveness of internal controls is key in planning for an audit (Walters & Dunn, 2001). Internal control is set in a way that the system is able to check itself, detect and correct any irregularities within the system. Implementing such a system by the management would lead to success of the organization (Chuke, 2012).

Lehman Brothers, one of the largest financial firms in the USA went into liquidation because of lack of transparency in its operations by cooking the accounting books to hide debts of the firm (Harvard University Library, 2014). Maina, Muturi, Atambo & Nyamasege (2016) states that most

developing countries have ineffective governmental financial control systems. El-Nafbi (2008) stresses that there is a serious deficiency in financial control systems in most developing countries. For instance, in Zambia, there has been no specific financial improvement for the public sector where the financial reporting and auditing systems are wanting (El-Nafbi, 2008). In Botswana, the public sector fell short of matching the rewards offered to its staff in comparison to the private sector (El-Nafbi, 2008). Among the East African economies, Kenya currently enjoys the luxury of being the largest, albeit stiff competition from Rwanda (Karanja & Ng'ang'a, 2014). However, the growth and development of the economy are impeded by massive corruption in the public sector. Corruption manifests in various forms including public benefits landing to people who are not entitled, purchases made at inflated prices, public officers receiving kickbacks to award tenders and dubious companies being paid for what they did not execute. Therefore, public funds do not achieve their intended purpose (Wakiriba, Ngahu and Wagoki, 2014). Embarrassingly, Kenya was ranked lowly in terms of corruption according to a report by the World Economic Forum (2013). According to a report from Capital Markets Authority (2014), various state corporations or entities where the Kenyan Government has a majority shareholding reported declining financial performances due to fraudulent activities. Examples include Mumias Sugar Company which reported a loss of Ksh. 3.4 billion and a loss of Ksh. 10 billion reported by Kenya Airways. The Constitution of Kenya 2010, created a devolved system of Government which required funds to be set aside for the County Governments (Wanjau, Muiruri & Ayodo, 2012). The Government, therefore, has an obligation of meeting the financial needs at both the County and National level (Mugambi & Theuri, 2014). In order to achieve their goals, Governments have to put in place effective control systems (Mwindi, 2008).

1.1.1 Internal control systems

The American Institute of Certified Accountants gave the first definition of Internal control which was presented in 1949 (Maina et al. 2016). They explained internal controls in terms of a well thought plan by the organization to safeguard its assets and records, to increase its effectiveness and to ensure they settled management policies. The concept of internal control was further improved by various authors as follows: King (2011) states that internal control is a process through which the enterprise reaches its goals and results. Pfister (2009) defines internal control as a system for identifying, correcting and avoiding mistakes that might happen during information processing. Lakis (2007) states that an internal control system is a system that arranges the enterprise performance properly according to the established strategy and to ensure safety and rational use of property, particularity and accuracy in accounting data. According to Dinapoli (2007), internal control is a system linking up enterprise performance, plans, attitudes, politics, integration of systems, and management of human resources that help the organization to achieve the settled goals and to follow its mission.

While the concept of internal control is defined differently by various authors, the general purposes of internal control systems remain the same in all authors and include: presentation of reliable financial records and observation of accounting principles, obeying executive acts and laws, to protect property and documents, to ensure comprehensive and reliable information, to ensure an effective economic performance and to control risks effectively. The analysis of the concept of internal control by different authors helps to formulate a generalized and working definition: an internal control system constitutes conditions, requirements, rules and regulations set up by an organization to ensure smooth running and facilitate error free financial information.

The existing internal control framework consists of five major components. All these components within the framework must be present, operational and working together in a unified manner. A major deficiency will arise if one or more components are absent or inactive. Consequently, the recent scandals and financial crisis in governments and companies are perhaps as a result of their failure to effectively describe, comprehend, implement, and audit internal controls. According to COSO (2013), the components of internal control systems are: control environment, risk assessment, control activities, monitoring, information and communication.

First, control environment as the epitome of any firm, determines the behavior of its employees and provides a basis for the creation of other internal control components. The control environment includes things such as integrity and ethical behavior, organization structure, commitment to competence, style of management, human resource policies and many others.

Second, risk assessment entails getting information on all threats faced by an organization. Risk assessment provides the basis for determining what risks need to be controlled and the kind of checks required to manage them. Risks can either be internal or external. Internal risks are those that are brought by elements within the organization while external risks are brought by elements outside the organization. Third, control activities are laid down procedures, mechanisms and regulations put in place by the management to enhance the achievement of its objectives for the benefit of all its stakeholders. Control activities are meant to bring sanity at the work place by ensuring every employee does the right thing. Keeping documents under lock and key under the responsibility of one employee is an example of a control activity over sensitive documents.

Fourth, information and communication deals with passing information from one person to another in an organizational set up. Communication enables employees understand what is

needed of them in adherence to internal controls. People should understand how their activities relate to the work of others and how exceptions should be reported to higher levels of management. Fifth, monitoring entails assessing the effectiveness of internal controls over a period of time so that the management can determine whether the controls produce the desired results or not. This component enables the management to undertake corrective actions in case of undesirable results.

The recent past has seen the emergence of fund mismanagement issues both in the public and private sectors. Although internal controls in the private sector are more effective than those in the public sector, funds mismanagement scandals are present in both sectors. Most of these have been occasioned by faulty internal control systems or their absence altogether. In the wake of these scandals, many organizations have recognized the crucial role that internal controls play in funds management. Most organizations are not just setting up internal control systems as a regulatory requirement but also to help ensure that all their management activities are carried out appropriately. In her study, Njeri (2014) observes that organizations are training, educating and sensitizing their employees on how to use internal control systems because their effectiveness depends on their competency to use such systems. This is as a result of the realization that well-trained and experienced accountants and auditors play a critical role in testing and evaluating new internal controls, identifying gaps and issues hampering complete deployment of new technologies. In addition, they can bring an objective view towards the tactical aspects of incorporating complex, high-risk tools in their organizations.

As business operating environments continue to get transformed dramatically by becoming increasingly complex, global and technologically driven, prevention of fund mismanagement will be strategically important. Therefore, the obvious expectation is that firms and government

institutions will continue to adopt internal control and information systems that ensure prudence in funds management. Stakeholders including the public will become more engaged in the operations of corporations and government institutions, seeking greater accountability and transparency for the integrity of internal control systems that support operations, governance and decision making.

Many organizations are today adopting internal control frameworks that help in coming up with strategies regarding internal controls and their effectiveness. COSO (2013) developed such a framework that is to be revised from time to time with regard to factors like globalization, legislations and many others. This framework however tasks the management of organizations with coming up with the necessary controls as per the needs of their organizations (COSO, 2013).

1.1.2 The Concept of Fund Management

Fund management entails the effective usage of money at one's disposal for the benefit of all stakeholders (Khan & Jain, 2009). Horne (2011) states that fund management is concerned with planning, directing, monitoring, organizing and controlling monetary resources of an organization. Financial management is key to smooth operations in an organization as it makes sure financial resources are well utilized (Joseph & Massie, 2013). Fund management deals with management of financial resources so that these resources achieve their intended purpose at the least cost possible. It entails money being spent for the appropriate use, money being spent according to laid down rules, funds achieving their intended objectives and accounting for funds spent (Graham, 2011).

Effective implementation of fund management requires a disciplined approach which enables an organization to maximize value and deliver its strategic objectives through managing its assets over their whole life cycles. Funds management is a requisite factor in the public sector as it ensures the public get quality services from the taxes they pay vis a vis the promises made by the Government. When projects are completed, this gives a measure that funds were properly utilized in relation to the budget (Graham, 2011).

Fund management also requires public servants tasked with managing money be accountable. Being accountable means taking a moral commitment to take responsibility for performance by explaining how the results were arrived at Vis a Vis the expected results (O'Dweyer&Unerman, 2007). Accountability in the public sector is thus an impetus to improvement in performance by the people who manage funds as the numerous grilling by members of the public keeps them on their toes (McCall, 2012). However according to O'Dweyer and Unerman (2007), the accountability aspect in the public sector has focused more on donors rather than the general public who are the direct beneficiaries of the funds.

In Kenya, the Government through the National treasury manages her finances through The Constitution of Kenya, 2010 (chapter 12), acts of parliament and several regulations. Examples include The Public Finance Management Act of 2012, The Public Audit Act of 2003 and The Exchequer and Audit Act (cap. 412). Apart from controlling and managing finances, the Public Finance Management act sets out a sound financial management system which will be relied upon in decision making and financial reporting, and ensures there is transparency and accountability when utilizing public funds.

1.1.3 The Public Sector and Sub County Treasuries in Kenya

Prowle, (2010) states that public sector is that portion of an economic system that is controlled by the national, regional, and local governments. The public and private sectors overlap at some point in the provision and production of certain goods and services. The level of this overlap differs from country to country, county to county, and city to city. According to El- Nafbi (2008), a public sector is made up of all organizations which are not privately owned and operated, but which are established, run and financed by public funds. This definition holds that the control of organizations in the public sector lies in the hand of the people, as opposed to those that are privately owned.

According to Vijayakumar and Nagaraja (2012), a public sector is an entity tasked with delivering beneficial services to the general public without the aim of making a profit. Its main objective is to promote social and economic interests of a country through equitable utilization and distribution of resources, creating favorable business environments, creating employment and many others.

The public sector is made up of entities that derive its funding from public resources for them to offer programs, goods, or services. The public organizations are woven into a complex political and social network of organized interests, citizens, user groups and clients. These organizations are affected by conflicting and competing interests that want to benefit from public funds. This makes decision making difficult as the leadership of these organization would not want to be seen as favoring any group.

Internal controls in the public sector ensures Government transactions are carried out in an orderly way to prevent fraudulent activities which will lead to collapse of public sector entities

(Ademola, Adedoyin&Alade, 2015). They ensure all operations of the Government are open to scrutiny from members of the public for ease of understanding.

The sub-county treasuries have the overall responsibility for managing the economic affairs in the sub – county.They also ensure the financial regulations of the Government are adhered to at the Sub – County.The roles of sub – county treasuries is; to ensure proper books of accounts are kept so as to ensure accurate financial reporting, advice and give direction to other departments on all financial matters, ensure all departments under the national Government comply with all Treasury circulars and financial regulations, control expenditure of all departments so as to ensure prudent use of finances, as well as ensuring reports that aid The National treasury top organ in decision making are produced on a timely basis, and consolidates information from other departments on financial matters (The National Treasury, 2017).

1.2 Statement of the Problem

Recently, scandals in Government Institutions and companies in all sectors of the economy have been increasing. These scandals have largely been attributed to weak internal controls or non-existence of the same. This has seen the demise of some firms while other corporations have been placed under receivership. Some top government officials and company managers have been replaced while others have resided pending investigation. Audit reports have added salt to the injury by reporting serious financial irregularities including payments of multi-million shillings to dubious companies.

In the United States, some prominent scandals lead to financial crises of some of the largest companies such as Enron and WorldCom (Adewale, 2013). Such impropriety of funds wavered the confidence of many investors and raised many questions about the companies' internal

control systems (Sikka 2009). Lehman Brothers, a financial firm in the USA was liquidated because of cooking books to hide the debts of the firm (Harvard University Library, 2014). While the notorious collapse of some of the largest companies like Enron (USA) shifted international focus on company failure, there has been minor focus on internal control systems which may largely determine a company's success or failure. Today, many corporate and public entities are facing enormous internal control challenges that have resulted to wastage of public funds and loss of revenues from the corporate sector.

In 2009, the managing director of a Nigerian bank - Oceanic Bank, was charged with money laundering and fraudulent conversion of depositors' funds for her own private gain (Adewale, 2013). These case studies add to the list of failed corporate and public entities across the world. However, the perpetual scandals year after another imply that there is an underlying problem that is continually leading to the demise of public and private institutions.

Kenya is not an exception as far as weak internal controls are concerned. According to the Central Bank of Kenya website, various banks (including Dubai Bank and Imperial Bank) are currently under liquidation in Kenya due to their inability to pay their obligations as and when needed. In addition, a report by the Auditor General (AG) on Government ministries for the financial year 2014-2015 revealed an unsupported expenditure of 7,321,227,260 while value for money could not be established in 14,435,690,489. In his opinion, the AG concluded that the funds were not properly utilized and deemed to have been wasted respectively (Office of The Auditor General, 2017). Most Government entities have controls but the question is, are the controls effective? Owizy (2008) in Nigeria carried out a study to assess how internal controls in Government were effective. The findings of the study revealed that annual budgets were prepared promptly and had adequate expenditure tracking to prevent financial carelessness. In Uganda,

Ochoge (2011) researched on internal controls and organizational performance. The study findings identified that the internal controls utilized were unsatisfactory and ineffective. However, the findings revealed the existence of a noteworthy positive relationship between organizational performance and internal controls.

The findings of related studies carried out in Kenya regarding internal control systems clearly revealed that little had been studied on internal controls and fund management. Simiyu (2011) did a study on effectiveness of internal control system in parastatals in Kenya; Mugwe (2010) researched on internal control practices on performance of companies in the manufacturing industry; Wakiriba et al. (2014) studied the effects of financial controls on financial management in the public sector; Magu and Kibati (2016) did a study on the influence of internal control systems on financial performance of Kenya farmers' Association. The findings of these studies revealed clearly that organizations face several challenges with regard to the performance of internal control systems. These include misuse of institutional resources, liquidity challenges, unaccountability of financial resources, and untimely financial reporting.

The studies, however, did not assess how effective internal controls were among Government entities tasked with managing public funds. Instead, they focused on different sectors and were conducted in different environments. In view of the above developments, the study sought to fill this research gap by examining the effectiveness of internal control systems in the management of funds at the public sector with a focus on national Sub - County treasuries.

1.3 Objectives of the study

General Objective

The overall purpose of this study was to determine the effectiveness of internal control systems in management of funds in the public sector at National sub - county treasuries.

Specific Objectives

The specific objectives of this study were:

- i. To determine the effectiveness of control environment on management of funds at National sub - County treasuries.
- ii. To establish the effectiveness of risk assessment on management of funds at National sub - County treasuries.
- iii. To examine the effectiveness of control activities in management of funds at National sub - County treasuries.

1.4 Research Questions

The following research questions guided the study:

- i. How effective is the control environment on the management of public funds at National sub-county treasuries?
- ii. What is the effectiveness of risk assessment on management of public funds at National sub-county treasuries?
- iii. What is the effectiveness of control activities in the management of public funds at National sub-county treasuries?

1.5 Significance of the study

The study sought to fill existing research gaps by determining the effectiveness of internal control systems on funds management at national sub - county treasuries in Kenya. Consequently, the research findings are important in addressing these gaps. The study offers invaluable benefits to managers and those charged with management of public funds since they are responsible for streamlining the internal control systems to improve funds management. The application of the findings will ensure improved financial management in the public sector and thus aid in attainment of public organization's objectives. The development partners, the Government and other stakeholders will have an in-depth understanding of internal control systems and the factors that can improve their effectiveness in the management of public funds.

The study will generate knowledge to link internal control systems and funds management which may guide policy makers to effectively plan for the public resources. The study will add to the existing knowledge regarding internal control systems and funds management particularly in the public sector. Researchers and academicians in Finance and Accounting, management and other related fields, who have an interest in conducting further studies in the area of internal control systems and fund management in the public sector will also benefit from the research findings.

1.6 Scope of the study

The study explored the effectiveness of internal control systems in the management of funds in the public sector. The study used a case study design to focus on the national sub - county treasuries in Kenya. In this regard, the researchers sought to analyze internal control systems by examining the effectiveness of control environment, risk assessment, and control activities on the management of funds at national sub - county treasuries.

1.7 Delimitation of the study

The study was limited to internal control systems and their effectiveness in management of public funds. The study was conducted on selected national sub county treasuries since available resources did not enable the researcher to reach and study all sub - county treasuries in the country. Thus observation and findings obtained from data analysis pertains to the selected sub county treasuries. However, the study used expert judgment to select sub county treasuries that are representative of all the others in the country.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter reviews various literature advanced in the area of internal control systems in management of funds in the public sector. The chapter begins by reviewing some theories that are relevant to this study. The theories include: stewardship theory, fund management theory, theory of the firm, and enterprise risk management theory. These theories form the basis of the concept of internal control systems. An empirical review of literature was undertaken in this chapter to assist in identifying existing gaps in the literature. A conceptual framework was presented based on the study's objectives.

2.2 Theoretical Review

Theoretical literature mainly deals with theories or hypotheses instead of the practical applications. SekaranandBougie(2011) defines a theory as aset of interrelated concepts, definitions, and propositions that provide a systematic view of events or situations by specifying relations among variables, to explain and predict the events or situations. Several theoretical approaches can be used to outline the management of funds in the public sector. This review discussed four approaches namely: stewardship theory, fund management theory, theory of the firm, and enterprise risk management theory.

2.2.1 Stewardship Theory

Stewardship means taking actions and making decisions that restrain oneself from misuse of resources for the well - being of others, both currently and in the future (Pirie &McCuddy, 2007).Stewardship theory promotes good cultural practices in an organization like transparency,

responsibility, accountability and integrity. The top management together with the board of directors are encouraged to work hand in hand so as to ensure the performance of the organization improves in the foreseeable future by working hard as per their capabilities (Davis, Schoorman, & Donalson, 1997). According to Contrafatto and Bebbington (2013), the stewardship theory has its foundation built on organizational factors that lay trust on the employees to work independently to see the organization succeed. It encourages all employees in an organization, from the top management to subordinates, to work hard so that all the stakeholders can reap maximum benefits. As such, a stewardship structure is seen as collectivistic and cooperative, resulting in positive benefits for the organization.

This theory names organizational culture and philosophies of the organization's leadership as core factors that determine the choice of an organizational structure (Zahra, Hayton, Neubaum, Dibrell & Craig, 2008). An organizational structure that accommodates and influences the choice of stewardship behavior helps facilitate maximum performance for the firm due to less wastage of resources. Eddleston and Udoayang (2012) suggest that the choice of this theory depends on a good organizational culture that encourages responsibility, team work and cooperation among employees so as to overcome challenges that they encounter in the course of their work.

Stewardship theory stresses that if managers are left to work on their own, they can be responsible stewards of the assets they control. The stewardship theory is founded on the perception that managers can put collectivist options above self-centered interest, thereby working towards the best interest of the organization. Such people strive to do what is best for the organization. By doing so, they believe that they will eventually benefit after the organization thrives. Pirie and McCuddy (2007) affirm that a true steward is concerned with the interests of all stakeholders, including those of future generations. This stewardship attitude is much more

fulfilling than pursuing self-centered interests or just those of existing shareholders. The truly successful businesses operate from a stewardship perspective that goes beyond financial aspects. Stewardship theory is supported in this study by the fact that sub county accountants and internal auditors act as stewards of public funds and other economic affairs. By upholding a culture of selflessness, integrity and trust as stressed by the stewardship theory, sub county accountants and internal auditors will ensure that all transactions of the government can be accounted for and the agenda for development accomplished.

2.2.2 Fund Management Theory

Fund management theory is associated with the flow of funds in and out of the organization. The theory, according to William Baumol, is about finding a balance between costs associated with trade, specifically holding cost, opportunity cost and transaction cost. As such, organizations try to reduce the cost of holding funds as well as the cost of transforming marketable securities into cash. The fund management theory pin points the processes many organizations choose in managing funds and the decisions taken by the management of these organizations as they manage funds. In this regard, the managers have to acquire special knowledge that will assist in making decisions that will benefit the organizations (Holland, 2012). The fund management theory helps firms to determine their appropriate levels of cash balance. The model facilitates funds managers to minimize the cost of carrying money. The theory holds that corporations should manage their funds while taking into account fluctuations in their daily cash flow. The model is therefore helpful to managers operating in highly unpredictable financial situations. It is also applicable in situation when cash flows fluctuate drastically in a short period. Nyabwanga, Ojera, Alphonse & Otieno (2011) assert that effective funds management involves determining the optimal cash to hold by considering the opportunity cost of retaining too much cash versus

the trading cost of having too little cash. Hannah, Gekara& Joseph (2013) insists that besides setting cash balance for transactional purposes, cash balance ought to be set aside for precautionary purposes. This is especially for unpredictable seasonal activities. The short-term management of cash balances is of concern to many firms. This is because it is difficult to accurately predict cash flows, and mostly the inflows. According to Noriza and Nor (2010), the squeezing of funds and credit is a major threat to the existence and success of many businesses around the world. Suitable cash management practices are founded on realistic cash flow budgets for both long term and short term operations.

A study by Kwame(2007) disclosed that setting up a cash balance policy will ensure prudence in cash budgeting and investment of surplus funds. Ross, Westerfield, Jaffe & Jordan (2011) asserts that business profitability is improved by reducing the time funds are tied up in the operations cycle. Huseyin (2011) stresses that the specific roles of a typical treasury function include funds management, account receivable and payable management, risk management, investor relations and bank relations. The fund management theory was relevant to this study because it shed light on the purpose of managing cash balance so as to avoid unnecessary idle funds or deficits.

2.2.3 Theory of the Firm

This theory was propounded by Ronald Coase in 1937, making it among the first attempts to define a firm theoretically in relation to the market. This theory is founded on economic attributes that give a clear explanation on how a firm is, in relation to its nature and operations (Thomas, 2008). This includes its existence, structure, and behavior in response to the market. This theory maintains that a firm is a “black box” whose operations are aimed at fulfilling the relevant marginal conditions in respect to inputs and outputs, thus maximizing the profits. In his

study, Kantarelis (2007) argues that, the theory of the firm may help explain, for example, why an entrepreneur or manager in a firm which is financed by both debt and equity will undertake certain activities that would lower the total value of the firm in comparison to sole proprietorship regardless of whether the firm enjoys monopoly or has some competition.

In his endorsement for this theory, Fama (2008) states that the risk of manipulation of financial accounts can be reduced by checking and monitoring a firm's activities. This will discourage fraudulent activities thus maximizing profits for the firm. This theory was relevant to this study because it helped to understand how effective funds management can be achieved through proper implementation of internal controls. In addition, the theory of the firm helped in the understanding of controls activities that are supposed to be put in place to enhance financial management.

2.2.4 Enterprise Risk Management Theory

The enterprise risk management (ERM) theory was developed by the Committee of Sponsoring Organizations of Treadway Commission (COSO) in its quest to provide an all-inclusive avenue to counter the effects of risk. Enterprise risk management entails identifying all possible threats that may affect an organization and taking corrective measures so that those threats do not derail the success of the organization (COSO, 2013). Risk appetite is basically the amount of risk that an organization needs to take to achieve intended returns. After the risk appetite is formalized, a firm should decide on the measurement tool to be employed so as to aid top managers in decision making (Bhasin, 2015). This theory maintains that the board of directors should provide an overall direction towards risk governance and oversee an enterprise-wide risk management practices.

This theory sustains that the success of an organization is brought about by effective enterprise risk management practices. The procedural and structural assessment and management of risks and provision of risk related information to decision makers strengthens a firm's capacity to meet its future plans. Bhasin (2015) affirms that establishing a taxonomy for risk management is important for every organization because this creates a standardized and transparent risk framework for all the organization's stakeholders. Businesses are faced with uncertainties and potential risks that could well challenge their operations. As such the ERM theory can be applied by managers to assess and improve their firms' enterprise risk management. Effective application of enterprise risk management can increase a firm's competitive advantage and thereby maximize shareholder's value. It follows in this study that some sub county accountants and internal auditors may be identified as having failed to anticipate and manage risks. Proponents of this theory argue that effective risk management is the solution to such risks and failures. Therefore, the enterprise risk management theory will guide sub county accountants and internal auditors to strategically consider and address gaps in the control of risks thereby complimenting existing management control practices in thenational sub county treasuries in Kenya.

2.3 Empirical Review

This review puts forward empirical evidences on internal control systems in the management of funds. Sekaran and Bougie(2011) notes that literature reviews are intended to provide an overview of previous studies on a particular topic while demonstrating to readers how the current study fits into the larger field of study.

2.3.1 Control Environment and Management of Funds

According to COSO (2013), control environment forms the foundation upon which the other components of control systems are established. It influences the aspect of control consciousness in all the employees of an organization. According to ACCA(2014), “Control environment includes the governance and management functions and the attitudes, awareness and actions of those charged with governance and management concerning the entity’s internal control and its importance in the entity.” Generally, the entire control system in an organization is not just ensured by control environment but also involves other factors. However, this environment is a significant factor when assessing risks of material misstatement. If the control environment is weak, it will definitely jeopardize the effectiveness of the overall control system. The management of an organization is responsible for determining the control environment. This environment provides a framework inside which all other parts of internal control operate.

The elements of control environment include integrity, management philosophy and style of operation, ethical values, and employees’ competency. Other aspects of control environment are: the direction given by the board of directors, the methods used by the management to assign authority and responsibility, and the way an organization develops its people. All stakeholders will recognize when an organization’s control environment is good. The status of control environment is a strong indication of how seriously the management is executing its role in relation to internal controls. The concept of control environment is universal in that it affects, either positively or negatively, an organization’s commitment to effective internal controls, accurate financial reporting, honest and ethical behavior. According to Sarens (2008), the internal audit function of a firm takes greater importance when integrity and ethical values are

enforced. Likewise, accounting literature emphasizes that ethical values and integrity are fundamental in maintaining an effective control system.

A study by Khamis (2013) established the existence of a positive relationship between internal control environment and the financial performance of a financial institution. In his research, Mawanda (2008) conducted a study on effects of internal control system on financial performance in Uganda's institution of higher learning. The researcher sought to determine the causes of poor financial performance in relation to internal controls. He also aimed at establishing the relationship between internal control systems and financial performance in higher learning institutions in Uganda. He studied internal controls from the view of control environment while accountability and reporting liquidity were studied as the measures of financial performance. The findings of the study established the existence of a major relationship between internal controls and financial performance. Therefore, internal controls have a direct effect on organization's financial performance.

A study by Amudo and Inanga (2009) sought to analyze the internal control systems that were put in place by member countries to carry out public sector projects funded by the African Development Bank. Fourteen public sector projects that were under the bank's portfolio were studied. The findings of the study revealed that some components of effective internal control systems were missing in those projects. As a result, the control structures were rendered ineffective.

2.3.2 Risk Assessment and Management of Funds

The Committee of Sponsoring Organization (COSO) pioneered the concept of Enterprise Risk Management (ERM) to find solutions to risks affecting organizations. COSO (2011) emphasizes

that corporations should set objectives and conduct a risk assessment as a precondition. An internal control framework will provide reasonable confidence of achieving the set objectives. Internal control systems should make provisions for assessment of risk originating from internal and external sources.

External risks are occasioned by events that the organization cannot influence. Some of these risks may be closely entwined with the company's strategic choices and hence related to their strategy implementation risk. The management is often unaware of external risks and, even when aware, do not plausibly assess their possibility. However, this should not be the control objective of such risks. While external risks are difficult to predict and avoid, managers should be concerned with the firm's resilience should such risks occur. Organizational resilience can be enhanced by introducing a process of risk envisioning through experiment or brainstorming (Mikes and Kaplan, 2013). Managers can then contemplate how to respond to the envisioned risk. All the identified risks should be analyzed in relation to their possible effects on the organization. The management should then formulate the best approaches for risk management and determine control activities necessary for mitigating identified risks. As a result, the objectives of internal controls will be achieved. This will be evident through reliable reporting, effective and efficient operations, and compliance with the set policies and regulations.

The existence and success of a financial organization are highly dependent on its efficiency in risk assessment and management (Khan and Ahmed, 2011). More importantly, effective riskmanagement enhance the ability to provide better returns to the shareholders (Akkizidis and Khandelwal, 2008; Al-Tamimi and Al-Mazrooei, 2007). Effective riskmanagement helps prevent full-brown financial distress and crisis. A study by Odoyo, Omwono & Okinyi (2014) on the role of internal audit when implementing the concept of risk management found that Kenya Railways

has faced internal operational and financial challenges despite operating in the profitable transport sector. The researcher suggests that Kenya Railways problems are as a result of poor management of funds. The consequences of financial mismanagement in Kenya Railways were so immense that the government engaged a private entity with the responsibility of running the corporation. The researcher also laments that even after receiving adequate financial assistance from the National Treasury; most state corporations in Kenya have perpetually reported financial deficits in every financial year.

In Zimbabwe, a study on Government departments was carried out by Muzividzi (2013) to find out the effectiveness of financial management system in terms of monitoring, planning and controlling public funds. The study revealed that government ministries and departments in Zimbabwe faced internal control and budgeting challenges. The scholar lamented that government suppliers complained of inefficiencies in financial reports updates. Ewa and Udoayang (2012) researched on the impact that internal control design had on banks' ability to investigate and detect fraud in Nigeria. The study findings revealed that the design of internal controls influenced the attitude of bank staff towards fraud. As such, strong internal control mechanisms discourage bank staff from engaging in fraud activities while weak internal controls expose employees to fraud opportunities. Kakucha (2009) evaluated the internal controls of some business enterprises operating in Nairobi. The researcher carried out the study between September 2007 and June 2009 with a sample of 30 businesses. The study findings revealed internal controls deficiencies that varied from one enterprise to another. The scholar observed that risk assessment and poor flow of information were the main elements that missed in most businesses that were studied.

2.3.3 Control Activities and Management of Funds

Control activities are the directives and guidelines from the management of an organization to ensure orderly operations (Whittington and Pany, 2011). The control activities range from performance appraisal, analysis of actual expenditure against budgets, past and expected performance; information processing is about checking the accuracy, completeness and authorization of transactions; physical controls deal with securing both records documents and assets, and segregation of duties where several tasks should not be under one individual from inception to completion.

Barra (2010) researched on the impact of internal controls and penalties on fraud. Both managerial and non-managerial employees participated in the study. The results of the study showed that the presence of control activities coupled with separation of duties increased the cost of committing fraud. Therefore, for an employee to commit fraud, the benefit of committing fraud should be higher than the cost of engaging in fraud. Further, the study established that segregation of duties is the least-cost fraud deterrent for the non-managerial staff. However, for managerial staff, maximum penalties are the least-cost deterrents for fraud. The study findings suggest that the effectiveness of preventive control activities like segregation of duties is dependent on the established detective controls.

The Public Procurement Oversight Authority (PPOA, 2007) pin pointed some elements that contribute positively to the strengthening of control systems in Kenya's procurement system. The study noted that compliance with the established sound internal audit mechanism is one of these factors. The researcher ascertained that the Auditor General (AG) is ultimately responsible for audit functions across the government, including procurement. The AG through the Kenya

National Audit Office, audits all Public sector departments in each financial year and the resulting report submitted to parliament.

The Government also controls financial activities through the Integrated Financial Management Information System (IFMIS). IFMIS is a computerized system that increases efficiency in budgeting, control of expenditure, and financial reporting when managing public funds through higher levels of transparency and accountability (The National Treasury, 2017; USAID, 2008). According to the National Treasury (2017), IFMIS has several components which include plan to budget, procure to pay, revenue to cash, record to report, ICT to support and communicate to change.

A study by Njondeand Kimanzi (2014) on the effect of integrated financial management information system on performance showed that the integrated financial management information system (IFMIS) enhanced internal controls, budgeting, and financial reporting. In his study, Chumba (2014) investigated the effect of integrated financial management information system on cash management in Eldoret West District treasury in Kenya. The study findings revealed that reliability and flexibility of IFMIS had a positive effect on funds management. The researcher noted that a reliable system is accurate, consistent, complete and timely in collecting information. The scholar further emphasized that the design that supports IFMIS should be secure from corruption, unauthorized access, breach of confidentiality and destruction so as to achieve efficiency in funds management.

2.4 Conceptual Framework

According to Mugenda and Mugenda(2008), a conceptual framework is the current version of the researcher's map of the territory being investigated. This is drawn from the view that

conceptual frameworks are bound to change as research evolves. From the findings of the studies and theories discussed above, internal control systems are essential elements in the proper management of funds. Each component of internal control systems has an effect on different aspects of financial management. A conceptual framework seeks to illustrate and explain the presumed relationships that exist between the independent and dependent variables. This study identified control environment, risk assessment, and control activities as the independent variables; and management of funds as the dependent variable. The researcher analyzed the independent variables in order to establish how they influence the dependent variable. The overall objective of the study is conceptually represented in figure 2.1 below;

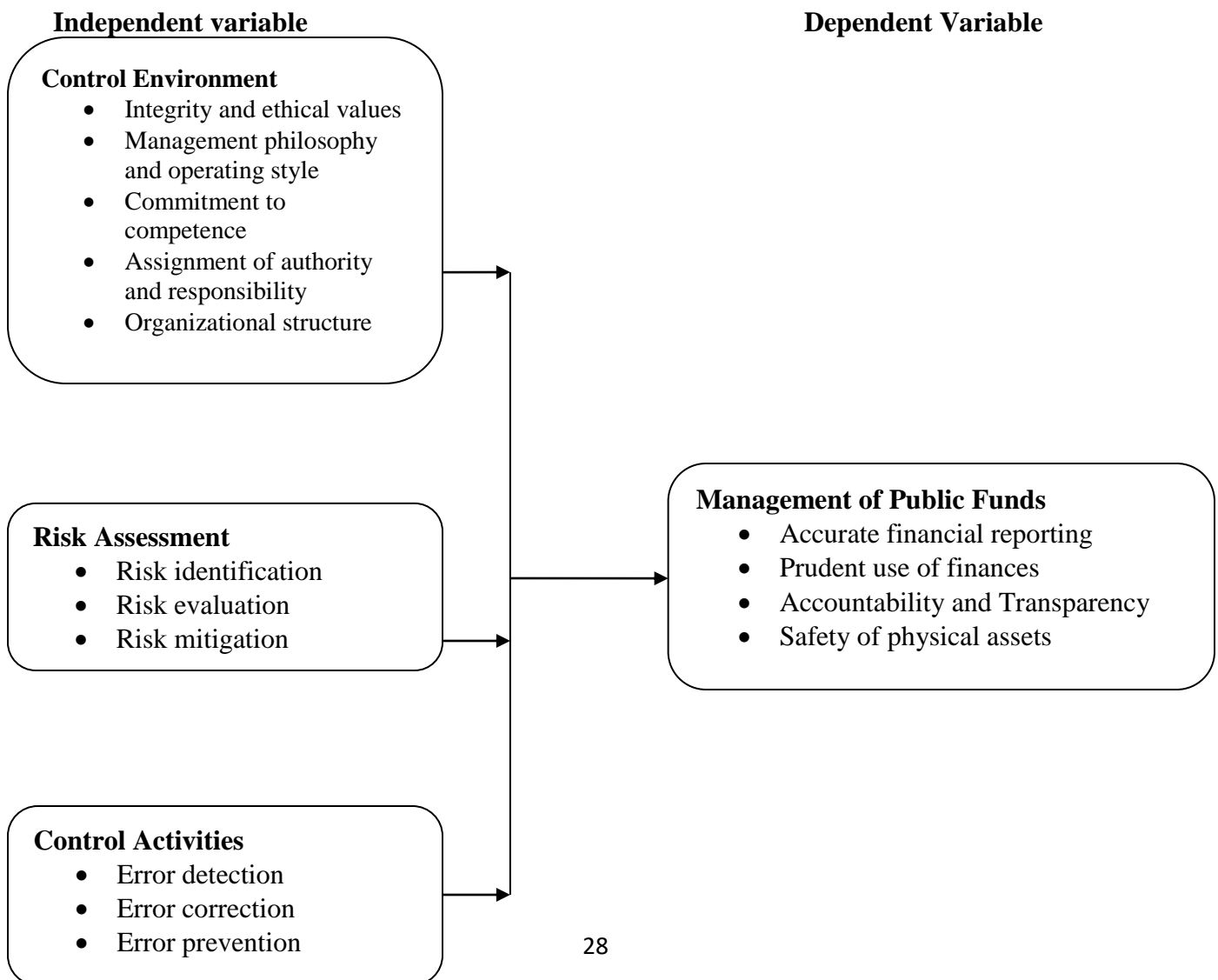


Figure 2.1: Conceptual Framework

Source: Author, 2017

2.5 Research Hypothesis

The main explanatory variable used in this study was management of funds at national sub county treasuries. The purpose of the study was to examine the effectiveness of internal control systems in the management of funds in the public sector at national sub - county treasuries. In view of this purpose, the study sought to test the following hypotheses:

H₀₁: Effective control environment has no significant effect on the management of funds.

H₀₂: Effective risk assessment has no significant effect on the management of funds

H₀₃: Effective control activities have no significant effect on the management of funds

2.6 Operationalization of Variables

Operationalization is the process of formulating indicators for measuring the research constructs (Mugenda and Mugenda, 2008). The literature reviewed in this research informed the identification of several variables that guided this study. The dependent variable for the study was management of funds. In this research, management of funds is operationally defined as the management of money matters. The independent variables consisted of 3 elements namely: control environment, risk assessment, and control activities.

The variables were operationalized according to the table below:

Table 2.1 Operationalization of variables

VARIABLE	VARIABLE TYPE	INDICATORS	MEASUREMENT SCALE	QUESTION IN QUESTIONNAIRE
Control Environment	Independent	integrity and ethical values Organizational structure Human resource policy Management style Assignment of responsibility commitment to competence	Ordinal / Interval	Section B
Risk assessment	Independent	Risk identification Risk evaluation Risk mitigation	Ordinal / Interval	Section C
Control activities	Independent	Physical controls segregation of duties policies and procedures control of documents rotation of duties Authorization	Ordinal / Interval	Section D
Management of funds	Dependent	Prudent use of finances Accurate financial reporting Transparency and accountability Safety of physical assets	Ordinal / Interval	Section E

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

Research methodology is a systematic way of solving a research problem. The methodology assumed in this study outlines the approach that the researcher utilized to adequately study and thus address the identified research problem. This chapter therefore describes the research design, target population, sample size, sampling procedure and data collection instruments.

3.2 Research Design

Research design is the conceptual structure within which a study is conducted which obtains answers to queries asked by the researcher. Therefore, it lays down the conditions for data collection, measurement and analysis (Kumar, 2011). According to Cooper and Schindler (2007), a research design assists in effective and efficient allocation of resources for the purpose of research. A descriptive research design to examine the effectiveness of internal control systems in the public sector was used in this study. This approach was chosen because (Babbie & Mouton, 2008) it is more accurate and precise since it describes events in a carefully planned way. Descriptive research helps answer several queries in research like ‘when’ ‘who’ ‘what’ and ‘how’ which is of great assistance in understanding how groups or individuals operate (Sekaran, 2009; Zikmund, 2010). Awino (2011) argues that this method lays a high priority on describing the linkage between and amongst variables. Additionally, descriptive research design describes and interprets existing conditions, prevailing practices and ongoing processes. In view of the aforementioned, a descriptive research design was considered most suitable in helping the

researcher to determine the effectiveness of internal control systems in the management of funds in the public sector at national sub county treasuries in Kenya.

3.3 Target Population

A study population entails items or group of individuals with common characteristics. Saunders (2007) defines a population as a full set of cases from which samples are taken. Onyango (2010) says that a target population is a large group from which a researcher draws a representative sample for the purpose of collecting information that is relevant to a research study. Therefore, the target population for this study comprised the sub county accountants and internal auditors from all the national sub county treasuries in Kenya. This population was chosen because sub county accountants and internal auditors play a central role in funds management at the national sub county treasuries in Kenya and thus were in a position to provide the primary information required to achieve the objective of this study. There are 310 national sub county treasuries across the country (The National Treasury, 2017). The total target population was 620 sub county accountants and internal auditors.

3.4 Sample Size and Sampling Technique

According to Kothari (2008), sampling is the selection of parts of an aggregate from which influence or judgment about the aggregate is made. Sampling aims at obtaining information about the whole population by examining just a portion of it. By using a sampling technique, a researcher is certain that the characteristics of the entire population are accurately represented in the sample. This study used the cluster sampling technique to subdivide the target population into clusters. The researcher then used purposive sampling to select sample items from each cluster. As such, cluster sampling was applied to subdivide the 310 national sub county treasuries

into 46 categories which represent the 47 counties in Kenya with an exception of Nairobi County where the operations of the sub counties are handled at the National headquarters. The researcher then applied expert judgment to purposively select two sub county treasuries from each county which receive the largest allocation of funds. Therefore 92 national sub county treasuries formed part of this study, that is, two from each of the 46 Counties.

3.4.1 Sample Size

According to Kothari (2008) and Kumar (2011), a sample consist a small group of individuals or items drawn from an entire population. Cohen, Manion and Morrison (2007) insists that on the representativeness of a sample, it is important to consider the proportionality of the sample if it is to be indeed a valid sample. The larger the sample size, the lesser the sampling error. The sample size for this study comprised 92 accountants and 92 internal auditors from the 92 national sub county treasuries selected for this study. Thus, the sample consisted 184 respondents out of a total population of 620. This sample was adequate for data analysis and publication because it translates to 30 percent of the target population. Mugenda & Mugenda (2003) says that if the study population is below 10,000, a sample of 10 to 30 percent is representative of the whole population.

3.5 Instrumentation

The study utilized questionnaires as the main instruments for collecting data. Kothari (2008) argues that a questionnaire is the best tool for acquiring original data that can be used to describe a population. The questionnaire had open-ended questions so as to get free responses from respondents. However, a fair share of closed-ended questions was used to elicit clarity that may not be obtained through open-ended questions. The questionnaire had five sections: sections A -

background information; section B - control environment and management of funds; section C - risk assessment and management of funds; section D - control activities and management of funds; and section E – management of funds. The 5-point Likert measurement scale was used in this study where 1 represent strongly disagree and 5 is strongly agree. Various attributes were provided and respondents rated them on the 5-point Likert scale. This scale was helpful in getting more accurate responses.

3.5.1 Reliability and Validity

Thatcher (2010) defines validity as the extent to which a test measures what the researcher wishes to measure. How accurate the results are after carefully analyzing the data in the study also defines validity (Creswell, 2014). To establish validity, the study first used the Kaiser – Meyer – Olkin measure of sampling adequacy and then adopted face validity test where the questionnaire was pilot tested by subjecting it to a pilot sample of 5 respondents in three Sub counties in Kilifi County which were omitted from the final research. Piloting facilitated revision of the questionnaire to remove ambiguous and vague questions. Additionally, content validity of the questionnaire was established by having it appraised by the supervisor(s) and suggested amendments were applied accordingly.

A research instrument is termed as reliable when it produces results that are accurate or have fewer errors after being tested severally (Cooper & Schindler, 2006). To establish if the questionnaire was reliable, the data collected was run through the Cronbach's alpha test. While the standards for what constitute a "good" α (alpha) coefficient are arbitrary, Creswell(2014) says that a Cronbach's α that is greater than or equal to 0.7 is considered reliable. Field (2009) reiterates that when alpha is greater than 0.8, it is very reliable. Therefore, if the resulting

reliability test reflect that $\alpha \geq 0.7$, this will signify reliability of the instrument on control environment and management of funds; risk assessment and management of funds; and control activities and management of funds as used in this study.

3.6 Data Collection

Both secondary and primary data was utilized in this study. Primary data come directly from respondents while secondary data was obtained from analysis of findings from previous studies on internal control systems in the public sector and reports related to funds management. The study utilized questionnaires as the main instruments for collecting data. Kothari (2008) argues that a questionnaire is the best tool for acquiring original data that can be used to describe a population. Therefore, structured and unstructured questionnaires were distributed to respondents with the aim of collecting quantitative data.

3.7 Data Analysis and presentation

The researcher used quantitative methods to analyze and interpret the data collected through questionnaires. All the questionnaires collected from respondents were ascertained for completeness and consistency of information provided. As such, only those that were sufficiently filled were considered for this study. The data from validated questionnaires was analyzed, summarized and interpreted with the aid of descriptive statistics such as frequencies and percentages. The Statistical Package for Social Sciences (SPSS) software was used to analyze quantitative data. Descriptive measures such as frequencies and percentages were computed and then presented through tables and in prose format. Further, the study used inferential statistics which involved multiple regression analysis to establish relationship between variables and the results are presented using regression model tables, analysis of variance tables and beta

coefficients tables. Besides, the following regression model was used to analyze multiple variables:

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \varepsilon$$

Where **Y** = Management of funds

X₁ = Control environment

X₂ = Risk assessment

X₃ = Control activities

ε = Error term

β₁, **β₂**, and **β₃** = Coefficients of independent variables.

β₀ = Constant. In the regression model, the constant will show the value of dependent variable (management of funds) in the absence of independent variables.

The study used the data for testing the assumptions of regression.

3.8 Ethical considerations

The researcher got a transmittal letter from the University to carry out the study. The researcher obtained consent from respondents so as to obtain intellectual honesty from them. To ensure confidentiality, the researcher did not ask for respondents' bio data. The researcher maintained a mutual relationship and understanding with respondents. The researcher assured respondents of their right to privacy and protection from information disclosure. The researcher ensured that the data provided cannot be linked to specific respondents. To achieve this, respondents remained anonymous. All the aforementioned built confidence in respondents and thus enabled them to provide honest and quality responses. All secondary data was acknowledged in this study.

CHAPTER FOUR

PRESENTATION, INTERPRETATION AND ANALYSIS OF FINDINGS

4.1 Introduction

This chapter makes a systematic analysis of the effectiveness of internal control systems in management of funds in the public sector at National sub - county treasuries. The chapter presents, analyses and interprets the data collected through questionnaires, based on the study objectives. It begins by presenting the response rate, reliability and validity, and analysis of demographic characteristics of respondents. This is followed by a descriptive analysis of respondents' opinions regarding control environment, risk assessment, and control activities. Lastly, the chapter provides inferential analysis that draws conclusions on the relationships among variables.

4.2. Response Rate

Questionnaires were administered to 92 accountants and 92 internal auditors from selected national sub county treasuries. Out of 184 questionnaires, 138 dully filled questionnaires were collected. This translated to a response rate of 75% as shown in Table 4.1. According to Mugenda and Mugenda (2003), a response rate of 70% or more is acceptable for conducting data analysis. Therefore, a response rate of 75% was dependable.

Table 4.1: Response Rate Summary

Response	Frequency	Percentage (%)
Returned	138	75
Unreturned	46	25
Total	184	100

4.3 Reliability and Validity

4.3.1 Reliability

Reliability testing involves examining the internal consistency of a research instrument (questionnaire). A reliable instrument can be utilized in collecting similar data from related respondents. According to Kimberlin and Winterstein (2008), Cronbach alpha coefficient is an appropriate and most widely recommended test used to determine internal consistency. Creswell (2014) says that a Cronbach's α that is greater than or equal to 0.7 is considered reliable. Thus, questions under each variable, which returned an alpha value greater than or equal to 0.7 were considered in the final questionnaire. Table 4.2 summarizes the results of reliability tests.

Table 4.2: Reliability Test

Study Variables	Number of Items	Cronbach's Alpha
Control Environment	15	0.744
Risk Assessment	11	0.819
Control Activities	5	0.759
Management of Funds	6	0.817

All the study constructs, as shown in Table 4.2, returned Cronbach alpha coefficients that were greater than 0.7. Therefore, the variables in the study were all reliable.

4.3.2 Validity

Validity was concerned with whether the variables being examined in this study would explain the dependent variable. To determine validity, the Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy was used. Thatcher (2010) asserts that a KMO value of below 0.50 is unacceptable, a value in 0.50's is miserable, 0.60's is mediocre, 0.70's is middling, 0.80's is

meritorious, and 0.90's is marvelous. Accordingly, the Kaiser-Meyer-Olkin (KMO) test was carried out and the results are summarized in Table 4.3.

Table 4.3: Validity Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.812
Bartlett's Test of Sphericity	Approx. Chi-Square	1085.146
	df	55
	Sig.	.000

The KMO measure of sampling adequacy performed on the variables in this study returned a value of 0.812, which would be termed as meritorious (Thatcher, 2010). The results revealed that risk assessment, control environment, and control activities were predictors of funds management. Thus, the variables were validated for use in subsequent analysis. Face validity was also done whereby the questionnaire was given to 5 respondents from which their feedback was used to improve the questionnaire.

4.3 Demographic Characteristics of Respondents

The demographic characteristics captured in the questionnaire included gender, academic qualification, and length of service. The distribution of these characteristics across the study respondents is presented in Table 4.4.

Table 4.4: Distribution of Demographic Information

Demographic Information	Response	Frequency (F)	Percentage (%)
Gender	Male	101	73.1
	Female	37	26.9
Length of Service	1 Year	29	21.0
	1-2 Years	47	34.1
	Over 3 Years	62	44.9
Academic Qualification	Certificate/Diploma	26	18.8
	Undergraduate	103	74.6
	Masters	8	5.8
	PHD	1	0.8

4.3.1 Distribution of Respondents by Gender

The researcher sought the gender of respondents. Table 4.4 shows that majority (73.1%) of respondents were male while the rest (26.9%) were female. The statistics reveal that majority of employees involved in the managements of funds at national sub county treasuries are men. The distribution suggests that efforts of gender equality campaigns are yet to realize gender balance in the national sub county treasuries in Kenya.

4.3.2 Distribution of Respondents by Length of Service

Respondents were asked to indicate the number of years they have worked in their respective sub county treasuries. As indicated in Table 4.4, majority (44.9%) of respondents had worked for more than three years, 34.1% had one to two years, and 21% had worked for a period of up to one year. This means that most respondents had adequate experience with the national sub county treasuries and thus possessed the necessary information and knowledge that was useful for this study.

4.3.3 Distribution of Respondents by Academic Qualification

The researcher sought to establish how academic qualifications influenced the management of funds at sub county treasuries. Table 4.4 demonstrates that majority (74.3%) of respondents indicated that they had undergraduate qualifications, and 18.8% had certificate or diploma qualification. The study uncovered that only an insignificant number of respondents (0.8%) and (5.8%) had PHD and Masters qualifications respectively. This finding depicts that majority of respondents had attained tertiary level education and thus were well educated and informed to provided valuable information that was relevant for this study.

4.4 Descriptive Analysis

4.4.1 Descriptive Analysis for Control Environment

4.4.1.1 Ethical Values and Integrity

The variables considered for ethical values and integrity in the current study were, tone at the top, fairness in stakeholders' dealings, and policies on matters such as code of conduct and conflict of interest. The study sought to establish if sub country treasuries has suitable policies on the code of conduct and acceptable practices, and if such policies were communicated adequately.

Table 4.5 presents the results of this study. The results revealed that majority (48.6%) of respondents agreed and a significant number (33.3%) of respondents strongly agreed that the sub county treasury had established suitable policies on matters such as acceptable practices in funds management, and that those policies were sufficiently communicated to employees. Only an insignificant number of respondents strongly disagreed (3.6%) and disagreed (5.1%) while 9.4% remained neutral. Regarding whether the treasury stakeholders' dealings are based on fairness and honesty, most respondents (52.2%) strongly agreed and 29% agreed, 7.2% and 5.1% disagreed and strongly disagreed respectively while 6.5% were neutral. Moreover, the study sought respondents' opinion on the tone demonstrated by top management including clear moral direction on what is right and unacceptable. Majority of respondents (55.8%) agreed and (35.5%) strongly agreed while only 5.1% disagreed and 3.6% were neutral.

4.4.1.2 Dedication to Competence

The variables that related to treasury's dedication to competency included employees' job descriptions, and treasury's determination on getting required skills. The results of this study, as presented in Table 4.5, shows that majority (50.7%) of respondents strongly agreed and 49.3% of respondents agreed that all treasury employees have job descriptions. As to whether the treasury decides on the skills required to perform a certain job, and whether this information is utilized during hiring, majority (52.9%) of respondents agreed, 31.2% strongly agreed while 15.9% were neutral on this matter. The researcher sought further opinion regarding performance evaluation techniques and whether they are applied to identify ineffectiveness and incompetence. Most of the respondents (51.4%) agreed and 14.5% strongly agreed while 23.3% were neutral and 10.9% disagreed. Regarding whether the treasury personnel possess adequate knowledge and

experience to perform their responsibilities, majority (66.7%) of respondents agreed and 27.5% strongly agreed while 5.8% were neutral.

4.4.1.3 Treasury Philosophy and Operation Style

The study sought to find out whether treasury's decisions on funds management are dominated by few people, and if the treasury has established mechanisms for anticipating, identifying and reacting to activities and events.

The results in Table 4.5 shows that majority (46.4%) of respondents agreed that decisions of management of funds are not dominated by a few people with 33.3% strongly agreeing while 17.4% were neutral and an insignificant number (2.9%) disagreed. Regarding whether the treasury has mechanisms to anticipate, identify and react to events or activities that influence funds management, most of respondents (41.3%) strongly agreed and 37.7% agreed while 15.9% remained neutral and a few (5.1%) disagreed.

4.4.1.4 Organizational Structure

The study sought to determine if organization of sub county treasuries is clearly defined with regard to line of responsibility and authority, and whether decentralized operations related to funds management are adequately supervised and monitored.

As shown in Table 4.5, majority of respondents (44.2%) agreed that the organization of the sub county treasury is clearly defined in terms of lines of responsibility and authority and 37.7% strongly agreed, while 12.3% disagreed and an insignificant number (5.8%) strongly disagreed. When asked whether there is adequate supervision and monitoring of decentralized operations related to public funds, most to respondents (50.7%) agreed and 26.1% strongly agreed while 15.2% were neutral. Only 4.3% and 3.6% of respondents disagreed and strongly disagreed

respectively. Using the five-point scale, the average mean of responses on control environment was 4.05. This meant that most respondents agreed with majority of the statements. Nonetheless, a standard deviation of 0.87 showed that the answers to these statements were varied. Therefore, the results suggest that majority of respondents approve that control environment is effective in the management of funds at sub county treasuries.

Table 4.5: Respondents Opinion on Effectiveness of Control Environment

Respondents Option	SD	D	N	A	SA	M	S.D
The sub county treasury has established and adequately communicated policies on matters as acceptable practices	3.6%	5.1%	9.4%	48.6%	33.3%	4.03	0.98
The treasury dealings are based on honesty and fairness	5.1%	7.2%	6.5%	29.0%	52.2%	4.16	1.15
The treasury demonstrates the right “tone at the top” that includes explicit moral guidance on what is right or wrong	0%	5.1%	3.6%	55.8%	35.5%	4.22	0.74
All employees have job descriptions that include specific duties	0%	0%	0%	49.3%	50.7%	4.51	0.50
Employees’ reporting structure and relationships are clearly established and communicated	6.5%	12.3%	15.2%	37.7%	28.3%	3.69	1.20
The organization of the sub county treasury is clearly defined in terms of lines of responsibility and authority	5.8%	12.3	0%	44.2%	37.7%	3.96	1.19
The treasury determines knowledge and skills needed to perform a particular job; this information is used in hiring	0%	0%	15.9%	52.9%	31.2%	4.15	0.67
All personnel possess adequate knowledge, competence and experience to discharge their responsibilities	0%	0%	5.8%	66.7%	27.5%	4.22	0.54
Employee performance evaluation techniques are implemented to identify incompetence and ineffectiveness	0%	10.9%	23.2%	51.4%	14.5%	3.70	0.85
Decision on funds management at the sub county treasury are not dominated by a few individuals	0%	2.9%	17.4%	46.4%	33.3%	4.10	0.79
The treasury has mechanisms to anticipate, identify and react to events or activities that affect funds management	0%	5.1%	15.9%	37.7%	41.3%	4.15	0.87
There is adequate supervision and monitoring of decentralized operations regarding public funds	3.6%	4.3%	15.2%	50.7%	26.1%	3.91	0.96
There is clear assignment of responsibility and delegation of authority to deal with the treasury’s goals and objectives	0%	5.8%	15.2%	55.1%	23.9%	3.97	0.79
Turnover at the sub county treasury is relatively low	0%	2.9%	9.4%	59.4%	28.3%	4.13	0.69
The treasury is committed to competence and ensures that its employees receive adequate training	5.1%	9.4%	10.9%	49.3%	25.4%	3.80	1.08
Average						4.05	0.87

4.4.2 Descriptive Analysis for Risk Assessment

4.4.2.1 Risk Identification

The study sought to determine if sub county treasuries had well-documented policies on risk management and if they updated their risk registers regularly. Moreover, the study sought whether they had risk monitoring systems and if they encouraged reporting of events that would help identify risks.

The results in Table 4.6 shows that majority (50%) of respondents were neutral that their sub county treasury had well-documented risk management policies, with 15.9% disagreeing and 8% strongly disagreeing, while 17.4% agreed and a few (8.7%) strongly agreed. On whether sub county treasuries had risk monitoring systems, majority of respondents (51.4%) were neutral, 16.7% agreed and 9.4% strongly agreed, with 13.8 disagreeing and 8.7% strongly disagreeing on the matter. Regarding whether sub county treasuries encourages reporting of events that would enable risk identification, most (46.4%) respondents remained neutral, 28.3% agreed and 15.2% strongly agreed while 10.1% disagreed. Further opinion on how often risk register was updated was sought; majority (39.1%) of respondents disagreed that their treasury's risk register was updated regularly, 25.4% were neutral, and 11.6% strongly disagreed. Moreover, 15.9% of respondents agreed with the rest (8%) strongly agreeing.

4.4.2.2 Risk Evaluation

The study evaluated whether sub county treasuries had adequate capacity for risk assessment; if the accountant communicates risks to other staff; and whether the sub county treasuries evaluate and document risks adequately when making crucial decisions. The results in Table 4.6 shows that majority (44.2%) of respondents remained neutral on whether their sub county treasury had adequate capability to assess risks, 23.9% disagreed and 10.1% strongly disagreed. On the

contrary, 14.5% agreed and a few (7.2%) strongly agreed. On whether information about risks were adequately communicated to other employees and stakeholders by the accountant, majority of respondents (44.2%) agreed, 28.3% strongly agreed while 12.3% were neutral, with 10.1% disagreeing and 5.1% strongly disagreeing. Regarding whether sub county treasuries evaluate and document risks adequately before making crucial financial decisions, most (52.9%) respondents were neutral, 11.6% disagreed and 9.4% strongly disagreed, while 15.9% agreed and 10.1% strongly agreed.

4.4.2.3 Risk Mitigation

The study examined whether sub county treasuries adequately implemented the necessary risk inspection plans; whether they have a risk management committee, and whether this committee assesses and identifies risks. Additionally, it assessed whether the risk committee takes appropriate actions and decisions to mitigate risks, and reports recommendations directly to the sub county accountant for action.

The results presented in Table 4.6 shows that majority (51.4%) of respondents agreed that their sub county treasury had sufficiently implemented risk inspection plans, 16.7% strongly agreed while 24.6% of respondents were neutral. Only a few (7.2%) respondents disagreed that risk inspection plans were implemented adequately. Regarding whether there was a risk management committee, majority (51.4%) of respondents disagreed, 13% strongly agreed with 20.3% staying neutral. On the contrary, 8% and 7.2% of respondents agreed and strongly agreed respectively. Further, majority (47.1%) of respondents were neutral on whether the risk committee assessed and identified risk, 23.2% disagreed and 11.6% strongly disagreed, while 8.7% and 9.4% of respondents agreed and disagreed respectively. Moreover, majority of respondents (59.4%) were neutral that the risk management committee made recommendation directly to the sub county

accountant for action, 23.2% disagreed and 7.2% strongly disagreed, while an insignificant number of respondents (4.3%) agreed and 5.8% strongly agreed. Based on the five-point scale, the analysis of risk assessment returned an average mean of 3.07, which imply neutrality of responses from most statements. The responses were however varied as evidenced by a standard deviation of 1.0. Consequently, the results suggest a silent dissatisfaction on the level of risk assessment with regard to the management of funds at national sub county treasuries.

Table 4.6: Respondents Opinion on Effectiveness of Risk Assessment

Respondents Option	SD	D	N	A	SA	M	S.D
The sub county treasury has a well-documented policy on risk management	8.0%	15.9%	50.0%	17.4%	8.7%	3.03	1.0
The sub county treasury has a risk monitoring system that identifies potential risks	8.7%	13.8%	51.4%	16.7%	9.4%	3.04	1.02
The sub county treasury encourages reporting of events and happenings in order to identify risks	0%	10.1%	46.4%	28.3%	15.2%	3.49	0.87
The risk register is updated regularly	11.6%	39.1%	25.4%	15.9%	8.0%	2.70	1.12
The sub county treasury has adequate capacity to perform risk assessment	10.1%	23.9%	44.2%	14.5%	7.2%	2.85	1.03
The sub county accountant effectively communicates risks to the other staff and other stakeholders	5.1%	10.1%	12.3%	44.2%	28.3%	3.80	1.11
The sub county treasury adequately evaluates and documents risks when making important decisions (e.g. launch of projects and development of strategic plans)	9.4%	11.6%	52.9%	15.9%	10.1%	3.06	1.03
The sub county treasury has adequately implemented the necessary risk inspection plans to reduce their occurrence	0%	7.2%	24.6%	51.4%	16.7%	3.78	0.81
The sub county treasury has a risk management committee	13.0%	51.4%	20.3%	8.0%	7.2%	2.45	1.05
The risk management committee assesses and identifies risks and thus takes appropriate action and decision to mitigate them	11.6%	23.2%	47.1%	8.7%	9.4%	2.81	1.06
Recommendations by the risk management committee are reported directly to the sub county accountant for action	7.2%	23.2%	59.4%	4.3%	5.8%	2.78	0.87
Average						3.07	1.0

4.4.3 Descriptive Analysis for Control Activities

The study sought to find out whether national sub county treasuries had effective policies and procedures that facilitate effective communication of funds management information. It examined if policies on information and communication offered sound mechanisms to address non-compliance in financial matters. The study assessed whether county treasuries had established communication channels, whether they have suggestion boxes and if they had clearly segregated duties for different financial functions. Table 4.7 shows that majority (66.7%) of respondents agreed that county treasuries had effective policies and procedures to facilitate funds management communications, 29.0% agreed while a few (4.3%) respondents were neutral. On whether communication policies had established mechanisms for addressing non-compliance matters, majority of respondents (35.5%) agreed, 26.8% strongly agreed, 21% of respondents were neutral, while 8.7% and 8% of respondents disagreed and strongly disagreed respectively. Regarding whether sub county treasuries had well-established communication channels, majority of respondents (68.1%) agreed and 21.7% strongly agreed, 4.3% were neutral, while a few (3.6%) disagreed and the rest (2.2%) strongly disagreed. Further, most (49.3%) respondents agreed that their treasury had a mounted suggestion box for obtaining sensitive information for effective management, 30.4% strongly agreed on this matter, while 20.3% were neutral. Concerning whether there were clearly segregated duties for various financial functions, 63.8% agreed, 21.7% strongly agreed, 4.3% were neutral while 7.2% and 2.9% disagreed and strongly disagreed respectively.

On the five-point scale, control activities' mean was 3.99, which imply that majority of respondents agreed with most statements. Nevertheless, a standard deviation of 0.84 indicated that answers to the statements provided were varied. The results reveal that majority of

respondents concur that control activities are effective in funds management at national sub county treasuries.

Table 4.7: Respondents Opinion on Effectiveness of Control Activities

Respondents Option	SD	D	N	A	SA	M	S.D
The treasury has effective policies and procedures that facilitate effective communication of funds management information	0%	0%	4.3%	66.7%	29.0%	4.25	0.52
The treasury policies on information and communications provide well established techniques and mechanisms to address non-compliance in financial matters.	8.0%	8.7%	21.0%	35.5%	26.8%	3.64	1.20
The sub county treasury has well established information and communication channels	2.2%	3.6%	4.3%	68.1%	21.7%	4.0	0.85
The treasury has mounted suggestion boxes for obtaining sensitive and confidential information for effective management	0%	0%	20.3%	49.3%	30.4%	4.10	0.71
The sub county treasury has clearly segregated duties for the various financial functions?	2.9%	7.2%	4.3%	63.8%	21.7%	3.94	0.90
Average						3.99	0.84

4.5 Inferential Analysis

Inferential analysis was performed in order to draw findings regarding the relationship among variables. The general objective of this study was to determine the effectiveness of internal control systems in management of funds in the public sector at National sub - county treasuries. The study used correlation analysis to determine the kind of relations that existed among variables. Further, regression analysis was used to ascertain statistical relationships between independent variables - control environment, risk assessment, and control activities -

and dependent variable – funds management. The analysis results are presented using correlation matrix, regression model summary tables, ANOVA tables, and coefficients table.

4.5.1 Correlation Analysis

Kumar (2011) asserts that results with a P-value of above 0.05 implies that they are significant. The results of correlation analysis are presented in Table 4.8. In view if these results, control environment and funds management are significantly related with a positive correlation ($r= .422$, $p=0.000$). The results affirm the findings of Khamis (2013) which established the existence of a positive relationship between internal control environment and the financial performance of a financial institution. Similarly, the results support the findings of another study (Mawanda, 2008) which revealed that internal controls and management of funds have a significant relationship. Further, Table 4.8 shows that risk assessment and management of funds have a positive correlation ($r= .415$), and are significantly related with a P-value of 0.036. The results affirm the finding of a study by Khan and Ahmed (2011) which revealed that effective risk assessment and management is a key determinant of the survival and success of financial institutions. In addition, Table 4.8 clearly demonstrates that control activities and funds management are significantly connected and have a positive correlation ($r= .459$, $p=0.000$). These results are in line with Tunji's (2013) findings which showed that control activities including policies, procedures and rules have a major influence on how an entity's finances are managed.

Table 4.8: Correlation Matrix

		Funds management	Control environment	Risk assessment	Control activities
Funds management	Pearson	1.000			
	Correlation				
	Sig. (2-tailed)				
Control environment	N	138			
	Pearson	.422**	1.000		
	Correlation				
Risk assessment	Sig. (2-tailed)	.000	.		
	N	138	138		
	Pearson	.415**	.377**	1.000	
Control activities	Correlation				
	Sig. (2-tailed)	.036	.181	.	
	N	138	45	138	
Control activities	Pearson	.459**	.546**	.420**	1.000
	Correlation				
	Sig. (2-tailed)	.000	.023	.057	.
	N	138	45	45	45

* Correlation is significant at the 0.05 level.

4.5.2 Multiple Regression Analysis

The researcher used the above regression model to test five assumptions that include linearity, homoscedasticity, normality, outliers and multicollinearity. Homoscedasticity was tested by visual examination of a plot of the standardized residuals by the regression standardized predicted value. Homoscedasticity is present when the scatter is not even. Likewise, visual examination was used to examine the residual plots and scatter plots to determine linearity. The multiple regression model assumes that variables have normal distributions, errors are normally distributed and a plot of residuals values makes up a normal curve. As such, the researcher determined normality using visual inspection of data plots. Multicollinearity happens when some independent variables correlate at high levels with each other. The greater the correlation, the

difficult it is to separate the effects of those variables. Multiple regression allows more correlation between independent variables and dependent variable(s). The researcher therefore checked for this assumption to test multicollinearity. Outliers or independence of errors was tested using the boxplots graphing technique. The boxplots of residuals usually show the low, median and high values and likely outliers.

The study conducted a multiple regression analysis to test the three hypotheses:

H₀₁: Effective control environment has no significant effect on the management of funds.

H₀₂: Effective risk assessment has no significant effect on the management of funds

H₀₃: Effective control activities have no significant effect on the management of funds

The variables in this study were examined under the following model:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon$$

where Y= funds management, β_0 = constant, β_1 , β_2 , and β_3 = beta coefficients of independent variables, X_1 = control environment, X_2 = risk assessment, X_3 = control activities, and ε = error term. The study used the OLS (ordinary least squares) to determine the line of best fit. Resulting from the regression analysis, the model in table 4.9 was derived.

Table 4.9: Regression Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.925 ^a	.720	.782	2.63492

a. Predictors: internal control environment, risk assessment, control activities

The results in Table 4.9 show that the coefficient of determination (R^2) was 0.720. This implies that risk assessment, control activities and control environment rendered a significantly good fit in predicting the changes in funds management at national sub county treasuries.

Table 4.10 presents the ANOVA test results. It shows the model has a P-value = 0.007 which is less than the threshold of 0.05. Hence the model predicted by internal control systems was significant in predicting changes on the management of funds.

Table 4.10:ANOVA for All Variables

		ANOVA ^a				
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	38653.342	6	8756.134	384.260	.007 ^b
	Residual	2132.432	132	22.787		
	Total	40785.774	138			

Table 4.11 shows the coefficient of internal control systems. From this table, the coefficient X_1 (control environment) had a p- value =0.000. Consequently, the study rejected H_{01} at 95% confidence interval and therefore control environment had a significant effect on the management of funds. Further, the coefficient X_2 (risk assessment) produced a p-value of 0.031. The study therefore rejected H_{01} at 95% confidence interval since risk assessment had a significant impact on funds management. Similarly, the coefficient X_3 (control activities) p-value= 0.000. Thus H_{01} was rejected at 95% confidence interval having established that control activities had a significant effect on the management of funds.

Table 4.11: Coefficients of Internal Control Systems

	B	Std. Error	t	Sig.
(Constant)	-0.787	1.627	-4.745	.031
Control environment	0.247	0.052	4.931	.000
Risk assessment	0.257	0.043	6.301	.031
Control activities	0.662	0.123	5.461	.000

Resulting from Table 4.11, the study derived the following fitted model

$$Y = -0.787 + 0.247x_1 + 0.257x_2 + 0.662x_3$$

The equation where Y = management of funds was interpreted as follows: a unit change in the control environment results in 24.7% change in the management of funds, a unit change in risk assessment results in 25.7% change in funds management, and a unit change in control activities results in 66.2% change in the management of funds. -0.787 means that in the absence of internal controls, management of funds will drop by 78.7%.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

The major findings in this study are presented in this chapter. Moreover, the chapter makes relevant conclusions and presents recommendations for practice besides making suggestions for further research in light of the study findings. The study sought to determine the effectiveness of internal control systems in management of funds in the public sector at National sub - county treasuries.

5.2 Summary of the Findings

The study findings are summarized below.

5.2.1 Control Environment

The first objective was to determine the effectiveness of control environment on the management of funds. The study established that control environment has a positive and significant effect on management of funds, a position which is similar to that of another study (Mawanda, 2008) which revealed that internal controls and management of funds have a significant relationship. Moreover, Khamis (2013) found that a positive relationship existed between internal control environment and the performance of financial institutions. The findings also concur with those of Doyle and McVay (2007) which uncovered that internal control environment in an organization is positively related to its funds management practices and the success of such practices.

The result of the mean analysis shows that having a job description which specifies duties has the highest mean (4.51). It was followed by having the right tone at the top personnel and adequate

knowledge, competence and experience to discharge responsibilities (4.22), dealings that are based on honesty and fairness (4.16).

The correlation analysis showed that a significant and positive relationship exist between control environment and funds management. The results of analysis revealed that control environment and funds management are positively related ($r=0.422$). In view of the findings, the study revealed that the national sub county treasuries have a good control environment because they have entrenched ethical values and integrity in their systems. Moreover, the tone at the top is appropriate, policies on appropriate practices are adequately communicated, and the treasuries' dealings are based on fairness and honesty. The findings show that sub country treasury employees have job descriptions and that the treasury sets the skills and experience required for a particular job. The findings suggest that the sub county treasuries ensure an effective control environment in their internal control systems, which significantly improve the management of public funds.

5.2.2 Risk Assessment

The second objective was to find out the effectiveness of risk assessment on the management of funds. The study found out that risk assessment has a significant and positive impact on funds management, a position shared by Kargi (2011) who established that risk identification and monitoring processes have a direct impact on financial management. The findings are in agreement with (Rejda, 2008) who maintains that risk assessment should be implemented using well-defined strategies that are in line with the goal and objectives of an organization. The findings also concur with (Okello, 2010) that financial institutions have multiple risks and risk registers must be created and updated often to enable sifting of risks that have a significant impact on the achievement of their objectives. The findings support Bessis and O'Kelly (2015)

who maintain that risk assessment is a process that establishes mechanism for identifying risks and preventing them to avoid losses. Moreover, findings are in congruence with those of (Khan & Ahmed, 2011) which revealed that efficient risk management has a major influence on the survival and success of financial institutions.

The results of mean analysis indicate that having effective communication on risk from sub county accountants has the highest mean (3.80). This is followed by adequately implementing necessary risk inspection plans (3.78); encouraging reporting of events in order to identify risks (3.49).

The correlation analysis revealed that effective risk assessment has a positive and significant relationship with the management of funds at national sub county treasuries. The correlation analysis results showed that risk assessment and funds management are positively related ($r=.415$). The findings showed that stakeholders of sub county treasuries were well informed about risks and that risk inspection plans were sufficiently implemented. However, the findings of the study also revealed that most national sub county treasuries lack well-documented policies on risk assessment and that risk monitoring systems were not in existence. The treasuries did not update their risk registers regularly, an indication that such registers may not be existing. The capacity to assess risks and adequacy in evaluation and documentation of risks are a major challenge in the national sub county treasuries. In addition, risk management committees were not in existence in national sub county treasuries. Thus, the findings clearly indicate that risk assessment is not well-established in national sub county treasuries. Since risk assessment has an influence on funds management, the breaches related to risk assessment at national sub county treasuries pose a major threat to effective management of public funds.

5.2.3 Control Activities

The third and last objective was to examine the effectiveness of control activities on the management of funds. The study revealed that control activities have a positive and significant effect on the management of funds. This position is similar to that of Tunji's (2013) findings which showed that control activities including policies, procedures and rules have a major influence on how an entity's finances are managed. The findings agree with Ray and Pany (2010) who assert that control activities, a component of internal controls, include procedures and policies through which management's directives are implemented. The findings also concur with (Kinyua, 2016) who stated that the top management ought to ensure that the right structures are established in an organization to support internal control environment and risk assessment practices. Kinyua insists that having the right structures would enable the nurturing of a positive culture that would translate to healthy financial performance.

The results of mean analysis indicate that having effective policies and procedures that facilitate communication has the highest mean (4.25). It is followed by having suggestion boxes for obtaining sensitive information (4.10); well established information communication channels (4.0); clearly segregated duties for financial functions (3.94); and policies that provide established mechanisms and techniques to address non-compliance (3.64).

The correlation analysis indicated that internal control activities had a positive significant association with funds management at the national sub county treasuries. Correlation analysis results showed that control activities and management of funds are positively related ($r = .459$). The findings of the study revealed that treasuries have policies and procedures that facilitate funds management. The findings suggest that control activities are an essential component of internal control environment, and they constitute procedures and policies which ensure that

directives on funds management at sub county treasuries are implemented. The findings therefore imply that effective control activities have a significant positive impact on funds management.

5.3 Conclusion

In conclusion of the argument of the study findings, the national sub county treasuries in Kenya should give attention to internal control systems to enhance the management of public funds since internal control systems have a positive effect on management of funds. Control activities had the largest effect on management of funds ($\beta = 0.662$) followed by risk assessment ($\beta = 0.257$) and lastly, control environment ($\beta = 0.247$). The findings in this study support previous research findings. Moreover, it can be concluded that effective control environment, risk assessment and control activities must be incorporated in internal control systems to enhance public funds management. The study draws out the primary determinants of internal control systems that can be fostered by national sub county treasuries to improve the management of public funds. The study broadens the scope of identification of measures that enhance organizational funds management such as control environment, control activities, and risk assessment. Thus, government institutions should invest in creating sound internal control systems to enhance funds management. This model can be utilized by managers of various organizations to address the main factors of internal control systems in order to improve funds management practices. Therefore, managers must entrench strong internal control systems in all levels of the organization to enhance funds management. Having established that there is a significant positive relationship between independent variables - control environment, control activities and risk assessment - and dependent variable – funds management, all the null hypotheses were rejected and instead alternative hypotheses were adopted.

5.4 Recommendation

The following recommendations were based on the study results, findings and conclusions. The national sub county treasuries should strive to identify and invest in the ideal combination of efficient and effective internal control systems that match their financial management needs. The sub county treasuries should embrace sound risk assessment practices to realize the benefits of internal control systems in funds management. The national sub county treasuries should have well-documented policies on risk assessment. They should establish risk monitoring systems to help identify potential risks. Risk registers should be introduced and they should be updated regularly. In addition, risk management committees should be established in national sub county treasuries, which would help with proactive assessment and identification of risks and taking appropriate action to mitigate them. Besides, the treasuries should have strong control environment, and adequate control activities in form of procedures, rules and policies. The control activities and control environment should be evaluated regularly by internal auditors to provide the treasuries' management with assurance on the effectiveness and adequacy of the existing mitigation controls.

The national sub county treasuries should ensure that the right structure are put in place to support internal control systems including control environment, risk assessment and control activities. This will help to foster a positive institutional culture which ensures that internal control systems are not overridden. The sub county treasuries should have adequate control activities that protect public funds from fraud and misuse. Reviews of the overall internal control systems should be carried out regularly by the internal audit function to provide assurance that the existing mitigation controls are adequate and effective. The national sub county treasuries

should implement flexible internal control systems in order to accommodate future changes in the management of funds.

5.5 Further Research

The study has put emphasis on the importance of having effective internal control systems in the management of funds at national sub county treasuries. Effective internal control environment, risk assessment, and control activities have a significant positive impact on the management of funds. Subsequent studies should replicate this study in other government institutions in Kenya in order to determine the effectiveness of their internal control systems. In addition, further research should be carried out on other components of internal control systems to examine their effectiveness in the management of public funds at national sub county treasuries in Kenya.

5.6 Limitation of the Study

Internal control systems and how they help organizations to prevent fraud and funds mismanagement constitute huge perspectives. Therefore, not all components of internal control systems were studied, instead the study focused on three components – control environment, risk assessment, and control activities - due to time and financial constraints. The study faced geographical challenges since respondents came from various sub county treasuries spread across the country. As such, the researcher could not conduct interviews with accountants and internal auditors and get more understanding of some responses or make practical observations. Thus, it took longer than expected to get responses through questionnaires. Moreover, the reluctance of respondents and lack of control over variables by the researcher were a hindrance to this research.

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APPENDICES`

APPENDIX 1: TRANSMITTAL LETTER

Dear Respondent,

RE:DATA COLLECTION

I am a Master's student at KCA University. I am undertaking a research study on the **Effectiveness of Internal Control Systems in Management of Funds in the Public Sector at National Sub- County Treasuries in Kenya** to fulfill the requirements for the award of MSc. in Commerce (Finance).

The attached questionnaire aims to collect information related to the above topic and you have been selected to participate in this study. Kindly answer all the questions as correctly, honestly and completely as possible. All your responses will only be used for the purpose of this study and will be handled with uttermost confidentiality.

Thank you in advance.

IHA FRANCISCO MASHA

.....

Researcher

APPENDIX II: RESEARCH QUESTIONNAIRE

Instructions: Kindly answer the following questions and where applicable mark your choices with a tick (✓).

Confidentiality: The information you provide will be confidential and no individual(s) will be cited in the study report.

SECTION A: BACKGROUND INFORMATION

1. Gender: Male Female

2. Name of your County.....

3. Name of your Sub County treasury.....

4. For how long have you worked in the Sub County treasury above?

Below 1 year 1-2 years over 3 years

5. Kindly indicate your highest academic qualification

Certificate/ Diploma Undergraduate Masters PhD

SECTION B: CONTROL ENVIRONMENT AND MANAGEMENT OF FUNDS

1. Kindly tick appropriately the extent to which you agree with the following statements on control environment and management of funds. Use the scale of 1–5, where 1 is strongly disagree and 5 is strongly agree.

Statement		SD	D	N	A	SA
		1	2	3	4	5
1	The sub county treasury has established and adequately communicated policies regarding such matters as acceptable practices, integrity, conflicts of interest, and codes of conduct.					
2	The treasury dealings with employees, suppliers, and stakeholders are based on honesty and fairness					
3	The treasury demonstrates the right “tone at the top” that includes explicit moral guidance on what is right or wrong and such is communicated in both deeds and words					
4	All employees have job descriptions that include specific duties, responsibilities, and constraints that are clearly established and effectively communicated					
5	Employees’ reporting structure and relationships are clearly established and communicated					
6	The organization of the sub county treasury is clearly defined in terms of lines of responsibility and authority					
7	The treasury determines the level of knowledge and skills needed to perform a particular job and this information is used in the hiring process					
8	All personnel possess adequate knowledge, competence and experience to discharge their responsibilities					
9	Employee performance evaluation techniques are implemented to identify incompetent and ineffective employees					
10	Decision on funds management at the sub county treasury are not dominated by a few individuals					
11	The treasury has mechanisms to anticipate, identify and react to events or activities that affect achieving its funds management objectives					
12	There is adequate supervision and monitoring of decentralized operations regarding public funds at the Sub County treasury					

13	There is clear assignment of responsibility and delegation of authority to deal with the treasury's goals and objectives, regulatory requirements and operating functions					
14	Turnover of personnel at the sub county treasury is relatively low					
15	The treasury is committed to competence and ensures that its employees receive adequate training to perform their duties.					

SECTION C: RISK ASSESSMENT AND MANAGEMENT OF FUNDS

4. To what extent do you agree with the following statements with respect to risk assessment and management of funds? Tick appropriately using the scale of 1–5, where 1 is strongly disagree and 5 is strongly agree.

Statement		SD	D	N	A	SA
		1	2	3	4	5
1	The sub county treasury has a well-documented policy on risk management					
2	The sub county treasury has a risk monitoring system that identifies potential risks					
3	The sub county treasury encourages reporting of events and happenings in order to identify risks					
4	The risk register is updated regularly					
5	The sub county treasury has adequate capacity to perform risk assessment					
6	The sub county accountant effectively communicates risks to the other staff and other stakeholders					
7	The sub county treasury adequately evaluates and documents risks when making important decisions (e.g. launch of projects and development of strategic plans)					
8	The sub county treasury has adequately implemented the necessary risk inspection plans to reduce their occurrence					
9	The sub county treasury has a risk management committee					
10	The risk management committee assesses and identifies risks and thus takes appropriate action and decision to mitigate them					

11	Recommendations by the risk management committee are reported directly to the sub county accountant for action					
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SECTION D: CONTROL ACTIVITIES AND MANAGEMENT OF FUNDS

8. Tick appropriately the extent to which you agree with the following statements on control activities and management of funds.

Statement		SD	D	N	A	SA
		1	2	3	4	5
1	The treasury has effective policies and procedures that facilitate effective communication of funds management information					
2	The treasury policies on information and communications provide well established techniques and mechanisms to address non-compliance in financial matters.					
3	The sub county treasury has well established information and communication channels					
4	The treasury has mounted suggestion boxes for obtaining sensitive and confidential information for effective management					
5	The sub county treasury has clearly segregated duties for the various financial functions					

SECTION E: MANAGEMENT OF FUNDS

11. Kindly tick appropriately the extent to which you agree with the following statements on management of funds. Use the scale of 1–5, where 1 is strongly disagree and 5 is strongly agree.

Statement		SD	D	N	A	SA
		1	2	3	4	5
1	All staff are trained effectively on the use of integrated financial management information system (IFMIS)					
2	The sub county treasury effectively controls the expenditure of all departments					
3	Financial regulations are implemented effectively in the management of funds at the national sub county treasury					
4	Implementation of financial regulations have brought about transparency in financial management at the sub county treasury					
5	The sub county treasury ensures the involvement of all stakeholders in financial decision making					
6	Financial statements and reports are prepared regularly and on a timely basis					

THANK YOU!

APPENDIX III: SAMPLE SIZE

S/NO	COUNTY	NO. OF SUB COUNTIES	PERCENTAGE
1	KILIFI	7	30
2	LAMU	2	30
3	MURANG'A	8	30
4	NYERI	8	30
5	MOMBASA	6	30
6	TAITA TAVETA	4	30
7	MAKUENI	10	30
8	BOMET	5	30
9	SIAYA	6	30
10	KAJIADO	6	30
11	KISUMU	7	30
12	MACHAKOS	9	30
13	NAROK	6	30
14	KIRINYAGA	5	30
15	TURKANA	7	30
16	NYANDARUA	8	30
17	TANARIVER	3	30
18	WAJIR	8	30
19	LAIKIPIA	4	30
20	SAMBURU	3	30
21	MIGORI	8	30
22	NYAMIRA	5	30
23	UASIN GISHU	6	30
24	GARISSA	7	30
25	ISIOLO	3	30
26	BUNGOMA	10	30
27	WEST POKOT	6	30
28	ELGEYO MARAKWET	4	30
29	BUSIA	7	30
30	HOMA BAY	8	30
31	BARINGO	5	30
32	MANDERA	6	30
33	MARSABIT	7	30
34	TRANS NZOIA	5	30
35	KERICHO	6	30
36	NAKURU	11	30
37	NANDI	6	30
38	VIHIGA	5	30

39	THARAKA NITHI	3	30
40	KISII	10	30
41	KIAMBU	13	30
42	MERU	11	30
43	KWALE	4	30
44	EMBU	5	30
45	KAKAMEGA	13	30
46	KITUI	14	30
	TOTAL	310	

Source: The National Treasury, 2017