FINANCIAL SUSTAINABILITY DETERMINANTS OF GOVERNMENT OWNED ENTITIES IN KENYA

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Financial sustainability determinants of government owned entities in Kenya

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DECLARATION

This thesis is my original work and has not been presented for a degree in any other University.

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This thesis has been submitted for examination with our approval as University Supervisors.

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DEDICATION

This work is dedicated to my husband George, our children Lacena, Lloyd, and Lynn, my dear parents John and Ejidia for their ever-present love, support and encouragement; to my brother and sisters who encouraged me all through my studies; and to my friends Grace and Esther.

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LIST OF ACRONYMS

ASSR: Asset Sustainability Ratio

CEO: Chief Executive Officer

FP: Financial performance

FS: Financial Sustainability

GLS: Generalized Least Square

GoEs: Government Owned Entities

ICAEW: Institute of Chartered Accountants in England and Wales

ILRI: International Livestock Research Institute

ISO: International Organization for Standardization

KARI: Kenya Agricultural Research Institute

MDGs: Millennium Development Goals

MFIs: Microfinance Institutions

MM: Modigliani–Miller

MOALF: Ministry of Agriculture Livestock and Fisheries

NFALR: Net Financial Liability Ratio

NGO: Non- Governmental Organizations

NSE: Nairobi Security Exchange

NOPSR: Net Operating Surplus Ratio

OECD: Organization for Economic Co-operation and Development

PFM: Public Finance Management Act

R&D: Research and Development

ROA: Return on Assets

ROE: Return on Equity

ROI: Return on Investment

ROS: Return on Sales

WCM: Working Capital Management

WC: Working Capital

WCR: Working Capital Ratio

DEFINITION OF TERMS

Financial Sustainability: is a measure of the organization's ability to meet its financial obligations, referring to the ability to manage financial resources so that it can meet its spending commitments both now and in the future, and the ability to cover costs independent of external subsidies from donors or government (Mutinda & Ngahu, 2016).

Financial Resource Utilization are strategies initiated and adopted by the organization to help maximize the use available funds and to guarantee efficient use of all resources so as to maximize customer service levels, minimize lead times, and optimize inventory levels (Shilpa & Rakesh, 2013).

Working Capital Management: is the strategy used to fill the gap between current assets and current liabilities (Tran, Abbott, & Jin Yap, 2017).

Financial Investments: is a mechanism used for the purpose of generating future income for an organization, which generally results in acquiring an asset. If the asset is available at a price worth investing, it is normally expected either to generate income, or to appreciate in value, so that it can be sold at a higher price in future (Adelino & Robinson, 2017).

Financial Risk Management: is the process of identifying, measuring and analyzing risks and taking precautionary steps to reduce/curb the risk within the organizations in order to maximize investment returns and earnings for a given level of risk (Harvey, 2008).

Government Owned Enterprises: are enterprises where the state has significant control through full, majority, or significant minority ownership (OECD, 2014).

ABSTRACT

Financial sustainability has been a matter of on-going concern for government owned entities, with scarcity of resource and mounting societal needs, the enduring problem has been on how to attain financial sustainability and reduce over-dependency on government subsidy. This study makes strong input to business literature by investigating the determinants of financial sustainability of government owned entities in Kenya. The study formed four specific objectives: to determine the influence of financial resource utilization, working capital management, financial investments and financial risk management on financial sustainability. The study used the Capital structure theory, Working capital management theory, Agency theory and Behavioral finance theory. Mixed research approach was adopted. The target population comprised Government owned Entities in Kenya. A sample size of 36 GoEs were drawn from the target population using Slovin's formula. Stratified sampling technique was used to select the sample size and stratified random sampling was then used to select the sample. The study recorded a 75% response rate and used both primary and secondary sources of data. Primary data was collected using semi-structured questionnaires. The secondary data involved a review of published information and Financial Statements of GoEs obtained from 2009 to 2015 financial years. The data analysis and interpretation of this study was based on descriptive and inferential statistics; Pearson correlation, analysis of variance were employed. Multi linear regression model was used in explaining the influence of financial resource utilization, working capital management financial investments and financial risk management and their influence on financial sustainability. The study results indicated that, financial resource utilization, working capital management, financial investments and financial risk management had significant positive influence on financial sustainability. The study recommends the need for institutional goals to be set in line with available funds with emphasis on proper projects evaluation and done prioritization before allocation of resources to the most profitable project. Bottom-up approach on resource management be adopted for better resource utilisation. Based on the study there is need for development of policy guidelines on investment for GoEs. Adoption of a hybrid management model style incorporates both public and private interface. Government owned entities to be evaluated using a holistic financial evaluation model approach, not limited to financial evaluation through innovations that encompass the key goals and objectives of government owned entities existence.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Government Owned Entities (GoEs) are distinct legal entities created and run entirely by Government, having a significant control through full, majority, or significant minority shareholding. They are assets created by the government, managed professionally and transparently on behalf of citizens, ensuring value creation for society (Organization for Economic Co-operation and Development, 2014). The financial sustainability is a goal that all organizations strive for. It enables entities cover their administrative costs and prioritize activities so as to accomplish their goals, without undergoing financial interminable negotiations with government or the donors.

Nonetheless, the percentage of GoEs that achieve financial sustainability remains very low as they are faced with myriad of challenges especially in the twenty-first century, that include but not limited to increased competitive market, a globalized economy, and the inability of obtaining critical funds to carry out the necessary activities to fulfil their mission affecting their financial sustainability and creating or making them continue to have a government or donor dependent vision (ICAEW, 2014). They need to employ more sophisticated methods to ensure financial sustainability as their survival depends on the ability to achieve this goal. The challenges of financial sustainability exist at the global, regional and local levels.

1.1.1 Global Perspective of Financial Sustainability of GoEs

Government Owned Entities (GoEs) account for at-least 25% of investments and employment, approximately 40% of economic activities globally (World Bank, 2014). OECD (2014) report highlighted that in the developing economies which are largely agrarian the GoEs regularly account for between 25% and 50% of the urban economy. Amanda (2015) states that in Canada, the governmental sector is the

second largest in the world, and in 2012 it contributed $176 billion to their national economy accounting for 8% of GDP and employing two million Canadians.

Financial sustainability continues to be the greatest contest for these GoEs, as their key prerequisite is to be financially agile in order to achieve their intended objectives, implement policies, fulfil their mission and serve their stakeholders for a prolonged period of time. Globally from the international perspective, while there has been a quantitative increase in activities and increase in number of emerging GoEs, there has not been a proportionate quantitative increase in funding sources (William, 2014). The number of funding sources has not increased at the same rate as the needs arises, or as the GoEs willingness to implement solutions. In other cases where the funds are available, the government/ donor determine how those funds are allocated and utilized. In most cases, priorities for fund allocation and utilization are set in accordance to government and donors requirements who elect to support one cause over another, rather than by the leadership of GoEs (Padilla, Staplefoote & Morganti,2012).

GoEs tend to be more over reliant on corporate and government funding, creating funders demand towards more sustainable operations, management, and business models (Okorley & Nkrumah, 2012). In Canada, despite the GoEs posting a significant of $176 billion in their economy, they are increasingly faced with challenges that impede their growth and sustainability, leaving their social economic goals unachieved as they relied on one source of funding (Amanda, 2015). Globally GoEs are known to suffer the strong pressure to improve their performance amidst increasing globalization, deregulation of markets, and budgetary indiscipline (Leon & Cock, 2016).

Establishing the financial capacity and sustainability even within these myriad of challenges is critical to their functionality and survival in order to lessen dependency on government and funders. The actions and demands by funders have also shifted towards requiring these entities to be financially sustainable as funding scopes narrows, requirement for accountability and reporting increases. Over the past 20 years, there has been growing trends globally to have GoEs which stands as a whole

significant economic players privatized, reforms and mergers of key sectors, and adoptions of other most advanced strategies to push GoEs maximize their potential of becoming financially sustainable. GoEs are encouraged to efficiently and fairly govern the use of their assets in order to generate more resource for sustainability.

1.1.2 Regional Perspective of Financial Sustainability of GoEs

In many African countries the GoEs commonly referred to as State owned Entities are entities that tend to go through transformation into state-owned corporations. Their sole purpose is promoting the government social economic objective. In the developing economies they account for between 25% and 50% of the urban economy. They are potentially powerful tools in states' developmental agenda and have an influence on the wider business landscape within their countries (OECD, 2014). However these GoEs have been going through transformation to ensure sustainability with countries such as Lesotho, Mauritius, Mozambique, South Africa, Tanzania and Zambia undertaking reviews to explore their critical role (OECD, 2014).

The fundamental principle of GoEs is the need to maintain their ability to be financially agile in order to maintain their function of serving social and economic welfare, which requires consistent and continually availability of resources. Financial sustainability can be achieved when capital structure levels and standards are enhanced according to a long term plan of the entities (Bowman, 2011). GoEs are known suffer from financial instability characterized by developmental challenges influenced by fluid regional and global environment. Regionally the emerging GoEs regime are also severely undermined by key skill shortages, notably accountants and auditors. Other factors hindering the achievement of financial sustainability of GoEs regionally were mismanagement, wastage of public resources and channeling of funds away from their productive activities (OECD, 2014).

Leon and Kocks (2016) looked at financial sustainability of municipal council in South Africa and indicated that the financial stability of the key local municipalities in South Africa are weak, and likely to deteriorate over the short to medium term,

which has a direct impact on the economic growth and development that is desperately needed to reduce unemployment in its country. He alludes that financial sustainability has been affected by lack of skill levels, in-experience in quality of management, financial indiscipline and un-sound governance. In South African for example weak financial stability of the municipal sector had been detrimental to their economy and placed additional financial pressure on the central government for financial support in order to keep the operations on going, (OECD, 2014).

Financial sustainability is promoted through a broad-based, interdisciplinary approach. Lack of good management or technical capacity prevents the organization from generating revenue and adversely affecting financial sustainability (United Nation, 2013). Learning from organizations that have managed to achieve financial sustainability to some extent, is important for GoEs paths to success in financial sustainability. As a key policy instruments the GoEs should be transformed from being dependent to independent by adopting strategies that shove towards financial sustainability.

1.1.3 Local Perspective of financial sustainability of GoEs

Locally the GoEs have been going through various transformation, the Government reforms agenda on State Corporation in 2013, that saw the merger and establishment of GoEs, was driven by lack of adherence to formation framework, which often resulted to duplication of Government's functions and created inefficiencies and more than often yielded to scrabble for the government subsidy. This prompted the reforms to have lean GoEs that will support and drive the Government agenda of meeting the social and economic benefit for the citizen. The GoEs particularly accounted for 12.5% of the GDP (GOK, 2013)..

The financial sustainability for GoEs locally has become a critical factor and a point of emphases as a long-term goal that requires concerted efforts and an ongoing process which is forms an integral part of day-to-day management agenda. There has been increasing demands and pressure on GoEs to be financially agile, if these demands are not addressed by creating ways of ensuring financial sustainability, then

they are bound to have far-reaching consequences (GOK, 2013).The quest to improve their financial soundness are often affected by the way they operate and respond to both the internal and external factors, innovation and leadership styles. They are also exposed to a lot of undue competition, unpredictable revenues, market competition, economic downtimes, inefficiency, poor management, corruption and political interference which create overreliance on government subsidies affecting their long-term sustainability (Muthoka & Ogutu, 2014).

It has often been assumed that financial strength amounts to financial sustainability which alone is insufficient over time. There is a need to develop holistic overall capacities for GoEs to adopt methodologies that enable them generate more resources for their endeavors. Mutinda and Ngahu (2016) noted that key attributes to financial sustainability are sound financial practices, active fund management, planning, ability to innovate, and infrastructure development. A sustainable organization is able to survive in the long run by generating its own revenue without depending on contributions from donors, financiers, and well-wishers (Nganga & Kibati, 2016).

GoEs need to employ measures that allow them to assess and compare their performance against others entities, through an analysis of various indicators that are not limited to normal financial evaluation but focusing on key objectives adopt approaches in strategic planning, administration and finances, in fundraising policies, planning and implementing these strategies for their day to day management in order to become financially sustainable.

1.2 Statement of the Problem

Financial sustainability is paramount for the functionality and long-term survival of any organization and cannot be overemphasized (Leon & Cock, 2016). It is the ability of the organization to survive for a considerable future by being able to cover costs independent of external subsidies from donors or government (Mutinda & Ngahu, 2016). GoEs shoulder a great burden of meeting social economic agenda, being accountable to state structures, and having responsibilities of ensuring prudent

use of public resources that makes their survival decisive, creating the critical need to be financial sustainability.

Nonetheless, even though evidence suggested that financial performance of many GoEs improved in the past decade, the percentage of GoEs that achieved financial sustainability remained very low especially in the 21st century (OECD, 2014). In China, GoEs reported average return on equity rose from 2.2 percent to 15.7 percent in 2007, before slipping back to 10.9 percent in 2009 (World Bank 2013). In India, GoEs generated a 17 percent return on equity in 2010 before decline, (Abubakar 2010). In Kenya even though trends showed growth in financial position presented by increase internally generated income from 9.54% in 2008/2009 to 11.64% in 2010/2011 there had been a decline trend since then (GOK, 2013). Notwithstanding these performance improvements, there has been a more general downward trend, the GoEs lagged behind private and other non-state firms in financial sustainability.

GoEs, globally suffer from a number of vulnerabilities, they were hampered by increased competitive markets, globalized economy, inability to obtain critical fund, relying on one source of funding, weak balance sheets and low capitalization, poor underlying profitability, and high nonperforming loans, increased globalization, deregulation of markets, and budgetary discipline (OECD, 2014, Amanda 2015, Padilla et al., 2012). In African countries such as Lesotho, Zambia, Mauritius, South Africa, and Tanzania, GoEs were going through transformation to ensure financial sustainability, as they were affected by corruption, manager's appointment without right skills hampering sound financial reporting and un-sound governance (Leon & Kock, 2016). In Kenya GoEs' poor performance was attributed to inefficiency, role duplication, inability to utilize resources, lack of financial management skills, over-dependent on government subsidies, thereby adversely affecting their strive towards financial sustainability, despite the Government adopting various strategies and efforts to support these GoEs, that include the privatization efforts, increase in levels of subsidy, Treasury carrying out loan restructuring for some individual GoEs (GOK, 2013).

Reviews carried out on financial sustainability addressing these challenges were limited. Amanda (2015) in the study sustainability of Non-profit organizations were affected by relying on one financial resource provider. Nganga and Kibati (2016) evaluated the determinants of financial sustainability in private middle level colleges in Nakuru County, with specific emphasis on the effect of capital structure and resource allocation on financial sustainability. Wafula, Mutua and Musiega (2017) examined the determinants of financial sustainability of micro finance institutions in Kenya. They emphasized on the need for MFIs to improve their financial performance though growth oriented strategies. Ndege, Mohamed, and Rukangu (2016) analyzed management factors influencing financial sustainability of youth projects funded by Youth Enterprise Development Fund (YEDF) focusing on leadership and youth entrepreneurship training and found out that its influenced by leadership and youth entrepreneurship training. Karanja and Karuti (2014) did an assessment of factors influencing sustainability of non-governmental organizations in Kenya with focus on are government policies and noted that government should put in place policies that will ensure financial sustainability.

Focusing on these reviews it was clear that there were limited studies conducted on financial sustainability of GoEs in Kenya. Most of the studies carried out in this area concentrated on other sector besides the GoEs. This created a gap and therefore brought the strong motivation to conduct this study. This study exclusively examined determinants of financial suitability of the GoEs in Kenya, by examining the following variables and their influence on financial sustainability; the financial resource utilisation, working capital management, financial investments and financial risk management. This study sought to bridge the research gap by examining determinants of financial sustainability of GoEs in Kenya.

1.3 Research Objectives

1.3.1 General Objective

The general objective of this study was to examine the determinants of financial sustainability of Government Owned Entities in Kenya**.**

1.3.2 Specific Objectives

1. To evaluate the effect of financial resource utilization on financial Sustainability of government owned entities in Kenya.
2. To establish the effect of working capital management on financial sustainability of government owned entities in Kenya.
3. To examine the influence of financial investments on financial sustainability of government owned Entities in Kenya.
4. To analyze the influence of financial risk management on financial sustainability of Government owned Entities in Kenya.

1.4 Research Questions

Drawn from the above objectives, the study sought to answer the following questions:

1. How does Financial Resource Utilization affect financial sustainability of GoEs in Kenya?
2. Does the working capital management influence financial sustainability of GoEs in Kenya?
3. Do financial investments influence financial sustainability of GoEs in Kenya?
4. How does Financial Risk Management influence financial sustainability of GoEs in Kenya?

1.5 Research Hypotheses

The study sought to test the following null hypotheses**:**

***H_{01}*:** Financial resource utilization does not influence financial sustainability of Government Owned Entities in Kenya.

H_{02}: Working capital management does not influence on financial sustainability of Government Owned Entities in Kenya.

H_{03}: Financial investments do not influence financial sustainability of Government Owned Entities in Kenya.

***H_{04}*:** Financial risk management has no effect on financial sustainability of Government Owned Entities in Kenya.

1.6 Significance of the Study

The government is the principal providers and facilitators of GoEs so as to achieve their social and economic objectives. The study provides evidence on what adversely affect the financial sustainability of GoEs and therefore a major step towards edifying on what should be done to attain financial sustainability. Kenya is operating under the devolved governance system and the ministries have a critical role in ensuring economic development, poverty alleviation and creation of employment. This study helps the policy makers as they seeks to create a conducive environment and design policies that strengthens financial sustainability and also forms a framework of operationalizing the GoEs activities efficiently for economic development.

The Ministry will use the findings to set guidelines and bench mark the best practices to ensure financial sustainability. Further the management will acquire information that directly relates to their decision-making paradigm and be able to carry out their day-to-day operations. The donors and investors are interested on seeing GoEs achieve higher levels of financial sustainability and reduce dependency, reducing agency costs and bolstering the relationship between the principals and the agents. Therefore they will use the identified variables and strategies cited to gain insights and take appropriate action.

To the scholars, the study is value-addition to the existing body of knowledge as it recommends stewardship of the GoEs resources in order to enhance financial sustainability of GoEs. The outcome of this study provides insight to other entities, to other researchers and continues to form one of the major areas of interest for research on other influences of financial sustainability.

1.7 Scope of the Study

The study examined the determinant of financial sustainability of Government Owned Entries in Kenya. Given the distinctiveness of GoEs in Kenya the study exclusively looked at GoEs in the Ministry of Agriculture Livestock and Fisheries (MOALF). The study population was 40 GoEs in MOALF. The data was captured for a period, between 2009 and 2015. The researcher specifically focused on four variables: financial resource utilization, working capital management, financial investments and financial risk management.

1.8 Limitations of the Study

The study had some limitations. First, financial matters brings mixed reaction and some entities resisted the release of information which they considered confidential. Those GoEs which did not respond to the questionnaire were considered as non-respondents. Secondly the researcher utilized a cross sectional survey design rather than the longitudinal survey which only covered a short period. However, there is need to carry out a longitudinal study using time series data to establish trends and patterns of financial sustainability.

There were also limitations with respect to the generality of the findings on other GoEs in different sectors as they operate under diverse pecuniary conditions and regulations, hindering the generalization of the study findings as their financial sustainability could be influenced by other factors besides the ones in the study. However this provides an opportunity for further research. The questionnaires were limited to likert scale questions and secondary data collected from published financial statements. Data collected focused on financial statements and senior employees ignoring other interested stakeholder; therefore there is need in future studies to include views and opinions of different categories of stakeholders.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter presents review of literature relating to the variable under study and their influence on financial Sustainability. The literature review has been organized as follows. First the theoretical framework, then conceptual framework, review of the empirical studies, critique of reviewed literature and the research gaps.

2.2 Theoretical Framework

This section presents the theories underpinning the study. The theories reviewed include:

2.2.1 Capital Structure Theory

The theories on capital structure give an overview of how an organisation is financed. There are many arguments that an ideal capital structure of a firm is a challenge and the debate has been in determining the best capital structure composition as per the Modgllian and Miller theory as advanced by (Modgllian & miller, 1951). Financing has been a fundamental issue in many organisations, they considers the best model of financial framework that would be applicable to them. GoEs like other organisations faces the same problem of capital structure composition (Handoo & Sharma, 2014). The Capital structure theory explains the financial policy used in determining the company's capital structure; the mix between debt and equity which helps in optimizing firm’s value (Ukhriyawati, Ratnawati & Riyad, 2017).

Capital structure of a company is a combination of debt and equity (external sources) which maximizes stock price enterprises. At any given moment, the company's management set a target in capital structure using the firm’s value that may give an optimal structure, even though the target may be changed from time to time. Capital

structure has an impact on company's financial sustainability. Mujahid and Akhtar (2014) evaluated the impact of capital structure on the firm's financial sustainability and shareholders wealth in textile sector of Pakistan. The study focused on return on assets, return on equity and earnings per share ratios as measures to evaluate the impact of Capital Structure on firm's financial sustainability and shareholders wealth. The study established that the capital structure positively impact the firm's financial sustainability and shareholders wealth.

The relationship between firm's capital structure and the firm's profitability is very significant as the profitability of the firm can directly be affected by the capital structure decisions therefore impacting on the long-term sustainability of the firm. Velnampy and Niresh (2012) argued that profitability of the firm is dependent upon the capital structure decisions. Abor (2005) revealed that there is a significant relationship between total debts and total assets that make up the capital structure, suggesting that firms depend more on debt as a way of financing which influenced financial sustainability. The composition on the capital structure in organizations is structured in terms of equity and debt distribution.

Capital structure, being total debt to total asset at book value influences both profitability and riskiness of the firm (Handoo & Sharma, 2014). Companies have been struggling with the composition of capital structure for many decades in an effort to balance and be stable and it's not unique for the GoEs. The capital structure theory has been adopted for this study to help analyse how government entities structure their capital and how they source their capital in order to maximize returns, while ensuring that they maintain the costs of capital so as they don't supersede the benefits.

2.2.2 Working Capital Management Theory

Working Capital Management theory underpins the interaction between current assets and current liabilities as advanced Sagan (1955). It is concerned with the problem that arises in attempting to manage the current assets, the current liabilities and the interrelationship that exist between them. The significant goal of working

capital management is to manage a firm's current assets and current liabilities in such a way that a satisfactory level of working capital are achieved and maintained (Rekha, 2014). Working capital concerns the company liquidity, efficiency and overall wealth, which includes cash, inventory, account receivable and account payable.

The theory contends that if working capital is managed according to prescriptive theory then it is expected that businesses would invest in working capital, finance working capital, monitor factors that influence working capital, manage cash, accounts receivable, inventory, accounts payable and the cash conversion cycle. The debts with within one year and other short-term account, are measured and analyzed in their performance in order to ensure that the long term assets are utilized effectively and efficiently (Almazani, 2014). Having enough working capital means that companies should be able to pay for all its short-term expenses and liabilities.

Working capital Management has been adopted for this study in order to analyse how GoEs are able to balance between the components of working capital to ensure that they remain competitive, establish long-term relationship with the creditors and form a framework for analysing strategies put by the government to ensure solvency. Further assess how GoEs manage currents assets to avoid holding a lot of non - earning assets which calls for prudence in resource management. The larger the amount of working capital the stronger the liquidity position of the business. When working capital is managed appropriately it is able to guide on the investment and financing of current assets. Finally contributing to the value of the business, wealth creation for its shareholders and enabling the business to attain its specific goals and objectives thus enhancing sustainability.

2.2.3 Agency Theory

The Agency theory focuses on the relationship between principals as a shareholders, and agents as a firm's senior management. It evaluates the conflict between the manager and the stakeholders of an organisation. It attempts to deal with the agency problem where there is conflict of interest between a company's management and the

company's shareholders. It considers necessary factor that creates conflict between principals and their manager. Gatsi (2016) in his study on debt structure affirmed a theoretical summary of the agency theory where he argued agency problems were faced by firms, the conflict between managers and shareholders. Shareholders put their focus on financial performance of an organisation in order to invest their funds in specific operations. Performance of any organization is always a focus by shareholders so that they are able to bank any investment decision derived by the manager (Ahmadabadi *et al*., 2013).

The agency theory has a reflection on the capital structure of a firm. Arguments are made that managers use a lot of debt to finance high risk projects while shareholders prefer to maximise expected return. Therefore, inherent risks and conflict associated with investment decisions arises which prompts managers to avoid investment (Anshun & Kapil, 2014). One of the ways of reducing agency problems is debt financing which helps those problems that are normally related to free cash-flow and asymmetric information problems Innocent (2016) argued that the debt management by a firm improves in the long run the cost efficiency of the firm.

The relationship between managerial ownership and agency costs is linear and the optimal point for the firm is achieved when the managers acquires shares of the company. Agency theory is therefore adopted in this study because the study focuses on relationship between shareholders and their managers. Ownership concentration is an option of reducing agency costs by shareholders proactively taking active roles in monitoring (Innocent, 2016). Although this is dependent on the amounts of their equity stakes. The investors more motivated to monitor and protect their investment.

2.2.4 Behavioral Finance Theory

The behavioral finance theory is among the new contemporary theories that seek the cognitive factor and emotional issues that impact the decision making process of an individual or group as advanced by Thaler (1993). It rests on the inability to explain the empirical patterns of the traditional theory framework. The traditional finance used models in which the economic agents are assumed to be rational, efficient and

unbiased processing the relevant information and that their decisions are consistent with profit and utility maximization but often does not hold (Barberis & Thaler, 2003).

In behavioral theory it is clear that decisions are based on behavior biasness and are not fully rational. It is the influence of psychology on behavior of financial practitioners and long-term effects seen in the market. It assume the model to be rational meaning decision making process drawn by unbiasedness (Sewell, 2007). Behavioral finance is based on the alternative notion that investors, are subject to behavioral biases that mean their financial decisions can be less than fully rational. The theory has applications in analysis of corporate finance decisions with most obvious implication of the behavioral biases that underpin behavioral finance is that overconfidence and over-optimism can lead individuals to underestimate risk.

Risk Management is an important aspect of investment decisions, and perceptions of risk are likely to be influenced by behavior psychology. The extension of behavioral ideas on finance decisions, indicates that the investors are less than fully rational while analyzing the corporate financing decisions made by management (Sewell, 2007. Other corporate managers are subjected to behavioral biases and that some of the corporate finance transactions they undertake are as a result of those biases.

The behavior theory is adopted for this study as it seeks to find out how the cognitive factors and emotion issues were applied in GoEs to aid decision making. Give a clear understanding how behavior influences psychology on perception of risk and how managers are able to balance between the risks and investments. Firms in regulated industries provide top management with few opportunities for discretion in corporate investment and financing decisions. How then does the government to encourage risk appetite and entrepreneurial spirit. The complexity of risk may create problems of risk perception that affect risk-taking behavior, there is need to frame outcomes in terms managing risk. Firms can reduce the likelihood of financial distress by hedging variability in earnings by managing financial risk.

2.3 Conceptual Framework

Conceptual framework attempts to connect to all aspects the study. It acts like a map that gives coherence to empirical inquiry. It is the diagrammatic representation of how the independent and dependent variables of a given study interact (Shields, Patricia & Rangarjan, 2013). It's derived from the theoretical framework of this study, capital structure theory, working capital theory, agency theory and behavioral finance theory. This section examined the variables of interest in the proposed study and the expected relationships among the variables. The dependent variable was financial sustainability, while the independent variables were financial resource utilization, working capital management, financial investments and financial risk management. The overall pictorial representation of these relationships is presented:

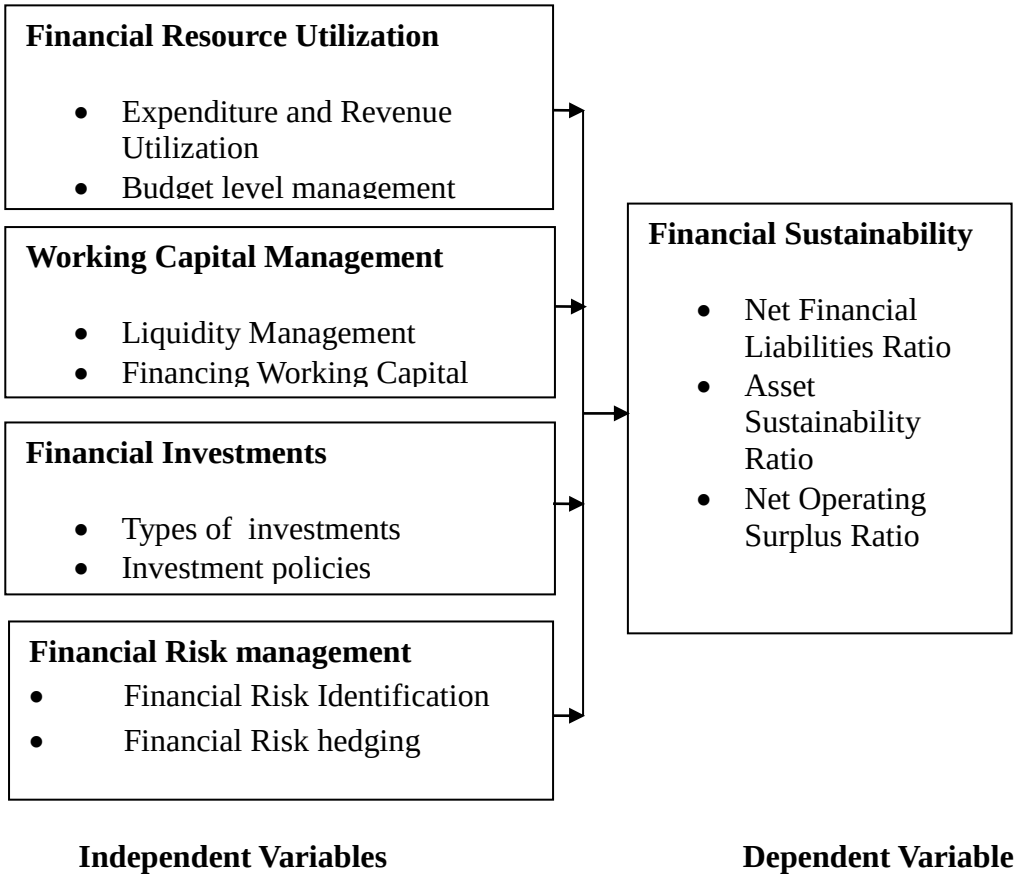

Figure 2.1: Conceptual Framework

2.3.1 Financial Resource Utilization

The financial resource utilization bring the generic issue of how this resource can be utilized efficiently for value creation and sustainability. Banker, Mashruwala and Tripathy (2014) noted that examination of the patterns in firms' allocation and utilization of resources may reveal differences in their ability to achieve sustainability in the future. Noting that firms achieve more financial sustainability when the resources that drive the process of value creation in the existing operations are efficiently utilized to create value in future periods.

Financial resource utilization are strategies initiated and adopted by organizations to help maximize the use available funds and to guarantee efficient use of all resources so as to maximize profitability enabling better customer service levels, minimize lead times, and optimize inventory levels. Several studies have analyzed Financial Resource Utilization as a determinant of financial sustainability and realized that it is affected by poor financial performance often associated with many factors that include weak links between policy making, planning and budgeting.

Research conducted indicated financial management is critical in financial resource utilization. It also enables key decision making techniques like capital budgeting, opportunity cost analysis need to be applied and principles of safety, liquidity, and profitability to be considered. Shilpa, and Rakesh (2013) investigated the necessity of effective utilization of funds and noted that the financial management involves critical management of funds that requires optimizing monetary resources to meet the unavoidable risk cover and expenses. Finance manager key responsibility is effective utilization of funds in which he has to select an investment pattern related to the use of funds.

The funds should be spent on fixed assets and then an appropriate portion will be retained for working capital. Banker *et al.* (2014) alluded that non-profit organizations must ensure that their scarce resources are utilized as efficiently as possible by coming up with a financial plan necessary to ensure that an organization utilizes its resources in a sustainable way. Financial resource utilization is influenced

by the management accounting techniques/styles of the public sector. There is growing demand for innovative accounting, non-financial performance measures, organizational strategies and behavioral considerations as a functions of the management accountant. Baldvinsdottir *et al*. (2010) noted the role of management accounting is ensure resources are increasingly expanded and diversified. In practice, it is not enough to prepare the quarterly balance sheets, register the data and do the financial reporting.

Calabrese (2013) the study running on empty, noted that the operating reserves allow non-profit organizations to smooth out imbalances between revenues and expenses, and helping to maintain program output in the presence of fiscal shocks. The findings suggested that operating reserves are reduced in the presence of concentrated public funds, access to debt, fixed assets, and endowment and significant numbers of non-profits maintain no operating reserves at all. Chikoto (2014) focused on building non-profit financial capacity looking at revenue choice and mix, testing whether revenue concentration is a viable revenue-generating strategy that can help bolster a non-profit's financial capacity. The study revealed that revenue concentration contributes to the growth of non-profit organizations.

Shuqair and Abdel-Aziz (2015) examined the efficient and strategic resource allocation for sustainable development in Jordan. The purpose for the study was to address sustainability in development activities in the country. From the study he highlight that one of the key challenges of resources allocation is skewed focus from the main project or activities. Often resources availed are diverted to the unplanned active that arise which ultimately lead to unsustainable resource allocation. The results of the study indicated that in resource allocation, the public or stakeholders should be involved in order to achieve equitable resource allocation. In addition, the author underscored the essence of prioritizing rather than hierarchy in resource allocation.

The budget allocation, control and budget information symmetry are critical in financial resource utilisation. They enable the activities and the resources to be utilised as allocated in various budget line. A more formalized budgeting planning

lead to higher sales revenues and budget goals set increased the motivation of employees to achieve budget standards. A more formalized budgetary control tends lead to a higher growth of profit of a firm because of better management control. Gakuru and Mungania (2016) examined budgetary allocation and success of public sector management in Kenya. The study aimed at determining the effects of budgetary allocation on the success of public sector management in government departments. The findings revealed that budgetary allocations were not adequate for the government departments and therefore could not use their budget strategies effectively.

There is need for better resource allocation to have the decentralization of the department activities and accountability of resource utilization of the public funds. Qi (2010) examined the impact of the budgeting process on performance in small and medium-sized firms in China. It established a positive effect of the formal budgeting process on firm's performance. A more formalized budgeting planning lead to higher sales revenues and budget goals set increased the motivation of employees to achieve budget standards. A more formalized budgetary control tends to lead to a higher growth of profit of a firm because of management control.

According to World Bank, report 2014, an emerging consensus on the role of the budget across all countries centers on how the budget affects, macroeconomic performance, allocation of resource, efficiency and effectiveness of financial resource utilization. The budget management have to take the lead in putting in place the basic policies to support all three functions of the budget - control of public resources, planning for future resource utilization and management; they should be built on institutional mechanisms that support efficiency and performance orientation from all dimensions.

Kpedor (2012) looked at the role that the budget plays in the company performance and sustainability by analyzing the budgeting, budgetary control and performance evaluation system of Allterrain Services Group in Ghana. They established that most of the key actors do not work with the budget due to lack of proper induction and proper role profile of the office they occupied which consequently affects resources

utilization. They recommended that the regional business managers have to champion the course of the budget information disseminating it downwards to the project units, so that they can appreciate and understand budget as a tool for the operation in order to enhance productivity and overall performance.

2.3.2 Working Capital Management

Working capital management is considered one of the most important areas in ensuring financial sustainability. It directly affects the company liquidity and profitability. It is a model for measuring liquidity of a company. Working capital management as a basic tool of analysis as it has effect on firm's profitability, liquidity management and profitability (Muhammad & Ullah, 2011) Management of working capital has been seen a composition of various factors. Researchers have focused on the management of working capital as inventory management, cash conversion cycle other have urged that it is the management of debt and credit.

It an area of focus for financial experts as the decisions they make that tend to maximize profitability or minimize liquidity and vice versa. Research indicated that profitability does not translate to liquidity in many cases, a company may be profitable without necessarily being liquid (Owolabi & Obida, 2012). Liquidity should be managed in order to obtain an optimal level, there is need to avoid excess liquidity which may incurs unnecessary additional cost to the firm. Liquidity level should not fall below minimum requirement as it will lead to the inability of the organization to meet short term obligation when they fall due. Entities can substantially increase profitability by effectively managing their working capital, which are accounts receivable, inventories and accounts payables.

Efficient working capital management involves excessive planning and controlling which must give a balance between current assets and current liabilities. Entities try to manage their working capital for optimum operation in order to eliminate the risk of inability to meet short term obligations on one hand and avoid excessive investment in these assets on the other hand. The achievement of these balances lies in professional management of liquidity, profitability and leverage of an

organization. Abuzayed (2012) examined the impact of working capital management on the performance of Jordan listed firms. He collected data collected from 52 firms during the period of 2000-2008. He found there is a positive relationship between Cash Conversion Cycle and firm's profitability which explains that firms with more profit tend to be less motivated to manage their working capital and the failure of market to penalize such firms with inefficient management of working capital.

There is a clear relationship between the cash conversion cycle of working capital management which envisages that the process of conversion of the cash current assets into cash, the period involved should be shorter in order to realize the liquidity levels, if the period is kept shorter the stronger the liquidity position of the organization will be. Rehn (2012) analyzed the correlation between working capital management and company profitability in an industry-wise study of Finnish and Swedish public companies, taking into account the industry in which the company operates because companies have completely different working capital requirements. The study came up with a statistically significant conclusion that working capital management affect corporate profitability. The study revealed that correlation between cash conversion cycle and profitability was clearly negative as with the net trade cycle and profitability. Almazari (2014) urged one the average time period required to convert non-cash current assets into cash; the shorter the period required the stronger the liquidity position of the business organization.

There is need therefore for the entities to manage working capital with an aims to maintain an optimal balance between all components and this will have eventual influence on financial sustainability. Bagh *et al*. (2016) examined the impact of working capital management on financial performance of 50 manufacturing firms listed in Karachi Stock Exchange (KSE) of Pakistan. They examined the effect of various components of working capital that included the inventory turnover, cash conversion cycle, average collection period, and average payment period. Nzioki *et al*. (2013) analysed effect of working capital management on profitability of the manufacturing firms in Kenya listed on the Nairobi Securities Exchange. The focus was to establish relationship between, accounts collection period, accounts payable

period, inventory turnover on days, cash conversion cycle and the gross operating profit. It was found out that gross operating profit was positively correlated with accounts collection period and accounts payable period but negatively correlated with cash conversion cycle.

Managers are key in the management of working capital they should focus on efficient management and endeavor to focus on reducing cash conversion cycle and try to collect receivables as soon as possible. This will greatly impact on the operation of the organization and therefore realizing sustainability Raheman, Afza, Qavyum and Bodla (2010) focused on the impact of working capital management on firm's performance in Pakistan. In the study used a balanced panel data of 204 manufacturing firms listed on Karachi Stock Exchange. The results indicate that the cash conversion cycle, net trade cycle and inventory turnover in days significantly affect the performance of firms. Equally, the financial leverage, sales growth and size of firm had a significant effect on the firm's profitability. The study revealed an existence of negative association between inventory turnover in days and net operating profitability implies that keeping lesser inventories increased profitability. Wasiuzzaman (2015), investigated the relationship between efficiency of working capital on firms' value to establish a long-term measure of firms' performance by considering the influence of financing constraints. He selected 192 public listed firms during the period of 1999-2008, he found that the firms' value improved by reducing the investment in working capital to improve the efficiency working capital.

Ramesh, Al-habsi and Al-sharji (2017) examined the effect of managing working capital on financial performance of manufacturing firms in Sultanate of Oman. The study looked at data for a period of 10 years collected from 19 manufacturing companies listed Oman. The study found out that debtor management, inventory management, creditor management and cash conversion cycle negatively effects on the financial performance of listed manufacturing firms in Sultanate of Oman over the 10 years period. Ng, Ye, Sang-ong and Tech (2017) investigated the impact of working capital management of listed manufacturing firms in Malaysia, to establish the relationship between working capital management and firm's profitability of

Malaysian listed manufacturing firms. Focusing on working capital management from the aspects of aggressive working capital policy and efficiency of working capital management to determine the relationships between the variables of working capital management and firm's gross operating income and found that the gross operating income is negatively related to the degree of aggressiveness of investment policies but positively related with the degree of aggressiveness of financing policies.

Polycarp and Tabitha (2016) reviewed the effect of working capital management on the profitability of manufacturing companies listed in Kenya. The study focused on the effect of creditor management, debtor management, inventory management and cash management on the financial performance of 10 listed manufacturing firms in Kenya by covering a period of 10 years and found that the relationship between creditor management and the financial performance of the firms was positive while it was negative in case of debtor management, inventory management and cash management.

Access to finances in order to support working capital has been limited, and adversely affect firms operation. Financing working capital is critical for firm's financial sustainability. In a survey on the financial and working capital management practices, Padachi, Howorth, and Narasimhan (2012) established a clear preference for using firms own savings and short-term borrowing to finance the start-up. An Entity relying internally generated funds and short-term borrowings to finance the current needs of the business experienced different degrees of difficulty in its ability to finance the working capital requirements.

Firms meet their requirements differently based on their size, their stage in the business life cycle and their trade credit variables. In orders to enhance working capital, an organization can generate its own revenues through creation of a trust or endowment fund (William, 2014). The objective of a trust fund is for an institution to derive benefits from the interest generated by the capital for better working capital management. The capital remains untouched, its value must be maintained and/or increased over time. An organization can include under indirect costs (overhead) a percentage earmarked for an endowment or trust fund. The organization must legally

establish the endowment fund, and must include this investment under its indirect costs as a matter of institutional policy.

Wamiori, Namusonge and Sakwa (2016) examine the effect of access to finance on financial performance of manufacturing firms in Kenya. The study established that access to finance had a positive influence on the financial performance of manufacturing firms. Manufacturing firms have little access to finance, which hampers their emergence and eventual growth affecting working capital. This show the dire need for financing the working capital so as to be able to reorganize activities in order to meet the strategic objective of the organization in bid to ensure sustainability.

2.3.3 Financial Investments

The financial investments involves entities engaging in activities that will guarantee increase their revenue resource base. This is key for financial suitability and becomes the subject matter. It is a mechanism used for the purpose of generating future income for an organization, which generally results in acquiring an asset. If the asset is available at a price worth investing, it is normally expected either to generate income, or to appreciate in value, so that it can be sold at a higher price in future (Adelino & Robinson, 2017).

Guided by behavioral aspect the manger pursue a differentiation strategy leads to less riskier and more stable earnings. If managers invest the resources, they may be able to achieve superiority in performance creating firm ground for financial sustainability. Managers must also be carefully determine if the gains from investments outweigh the additional risk that may effect on the different stakeholder of the firm. Empirical studies have established the link between investment and financial sustainability. Investments influences financial sustainability either directly through impacting on cash flows or by creating or leveraging marketing assets (Karvonen, 2010). Investments in market-related sub-goals including creating marketing assets.

Capital investment in research and development, innovation enhances consumer loyalty thus creating an income inflow which improves long term financial sustainability. Pereira and Roca-Sagales (2010) examined impact of public investment on private sector performance in Spain. The study looked at aggregated as well as disaggregated sector levels where they found that in the overall level, public investment crowds in private capital accumulation and stimulates private sector production. It was found that disaggregated level for public investment promoted capital accumulation thus influence financial sustainability.

Karvonen (2010) argue that marketing investments accelerate cash flows and reduce the volatility and vulnerability associated with cash flows. The influence of marketing investments on financial sustainability is an interplay between marketing actions, marketing assets and marketing capabilities. Accordingly, marketing investments influence financial sustainability either directly through impacting incoming or outgoing cash flows or through creating or leveraging marketing assets or capabilities. Investments in marketing-related sub-goals including creating marketing assets and capabilities create a financial impact through enhancing core marketing business processes and through creating competitive advantage (Karvonen, 2010).

According to Adams, Thornton and Sepehri (2012) sustainable companies actively seek out opportunities to invest in sustainability by developing and marketing diverse products and services and planning for investments. According to the 2010 McKinsey survey, over 50% of the CEOs polled said that sustainable investment enhances their firm's ability to build its corporate reputation. Capital investment in research and development innovation by focusing on disruptive technologies and management information systems enhances consumer loyalty and improve long term financial sustainability. Engaging in sustainable investment contributed positively to shareholder value in the long term since these proactive companies are much more likely to not only seek, but also find shareholder value creation opportunities in sustainability.

Foreign investment in the agricultural sector products can potentially deliver benefits of financial sustainability to host country by helping GoEs and private firms to overcome scarcities of resources such as capital, promoting entrepreneurship, enabling access to foreign markets, promoting efficient managerial techniques, technological transfer and innovation, and employment creation. Adams *et al*. (2012) noted that sustainable companies actively seek out opportunities to invest in sustainability by developing and marketing diverse products and services and planning for investments. Ogalo (2011) examined trends and issues of foreign investment in agriculture in Eastern Africa. The study established that private investment funds targeting African agriculture are interesting in the recent development but the actual investments are still very small. He notes that given the limitations of alternative sources of investment finance, foreign direct investment in developing country agriculture, could offer a significant contribution to financial sustainability in the agricultural sector.

Said, Alam, Abdullah and Zulkarnain (2017) accessed the status of current level of value creation among the Government linked companies in Malaysia. He realised that overall, the federal owned companies place more emphasis on certain elements of value creation than the state owned companies which are the elements of value creation, and the state owned companies' emphasis on the most on quality development and brand value creation, where the federal owned companies emphasized the most on reputation. They engaged in service sector emphasized the most on brand value and the government linked companies engaged in manufacturing sector emphasized the most on customer satisfaction and quality development. The recommended that government linked companies in Malaysia to improve the overall value creation, emphasizing on responsiveness, average return on investment, sales growth, profit growth and average return on sales.

Sustainable investment enhances their firm's ability to build its corporate reputation. (Ogalo, 2011). Engaging in sustainable investment contributed positively to shareholder value in the long term since these proactive companies are much more

likely to not only seek, but also find shareholder value creation opportunities in sustainability.

2.3.4 Financial Risk Management

In the recent years financial risk management has received increased attention and has become an area of focus for all the entities because of its long-term effect on entities financial sustainability. The reasons for this is that financial risks, may affect the core competency of entities firms, and influence their business operations to a large extent. Financial risk management is considered by researchers as a yard stick for determining failure or success of an Entity. In order to maximize shareholders wealth and acquire substantial business value that can be converted and used for expansion or to undertake new product development that will accelerate establish the financial sustainability of the entity (Ugirase, 2013).

Empirical Review there have been debate and controversies on the financial risk management and financial sustainability. Scholars have carried out extensive studies on this topic and produced mixed results; while some found that risk management impact positively on financial sustainability, some found negative relationship and others suggest that other factors apart from financial risk management impacts financial sustainability. Studies by (Ogilo, 2012; Nyamsogoro, 2010; McShane, Nair, & Rustambekov, 2011; Ugirase, 2013) established a correlation between financial risk management and financial sustainability.

Ogilo (2012) argue that credit risk management should be at the center of an organizations operations in order to maintain financial sustainability and reaching more clients. The magnitude and level of loss caused by the credit risk as compared to other kind of risks is severe to cause high level of loan losses and even bank failure. Nyamsogoro (2010) examined financial sustainability of rural microfinance institutions in Tanzania. The study established that Portfolio at risk (PAR) influence MFIs' financial sustainability. The portfolio at risk measures how efficient an MFI is in making collections. The higher the PAR implies low repayment rates and therefore, less financial sustainability.

Liu, Prajogo, and Oke (2016) in her study showed that proper accounts receivable risk assessment practice enhances growth of SMEs, and recommended that SMEs owners should continue in the practice of credit risk assessment practice for consistent growth especially other credit risk assessment practices. McShane *et al*. (2011) investigated whether Enterprise Resource Management leads to better firm value for banks. In this research, firm value is measured by Tobin's Q. The results show that ERM is significantly positively related to firm value thus influence financial sustainability. Ugirase (2013) established that with the exception of risk monitoring, financial sustainability and sustainability of commercial banks in Rwanda was influenced by credit risk identification, credit risk analysis and assessment and credit scoring mechanism.

Pagach and Warr, (2010) in his study measured the effect of enterprise Financial Risk Management implementation on different firm factors such as risk, financial, asset and market characteristics of the firm. They considered leverage, cash availability and profitability as financial characteristics while asset characteristics evaluates how the firm's assets are likely to be impaired in financial distress. The study found no significant relationship between the variables and concluded that ERM implementation has no influence on performance for both non-financial and financial firms.

Geessink (2012) established that ERM do not automatically help banks to survive a next financial crisis. He states that there is no clear consensus about whether the implementation of more Financial Risk Management leads to better performance. Isaac, Namusonge and Fredrick (2017) examined the effects of mortgage financing on the financial performance of commercial banks in Trans Nzoia County. The study establish that diversified interest rates among the portfolio in banking sectors hedges the banks against business risks in the operation of business as government intervening through the central bank of Kenya policy to cap the interest rates charged by the commercial banks to its client thus improving the chance of its performance and remain in operations.

Mortgage valuation cost factors such as operation cost, taxations cost, valuation cost, risks cost, insurance cost, architectural cost and interest rates on mortgage have significant effect on financial performance of the commercial banks.

Olweny, Namusonge and Onyango (2013) investigated the extent to which financial attributes affect individual investor risk tolerance at the Nairobi Securities Exchange (NSE) Kenya. Financial attributes were measured in two main aspects: individual monthly earnings income and home ownership. The study involved 500 Central Depository System (CDS) account holders at the NSE. They established that the investor risk tolerance was influenced by individual monthly earnings income. Risk tolerance increased with earnings up to very high, therefore fund managers, investment advisors and individual investors should consider the contribution of financial attributes in financial decision making.

2.3.5 Financial Sustainability

Financial sustainability enables organizations to cover their annual budgets without constraints, it is the ability of income or revenue of an organization to covers its operational costs for a sustainable future, regardless, whether these funds come from donors, subsidies or internally generated (Bowman, 2011; Christensen, Peirce, Hartman, Hoffman & Carrier, 2007; Mutinda & Ngahu, 2016). It is the ability of an entity to generate sufficient funds to sustain the costs of its activities which are not limited to product pricing, costs of funds, administrative overheads, loan transactional cost and inflation and each cost has its own significance way of being controlled in order to influence financial sustainability (William, 2014; Gibson, 2012; Nganga & Kibiti, 2016).

Financial resources have been used to address short-term goals such as meeting annual budget targets, and maintaining positive cash flow and ensuring long-term achievement of the organization goals. GoEs need to undertake performance evaluation in order to realize their potential in a bid to become financial sustainable (Bowman, 2011).

In financially sustainable businesses, long term profitability takes priority over any short term gains. Any organization to operate a financially optimally, it needs to develop long term goals that outline where the business need to stand financially in the future.

The key dimension of financial sustainability is the ability of the entity to support operation and growth that is facilitated through four pillars; strategic and financial planning, income diversification, sound administration and finance and income generation (Williams, 2014). They are factored as fundamental pillars that anchors entities to focus long-term, as they grows and takes on an increasing number of activities, should not runs the risk of focusing on day to day management issues and lose sight of long term strategic objectives. A financially sustainable organization is able to manage its operations without help from outside. Financially sustainable organization has the ability to survive in the long run by means of its own income generating activities.

Financial sustainability is achieved when a business is able to deliver products and services to the market at a price that covers their expenses and generates a profit. In financially sustainable businesses, long term profitability takes priority over any short term gains. Any organisation to operate a financially optimally, it needs to develop long term goals that outline where you want your business to stand financially in the future and conduct (Ek, 2011). Financial Sustainability is a resultant of better financial performance which is viewed as measurement of the results of a firm's policies and operations in monetary terms (Dhandapani & Ganesh, 2013). The results are reflected in the firm's return on investment, return on assets, value added. The term financial performance is also used as a general measure of a firm's overall financial health and stability measured over a period of time. They argued that a firm must try to improve Financial Sustainability by making various forms of internal reconstruction like alteration of share capital, reduction of share capital, writing off lost assets, improve the management of working capital areas like cash management, inventory management and credit management in order to

regulate the liquidity position and improve administrative and operation management which in turn was reduce the production and operating cost.

Lennon (2006) analyzed the national financial sustainability study of local government in Australia. The study conducted a financial ratio analysis using a survey of 100 councils and extrapolation from state based sustainability results. The study findings revealed that up to 10-30% of councils nationally faced sustainability challenges. The common financial issues typically facing councils with sustainability problem include minimal (or negative) revenue growth, cost growth that typically exceeded revenue growth, increasing involvement in non-core service provision, operating deficits creating a need to defer or underspend on renewal of infrastructure, particularly community infrastructure which is often repeated annually creating a backlog.

Another challenge to sustainability was limited access to strong financial and asset management skills, which are critical to identifying sustainability problems, optimizing renewals expenditure and improving revenue streams. Sontag-Padilla, Staplefoote, and Morganti (2012) carried out an extensive review of literature on financial Sustainability for nonprofit organizations. The study established that most research studies on nonprofit organizations focus on outcomes of programs rather than on organizational processes and factors influencing organizational impact, and such studies rarely adhere to the "gold standard" of research.

Establishing financial sustainability should be viewed by nonprofits as a dynamic and continual process. Creating a clear strategic plan that defines the mission and builds programs and collaborative partnerships that closely align with the mission may help nonprofits overcome the challenge of establishing sustainability in the short and long term. Financial sustainability is measured through an analysis of various indicators which include: operating surplus the difference between day to day income and expenses for the period, operating surplus ratio by what percentage does the major controllable income source vary from day to day expenses, net financial liabilities; what is owed to others less net of money you already have or is owed to the firm, net financial liabilities ratio; how significant is the net amount owed

compared with income, asset sustainability ratio are assets being replaced at the rate they are wearing out (William, 2017).

Maintaining your cash flow requirements is another crucial part of operating a financially sustainable organisation. According to Hossan and Habib (2010), the performance evaluation of a company is usually related to how well a company can use it assets, shareholder equity and liability, revenue and expenses. Various study reveal that financial ratio analysis is one of the best tools for measuring performance and evaluation of any company in order to determine how well the company has been able to utilize its assets and earn profit. Bowman (2011) established metrics for assessing financial sustainability of non-profits. The two financial ratios prescribed for assessing the organization's long -term ability to maintain or expand services are the equity ratio, calculated as equity divided by total assets and return on assets, calculated as surplus divided by total assets. The two ratios were characterized as solvency and profitability ratios. Financial sustainability is a resultant of better financial performance which is viewed as measurement of the results of a firm's policies and operations in monetary terms.

2.4 Empirical Review

The financial sustainability of GoEs plays a critical part in the ensuring that the government social economic agenda is achieved. The financial practices are likely to affect the financial sustainability therefore the study involved financial resource utilization, working capital management, financial investments and financial risk management and their influence on financial sustainability. The following were review on the determinant of financial sustainability.

An organization's long-term financial capacity is facilitated by adoption of sustained and willingness to shift toward more resource sharing and sustainable practices that gives managers ability to focus on targets needed to achieve this objective but despite the willingness without action and change the challenges on the basic survival will continue to threaten organizations.

The Government have a key distinct role of promoting both social Economic development which they endeavor to achieve and deliver this through critical sectors with entities classified as Government owned entities. Globally they GoEs account for at least twenty percent of investments, employment and around forty percent of output (World Bank, 2014).

Globally, in 2006 GoEs accounted for 20 percent of investment and 5 percent of employment. These GoEs accounted for 15 percent of gross domestic product (GDP), as measured by the valuation of sectors relative to GDP, and, in countries still undergoing the transition to a more market-based economy, they account for 20–30 percent of GDP. In Central Asia they accounted for more than 50 percent of GDP (OECD 2011). Notwithstanding these performance improvements, GoEs performance often lag behind private and other non-state firms in financial sustainability, they suffer from a number of vulnerabilities, including weak balance sheets and low capitalization, poor underlying profitability, and high nonperforming loans, increased globalization, deregulation of markets, and budgetary discipline.

Other factors identified by many scholars affecting the financial sustainability, include but not limited to, limited knowledge and overreliance on one single provider supporting the organization, leadership, lack of key financial skills, capital inadequacy limiting the ability of organizations to attain financial sustainability. Amanda (2015) looked at challenges of achieving sustainability for social service non-profit sector in the central Okanagan the study focused on external resource providers organizational and board capacity, the financial environment, public image and awareness, as well as sustainability practices relevant to the non-profit sector the findings present a challenging future for the central Okanagan social service non-profit sector. Bownman (2011) looked at the financial capacity and sustainability of ordinary non-profit making. He addressed financial issues into capacity and sustainability in two time frames, long and short. With long term emphasizes on maintaining service while short term emphasizes on resiliency. He recommends that there is need to have sustainable practice tailored to the unique needs of these organization.

Ngoe (2012) examined the actors influencing financial sustainability of youth enterprises funded under the Youth Enterprise development fund in Mombasa County. The study established that financial sustainability is affected by strategic financial planning, the administration and financial procedures and controls adopted by organizations, record keepings systems, financial reporting and reinvestment.

The study revealed that with a high reliance on a single local resource provider/ over-dependency, limited knowledge, and use of provincial and national resource providers seen an inhibiting factor to sustainability. Onsongo (2012) examined strategies adopted by non-governmental organizations to achieve financial sustainability in Kenya. The study established that non-governmental organizations achieve financial sustainability through strategic financial management, proper governance system, strategic alliances, internal financial sources, organizational structure, development funding and paradigm shift.

Nyabayo (2013) analyzed challenges facing non-governmental organizations in the attainment of financial sustainability in Busia County, Kenya. The study found out that non-governmental organizations are faced with challenges of lack of focus on the mission statement, leadership, networking in the attainment of financial sustainability. The study recommends that in order to achieve financial sustainability, the non-governmental organizations should be guided by their mission statements in fundraising activities, leaders should be transparent and accountable to various stakeholders, should have strategic alliances an take client and community participation seriously through empowerment programmes.

The issue of financing, both liquidity and capital availability plays a critical role toward an organisation becoming financial sustainable. Rao (2013) investigated the effect of funding sources on financial sustainability of Water Sector Institutions in Kenya. The study concluded that funding sources affects the financial sustainability of organizations. On the study objective, the ratio analysis revealed a strong positive relationship between internally generated funds as one funding source and financial

sustainability of water sector institutions in Kenya. He recommended that water companies should solicit for more funds from donors, increase the range of services they provide and beef-up their governance structure since financial sustainability is achieved when service and infrastructure levels and standards are delivered according to a long term plan. Wafula (2016) examined the determinants of financial sustainability of microfinance institutions in Kenya. The study focused on the influence of liquidity level, operational expense, profitability and leverage of the institution on financial sustainability of MFIs.

The study established that liquidity, capital adequacy and leverage were significantly correlated with financial sustainability of microfinance institutions in Kenya. He noted that the higher the amount of capital available for investment and spending, the more financially stable MFIs become. Higher debt to equity ratio leads to poor financial sustainability. A higher debt leads to a higher debt to equity ratio which affects the amount of available equity to be used for investment purposes. This negatively affects financial sustainability.

Developing countries' own capacity to fill that gap was limited. Commercial banks assistance was minimal therefore the share of public spending in agriculture in developing countries has fallen to around seven per cent posing a risk of unsustainability. The trade credit variables have an effect on the firms that are financially constrained. Ogalo (2011), argued that the Food and Agriculture Organization of the United Nations estimates required an additional investments of $ 83 billion annually are needed if developing country agriculture to meet their objective.

Financial sustainability of an organization being as a measure of the organization's ability to meet its financial obligations, is characterized by the way managers are able to mobilize resources for purposes of reinvesting or ensuring that the operation of the organization are met when they fall due. Research have also noted that the policies governing financing also influence a great deal. Mutinda and Ngahu (2016) sought to establish the determinants of financial sustainability of NGOs. It was established that financial resources mobilization capacity did not significantly

influence the financial sustainability in NGOs. However, internal financial control systems were found to have a positive significant influence on financial sustainability.

Karanja and Karuti (2014) examined the factors influencing financial sustainability among Non-Governmental Institutions operating in Isiolo County, Kenya. The study found out that funding in NGO's was a challenge and some government policies interfered with smooth running of NGO's. They recommended that government should put in place policies that ensures financial sustainability of the NGO's and also ensure participation of NGO's management when making policies that will affect their financial sustainability in Kenya.

Nganga and Kibati (2016) evaluated the determinants of financial sustainability in private middle level colleges in Nakuru County, Kenya with specific emphasis on the effect of capital structure and resource allocation on financial sustainability. They found that capital structure and resource allocation had significant influence on financial sustainability. The study further concluded that capital structure of private middle level colleges in Nakuru County was mainly composed of debt from lending institutions, owners' equity injection and retained profits. The resource allocation was inferred as fundamental in enhancing financial sustainability.

Wambugu and Ngugi (2012) investigated the factors influencing financial sustainability of microfinance institutions in Kenya. The study looked at the influence of factors such as Service delivery, branch network, staff training and capital adequacy. The study targeted a population of 135 lower and middle managers from Kenya Women Finance Trust (KWFT) Deposit taking microfinance. The study established that capital adequacy influenced sustainability of KWFT to a great extent. KWFT had sufficient capital to cover default in the loan portfolio and that adequate capital had given KWFT a power to apportion funds for the realization of prudential regulations, which encouraged KWFT to avail more services like allowing voluntary deposit taking.

Kimando, Kihoro and Njogu (2012) sought to establish the factors affecting financial sustainability of Microfinance institutions operating within the Murang'a Municipality. The study found that financial regulations, number of clients served, financial coverage and volume of credit transacted were the factors that highly affected the sustainability of microfinance institutions. The study established that the institutions could use the customer's savings, use the interest from the loans given to their clients and also the institutions could invest in other business to help increase their capital in order to sustain them. The main risks to financial sustainability were non-payment of loan by the customers, interest rate risk, poor management of the institutions and over-borrowing by the customers.

Ndege, Mohamed, and Rukangu (2016) analyzed management factors influencing financial sustainability of youth projects funded by youth enterprise development fund in Maara Sub-County, The study established that financial sustainability of youth projects was influenced by leadership and youth entrepreneurship training. Training enabled group members to implement their projects. Youth entrepreneurship training was essential for the implementation of youth projects, empowerment of youths to initiate personal ventures, encouragement of innovation and proper utilization of youth enterprise development fund.

Kathomi, Maina and Kariuki (2017) examined the effects of interest rate regulation and financial sustainability of microfinance institutions in Nairobi County. The study employed a cross- sectional descriptive survey research design which involved 49 microfinance institutions. The study established that changes in interest rates by the government affected financial sustainability of MFIs. Ceilings fixed by the central bank on the lending rate impact on the profitability which in turn affects sustainability of the MFIs. When the lending rate is brought to minimum the MFIs are not able to generate enough income to meet their operating expenses. They recommended that government should come up with better interest rates policies that will make MFIs more financially sustainable.

Wafula, Mutua and Musiega (2017) examined the determinants of financial sustainability of micro finance institutions in Kenya. The study involved 44

microfinance institutions registered by the Association of Microfinance Institution in Kenya. The study established that financial performance was insignificantly associated with financial sustainability and recommended that even though financial performance is insignificantly associated with financial sustainability. MFIs should seek to improve their financial performance though growth oriented strategies since increased profits lead to increased concentration which leads to sustainability.

2.5 Critique of the Existing Literature.

A critical look at the reviewed studies have reveled limitations and knowledge gaps that necessitate further research on the determinants of financial sustainability. In the evaluation of analyzed budgeting, budgetary control and performance evaluation system of All terrain Services Group Ghana, (Kpedor, 2012) established that most of the key actors do not work with the budget due to lack of proper induction and specification of roles thus reducing efficiency in Financial Resource Utilization. World Bank report in 2014 suggested poor performance is often associated with weak links between policy making, planning and budgeting.

On the other hand, Yang (2010) reports a positive effect of the formal budgeting process on firm performance but the study was limited by the use of a growth percentage for sales revenue and profit measurement. A similar absolute growth in sales revenues and/or profit can, however, result in different growth percentages for small and big firms. Another limitation to the study is the failure to fully address the impact of budgetary participation on all performance measures. Rehn (2012) in his study of correlation between working capital management and company profitability established that by prolonging the net trade cycle and the cash conversion cycle, companies in the selected industries could actually improve profitability. This, however, needed further studies to actually conclude that the working capital is increasing profitability in those industries.

Rehn, (2012) further identified limitations to the study by the fact that sample size only encompassed publically listed Companies. Non-listed companies might behave differently because of more slack corporate ownership. Also, the profitability is not

completely defined by the chosen variables and the study cannot thus rule out the possibility that some other metrics or drivers affect profitability to a much larger extent which would minimize the effect of working capital management on profitability. Azinfar and Khalili (2013) established the influence of working capital on financial sustainability by but the study was limited to listed firms thus excluding other firms and the study did not carry out independent analysis of components of working capital management such as cash management, marketable securities, receivable accounts and stock.

Karvonen, (2010) indicated how marketing investment courage impact firms' financial sustainability was limited by lack of investigation of background variables when studying the differences of financial sustainability between the firms with different marketing investment courage profiles. In the study even though some differences were found, valid conclusions of whether the differences were caused by the marketing investment courage profiles could not be drawn because of the possible effects of background variables. To validate the results, the research could compare with firms with similar background variables having different marketing investment courage profiles.

This would minimize the effect of background variables and stronger conclusions could be drawn if the results would show a similar relationship between financial sustainability and marketing investment courage profile. The studies on risks management as a determinant of financial sustainability have yielded mixed results. (Beasley et al., 2008) did not established relationship between risks management and financial sustainability after finding an insignificant negative relation between the accumulative abnormal returns and enterprise Financial Risk Management by Credit Risk Officers.

Similarly (Pagach & Warr, 2010; Geessink, 2012) did not establish significant relationship between enterprise Financial Risk Management implementation and financial sustainability for both non-financial and financial firms. On the other hand, studies by (Liebenberg & Hoyt 2011; McShane *et al*., 2011; Ugirase, 2013) concluded that financial risk management enhances firm's financial sustainability.

The fact that the results for this research are different could be because of another measure for ERM implementation was used in the previous researches. Study of financial sustainability gives mixed reactions Bownman (2011) looked at the financial capacity and sustainability of ordinary non-profit making.

The sustainability principle was key contributor to his study that gave managers short-term budget surplus targets needed to achieve this objective. The formulas are applied to national data to give a picture of the sector and establish benchmarks for normal practice but lacked the ordinary non-profits which are active public charities without endowments that are not primarily membership associations or grant makers. Calabrese (2013) in his study on running on empty realized that the Operating reserves allow non-profit organizations to smooth out imbalances between revenues and expenses, and helping to maintain program output in the presence of fiscal shocks but found that operating reserves are reduced in the presence of concentrated public funds, access to debt, fixed assets, and endowment and significant numbers of non-profits maintain no operating reserves at all. However, size was not an important predictor, indicating that the lack of reserves was not limited to small non-profit organizations but is instead a sector-wide issue.

Chikoto (2014) in his study focused on building non-profit financial capacity looking at revenue choice and mix, the study findings refuted the mythology of revenue diversification; the authors found that implementing a revenue concentration strategy generates a positive growth in one's financial capacity in particular, a growth in one's total revenue, over time. Contrary to the prevalent charges laid at the door of high administrative and fundraising efforts by some, the authors found that in order to support financial capacity growth, non-profits must make positive investments in favor of administrative and fundraising support but not in the form of high executive salaries.

Wamiori, Namusonge and Sakwa (2016) examined the effect of access to finance on financial performance of manufacturing firms in Kenya. The study established that access to finance had a positive influence on the financial performance of manufacturing firms. Manufacturing firms have little access to finance, which

hampers their emergence and eventual growth. Access to finance enables managers of manufacturing firm business to expand their businesses, provides them working capital, fosters greater firm innovation and dynamism, enhances entrepreneurship, promotes more efficient asset allocation and enhances the firm's ability to exploit growth opportunities. By improving access to credit enterprises are able increase earnings and savings as well as plan for the future. However, Wamiori *et al*. (2016) did not come up with any optimum point at which the firms should employ it and recommends further studies to establish other determinants of financial performance.

2.6 Research Gaps

The literature reviewed on determinants of Financial Sustainability has revealed various areas of knowledge/research gaps. Azinfar and Khalili (2013) suggested that due to change in factors affecting the growth opportunities such as economic, political and social conditions, the research on working capital should be subjected to further studies. The research findings by Padachi *et al*. (2012) lend limited support to the literature driven hypothesis that the older firms tend to have a large fixed asset base that could be used as security to support their demand for financing. Padachi *et al*. (2012) recommends that financial institutions and policy makers should come out with new financial instruments that are designed exclusively for funding the working capital needs of firms and further study to better understand the financial management practices of small firms.

Despite drawing up a statistically significant conclusion that working capital management affect corporate profitability, Rehn (2012) indicated that the relationship would need further studies to actually conclude that the working capital is increasing profitability of firms. Besides, the performance measures used by (Karvonen, 2010) were related to a short time-period previous year vs. current year, while the financial effect of investments can usually only be seen after some time has passed and the effects are usually of long-term nature. Using performance measures that capture the financial impact in a longer time-frame is advised for future research.

In their study, Ramesh *et al*. (2017) focused on the effect of working capital management on profitability recommended future research to be done by including more firms in the sample size and instead of ROA, other financial performance ratios for example ROCE, Net Profit could be taken as dependent variable to analyze the effect in different profitability elements. The studies on risks management as a determinant of financial sustainability have yielded mixed results with some studies (Liebenberg & Hoyt, 2011; McShane *et al*., 2011; Ugirase, 2013) concluding that risks management influence performance while other studies (Beasley *et al*., 2008; Pagach & Warr, 2010; Geessink, 2012) indicate that Financial Risk Management has no effect on financial sustainability.

Liu, Prajogo, and Oke (2016) in her study showed that proper accounts receivable risk assessment practice enhances growth of SMEs, and recommended that SMEs owners should continue in the practice of credit risk assessment practice for consistent growth especially other credit risk assessment practices that are not outlined in this study. Also the Government should increase funding to facilitate workshops and training of SMEs owners. Therefore, it still remains an unsolved issue whether Financial Risk Management actually leads to better performance. Review of empirical studies on financial sustainability in Kenya revealed several limitations that call for further studies. Ngoe (2012) recommended further research to identify other factors that influence financial sustainability of youth enterprises and a similar study in other counties in Kenya.

Rao (2013) did not provide enough evidence that can be used to make universal arguments concerning the effect of funding sources on financial sustainability. It was not possible to tell whether the results are simply due to the nature and quality of data used or whether it is the true picture of the situation. The use of the data from the various sources such as the Ministry of Finance and Ministry of Water was based on the assumption that the data is accurately captured and maintained.

Onsongo (2012) recommended further quantitative research on strategies adopted for financial sustainability in Kenya. Mutinda and Ngahu (2016) recommended that

the NGOs policy makers should come up with elaborate internal control systems. This would enhance the monitoring of NGOs activities and financial transactions there is also need that the organization should enhance their financial resources mobilization strategies to enhance their financial sustainability. Calabrese (2013) in his study on running on empty realized that the Operating reserves allow non-profit organizations to smooth out imbalances between revenues and expenses, and helping to maintain program output in the presence of fiscal shocks, The study recommended the need for further research to establish if size as a predictor, indicating that the lack of reserves is not limited to small non-profit organizations but is instead a sector-wide issue.

Bownman (2011) in his study financial capacity and sustainability of ordinary nonprofit making. Stated the study lacked the Ordinary non-profits which are active public charities without endowments that are not primarily membership associations or grant makers emphasizing need for further research. Wamiori *et al*. (2016) found out that access to finance improved manufacturing firm performance. However the study did not come up with any optimum point at which the firms should employ it. A weak manufacturing sector may affect the investors, consumers and government negatively through poor performance therefore study recommends further studies to establish other determinants of financial performance.

Amanda (2015) in the study sustainability of Non-profit organizations recommends further research is necessary to better explore the rich learning that non-profit organizations and their leadership can offer. Nganga and Kibati (2016) evaluated the determinants of financial sustainability in private middle level colleges in Nakuru County, Kenya with specific emphasis on the effect of capital structure and resource allocation on financial sustainability. The study further recommended that these colleges to look into various cost effective and sustainable ways of financing their operations. The studies reviewed little had been done to exhaustively study the determinants of financial sustainability, specifically on the Government Owned Entities in Kenya. This study sought to bridge the research gap by examining determinants of financial sustainability of the Government Owned Entities in Kenya.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter focused on the methodology that was used in operationalization of this research project. It involved the collection, measurement and analysis of research data. The chapter identified the procedures and techniques that were used. The subsections presented the research design, the target population, sampling frame and sample size, data collection methods, analysis and presentation.

3.2 Research Design

This study adopted a mixed research design where both quantitative and qualitative approaches were used to determinants of financial sustainability based on Kothari and Garg (2014) that a research design is the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose. Creswell (2014) indicated that each type of data collection has both limitations and strengths that can be combined to develop a stronger understanding of the research problem or questions (and, as well, overcome the limitations of each). The blending of data provides a stronger understanding of the problem or question than either by itself.

The design was appropriate in this study because the research questions were descriptive in nature and specifically it unraveled the relationship between independent variable and dependent variable. The study investigated the effect of financial resource utilization, working capital management, financial investment and risk management as the independent variables on financial sustainability as dependent variable of GoE's in Kenya. Other researcher who have used the same type of study research design include Omar, Namusonge and Sakwa (2017) adopted a mixed research design to determine the influence of financial management practices and growth of family firms (Kithinji, Gakuu & Kidombo, 2017) on the study assuming a mixed mode approach to describe and understand resource

allocation in M&E experience, ideas, practices and the values of the practice in utilization of M&E result.

3.3 Target Population

Target population describes all members of a population with common traits. Based on the recommendations of Frankfort & Nachmias (2012) and Kothari & Garg (2014) in defining the unit of analysis in any study and describing target population as total items about which information is desired. The study target the GoEs under the MOALF to ensure uniformity and homogeneity of the target population. The study targeted population were 40 Government owned Entities in Kenya under the Ministry of Agriculture Livestock and Fisheries (MOALF). According to the task force report on parastatals reform of 2013 GoEs were into different categories as indicated. The study targeted 5 senior managers' level staff in the GoEs in the ministry.

Table 3.1: Classification of the Target population

Types of GoEs	GoEs In the MOALF
Commercial state Corporations	10
State Corporations with Strategic Functions	4
Executive Agencies	5
Independent Regulatory Agencies	4
Research/Training Institutions	17
Total	40

Source: GoK 2013

3.4 Sampling Frame

This is usually seen as a set of source of material where the sample is selected in order to provide meaning for choosing a particular target population in the research. Therefore study frame consisted of all government owned entities in the Ministry and

selected 5 key respondents each entities who were in the senior level managers. The ministry listed the 40 Government owned Entities after the reforms (Gok, 2013). The study was restricted to senior level managers of all the GoEs in MOALF.

3.5 Sample Size and Sampling Technique

A sample of a subject is taken from the total population to make inference about the population because it is time consuming and expensive to collect data about every individual institutions in the population. The size of the study sample is always critical in producing meaningful results. A sample is a representative subset of the study population based on (Kothari, 2013). The sample size obtained was adequate and yielded desired precision. The sample size is derived from the target population was derived using Slovin's formula.

A sample population of 36 entities derived from the Solvin Formula (Solvin,1960)**:**

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

Where: n = sample size

N = population size

e = margin of error

$$n = \frac{40}{1+40x0.05^2}$$

$$= 40/1.1$$

$$= 36$$

Using the above formula a study sample of 36 GoEs were derived.

Table 3.2: Sample composition

Types of GoEs	GoEs In the MOALF	Percent population	sample size
Commercial state Corporations	10	25	9
State Corporations with Strategic Functions	4	10	4
Executive Agencies	5	12.5	5
Independent Regulatory Agencies	4	10	4
Research/Training Institutions	17	42.5	15
Total	**40**	**100**	**36**

Both stratified sampling and purposive sampling methods were deployed. Stratified sampling method was used to divide the population into distinct, independent strata that enabled the researcher to draw inferences about specific subgroups that may be lost in a more generalized random sample thus lead to more efficient statistical estimates (Creswell, 2013). Purposive sampling provides researchers with the justification to make generalizations from the sample that is being studied, whether such generalizations are theoretical, analytic and/or logical in nature (Kothari, 2013).

In sample composition under the category on Research/ Training institution it included some entities that were decomposed and treated as independent entities for the purpose of the study characteristics relevant to the study. In every GoEs, the researcher targeted, the Operations Manager, Senior Administrator, Finance Officer, Risk Manager and the Internal Auditor. The main reason for choosing these top officers was that they have clear understanding of the entities operations and are involved in decision making processes of the entities giving a wide scope of understanding. Further their responses were used in ascertaining the truthfulness and fairness of the general quality of the entities financial statements.

In the 36 GoEs, five (5) questionnaires were distributed to each therefore totaling to 180 the number of questionnaires administered in this study. Five questionnaires

were sufficient to capture information about the determinants of financial Sustainability of Government owned entities of different departments in the entities.

3.6 Research Instruments and Data Collection Methods

Based on pragmatism which allows use of various tools in data collection, the study used questionnaire and review financial statement to collect data. The instruments used in the study to collect data were semi-structured questionnaires. These instruments were used because they can gather large amount of data and information faster than any other method, as observed by Mugenda and Mugenda (2003). Questionnaires are suitable instruments for collecting data and are also easy to construct. The mixing rational of this study at instruments level was guided by two factors; instrument validity; aiming at maximizing the appropriateness and/or utility of the instruments used in the study and significance enhancement to maximize researchers' interpretations of data. The questionnaire was the main tool.

Prior to the actual utilization of the survey instrument, a series of consultation was made to finalize the questionnaire. The questions were designed in such a way as to elicit answers to all pertinent issues in order to provide solution to the research problem. The data was collected based on the significance of determining of financial suitability and the questionnaires were prepared based on the determinant of financial sustainability.

The questionnaire were used to collect both independent and dependent variables and any information not expressly presented by the financial statements. The instrument contained questions that facilitated collection of data relative to objectives of the study. Regarding the study objectives (or variables) the questions were on a five-point Likert scale and also opened ended questions to elicit more answers and generate qualitative data. The study used both primary and secondary sources of data.

3.6.1 Primary Data

The main instruments of primary data collection for this study were questionnaires. Semi- structured questionnaires were most appropriate for their ability to be easily

administered, completed and analysed (Creswell, 2014). Primary data was collected using semi structured questionnaires. These questionnaires comprised of both open ended and closed-ended questions. The open-ended questions generated qualitative data while closed ended questions generated the quantitative data. The study used Likert Scale.

3.6.2 Secondary Data

Secondary data is data collected by someone other than the user. Secondary data collection and analysis saves time that would otherwise be spent collecting data and, particularly in the case of quantitative data, provides larger and higher-quality databases that would be unfeasible for any individual researcher to collect on their own (Kothari, 2013). This wealth of background work means that secondary data generally have a pre-established degree of validity and reliability which need not be re-examined by the researcher who is re-using such data.

For this study the secondary data was collected using data collection sheet. The data was obtained from desk review of published information on financial statements for GoEs MOALF in particular and in general. It was collected from GoEs financial records and general information was collected from documents in the libraries, relevant research and seminar papers, annual reports, statistical abstracts, journals and financial statements.

3.7 Data Collection Procedure

The process of implementing the survey involved a number of separate activities. These included hiring and training enumerators, pilot testing and administering the questionnaire. The researcher obtained an introduction letter from the University which was used to aid authority of the data collection. This letter was presented to the Principal Secretary in the MOALF and he gave the researcher letters to present to Chief Executive Officer (CEO) of each entity in order to allow authority for data collection. The drop and pick method was used to administer the questionnaires.

3.8 Pilot Study

A pilot study was conducted to determine reliability and validity tests of the questionnaire. The pilot study was done through random sampling. Questionnaires were administered to senior level manager of the 4 selected GoEs. The purpose of pilot testing was to establish the accuracy and appropriateness of the data collection instruments. The four selected GoEs formed 10% of the target sample. The pilot test sample was within the recommended range as the rule of the thumb suggests that 5% to 10% of the target sample should constitute the pilot test (Gall & Borgh, 2007).

3.8.1 Validity Test

Validity is the extent to which a test measures what we actually wish to measure. Test Validity shows the extent to which a hypothesis is measured accurately what it intends to measure (Sekaran, 2010). Validity test is used to measure whether the questions in the questionnaire consist of valid questions that are related to the research question as determined by the indicator. It also shows whether the questionnaire is using the right instrument, in order to make sure that the results obtained from the questionnaire are valid. It is based on the adequacy with which the items in an instrument measure the attributes of the study. The study used both face and content validity to ascertain the validity of the questionnaires. Content validity is concerned with population representativeness (Gillham, 2008). The questionnaire were validated by discussing it with four randomly selected senior managers of the four selected GoEs. Further with the help of the supervisor their views were evaluated and incorporated to enhance content and face validity of the questionnaire.

3.8.2 Reliability Test

Reliability is a term used to indicate the extent to which measurement results are relatively consistent if the measurement is repeated twice or more (Sekaran, 2010). Reliability is the degree of consistency in measure (Bell, 2010). This means the extent to which the research instrument can produce similar result in different

occasions when put in the same similar condition. Scale reliability was used, which is the extent to which any measuring procedure yields the same results on repeated trials. It is done by comparing the value of the Coefficient Cronbach's Alpha with the value 0.7.

If the Coefficient Cronbach's Alpha> 0.7, it means that the measurement result is reliable. Reliability of the questionnaire was evaluated by determining the Cronbach Alpha of the results from the pilot study. Cronbach's alpha is used to measure internal consistency of the data collected through the questionnaires (Cronbach, 1951). Cronbach's alpha (α) ≥ 0.9 indicate excellent internal consistency, $0.7 \leq \alpha < 0.9$ good internal consistency, $0.6 \leq \alpha < 0.7$ acceptable excellent internal consistency, $0.5 \leq \alpha < 0.6$ poor excellent internal consistency and $\alpha < 0.5$ unacceptable excellent internal consistency.

3.9 Data Processing, Analysis and Presentation

The data once collected it was read and scrutinised so as to reveal their structure, meaningful configuration, coherence and their circumstances and clustering of the data collected. All questionnaires received were referenced and coded for facilitating data entry. Descriptive statistics for instance mean and standard deviation was estimated for quantitative variables. This enabled the researcher to meaningfully describe the distribution of measurement using few indices (Mugenda & Mugenda, 2003). The qualitatively and quantitatively data were analysed using packages such as SPSS version 20 and spread sheet.

3.9.1 Qualitative Data

Qualitative data from open-ended questions was analysed using conceptual content analysis. The data collected in this study were organized and classified based from the research design and the problems formulated. The data were coded, tallied and tabulated to facilitate the presentation and interpretation of results using the following: The percentage and frequency distributions were used to classify the respondents and presented the actual response of the respondents to a specific

question or item in the questionnaires. The percentage of that item is computed by dividing it with the sample total number of respondents who participated in the survey.The formula used in the application of the technique is: $\% = (f/n) \times 100$

Where: $\%$ = percentage

f = frequency

n= number of cases or total sample

Ranking was the descriptive measure to describe numerical data in addition to percentage. Ranking was used in the study for comparative purposes and for sharing the importance of items analyzed. Another statistical technique used by the researcher was the weighted mean. It was used to determine the average responses of the different options provided in the various parts of the questionnaire used. This method is used in conjunction with the Likert Scale. It was solved by the formula: $X = \frac{\sum fx}{N}$

Where: X = the weighted arithmetic mean

$\sum fx$ = The sum of all the products of f and x

f = The frequency of each weight

x = The scale value of each

3.9.2 Quantitative Data

Quantitative data was then entered into the computer system for quantitative analysis done using Statistical Package for Social sciences (SPSS) computer software version 20. SPSS is a complete statistical package for data analysis. Descriptive statistics were generated and Multiple regression analysis was used to establish the relationship independent and dependent variables, while Pearson's correlation analysis was used to establish the relationship and strength between these variables.

Analysis of variance (ANOVA) was used to test the significance of model. The hypothesis was tested using t-test at 95% confidence level. The analysis of data on the dependent variable was done using the ratio analysis.

3.9.3 Data Presentation

The study presented the data which was generated from both qualitatively and quantitatively analysis, using commercial packages SPSS. Data was presented using statistical diagrams and tables.

3.10 Model Specification

Multiple linear regression model was used to describe the relationship between the dependent variable and the multiple independent variables. The multivariate regression model assumed the following form:

$$Y_{fs} = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$$

$$Y_{fs} = \beta_0 + \beta_1 FRU + \beta_2 MWC + \beta_3 FI + \beta_4 FRM + \varepsilon$$

Where:

Y_{fs} =financial Sustainability,

FRU-Financial Resource Utilization,

MWC-Managing Working Capital,

FI-Financial Investment

FRM- Financial Risk Management

$\beta_0, \beta_1, \beta_2, \beta_3 \beta_4$ are the regression coefficient.

The coefficient of determination R^2 was used to test the goodness of the regression model. It gives the percentage of the variations in the dependent variable that is explained or accounted for by the regression model. If the percentage is high the model is good. On the other hand, low percentages signify a poor model. The Dependent Variable, financial Sustainability (fs) was be measured in terms of sustainability ratios, which were Net Financial Liabilities Ratio (NFLR), Asset Sustainability Ratio (ASR), Net Operating Surplus Ratio (NET OSR).

3.11 Diagnostic Tests

Prior to conducting a multiple linear regression model for the purpose of hypothesis testing, several diagnostic tests were tested. These are tests to determine whether the assumptions of linear regression are first met. Violation of this assumption, especially when the violation is highly marked, causes the result to be inaccurate. In conducting linear regression, it is assumed that the variables are linearly related, normally distributed, no multicollinearity, no auto-correlation and homoscedasticity.

3.11.1 Normality Test

In this study the statistical test adopted the Kolmogorov-Smirnov Test and the Shapiro-Wilk Test (Suliyanto, 2011). Statistical tests have the advantage of making an objective judgment of normality, but are disadvantaged by sometimes not being sensitive enough at low sample sizes or overly sensitive to large sample sizes (Ghasemi & Zahediasl, 2012). The Shapiro-Wilk Test was more appropriate for small sample sizes (< 50 samples), even though it can equally handle sample sizes as large as 2000. For this reason, the Shapiro-Wilk test was used as the numerical means of assessing normality. If the p-values is significant, then the data deviates significantly and as such the normality assumption is violated, otherwise the data is does not significantly deviate from normal.

3.11.2 Linearity Test

The study adopted the scatter diagram to test linearity. Linear regression is performed under the assumption that the relationship between the independent and dependent

variables is linear. The linearity assumption tested by scrutinizing a scatter plot. From a scatter plot, outliers were identified and the source of the outlier investigated if it is a legitimate observation or an error in entry. If it was due to error it was removed. If it was legitimate observation, it was retained. Also the scatter plot revealed the nature of correlation between the independent variables and dependent variable.

3.11.3 Heteroscedasticity Test

In this study the researcher used in Glesjser test to test the presence of Heteroscedasticity. Heteroscedasticity describes the case where the variance of errors or the model is not the same for all observations, while often one of the basic assumptions in modeling is that the variances are homogeneous and that the errors of the model are identically distributed across all observations. The presence of no constant variance results in inefficient and unstable regression model that could yield bizarre predictions (Harrell, 2015).

The presence of heteroscedasticity can be detected by scrutinizing the visual inspection of residuals plotted against fitted values or using statistical tests like Glesjser (Harrell, 2015). In Glesjser test, the p-value was checked to make decision. If a P value is greater than significant level (.05 in this case), then there is no heteroscedasticity problem. A P-value less than significant level suggested that heteroscedasticity problem. Fortunately, unless heteroscedasticity is "marked," significance tests are virtually unaffected, and thus OLS estimation can be used without concern of serious distortion (Harrell, 2015).

3.11.4 Multicollinearity Test

Multicollinearity test is a type of disturbance in the data that cause a state of very high inter-correlation (>0.7) among the independent variables (Guajarati & Sangeetha, 2007). It inflates the standard errors, as such, the confidence intervals of the coefficients tend to become very wide and the statistics tend to be very small. It becomes difficult to reject the null hypothesis of any study when multicollinearity is present in the data under study.

In this study to test multicollinearity was done by scrutinizing the correlation between independent variables. If it is greater than 0.7, multicollinearity problem is suspected and therefore required to be confirmed using variance inflation factor (VIF). In the case VIF was 10 and above, then multicollinearity confirmed, if less then no presence of multicollinearity according to (DeFusco & Mcleavey, 2015). To correct the problem of multicollinearity when detected, then one of the two variables that are highly correlated should be dropped from further analysis (Yu, Jiang & Land, 2015).

3.12. Hypotheses Testing

The study was based on the assumption that no other external factors influence the financial sustainability except the variables under the study. Linear regression analysis was used to test hypothesis at 95% level of confidence (level of significance, $\alpha = 0.05$), guided by the conceptual framework. To test the hypotheses of the study, the p-value guided to make a decision either to reject or accept the hypothesis. When the p-value is ≤ 0.05 reject the null hypothesis otherwise fail to reject it.

Table 3.3: Study Hypotheses and Analytical Models

Hypotheses	Statistical test	Model & anticipated results
***H_{01}*: Resource** utilization does not significantly influence financial sustainability of Government Owned Entities in Kenya.	$H_{01:}\beta_1 = 0$ ANOVA -To test the overall Robust of simple regression Pearson correlation to test the partial correlation between the variables	$Y_{fs} = \beta_0 + \beta_1 X_1 + e$ To reject Ho when the P-value is ≤ 0.05 otherwise fail to reject when p-value is >0.05
***H_{02}*:** Working Capital management does not significantly influence financial sustainability of Government Owned Entities in Kenya.	$H_{02:}\beta_2 = 0$ ANOVA -To test the overall Robust of simple regression Pearson correlation to test the partial correlation between the variables	$Y_{fs} = \beta_0 + \beta_2 X_2 + e$ To reject H0 when the P-value is ≤ 0.05 otherwise fail to reject when p-value is >0.05.
***H_{03}*:** Financial investments do not significantly influence financial sustainability of Government Owned Entities in Kenya	$H_{03:}\beta_3 = 0$ ANOVA-To test the overall Robust of simple regression Pearson correlation to test the partial correlation between the variables	$Y = \beta_0 + \beta_3 X_3 + e$ To reject when the P-value is ≤ 0.05 otherwise fail to reject when p-value is >0.05
***H_{04}*:** Financial risk management has no effect on financial sustainability of Government Owned Entities in Kenya.	$H_{04}\beta_4 = 0$ ANOVA -To test the overall Robust of simple regression Pearson correlation to test the partial correlation between the variables.	$Y_{fs} = \beta_0 + \beta_4 X_4 + e$ reject Ho if P≤ 0.05 otherwise fail to reject when p-value is >0.05

All hypotheses were tested at 95 per cent confidence level

3.13 Variable Definition and Measurement

The study used a 5-point scale for the questionnaires and a Likert scale as an assessment for item analysis the determinants of financial sustainability of government owned entities. According to Patton (2002), as cited by Omar et al. (2017), the Likert scale was easy to use for the respondent studies

Table 3.4 Variable Definition and Measurement

Variable definition	Variable indicator	Measurement
Financial Resource Utilization	Expenditure and Revenue Utilization Budget level management	5-point Likert Scale In the scale of 1-5 used, 5 was the highest scale
Working Capital Management	Liquidity levels Management Financing Working Management	5-point Likert Scale In the scale of 1-5 used, 5 was the highest
Financial Investments	Types of investments Investment policies	In the scale of 1-5 used, 5 was the highest scale
Financial Risk management	Financial Risk Identification Management Financial Risk Transfer and hedging	5-point Likert Scale In the scale of 1-5 used, 5 was the highest scale of the ownership of the firm
Financial sustainability	Sustainability	5-point Likert Scale In the scale of 1-5 used, 5 was the highest scale
	Operating Surplus Ratio	Total operating surplus divided by operating revenue
	Working Capital Ratio	Current assets divided by current Liabilities
	Net Financial Liabilities Ratio	Total liabilities less current assets divided by operating revenue
	Asset Sustainability Ratio	Capital expenditure on replacement assets divided by depreciation expense

CHAPTER FOUR

RESEARCH FINDINGS AND DISCUSSION

4.1 Introduction

This chapter describes and represents the empirical findings and results of the variables using techniques mentioned in Research methodology. The determinant of financial sustainability of Government Owned Entities in Kenya. The data collected in this study was evaluated, discussed and inferences made, in an effort to address the specific objectives of the study. Descriptive and inferential statistics were used to analyze the data on each variable. Data was presented in the form of frequency distribution tables to facilitate description and explanation of the findings.

The inferential statistical analysis was conducted for the purposes of testing and determining the relationship between independent which were financial resource utilization, working capital management, financial investments and financial risk management and the dependent variables; financial sustainability. The researcher tested reliability and regression model results were provided. Hypotheses were tested for all the independent variables and presented.

4.2 Response Rate

Out of the 36 GoEs, 27 GoEs responded and filled and returned the questionnaires. Giving a responses rate of 75%. From the targeted 180 questionnaires only 135 were filled and returned. This response rate was adequate representative of the target population, thus allowing generalization of the findings. Creswell, (2013) states that a response rate of 50% is adequate for analysis and reporting; a 60% response is rated as good, while a response rate of 70% and above is rated as excellent. The high response was attributed to the data collection procedures, where the researcher pre-notified the potential participants through a formal letter from the Personal Secretary of each State department in the Ministry of Agriculture, Livestock and Fisheries, to the relevant Chief Executive Officers of each GoEs. The researcher utilized a self-administered questionnaire where the respondents completed and immediately after,

the questionnaires were picked and in case of queries in the questionnaires follow up calls were also made for clarity.

4.3 Reliability Results

In this section, the reliability and validity tests were done as indicated.

4.3.1 Reliability Results

The reliability of an instrument refers to its ability to produce consistent and stable measurements. The most common reliability coefficient is the Cronbach's alpha, which is a measure of internal consistency, that is, how closely related a set of items are as a group. A "high" value of alpha is often used (along with substantive arguments and possibly other statistical measures) as evidence that the items measure an underlying (or latent) construct. Cronbach's alpha score takes values between 0 – 1, where 0 is the weakest and 1 the strongest (Sekeran, 2010). Therefore, in this study, to ensure the reliability of the instrument Cronbach's alpha was adopted as the reliability test of choice. The findings are shown in Table 4.1

Table 4.1: Cronbach's Reliability Statistics

Variable	Alpha	Decision
Financial Resource Utilization	.714	Accept
Working Capital Management	.910	Accept
Financial investments	.704	Accept
Financial Risk Management	.937	Accept
Financial sustainability	.793	Accept

Cronbach's alpha was used to measure reliability of the data of the data collected for internal consistency. The Cronbach's alpha (α) for the study variables were as follows: Financial Resource Utilization (α=0.714), Working Capital Management (α=0.910), Financial investments (α=0.704) and Financial Risk Management (α=0.937). The reliability statistics indicated good internal consistency of the data (Cronbach's Alpha between $0.7 \leq \alpha < 0.9$ indicate a good internal consistency).

Cronbach's Alpha is an important concept in the evaluation of assessments and questionnaires. It is mandatory that assessors and researchers should estimate this quantity to add validity and accuracy to the interpretation of their data (Tavakol & Dennick, 2011).

4.3.2 Validity Results

Validity test is used to measure whether the questions in the questionnaire consist of valid questions that are related to the research question as determined by the indicator. It also shows whether the questionnaire is using the right instrument, in order to make sure that the results obtained from the questionnaire are valid (Sekaran, 2010). The study used both face and content validity to ascertain the validity of the questionnaires. Content validity is concerned with population representativeness. It is a non-statistical type of validity that involves the systematic examination of the test content to determine whether it covers a representative sample of the behavior domain to be measured. The questionnaire were validated by discussing it with four randomly selected senior managers of the four selected GoEs. Further with the help of the supervisor their views were evaluated and incorporated to enhance content and face validity of the questionnaire.

4.4 Financial Resource Utilization

The first objective of the study was to evaluate the effect of financial resource utilization on financial sustainability of GOEs in Kenya. The respondents were asked to indicate their agreement with the questions on Financial Resource Utilization shown in Table 4.2.

Table 4.2: Responses on Financial Resource Utilization

Statement on resources Utilization	Yes	No%
1. Does your organization generate other resources besides what the Government provide?	84.3	15.7
2. Are these resources incorporated within the budget?	100	0.0
3. Does the organization prepare its own budget line projection?	100	0.0
4. Are the budget allocations approved by the Ministry according to expenditure line?	94.8	5.2
5. Are the revenue and expenditure tracked within the budget?	85.8	14.2

In table 4.2, majority (84.3%) of the entities generated other resources besides what the Government provided. The findings indicate that all (100%) the institutions that generated other resources incorporate them in the budget. All the respondents (100%) indicated that their entities prepared their own budget line projection and 94.8% of the respondents indicated the budget allocation was approved by the Ministry according to expenditure line. Majority (85.8%) of the respondents stated that revenue and expenditure were tracked within the budget.

The respondents stated that approvals are done before any expenditure and the budgetary process is guided by PFM Act of 2012. The finance department is charged with the responsibility of ensuring that the GoEs meet entities targets within the available funds. The entities policies are formulated and operationalized in the confines of the available resources. Nevertheless, some respondents stated that the fact that GoEs in the ministry depend on government funds was a limitation to the achievement of greater levels of financial sustainability, this revelation was in line with (Amanda, 2015) who urged that GoEs are affected for relying on one resource financial provider limiting them from achieving their goal.

The respondents were requested to rate the efficiency in management of revenue and expenditure in their institutions. Table 4.3 shows the findings of the study.

Table 4.3: The efficiency in management of revenue and expenditure

Levels of efficiency	**Percent**
Less efficient	3.8
Moderately efficient	59.6
Efficient	28.8
Very efficient	7.8
Total	**100.00**

From table 4.3, majority (59.6%) of the respondents stated that their entities were moderately efficient in management of revenue and expenditure. This is an indication of lapse in tight enforcement regulation and policies by management.

The respondents were also requested to indicate their level of agreement with the statements regarding Financial Resource Utilization in the entities. The response was rated on a scale of five units whereby 1=strongly disagree, 2= disagree, 3=moderately agree 4= agree, and 5=strongly agree. Mean and standard deviations were calculated as shown in Table 4.4.

Table 4.4: Descriptive finding on Financial Resource Utilization

Opinion Statements on Financial Resource Utilization	Mean	Std. D.
1. The institutions' adheres to the set budget guidelines by the ministry	4.32	0.894
2. The institution has mechanism to prevent wastage of resources	4.29	0.906
3. The Institutions set expenditure to key priority areas	4.20	0.839
4. The Institutions' links its policies and strategies to budgeting processing	4.14	1.107
5. The institution effectively forecasts for the availability of funds	4.08	1.125
6. The Institutions' has efficient debt management policy	3.97	1.128
7. The institution effectively determine funds for activities needed	3.92	1.265
8. The institution has mechanisms for cash pooling to optimize the use available resources	3.90	1.338
9. The institution acquires loans to enhance resources base.	3.85	1.346
10. The institutions invests in fixed assets to raise resources	3.81	1.350
11. The institution link with the ministry assist in matching expenditure and revenue	3.77	1.353
12. The institution seek the ministry assistance to access loans from commercial banks	3.50	1.518

The Table 4.4 displays the mean and standard deviation values of financial sustainability initiatives in Government owned enterprises. These statements were posed in the positive. The mean values and standard deviations displayed denote that the majority of the mean scores are close to 4 (agree) and 3 moderately agree. This implies that respondents agreed to the financial resource utilization initiatives. The findings imply that financial sustainability initiatives were in place according to the respondents. The most popular initiative was adherence to budget guidelines by the Ministry (M=4.32, SD=0.894) and the mechanism to prevent resource wastage

(*M*=4.29, 0.906). However least popular initiative was relying on the ministry to assist the institutions to access loans from commercial bank accounts (*M*=3.50, SD=1.518).

Further, respondents were asked to indicate how often the institutions filed returns to the Ministry. Table 4.5 shows the findings of the study.

Table 4.5: The frequency of filing returns to the Ministry

Interval	**Frequency**
Yearly	50.0
Quarterly	39.5
Monthly	10.5
Total	**100.0**

The findings in table 4.5shows that majority (50.0%) of the returns was filed annually and quarterly returns (39.5%) intervals and there are few monthly returns (10.5%). This means that there is agreed period of filling return. So majority file returns at the end of the year. This posed challenges of not being able to monitor nonperformance and measure taken quickly.

The findings in table 4.6 show the extent to which the Institutions achieved financial sustainability through efficient Financial Resource Utilization.

Table 4.6: The extent of financial resource utilization

	Percent
No extent at all	0
Little Extent	11.8
Moderate Extent	61.8
Great Extent	23.7
Very great Extent	2.7
Total	**100**

Majority (61.8%) of the respondents indicated that efficient Financial Resource Utilization had moderately contributed to financial sustainability of the institutions, but 23.7% indicated that it greatly contributes to financial sustainability characterized by efficient resource management as supported by data shown in table 4.3 on resource management at 28.8% rating. From the finding knowing how to manage resources is as essential to achieving financial sustainability as knowing how to generate income.

The respondent were also asked to indicate ways of improving financial sustainability through resource utilization. Efficient procedures for administration and finances should be governed by a series of institutional policies that would help GoEs efficiently utilize available resources and ensure transparency in fiscal management and be able to make appropriate decisions on Financial Resource Utilization in a timely manner. The findings are in tandem with William (2014) stated that the knowledge on management of resources is essential to achieving financial sustainability by non-profit organizations noting that organizations must ensure that their scarce resources are utilized as efficiently as possible.

Efficient Financial Resource Utilization strategies aimed at improving financial sustainability of GoEs is achievable through accounting procedures that fit the institutional needs. Similarly (William, 2014) argued that the ultimate purpose of the financial plan is to determine if the organization is going to have sufficient resources available in the medium term to meet the objectives described in the strategic plan for financial stability. Prudent financial procedures ensure strategic management of resources and maximization of financial potential.

Financial Resource Utilization of some GoEs is enhanced through activity oriented budget where resources are available to specific set of activities. The budget is prepared at the institutional level and sent to government for approval. The key activities are tracked and budget is prepared to match activity throughout the year. This helps in better resource utilization which is echoed by (Qi, 2010) that budget processing enhances financial performance, characterized by resource utilization.

The study revealed that GoEs mixed financing which comprise of debt, equity and reserve, this supports the Capital Structure theory as supported by (Handoo & Sharma, 2014) which echoes that the value of a firm is self-determine on capital structure. If the budgeted resources are not enough, the GoEs makes arrangement with commercial financial institutions for support.

4.5 Working capital Management

The second objective of the study was to establish the effect working capital management on financial Sustainability, Kenya. The respondents were asked to indicate the way they finance their institutions Working capital.

Table 4.7 shows how GoEs finance their working capital.

Table 4.7: Financing working capital

Ways of Financing Working Capital	Frequency	Percent %
Bank Overdraft	53	39
Government and Donors Support	15	11
Government and commercial loans	20	15
Farming and Sales of products	25	19
Disposal of idol assets	10	7
Advances payments from Farmers	12	9
Total	**135**	100

From the study it is very clear that the entities depend on Bank overdrafts as source of financing capital, at 39%, Government Loans at 15%, farming sale of products at 19% and government and donor support at 11%. Others ways rated less than 10% as indicated in the table 4.7. This is indicative of a challenge of optimal financing of working capital in government owned enterprises.

Table 4.8 displays the mean and standard deviation values of working capital management initiatives in Government owned enterprises. These statements were posed in the positive.

Table 4.8: Descriptive findings on working capital management

Statements on working capital management	Mean	Std. D.
1. The institutions effectively matches the inflows and outflows of cash so as to maintain adequate cash.	3.84	1.232
2. The institutions effectively manage inventory turnover rate	3.83	1.208
3. The institution pays efficient and timely settles the creditors	3.81	1.131
4. The institution has an efficient method of collecting the receivable.	3.78	1.282
5. The institution has a mechanism to ensure the present value of assets and the book value of profit is not significant	3.75	1.324
6. The Institutions has best practices to ensure working capital accountability	3.75	1.234
7. The institution regularly analyses the currents assets and liabilities	3.74	1.305
8. The institution forecast cash flows and monitors the cycles regularly	3.72	1.341
9. The Institutions ensures balance of the current assets against current liabilities	3.68	1.253
10. The Institutions efficiently converts operating working capital to cash	3.65	1.325
11. The Institutions maintains enough cash reserves	3.53	1.451
12. The Institutions effectively manage liquidity by investing the cash generated	3.48	1.385

The mean values and standard deviations displayed are close to 4 (agree). This implies that respondents agreed to that the working capital initiatives were generally practiced in their institutions. As the results depicts, these institutions mostly matched the inflows and outflows of cash so as to maintain adequate cash (M=3.84, SD=1.232), they effectively managed inventory turnover rate (M=3.83, SD=1.2086) and carried out a timely and efficient settlement of creditors for

smooth financial operation (*M*=3.81, SD=1.13087). However the institutions moderately managed liquidity by investing cash generated (*M*=3.48, SD=1.38506).

This study used working capital indicators to inquire into the intensity of usage of working capital in GoEs. The mean and standard deviations of each indicator of working capital are presented in table 4.9.

Table 4.9: Indicators for an assessment of working capital

Indicators of assessment of working capital	Mean	Std. D.
1. Managing Payables leakages e.g double payments	3.98	1.231
2. Laying of Workers during low seasons and closing unused facilities	3.74	1.307
3. Engaging in Fragmented spending	3.62	1.31
4. Adequate forecasting and demand planning	3.57	1.31
5. Undertaking aging of receivables	3.55	1.40
6. Managing liquidity constraints	3.50	1.32
7. Disposing off excessive, obsolete or growing inventories	3.48	1.38
8. Constant monitoring the working capital ratio	3.39	1.43
9. Undertaking credit rating	3.38	1.47

It is noted that, the mean values of the items ranged between a maximum of 3.98 (clearly agree) to a minimum of 3.38 (not sure-neutral). With almost equal number of items scoring a mean below 3.5 (neutral) and equal number scoring above 3.5 (agree), it was concluded that assessment of working capital managent were not out rightly put in place in GoEs as compared to financial resource utilization. Specifically, managing payables leakage (*M*=3.98, SD=1.23189) and laying off

workers and facility closings (*M*=3.74, SD=1.3078) were used. But initiatives monitoring the working capital ratio (*M*=3.39, SD=1.4295) and undertaking credit rating (*M*=3.38, SD=1.46579) were not clearly used to assess working capital concerns. The study shows that there are key strategies emphasized to safeguard the working capital management and prudent management of resources had a moderate influence on financial sustainability of GoEs.

The study further inquired into the strategies used to efficiently managing the working capital using the key blocks of working capital management in the institutions to ensure greater financial sustainability. The mean and standard deviations of usage of each of the blocks are displayed in table 4.10

Table 4.10: The key strategies of working capital management

The key strategies working capital management	Mean	Std. D.
1. Cash Management	3.89	1.18
2. Inventory Management	3.87	1.14
3. Management short term loans and advance	3.75	1.33
4. Financing Working Capital	3.73	1.16
5. Debtors Management	3.73	1.32
6. Infrastructure Capital Management	3.61	1.38

The findings indicated that GoEs sufficiently uses the strategies as a way of managing working capital. They mostly used cash management (*M*=3.89, SD=1.18), inventory management (*M*=3.88, SD=1.14), management of miscellaneous current assets and advances (*M*=3.75, SD=1.33317). However infrastructure management was moderately used infrastructure capital management (*M*=3.62, SD=1.38). The study was equally in tandem with the descriptive finding on disposal of idol assets. Meaning the entities hardly use the assets as a way of either financing or managing working capital.

From the study there is evidence that the entities moderately manage their working capital however there is need to effectively assess their liquidity levels, their net assets, and then set aside surplus cash into one or more reserves and management to ensure clear communication for the purpose for such reserves. Management of working capital is key and this this echoed by (Bagh et al., 2016; Rahemam et al., 2010; Ramesh et al., 2017).

Improving GoE's efficiency by lowering operating cost and boosting the competitive position of the institutions will reduce the dependency on overdraft that rated at 53% (Padachi et al., 2012) noted that entities that depend on short-term borrowing suffer some difficulties in its ability to finance their working capital requirements. The finding shows the institution were not keen on infrastructure management. There is need to monitor the assets with proper categorization and maintenance of assets.

Generally from the study it was clear that liquidity level improves financial sustainability and this study was supported by (Nganga & Kibiti, 2016). Overly it was clear that the working capital management strategies adopted influence financial sustainability. This was in agreement with (Azinfar & Khalili, 2013) and (Rehn, 2012) who argued that prudent working capital Management is a determinant of financial sustainability because it directly affects the company liquidity and profitability. There is need to define the capital structure driven, with proper preparation and attention on the balance sheet it is an important element of working capital management and assessment of financial sustainability.

4.6 Financial Investments

The third objective of the study was to examine the influence of financial investments on financial Sustainability. The respondents were asked to indicate whether their institutions invest returns/ surplus. Table 4.11 shows the findings of the study.

Table 4.11: Whether the Institutions invests return or surplus

Investment of returns	Percent %
Yes	43.0
No	57.0
Total	**100**

From the respondents, a majority (57%) stated that their institutions did not invest their returns/surplus while 43% stated that their institutions invested surplus. Thus a good proportion do not invest the surplus. The decision to invest or not has an implication on the liquidity levels of these enterprises.

The study inquired into the types of investment used by the GOEs. Table 4.12 presents the percentage results.

Table 4.12: Types of investments sought by institutions

Types of investments	Percent%
1. Shares	12.8
2. Stocks	9.7
3. Infrastructure Development	45.2
4. Treasury Bonds	32.3
5. Others	0
Total	**100**

Table 4.12 outlines for those institution that invest, majority of them invested in infrastructure (45.2%) development within their institutions, followed by Treasury bonds (32.3%) shares (12.8%) and stocks (9.7%)respectively. Infrastructure was the most popular and stock least popular investment vehicles for government owned enterprises.

The respondents were asked whether institutions had any specific type of financial investments approved by ministry. Table 4.13 shows the findings of the study.

Table 4.13: Financial investments approved by the ministry

Approval by the Ministry	Frequency	Percent
Yes	57	41.7
No	78	58.3
Total	**135**	**100**

Majority (58.3%) of the respondents stated that the institutions did not have any specific type of financial investments approved by ministry while 41.7% stated that the institutions had specific type of financial investments approved by ministry.

Table 4.14 shows the extent to which the investment portfolio improved financial sustainability in the last decade.

Table 4.14: Investment portfolio improved financial sustainability

Extent of improvement	Percent %
No extent at all	14.5
Little extent	48.7
Moderate extent	26.3
Great extent	7.9
Very great extent	2.6
Total	**100.0**

Majority (48.7%) of the respondents stated that the investment portfolio improved financial sustainability to a little extent. The findings show that investment is not a major contributor the overall financial sustainability.

The respondents were asked to rate their levels of agreement to the statements in Table 4.15 regarding investment policy by the institutions. The response was rated on

a scale of five units whereby 1=strongly disagree, 2= disagree, 3=moderately agree 4= agree, and 5=strongly agree.

Table 4.15: Descriptive findings on investment

Statement on Investments policy	Mean	Std. D.
1. The investments policies in the institutions enables accelerate cash inflows	2.43	1.0420
2. The investments policies in the Institutions facilitate improved financial sustainability by key strategies that impact on investment	2.38	1.0171
3. The Institutions policy allows diversified financial investments with high return on investment.	2.37	0.9944
4. The investments policies outlines diversified portfolio well constructed based on risk tolerance, time horizon and goals of the institution.	2.32	0.9751
5. The institution has an investment policy	2.31	1.0056
6. The investments policies are help in creating or leveraging assets.	2.31	0.9840

Majority of the respondents moderately disagreed to the statements investment initiatives and strategies. They did not agree that investments policies in the institutions help in accelerate cash flows (M=2.43, SD=1.0420), the investments policies in the Institutions improve financial sustainability (M=2.38, SD=1.0171), the Ministry has diversified financial investments with high return on investment for the Institutions (M=2.37, SD=0.9944). The investments policies outlines diversified portfolio that are constructed based on risk tolerance, time horizon and goals of the institution (M=2.32, SD=0.9751), the institution has an investment policy (M=2.31, SD=1.0056) and the investments policies are creating or leveraging assets for the

institution in order to improve financial sustainability (*M*=2.31, SD=0.9840). Cleary from the study the majority of GoEs do not clearly engage in investment activities and they don't have a guiding policy on investment.

Form the study there was need to sensitize the management on the need to invest, An investment ensures that the GoEs generate more funds to sufficiently support both short term and long term plans. The need to look for diversified financial investments was echoed (Ogilo, 2011) stating the need for more capital available for growth and higher returns on investments and shareholder equity, also (Karvonen, 2010) notes investment accelerate cash flow and reduce volatility and vulnerability associated with cash flow.

The study noted that there was no clear policy guideline on investment. This deter the GoEs from engaging in investment activities. The high percentage of GoEs that are not investing are characterized by risk averseness of the managers, or lack of clear policy on investment. The issue of behavior aspects for the manager comes to play and therefore there is need for continuous sensitization on the need to invest surplus to realize more fund. Adam et al. (2012) agreed the need to seek out opportunities to invest. This is affected also by conflict as depicted in conflict between managers and stakeholder, there should be consulted effort to minimize these conflict as supported (Handoo & Sharma, 2014). Agency theory states the need to ensure wealth maximization for the stakeholder. Lack of investments policies that would help in accelerating cash flows, by diversify financial investments that would assure returns on investment adversely affects financial agility of an Entity.

The Lack of agility to invest points to issue behavior aspect as was noted from the percentage rate 56.7% respondents that their institution did not invest but 43.3% invested surplus this may have been attributed to decision making of managers which could be irrational (Mike & Baille, 2008), resulting to issues of biasness in decision making that eventually hampers investments.

The study revealed that investment influences financial sustainability of GoEs a little extent. It clear to note that financial sustainability of the GoEs depends on investment in projects that demonstrate compliance with stringent environmental and promote social standards in order generate market benefit, especially so as to be able to sell their products as depicted in table 4.7 as source of resource rating at 19% while also endeavoring to retain their existing markets, adopt stricter purchasing standards that may secure higher prices for their products to gain competitive advantage. The study was in agreement with (Karvonen, 2010) who argued that marketing investments accelerate cash flows and reduce the volatility and vulnerability associated with cash flows. Investment in sustainable activities enhances the GoEs ability to build corporate reputation.

4.7 Financial Risk Management

The fourth objective of the study was to analyze the influence of Financial Risk Management on financial Sustainability. The respondents were asked to rate the extent to which their institutions were affected by the financial risks. The mean and standard deviation of financial risk initiatives are presented in table 4.16

Table 4.16: Descriptive finding on financial risks

Statements on Financial risks	Mean	Std. D.
1. Operational risk characterized by monetary loss from inadequate processes, people, and systems or from external events	3.26	0.95473
2. Legal risk arising from legal constraints such as lawsuits	3.23	0.80889
3. Liquidity risk arising from inability to execute transactions	3.05	0.66892
4. Market risk due to movement in prices of financial instrument such as stock price, interest rate and foreign exchange rates	2.66	0.94118
5. Credit risks in which borrowers in the institutions fail to pay due debt obligation	2.6	0.93062

The mean values of financial risk range from maximum value of 3.26(SD=.955) to 2.6 (SD=931) indicating the type of risks that clearly were moderate affecting the institution. The findings suggest that the GoEs are exposed to markets and credit risk emanating from external forces. As such they need to avoid credit risk by limiting issuing good on credit.

The respondents were asked to indicate their level of agreement to the statements on financial Risk Management initiatives. The aim was to determine the intensity of application of these initiatives. The mean and standard deviation of the items of financial risk management are presented in table 4.17.

Table 4.17: Financial Risk Management initiatives

Statement on Financial Risk Management initiatives	**Mean**	**Std. D.**
1. Diversifying sources of fund	3.12	0.96
2. Establishment of credit limits in the institutions	3.05	1.03
3. Establishment of the financial risks management framework	2.97	0.86
4. Asset-liability management and hedging	2.97	0.73
5. Holding liquid assets to protect against liquid risk	2.9	0.91
6. Avoidance of unprofitable risk positions and activities	2.8	0.81
7. Hedging against loss to protect cash flows value from movements in financial prices e.g. interest rates	2.8	0.96
8. Hedging against liability	2.8	0.81
9. Forecasting the probabilities of adverse price changes	2.8	0.93
10. Transaction hedging	2.9	0.84
11. Contingent financing provision to covers unexpected need	2.8	0.97
12. Post-loss financing and recapitalization	2.7	0.85

It is clear that the mean values of these initiatives near 3 (neutral). Thus, according to respondents, the initiatives were moderately used to intensively used as strategies to manage financial risk and is such, other financial sustainability strategies were preferred. At times the institutions used diversification of sources of

fund (M=3.12, SD=0.96) and establishment of credit limits (M=3.05, SD=1.03). However post-loss financing and recapitalization (*M*=2.73, SD=0.84) was rarely used. The Financial Risk Management is moderately being implement in these entities but need to be affirmed by use of policies and risk assessment framework that help identify risk and advice on the risk mitigation framework.

Table 4.18 shows the findings of the study on the respondents' level of agreement to statements regarding Financial Risk Management.

Table 4.18: Statements regarding Financial Risk Management

Statement on Financial Risk Management	Mean	Std. D.
1. The Institution has a strong corporate governance	2.75	2.12
2. The Institution closely monitoring the links between industry risks and macroeconomic risks	2.61	1.00
3. The Institution regularly conduct risk assessment	2.51	0.89
4. The Institution carry out comprehensive assessment of asset-return volatilities	2.49	0.91
5. The institution undertakes asset-level risk assessment	2.39	0.96
6. The Institution undertakes portfolio-level risk assessment	2.37	0.995

Table 4.18, majority of the respondents moderately agreed to the statements that the entities had strong corporate governance (*M*=2.75, SD=2.12589), the institutions closely monitoring the links between industry risks and macroeconomic risks

(*M*=2.61, SD=1.00781) and the institutions regularly conduct risk assessment as a measure (*M*=2.52, SD=0.89204). Nevertheless, the respondents disagreed to the statements that the institutions carry out comprehensive assessment of asset-return risks (*M*=2.49, SD=0.91371), the institution undertakes asset-level risk assessment (*M*=2.39, SD=0.95955) and the institution undertakes portfolio-level risk assessment (*M*=2.36, SD=0.9957) from the finding lack of very strong governance means laxity key areas.

The respondents were asked to rate the extent to which the assets of the institution were likely to be impaired in a financial distress. Table 4.19 shows the findings of the study.

Table 4.19: Institutions assets impaired in a financial distress

Extent of assets being impaired	Percent %
No extent at all	4.3
Little extent	21.7
Moderate extent	45.7
Great extent	28.3
Total	**100**

Majority (45.7%) of the respondents stated that the entities were likely to be moderately impaired in a financial distress. Also to note is that the respondents also stated that they are often affected by political risks, insolvency and interest rate volatilities.

The respondents were asked whether there were cases of conflict between the management and the board and the extent to which they affected financial sustainability of their institutions. Table 4.20 shows the findings of the study.

Table 4.20: Presence of Managerial conflict

Response	Percent %
Yes	47.2
No	52.8
Total	**100**

Majority (52.8%) of the respondents indicated that there were no conflict between the management and the board of directors while 47.2% of the respondents indicated that there were conflict between management and the board directors.

Table 4.21: Managerial Conflict affecting Financial Sustainability

Extent of effect	Percent%
No extent at all	13.3
Moderate extent	53.4
Great extent	33.3
Total	**100**

On the 47.2% majority (53.4%) of the respondents indicated conflict between management and the board directors, such conflicts had moderate effect on financial sustainability and 33.3% had greater effect on financial sustainability. This revelation is quite significant revealing high level of incoherent relationship that would negatively affect the operation of the organization reducing sustainability levels. This revelation concurred with the study by Anshu and Kapil (2014). From the study it is clear that conflict as a risk has a negative impact on the reputation and public perception of the GoEs. Safeguarding reputation is important in order to foster healthy relationships with stakeholders.

The respondents sighted other Financial Risk Management initiatives that GoEs should adopt that include: undertaking regular internal audits by employment of auditors who keep routine checks on the internal controls, workshops management to avoid risk, cushioning productivity through technological advancement,

diversification of investments, appointment of qualified and productive staff to various positions and availability of internal control systems, implementation of a Financial Risk Management framework, , maintenance and control of various votes for budget control, adherence to set policies, upholding integrity as ethical conduct, and betters management of inherent risk.

The GoEs also moderately apply the following hedging strategies against financial risks: asset hedging, liability hedging, transaction hedging, hedging against loss to protect cash flows value from movements in financial prices such as interest rates, forecasting the probabilities and magnitudes of large adverse price changes in the institutions, contingent financing provision to covers unexpected losses and post-loss financing and recapitalization. The findings revealed that GoEs moderately apply the following initiatives to mitigate risks: internal monitoring, closely monitoring the links between industry risks and macroeconomic determinants and regular risk assessment. Nevertheless, GoEs did not carry out assessment of asset-return volatilities, asset-level or disaggregated risks and portfolio-level or aggregated risks. A large proportion (45.7%) of the GoEs was likely to experience moderate impairment in a financial distress.

The respondents stated that institutions faces operational and financial risk thus the need for risk assessment framework. Management brainstorms on the risks faced and come up with solutions. Risks lead to low income especially for some GoEs. Overly a proper Financial Risk Management framework is an important motivating factor for the current and prospective employees. The study findings concurred with (Ogilo, 2012) who argued that risk management should be at the center of an organizations operations in order to maintain financial sustainability. Proper Financial Risk Management enhances entities value.

4.8 Financial Sustainability

The dependent variable in the study was financial sustainability of GoEs , Kenya. The respondents were asked to rate the financial strength of their organization in a scale of five units as shown in table 4.22.

Table 4.22: Financial strength of the Entities

Percentage Range of financial strength	Percent % response
0 – 25	4.9
26 – 50	32.8
56 – 75	54.8
76 – 100	8.2
Total	**100**

Table 4.22 majority (54.1%) of the respondent's rated financial strength of their organizations between 50-75% average of 62% and between 26- 50, indicated the level of 32.8% of financial strength. This indicates that the entities need to enhance their capacity by being more financial agile. Though what was clear is the diverse stage of growth of these entities.

The respondents were also asked to rate the level of their agreement with statements regarding financial sustainability. In Table 4.23 regarding factors that influence financial sustainability.

Table 4.23: Descriptive findings on financial sustainability

Statement on financial sustainability	Mean	Std. D.
1. Managers are trained in financial and cost management	4.03	1.188
2. The institution has a monitoring and reporting system is in place	4.02	1.166
3. The institution has developed and maintained a strong stakeholders relationship over the last two years,	3.94	1.336
4. The institution ensures that projects are completed in time according to the planned budget and schedule	3.91	1.202
5. The institution sets adequate allocation of financial resources for all planned activities	3.90	1.135
6. The institution has a mechanism to allow flexibility to adjust projects implementation due to unforeseen financial challenges and barriers	3.88	1.355
7. The institution has diversified its income sources	3.85	1.303
8. The institution often calculates the asset replacement ratio to show if assets are replaced after attaining their useful life	3.84	1.348
9. The institution often calculates ratio to inform on financial sustainability	3.82	1.281
10. The institution often calculates the operating surplus ratio to measure ability to fund ongoing operations over the long-term	3.78	1.258
11. This institution has enough money for all contingencies	3.66	1.421
12. The institution manages debt and ensures the debts accrued are less than the previous year.	3.60	1.483

The mean values obtained are all above 3.5 (agree). Therefore the study suggest that majority of the respondents agreed that financial sustainability indicators were

generally practiced in the GOEs. The institutions had managers trained in financial management (*M*=4.03, SD=1.19), monitoring and reporting systems (*M*=4.0, SD=1.17) and instant a strong network of stakeholders (*M*=3.94, SD=1.34). All these are indicators of sustainable financial status.

The study findings there was need to change the management style of some entities, limit the levels of travel for the management and meetings, and need to introduce levies especially from processing entities, use of new farming technologies, better reporting style, Government to reconsider ways of reporting and to stop subjecting the entities to the normal financial reporting and Government to add funding to the entities. GoEs calculated ratio to serve as guidance to the management on performances and level of sustainability. Financial sustainability sets the stage for growth by creating the stability and flexibility needed to build capacity for future stages of development.

4.8.1: Measure the financial sustainability

The following ratios were used to measure the financial sustainability of GoEs in Kenya. The study calculated Working Capital Ratio (WCR), Net Financial Liabilities Ratio (NFLR), Asset Sustainability Ratio (ASR), Net Operating Surplus Ratio (NET OSR). Table 4.24 shows the findings of the study.

Table 4.24: Financial Ratios

Period	WCR	NFAL R	ASSR	NET OP S R
2009	6.67	-0.40	0.04	-0.24
2010	7.86	1.09	2.25	-0.23
2011	9.90	0.79	2.23	-0.18
2012	4.51	1.55	3.29	-0.12
2013	6.36	1.42	1.51	-0.35
2014	7.77	1.77	1.64	-0.35
2015	6.29	1.93	1.69	-0.20
Average	**7.05**	**1.16**	**1.81**	**-0.24**

The findings in Table 4.24 show that the average calculated Working Capital Ratio for the period 2009-2015 was 7.05. The average Net Financial Liabilities Ratio was 1.16, Asset Sustainability Ratio was 1.80 and Net Operating Surplus Ratio was -0.24for the period 2009-2015. The study revealed that the Working Capital Ratio, Net Financial Liabilities Ratio, Asset Sustainability Ratio and the Net Operating Surplus Ratio increased from the year 2011 to 2014 with the highest ratios recorded in the year 2014. Nevertheless, some of the ratios decreased between the year 2014 and the year 2015.

The study also revealed that the Working capital ratio which measures the Liquidity levels of an organization, in GoEs, it was recorded as 7.05 meaning they are able to meet their current obligation seven times of the current liabilities. Averagely it should be at least 4.1, even though the ratio was primarily high it positively implied that the GoEs are able to pay for their current liabilities, the negative connotations is that they are holding a lot of non earning assets or stock and therefore holding cash that could be invested. The Net Financing sustainability ratio is the measurement of a government's ability to cover its operational costs through its own revenue efforts and stood at 1.16 or 116% the ratio is greater than the standard meaning that the GoEs have limited ability of borrowing. The findings revealed that the rate is advanced at 116% which is more than the standard 60%. There is need to set the best standard so that they are able to maintain expenditure at manageable revel and increase the ability to borrow. The Asset suitability ratio indicated the ability of the GoEs to sustain or replace their assets at the same rate as they wear out or they come to the end of their useful life, As indicated the ratio was1.181 or 181% this ratio is higher than the usual standard of between 90% - 110%, this is virtually because the GoEs have a lot of assets and equally these assets are being replaced quickly than necessary, therefore holding capital which can be used for other purposes. This show the asset are replaced unnecessarily early.

Net operating surplus ratio for the GoEs stood at an average of -0.24. This is lower than the standard levels of between 0- and 10%. Meaning that the GoEs are

running on a deficit, they are not able to have surplus, which reveal that the GoEs are not able to cover their operational costs. There is need to come up with measures that would ensure that expenses are kept as low as possible and the available fund are able to meet the expenditure; this is in these line with (William, 2017) noted that to ensure the sustainability of the local government, the ratio need to be maintained at their required level. The GoEs should be supported to maintain the relevant ratio standards so that they are able to function normally without constrains while also coming up with innovative ways to generate more resources.

4.9: Correlations between independent and dependent variable

A Pearson correlation was conducted between independent and dependent variables. The aim was to establish the nature and strength of relation between the independent and dependent variables. Correlation refers to a technique used to measure the relationship between two or more variables. When two variables are correlated, it means that they vary together. Positive correlation means that high values on one variable are associated with high values on the other, and that low values on one are associated with low values scores on the other (Kavale, 2017).

In the interpretation of correlation the sign of the correlation coefficient means either a positive or negative correlation coefficient. The positive correlation coefficient means that the variables move in the same direction, while negative correlation means variables move in opposite directions. The correlation significance is indicated by a probability value of less than 0.05.This means that the probability of obtaining such a correlation coefficient by chance is less than five times out of 100, so the result indicates the presence of a relationship. The coefficient of determination can vary from 0 to 1.00 and indicates that the proportion of variation in the values can be predicted from the relationship between the two variables. The result is presented in table 4.25.

Table 4.25: Correlation Results between Independent and Dependent Variables

		FRU	WCM	FI	FRM	FS
Financial Resource Utilization FRU	Pearson Correlation	1				
	Sig. (2-tailed)					
Working Capital management WCM	Pearson Correlation	.161	1			
	Sig. (2-tailed)	.194				
Financial Investments FI	Pearson Correlation	.434	.319	1		
	Sig. (2-tailed)	.041	.105			
Financial Risk Management FRM	Pearson Correlation	.581**	.210**	.291*	1	
	Sig. (2-tailed)	.105	.002	.027		
Financial Sustainability FS	Pearson Correlation	.348**	.384**	.404**	.508**	1
	Sig. (2-tailed)	.000	.000	.000	.000	

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

KEY: FRU=Financial Resource Utilization, WCM= Working Capital Management, FI= Financial Investments , FRM = Financial Risk Management

In summary the correlation output computed can be deducted that the four variable, financial resource utilization, working capital management, financial institution and financial risk management influences the financial sustainability. The result summary shows that resource utilization (r=.348, p<.000), working capital (r=.384, p<.000), financial investments (r=.404, p<.000) and risks (r=.508, p<.000) are strongly and significantly correlated with financial sustainability. Further scrutiny of the result reveals that financial risk assessment has the strongest relationship with financial

sustainability. However least was resource utilization. One of the key findings here is the significant relationship between independent variables and dependent variable.

This imply that if more resources are utilized, increased working capital management, increased financial investments and management of financial risk, there will be positive impact on financial sustainability. Implying that, to achieve significant improved financial sustainability, these entities need to have these independent variables at the core of their growth strategies. It is worth noting that correlation can only indicate the presence or absence of a relationship, not the nature of the relationship. Correlation is not causation. There is always the possibility that a third variable may influence correlation results

4.10 Test of Regression Assumption

The regression analysis is conducted for the purpose to determine the influence of the independent variables on the dependent variable. Regression analysis assumptions are first tested to determine if the data conforms to the requirements for regression analysis or not.

4.10.1 Multicollinearity test

The assumptions of linear regression were first assessed; Pearson correlation was used to examine the association between the study variables: Financial Sustainability (FS), Financial Resource Utilization (RU), Managing Working Capital Management (WCM), financial investments (FI) and Financial Risk Management (FRM). Multicollinearity is said to exists between two variables if their coefficient of correlations is greater than 0.7.

If two independent variables are auto-correlated one of the variables must be dropped from the analysis. The results in table 4.25 reveal that autocorrelation was not a problem. Therefore parametric tests can be carried out on the data. The findings in table 4.25 above shows that none of the independent variables (Financial Resource Utilization, Working Capital Management, Financial investments and Financial Risk Management) had coefficient of correlation between themselves of less than

0.7. Hence there was no evidence to suspect presence of multicollinearity. In this regard, all the variables were included in the regression analysis and in the final regression model. In the next section, linearity assumption is checked

4.10.2 Linearity Test

Linearity assumption was checked using the scatter plot technique (Appendix iv), Financial resource utilization and financial sustainability are linearly related. There seem no marked outliers that can be attributed to data entry error. The working capital managent and financial sustainability were also found to be linearly related. There were no extreme values due to error. Test results on linearity assumption between financial investments and sustainability clearly indicated that they were linearly related clearly shows there seem no marked outliers that can be attributed to data entry error. The relationship is clearly positive and no outliers.

The result suggest that financial sustainability and financial risks management are linearly related. As such financial sustainability linearly fits the data well. Further the direction of the fitted line result indicates a positive correlation. Clearly there seem no marked outliers that can be attributed to data entry error. From the foregoing results it is concluded that the linearity assumption is not significantly violated. As such fitting a linear model to the data was appropriate. Foregoing test results have shown that most of the assumptions of linear regression were met.

4.10.3 Normality assumption test

The table 4.26 presents the results from two well-known tests of normality, namely the Kolmogorov-Smirnov Test and the Shapiro-Wilk Test. The Shapiro-Wilk Test is more appropriate for small sample sizes (< 50 samples), but can also handle sample sizes as large as 2000. For this reason, the Shapiro-Wilk test was used as the numerical means of assessing normality.

Table 4.26: Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	**Df**	**Sig.**	**Statistic**	**df**	**Sig.**
WCR	.212	135	.200*	.962	135	.835
NFALR	.235	135	.200*	.942	135	.660
ASSR	.320	135	.029	.892	135	.084
NETOPSR	.196	135	.200*	.944	135	.677

*. This is a lower bound of the true significance.

a. Significance Correction

The findings indicate that all p values of the ratios were greater than the set significant level; 0.05. Specifically, the p (WCR) =0.835, p (NFALR) = 0.66, p (NETOPSR) =0.677 and Ratio p (ASSR) = 0.084. Therefore, the study assumed normality for the data on Working Capital Ratio, Net Financial Liabilities Ratio, Net Operating Surplus Ratio (NET OSR) and Asset Sustainability. The result thus indicated that normality assumption was achieved and therefore parametric statistical analyses were appropriate.

4.10.4 Heteroscedasticity Test

The presence of heteroscedasticity was detected using Glesjser test. This approach has been successfully applied by Oktorina, and Wedari (2015). In this test, if p is significant in the partial regression, then heteroscedasticity is a problem otherwise it is not.

Table 4.27: Heteroscedasticity results using Glesjer Test

Model		Coefficients				
		Unstandardized		Standardized	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	.410	.970		.424	1.101
	Financial Resource Utilization FR U	.270	.650	.985	.413	1.122
	Working Capital Management WCM	.015	.068	.055	.220	.826
	Financial Investments FI	.174	.208	.621	.837	.064
	Financial Risk Management FRM	.139	.092	.490	1.51	.118

Examining the test result in table 4.27; the p-values of all the variables are greater than the significant value (.05) as such all the variables had constant variance across all levels of financial sustainability, therefore heteroscedasticity was not a problem.

4.11 Overall Multivariate Regression Analysis

Multivariate regression analysis was used to determine the influence of the independent variables on the dependent variable by fitting the following regression model; $Y_{fs} = \beta_0 + \beta_1 FRU + \beta_2 WCM + \beta_3 FI + \beta_4 FRM + \varepsilon$

Where: Y_{fs} =financial Sustainability, FRU-Financial Resource Utilization, WCM-Working Capital management, FI-Financial Investment and FRM- Financial Risk Management. The values; $\beta_0, \beta_1, \beta_2, \beta_3 \beta_4$ are the regression coefficient to be fitted from the data. The result in table4.29 is the model summary result.

Table 4.28: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.829[a]	.688	.681	.44394

a. Predictors: (Constant), Financial Resource Utilization, Working capital Management, Financial investments & Financial Risk Management

From the model summary table 4.28, the Sample multiple correlation coefficients, R (.829) obtained was strong. This is a measure of the strength of the association between the set the independent (Financial Resource Utilization, Working Capital Management, Financial investments, and Financial Risk Management) variables and the dependent variable, with a value of 1 indicating that the predictions are exactly correct (Abdi, 2007). In other words, multiple correlation coefficient is a measure of how well a given variable can be predicted using a linear function of a set of other variables. The high R value obtained therefore indicates a better and quality predictability of the financial sustainability from the independent variables.

The coefficient of determination (the percentage variation in the dependent variable being explained by the changes in the independent variables) R Square in the study is 0.688. Therefore, the predictor variables (Financial Resource Utilization, Working Capital Management, Financial, Financial investments, and Financial Risk Management) explained 68.8 % of the observed variations in the dependent variable; financial Sustainability.

Table 4.29: Analysis of Variance (ANOVA)

Model		**Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
1	Regression	80.987	4	20.28	71.792	.000[b]
	Residual	36.723	130	.2825		
	Total	117.710	134			

a. Dependent Variable: Financial Sustainability b. Predictors: (Constant), Financial Resource Utilization, Working capital Management, Financial investments, Financial Risk Management.

From the Analysis of Variance in Table 4.29, the value of F-critical is 19.25. The F-calculated (71.79) is greater than the value of F-critical (19.25). The variables are jointly significant. The study concludes that the model was fit for analysis. Similarly, the p-value was 0.00, which is less than 0.05, indicating that the model term is significant at the 95% level of confidence. The regression model is therefore fit for prediction of the sustainability from known levels of the Independent variables. As such it was appropriate to conclude that the four independent variables are significant determinants of level of financial sustainability in GoEs in Kenya.

Table 4.30: Regression Coefficients

Model Variables	Unstandardized Coeff B	 Std. Error	Standard. Coefficients Beta	t	Sig
(Constant)	.176	.468		1.23	.222
Financial Resource Utilization FRU	.216	.081	.394	2.67	.000
Working Capital Management WCM	.221	.054	.549	4.09	.000
Financial Investments FI	.316	.059	.138	5.36	.000
Financial Risk Management FRM	.385	.071	.296	5.42	.000

a. Dependent Variable: Financial Sustainability.

The nature of regression coefficients shows whether the dependent and independent variables have direct (positive coefficients) or inverse (negative coefficients)

proportionality. From the study finding in Table 4.30, the fitted regression model appears as follows: Y_{fs}= .176 + .216RU + .221MWC + .316 FI +.385 FRM

The constant β_0= 0.176 shows that if all the independent variables (Financial Resource Utilization, working capital Management, Financial investments , and Financial Risk Management) are rated at zero, the dependent variable (financial sustainability) would be rated at 0.176. The regression coefficient for financial resource utilization (β_2=.216) show that a unit change in financial resource utilization causes a change of magnitude .216 in financial sustainability.

The regression coefficient was positive indicating that financial resource utilization and financial sustainability are positively related. The findings suggest that entities can effectively promote resource utilization efficiency by better handling their labour and capital operating efficiency and enlarging their investment function are likely to record sustained financial growth.

The regression coefficient for working capital management (β_2=.221) show that a unit change in working capital management causes a change of magnitude .221 in financial sustainability. The regression coefficient was positive indicating that management and financial sustainability are positively related. The regression coefficient for financial investments (β_2= .316) show that a unit change in Financial investments causes a change of magnitude .316 in financial sustainability.

The regression coefficient for Financial Risk Management (β_4=.385) show that a unit change in financial risk management causes a change of magnitude 0.385 in financial sustainability. The regression coefficient (β_2=0.385) was positive indicating that financial risk management and financial sustainability are positively related. The probability (p) or significance (sig.) values shows the significance of the relationship between independent and dependent variables. The level of confidence was set at 95% (0.05). The probability values show that the on financial sustainability of GoEs is significantly influenced by Financial Resource Utilization (p=0.000), Working

Capital Management (p=0.000), Financial investments (p=0.000) and Financial Risk Management (p=0.000). All the probability values were less than 0.05.

The findings indicated that financial sustainability was attributed to improvement in Financial Resource Utilization, Working capital Management and Financial Risk Management and financial investment. This clearly show the critical need for the goes to vigorously engage in financial investments. The descriptive data from the study revealed that the majority of the GoEs did not invest (56.7%), hence would give low proportionality to financial sustainability.

4.12 Hypothesis Tests

The null hypotheses were tested using linear regression where each independent variable was regressed with the dependent variable. ANOVA was used to test whether the regression analysis model used is fit or the relationship of the variables just occurred by chance. Significance of F ratio is used to determine whether model used was fit or not. If the F ratio is significant the model used is considered fit and vice versa (Weeks & Namusonge, 2016). A p-value of less than 0.05 indicates that the F statistics is high and that the null hypothesis of independent needs to be rejected since it's not true. The three regression results, namely model summary result, the ANOVA result and coefficient result are as presented:

Table 4.31: Model summary on Financial Resource Utilization

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.348.	.121[a]	.120	.60534

a. Predictors: (Constant), resource Utilization [b]. Dependent Variable: Finacial Sustainability

The model measure of the strength of the association between the finacial resource utilisation and financial sustainability.From the study results in table 4.31. indicate that the regresion model Finacial resource utilization also explained a significant proportion of variance in Financial sustainability R^2 = .121.

Table 4.32: ANOVA on Financial Resource Utilization

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	55.629	1	55.629	18.29	.000[b]
	Residual	404.338	133	3.040		
	Total	459.967	134			

Dependent Variable: Financial Sustainability [b.] Predictors: Constant, financial resource Utilization

From the study results in table 4.32, the P value $p < .000$. was less than 0.05 and that the F statistics is high and that the null hypothesis of independent needs to be rejected since it's not true.

Table 4.33: Regression Coefficient of Financial Resource Utilization

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.297	.189		1.574	.118
	Financial resource Utilization FRU	.302	.064	.289	4.719	.000

[a.] Dependent Variable: financial Sustainability

From the result in table 4.33, Thus the regression model connecting financial Resouce utilization (FRU) and financial sustainability (FS) is: FS = .297 + .302 FRU

In summary from the result in tables, 4.31, 4.32, 4.33, finacial resource utilization significantly predicted financial sustainability scores, $\beta = .302$, $t = 4.719$, $p < .000$. Finacial resource utilization also explained a significant proportion of variance in Financial sustainability, $R^2 = .121$, $F = 18.30$, $p < .000$. The regression model connecting Financial resource Utilisation and finacial sustainability is: FS = .297 + .302 FRU $R^2 = .121$ $p < .000$. As such the null hypothesis; H_{01}: resource utilization does not significantly influence finacial sustainability was rejected. In this regard,

there is a statistical evidence to state that resource utilization signifcantly influenced finacial sustainability of government owned enterprises.

The next result was set to test the second hypothesis.relating working capiatal and Financial Sustainability.

Table 4.34: Model Summary on Working Capital Management

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.384	.148	.146	.54769

a. Predictors: (Constant), Working Capital, b. Dependent Variable: financial Sustainability

The model measure of the strength of the association between the working capital management and finacial sustainability.From the study results in table 4.34. indicate that the regresion model working capital management explained a significant proportion of variance in Financial sustainability $R^2 = .148$.

Table 4.35: Working Capital Management ANOVA- Results

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	16.671	1	16.671	23.03	.000[b]
	Residual	96.296	133	.7240		
	Total	112.967	134			

[a.] Dependent Variable: financial Sustainability, [b]. Predictors: (Constant), Working Capital

From the study results in table 4.35, the P value $p < .000$. was less than 0.05 and that the F statistics is high and that the null hypothesis of independent needs to be rejected since it's not true.

Table 4.36: Regression Coefficients of Working Capital Management

Model		Unstandardized Coefficients		Standard	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.297	.167		1.779	.078
	Working Capital Management WCM	.324	.139	.322	2.331	.000

a. Dependent Variable: financial Sustainability

From the result in table 4.36, the regression model connecting Working capital management and finacial sustainability is: FS = .297 +.324 WCM

In Summary from the result in tables 4.34, table 4.35 and table 4.36, working capital management (WCM) significantly predicted financial sustainability scores, β = .324, $t(133)$ = , p < .000. Working capital management also explained a significant proportion of variance in Financial sustainability, R^2 = .148, F= 23.03, p < .000. Thus the regression model connecting Working Capital management and finacial sustainability is: FS = .297 + .324 WCM R^2 = .148 p < .000. As such the null hypothesis; H_{01}: Working capital management does not significantly influence finacial sustainability was rejected. Thus there is a statistical evidence that WCM signifcantly influence finacial sustainability of government owned enterprises.

The next result was set to test the third hypothesis relating Financial Investment and Financial Sustainability in GOEs

Table 4.37: Model Summary on Financial Investment

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.404	.163	.161	.47097

a. Predictors: (Constant), Financial investments, b. Dependent Variable: financial Sustainability

The model measure of the strength of the association between the Financial investments and financial sustainability. From the study results in table 4.37. indicate

that the regresion model also explained a significant proportion of Financial investments variance in Financial sustainability R^2 = .163.

Table 4.38: Financial Investment ANOVA- Results

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	9.128	1	9.128	25.93	.000[b]
	Residual	46.840	133	.352		
	Total	55.968	134			

[a]. Dependent Variable: financial Sustainability, [b.] Predictors: (Constant), I. Opportunities

From the study results in table 4.38, the p-value p < .000. was less than 0.05 and that the F = 25.93 statistics is high and that the null hypothesis of independent needs to be rejected since it's not true.

Table4.39: Regression Coefficients of Financial Investments

Model		Unstandardized Coefficients		Std Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.112	.146		.767	.444
	Financial investments FI	.489	.095	.443	5.147	.000

From the result in table 4.39, Thus the regression model connecting Working capital management and finacial sustainability is: FS = .112 +.489 FI

In Summary from the result in tables 4.37 ,table 4.38 and table 4.39, financial investments (FI) significantly predicted financial sustainability scores, β = .978, t= 5.147, p < .000. financial investments also explained a significant proportion of variance in financial sustainability, R^2 = .163, F = 25.93, p < .000. Thus the regression model connecting financial investments and finacial sustainability is: FS = .112 + .489 FI R^2 = .163 p < .000. As such the null hypothesis; H_{01}: financial investments does not significantly influence finacial sustainability was rejected. Thus there is a statistical evidence that financial investments signifcantly influence finacial sustainability of government owned enterprises.

The fourth and final hypothesis testing was relating financial risks and Financial sustainability (FS) in GOEs

Table 4.40: Model Summary on Financial Risk Management

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.508	.259	.248	.58329

a. Predictors: (Constant), Financial risk management b. Dependent Variable: Financial Sustainability

The model measure of the strength of the association between the finacial risk management and finacial sustainability. From the study results in table 4.40. indicate that the regresion model Finacial risk managment also explained a significant proportion of variance in Financial sustainability $R^2 = .259$

Table 4.41: Financial Risk Management ANOVA - Results

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	38.801	1	38.801	46.86	.000[b]
	Residual	110.167	133	.828		
	Total	148.967	134			

Dependent Variable: financial Sustainability b. Predictors: (Constant), Financial risk management

From the study results in table 4.41, the P value $p < .000$. was less than 0.05 and that the F = 46.86 statistics is high and that the null hypothesis of independent needs to be rejected since it's not true.

Table 4.42: Regression Coefficients of Financial Risk Management

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.267	.181		1.475	.143
	Financial Risks management	.135	.044	.891	3.068	.000

The following regression result in table 4.40, table 4.41 and table 4.42, shows the test for the null hypothesis; H_{01}: financial risks management do not significantly influence financial sustainability. From the result financial risks management (FRM) significantly predicted financial sustainability scores, β = .135, t = 3.068, p < .000. Financial investments also explained a significant proportion of variance in financial sustainability, R^2 = .259, F = 46.86, p < .000. Thus the regression model connecting Financial Risks management (FRM) and financial sustainability (FS) is thus: FS = .267 + .135 FRU R^2 = .259 p < .000. As such the null hypothesis; H_{01}: financial risks does not significantly influence financial sustainability was rejected. Thus there is a statistical evidence that financial risks significantly influence financial sustainability of government owned enterprises.

In summary, table 4.44 shows the summary result of hypothesis testing. The study has established that resource utilization ($R^2 = .121$), working capital management ($R^2 = .148$, financial investments ($R^2 = .163$) and financial risks management ($R^2 = .259$) collectively accounted for a total of 69.% of the variation in Fnacncial Sustainabilty in government owned enterpriseswhich is in tadem with the overall regression model.

Table 4.43: Summary of Hypothesis Testing

Hypothesis	Decision
H_{01}: financial Resource utilization does not significantly influence financial sustainability	Rejected
H_{02}: working capital management does not significantly influence financial sustainability	Rejected
H_{03}: financial investments does not significantly influence financial sustainability	Rejected
H_{04}: financial risks management does not significantly influence financial sustainability	Rejected

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter presents summary of the study findings, conclusion and recommendation of the study. They are presented in line with the objective of the study which was to examine the determinants of financial Sustainability of Government owned entities in Kenya. Specifically, the study analysed the effect of Financial Resource Utilization, working capital management, financial investments and Financial Risk Management on financial sustainability of GoEs in Kenya.

5.2 Summary

The general objective of the study as to examine the determinants of financial sustainability of Government Owned Entities in Kenya the specific objectives were to determine the influence of resource utilisation, working capital management, financial investment and financial risk management on financial sustainability. The data collected and presented in chapter 4 and with attention to both the objective and research equations as unit of analysis. Theoretical and empirical literature were used to compare the results of the study with previous studies. The study target population were government owned entities in Kenya. The study established that the financial strength of majority of the Government Owned Entities rated between 50-75%.were above avearge. The variables under study explained 69% of observed change in financial sustainability in government owned entities. In line with the findings presented and discussed in the previous chapter, the study derived the following.

5.2.1 Effect of financial resource utilization on financial Sustainability

The study set out to evaluate the effect of Financial Resource Utilization on financial Sustainability. From the study financial resource utilisation significantly

influenced the financial sustainability as indicated by a positive regression coefficient. From the analysis of the descriptive statistics, and regression analysis of the data, showed that the majority of the respondent indicated that GoEs generated other resources besides government funds and the additional resources were incorporate in the budget used to supplement the budget resources. The GoEs prepared their own budget line projections which were approved by the Ministry according to expenditure line. Revenue and expenditure were tracked as outlined within the budget. The budget level are maintained as indicated in the budget, however occasionally expenditures are diverted incase when resources are minimal, to help in undertaking priority activities, noting the need to involve all channels in expenditure management. The study also established that the ministry assist its entities in matching expenditure and available revenue. GoEs adheres to the set budget guidelines and link their policies and strategies to budgetary provisions.

GoEs acquires loans to enhance their resources base, however the Ministry minimally assist the GoEs in accessing loans from banks. Some GoEs had some level of laxity in some GoEs in implementation of policies and procedure that govern efficient utilization of resource. Also the data reveled that GoEs submit return after the end of the financial year, creating laxity and inability to curb inefficiencies early enough.

5.2.2 Effect of working capital management on financial sustainability

The second objective of the study was to establish the effect working capital management on financial Sustainability. The study established working capital Management significantly influenced financial sustainability of GoEs indicated by a positive regression coefficient. Working capital management helps in improving liquidity levels for the institutions. As indicated from the descriptive statistics the study established that GoEs managed working capital through the following initiatives: matching the inflows and outflows of cash so as to maintain adequate cash, effective management of inventory turnover rate, timely and efficient settlement of creditors and collection of receivables, continuous improvement of

receivables and payable processes, regular analysis of currents assets and liabilities, minimization of the difference between the present value of assets and the book value.

Other ways indicated for managing the liquidity levels were balancing the current assets against current liabilities in order to meet its short-term obligations, enhancing accountability on working capital, effective forecast of cash flows and cycles in order to predict entities needs and expected surpluses, efficient conversion of operating working capital to cash and making sure that entities have enough cash reserves for forecasted or unexpected requirements. Efficient working capital management led to realization of most of the planned activities though there was notable laxity in the liquid management with focus on financial strategies that would facilitate cash generation.

The study revealed that GoEs depended so much on overdraft as a way of financing working capital. The capital available is still not sufficient to cater for operational demands. From the study it was clear that the GoEs are lax in infrastructure management therefore holding a lot of assets raising the asset sustainability ratios significantly which has an effect on WCM, the GoEs should covert the idle assets to cash and this will enable the entities manage their working capital prudently. The financing of working capital through overdraft, this has long-term effect on transactional cost and overdependence. It would be more prudent to scale down on use of overdraft and adopt other ways of financing working capital.

5.2.3 Effect of financial investments on financial sustainability

The third objective of the study was to examine the influence of investment on financial Sustainability. The study established positive regression coefficient for investment the statistical data revealed that financial investment accounts for signifying level of influence in financial sustainability, however from the descriptive statistic it was evident that it had low influence on sustainability is attributed to entities not investing. The finding established it was evident that that majority of the GoEs did not invest returns/surplus. They did not have any specific

type of investments approved by ministry. Those that invested did so in infrastructure and Treasury bonds. From the descriptive statistic the study revealed that GoEs lack of investments policies that would help in accelerating cash flows, by diversify financial investments that assure returns from investment affects financial agility of an Entity.

5.2.4 Effect of financial risk management on financial sustainability

The fourth objective of the study was to analyse the influence of Financial Risk Management on financial Sustainability. From the statistics and regression analysis it was evident that the financial risk management significantly influenced financial sustainability. This was attributed by managent of the following risks operational risk, legal risk, liquidity risk, market risk and credit risks. As indicated by the mean in the descriptive statistics the following risk management initiatives were moderately used diversifying sources of fund, establishment of credit limits in the institutions, establishment of the financial risks management framework, asset-liability management, holding liquid assets to protect against liquid risk, avoidance of unprofitable risk positions and activities.

The GoEs also moderately applied hedging strategies against financial risks: asset hedging, liability hedging, transaction hedging, hedging against loss to protect cash flows value from movements in financial prices such as interest rates, forecasting the probabilities and magnitudes of large adverse price changes in the institutions through application of statistical models, contingent financing provision to covers unexpected losses and post-loss financing and recapitalization. Nevertheless, GoEs did not carry out assessment of asset-return volatilities, asset-level or disaggregated risks and portfolio-level or aggregated risks. A large proportion of the GoEs were likely to experience moderate impairment in a financial distress. The study revealed that GoEs emphasis from the respondents on the need for risk assessment framework.

5.3 Conclusions

The focus of the study was to establish determinants of financial sustainability of government owned entities in Kenya. Based on the findings form the study on the data collected and analyzed through both descriptive and inferential statistics established it is clear that the financial resource utilisation, working capital management, financial investment and financial risk management significantly influence financial sustainability had a significant effects on financial suitability. The coefficient of determination and correlation coefficient showed a strong relationship these variables and financial sustainability of Government owned entities in Kenya. The study concluded that there is statistical evidence that financial resource utilisation, working capital management, financial investment and financial risk management significantly explains the financial sustainability of GoEs in Kenya.

5.3.1 Financial Resource Utilization and Financial Sustainability

The first hypothesis, H_{01}: financial Resource utilization does not significantly influence financial sustainability when this hypothesis was tested the financial resource utilization was found to have a significant statistical effect significantly explains the financial sustainability of GoEs in Kenya. The study concludes that there is statistical evidence that financial resource utilisation, significantly explains the financial sustainability of GoEs in Kenya.

5.3.2 Working capital Management and Financial Sustainability

The second hypothesis H_{02}: working capital does not significantly influence financial sustainability When this hypothesis was tested the working capital management was found to have a significant statistical effect significantly explains the financial sustainability of GoEs in Kenya. The study concluded that there is statistical evidence that working capital management, significantly explains the financial sustainability of GoEs in Kenya.

5.3.3 Financial investments and financial sustainability

The third hypothesis H_{03}: financial investments does not significantly influence financial sustainability. When this hypothesis was tested the financial investment was found to have a significant statistical effect significantly explains the financial sustainability of GoEs in Kenya. The study concluded that there is statistical evidence that, financial investment significantly explains the financial sustainability of GoEs in Kenya.

5.3.4: Financial risk management and financial sustainability

The forth hypothesis H_{04}: financial risks management does not significantly influence financial sustainability. When this hypothesis was tested the financial risk management was found to have a significant statistical effect significantly explains the financial sustainability of GoEs in Kenya .The study concluded that there is statistical evidence that financial risk management significantly explains the financial sustainability of GoEs in Kenya.

5.4 Recommendations

The recommendations were based on the objective of the study, to examine the determinants of financial sustainability of Government Owned Entities in Kenya

5.4.1: Financial Resource Utilization and Financial Sustainability

From the study finding the Financial Resource Utilization positively influenced financial sustainability even though there is need to ensure prioritized financial resource utilization in order to ensure that institutional goals/plans are set in line with the available funds. It can be recommended that the managers adopt a bottom up resource management approach to realize better resource utilization.

Financial resource utilisation is key to financial sustainability therefore the need for enhancing the monitoring and evaluation of budget. There is need to employ technologies in tracking down budgeting and linking the budgetary process to

policy formulation and implementation and prudent management of funds through regular and spot audits checks.

5.4.2: Working Capital Management and Financial Sustainability

Based on the study results it can be concluded that the working capital Management influences financial sustainability of Government owned entities. The results are of interest to the academics and managers of GoEs. The study findings revealed that there overstocking or holding idle assets which are non-earning assets affecting the generation of cash flow, therefore it can be recommended that the GoEs should adopt methodologies of measuring and determining stock levels such as economic order quantities to ensure reorder levels so that they do not overstock and hold cash, alternatively some asset could be converted to liquidity for immediate use or investment. A policy on disposal of idol asset should be formulated so that assets that have passed their useful life be removed and disposed. This will release capital held, that can be used for a meaningful gain by the entities or invested.

5.4.3: Financial Investments and Financial Sustainability

From the study finding financial investment is key in ensuring GoEs financial sustainability so GoEs should endeavor to invest at every opportunity. Based on the study GoEs do not invest therefore the study recommend the need to sensitize the management of these GoEs on the importance of Investment as a key priority to GoEs. There is need to have investment policy developed and ministry to assist GoEs venture into new innovation and diversification of investment. Encourage supporting projects and technologies that mitigate against environments degradation. This will help GoEs especially agriculture related, which depends on environment for their products and raw material.

5.4.4: Financial Risk Management and Financial Sustainability.

Financial Risk Management is key to ensuring financial sustainability. Based on the statistical evidence it is clear that risks hinder GoEs towards achievement of financial

sustainability characterized by uncertainties in economic situation, Entities are impaired due to rise in interest rate due to rise in inflation. The study recommend that the GoEs should manage their risks through establishing financial risks assessment framework, this will enable them to address any anticipated risks as they are arise. There is need also to implementing quality management systems.

5.5 Policy Recommendations

Financial sustainability is paramount to Government Owned Entities, from the study finding it is clear that is the GOEs adopt the financial management practices by implementing the financial resource utilization, working capital management, engaging in financial investments and adopting key strategies for financial risk management then they will be I the anterior of financial sustainability. From the finding the study recommends the flowing policy guidelines in order to ensure sustainability.

The study revealed that some GoEs not performing optimally there is need to change of management style and adopt a hybrid model which encompasses both the traditional and private styles of management. This is a kind of continuum model of control that spars the public/ private interface that would enhance the desired level of governance control, act as a motivation and eventually breed in new styles of management that will put emphasis on strategies for ensuring financial sustainability.

From the study it is clear that the GoEs have had equal opportunities and threats from the private/ public entities and therefore they need to consider value creation, be more innovative for investments, through involvement of the Public-Private Partnerships. This will lead to the introduction of new technologies and improved financial investments in agriculture from development partners for programmes and projects with international dimensions, Privatization low performing GoEs as a way to control the decline of some sunset GoEs

There is also need to have innovative financial evaluations models encompassing key goals of GoEs instead of the normal financial evaluations models of focusing on profit and loss which has risked the achievement of GoEs. This will enable evaluate their output and how they have been able to achieve and contribute to societal value creation.

5.6 Study's Contribution to the Existing Knowledge

There is currently no specific framework or a theory on financial sustainability to help researchers design adequate empirical research and to properly interpret the results of their investigations. Until recently with the development of behavioral finance theory, this developing academic field lacked depth in terms of theoretical foundations.

The findings of this study contribute to the existing body of knowledge but inclined towards financial sustainability of government owned entities (financial resource utilization, working capital management, financial investment and financial risk management). Few studies had been done on financial suitability of government owned entities in Kenya and African context generally and the existing studies concentrated on much on financial planning, resource mobilization leadership and training capacity building, financial management, proper governance system, strategic alliances, internal financial sources, organizational structure, development funding and paradigm shift among others with no specific concentration on financial resource utilization, working capital management, financial investment and financial risk management as influences to financial sustainability.

Most of the studies, have focused on profit making organization rather than government owned entities, thus, the findings of this study contribute in filling this knowledge gap by focusing on the financial suitability of government owned entities. Therefore, the study builds further on the recent and existing empirical information in the field of financial sustainability studies.

5.7 Areas for further Research

The study provided empirical review on determinant financial sustainability of Government owned Entities in Kenya, and employed a mixed research design. There is need for further research to explore other designs as this may not be applicable to some GoEs in other ministries given their dynamics.

The variables under review, that is the financial resource utilisation, working capital management, financial investments and financial risk management influenced the financial sustainability by approximately 69% indicating that 31% is influenced by other factors that are not in the study. There is need to look at these other factors besides the variables under study that would explain the variance.

The financial risk management is a field gaining a lot of interest. From the descriptive data there need to probe, through further studies to find other influences affecting this variable and its influence on financial sustainability that was not unveiled by the study. The study gathered information from the senior managers of the entities and ignored the other interested stakeholders, therefore the study recommends for future studies which would incorporate the views of other stakeholders as they play a significant role in the financial sustainability of the entities.

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APPENDICES

Appendix I: Letter of Introduction

JOMO KENYATTA UNIVERSITY
OF
AGRICULTURE AND TECHNOLOGY
JKUAT MOMBASA CAMPUS

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MOMBASA CAMPUS
P. O. BOX 84310-80100
MOMBASA

REF. JKU/MSA/ACA/07/05 02/03/2016

TO WHOM IT MAY CONCERN

SUBJECT: ROSALY NJERI WACHIRA REG. NO. HD433-C005-0466/2012

RE: COLLECTION OF DATA

The above named is Doctor of Philisophy, Business Administration student in this campus. She is currently carrying out research on the topic: **Financial Sustainability Determinants of Government Owned Entities, Under the Ministry of Agriculture, Livestock and Fisheries in Kenya**. Kindly allow her into your organization to collect relevant data that we believe will go a long way in helping her to meet the objectives of her study.

Yours faithfully,

Dr. Fred Mugambi
DIRECTOR.

JOMO KENYATTA UNIVERSITY OF AGRICULTURE AND TECHNOLOGY
MOMBASA CBD CAMPUS
P. O. Box 84310-80100

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Appendix II: Questionnaires

Section A: Demographic Information

1. Position in the Institutions …….……
2. Indicate the Age of the Institution……..

Section B: Financial Resource Utilization

1. Does your organization generate other resources besides what the Government has provided through the MOALF? Yes [ ] No[ ]
2. Are these resources incorporated within the budget? Yes [ ] No[ ]
3. Does the organization prepare its own budget line projection? Yes [ ] No[ ]
4. Are the budget allocation approved by the Ministry according to expenditure line? Yes [ ] No[ ]
5. Are the revenue and expenditure tracked within the budget Yes[ ] No[ ]
6. How often does the Institution file returns to the Ministry? Monthly [ ], Yearly[ ]
7. Indicate how your institution can improve resources utilization ……
8. Rate the extent to which the Institutions has achieved financial sustainability through efficient Financial Resource Utilization?

   No extent at all [ ]
   Little extent [ ]
   Moderate extent [ ]
   Great extent [ ]
   Very great extent [ ]

9. Indicate your level of agreement with the following statements regarding Financial Resource Utilization. Rate your response on scale of five units whereby 1=strongly disagree, 2= disagree, 3=moderately agree 4= agree, and 5=strongly agree.

Statement on financial resource utilization	**1**	**2**	**3**	**4**	**5**
1. The institutions invests in fixed assets to raise resources					
2. The institution effectively determine funds for activities needed					
3. The institution effectively forecasts for the availability of funds					
4. The institution has mechanism to prevent wastage of resources					
5. The institution has mechanisms for cash pooling to optimize the use available resources					
6. The institution acquires loans to enhance resources base.					
7. The institution seek the ministry assistance to access loans from commercial banks					
8. The institution link with the ministry assist in matching expenditure and revenue					
9. The Institutions set expenditure to key priority areas					
10. The Institutions' has efficient debt management policy					
11. The Institutions' links its policies and strategies to budgeting processing					
12. The institutions' adheres to the set budget guidelines by the ministry					

10. In which other ways can Institutions improve financial sustainability through Financial Resource Utilization?.....

Section C: Working capital Management

1. Indicate ways in which your Institution finances its working capital……..
2. Indicate your level of agreement to the following statements regarding strategies of working capital management to improve financial sustainability in the institutions. Rate your response on scale of five units whereby 1=strongly disagree, 2= disagree, 3=moderately agree 4= agree, and 5=strongly agree.

Statement on working capital management	**1**	**2**	**3**	**4**	**5**
1. The Institutions has a timely and efficient method of collection of receivable for smooth financial operation.					
2. The institution pays efficient and timely settles the creditors for smooth financial operation.					
3. The institutions effectively manage inventory turnover rate					
4. The Institutions is able to effectively balance the current assets against current liabilities in order to meet its short-term obligations.					
5. The Institutions carry out regular analysis of currents assets and liabilities in order determine their working capital levels					
6. The institutions effectively matches the inflows and outflows of cash so as to maintain adequate cash.					
7. The institution has a mechanism to ensure the present value of assets and the book value of profit is not significant					
8. The Institutions has enough cash reserves for forecasted or unexpected requirements					
9. The Institutions efficiently converts operating working capital to cash in case of need					
10. The Institutions effectively forecast cash flows and cycles in order to predict organizational needs and expected surpluses					
11. The Institutions effectively manage liquidity by investing and financing strategies in order to maximize return on cash generated					
12. The Institutions has best practices to ensure working capital accountability and continuous improvement of receivables and payable processes					

3. Indicate your level of agreement with the following statement. That the institution

uses the following key blocks as a way of efficiently managing working capital in management in the institutions for greater financial sustainability. Rate your response on scale of five units whereby 1=strongly disagree, 2= disagree, 3=moderately agree 4= agree, and 5=strongly agree.

Key block on working capital management	**1**	**2**	**3**	**4**	**5**
1. Financing Working Capital					
2. Cash Management					
3. Inventory Management					
4. Debtors Management					
5. Infrastructure Capital Management					
6. Management of short term investment loans and advances					

4. Indicate your level of agreement with the following statement, that the institutions uses the following key indicators for assessment of working capital. Rate your response on scale of five units whereby, 1=strongly disagree, 2= disagree, 3=moderately agree 4= agree, and 5=strongly agree.

Key assessment of Working capital Management	**1**	**2**	**3**	**4**	**5**
1. Constant monitoring the working capital ratio					
2. Managing liquidity constraints					
3. Disposing off excessive, obsolete or growing inventories					
4. Adequate forecasting and demand planning					
5. Undertaking credit rating					
6. Undertaking aging of receivables					
7. Laying of Workers during low seasons and closing unused facilities					
8. Engaging in Fragmented spending					
9. Laying of Workers during low seasons and closing unused facilities					

5. State how can the Institution efficiently manage working capital……...

Section D: Financial Investment

1. (a) Does the Institutions invest its returns/ surplus? Yes [ ] No[ ]
2. How does your organization invest its surplus? (Tick Appropriate)

   Shares [ ]

   Stocks [ ]

   Infrastructure [ ]

   Treasury bond [ ]

   Others (specify)……...
3. Are there specified type of financial investments approved by ministry that that the Institution use: Yes [ ] No[ ]
4. If yes, indicate these type of investments opportunity? (Specify)……
5. Indicate your level of agreement to the following statements regarding investment in the Institutions. Rate your response on scale of five units whereby 1=strongly disagree, 2= disagree, 3=moderately agree 4= agree, and 5=strongly agree.

Statement on investment	**1**	**2**	**3**	**4**	**5**
1. The institution has an investment policy					
2. The investments policies in the institutions enables accelerate cash inflows					
3. The investments policies in the Institutions facilitate improved financial sustainability by key strategies that impact on investment					
4. The investments policies are help in creating or leveraging assets.					
5. The investments policies outlines diversified portfolio well constructed based on risk tolerance, time horizon and goals of the institution.					
6. The Institutions policy allows diversified financial investments with high return on investment.					

6. To what extent has the investment in the Institutions improved financial sustainability in the last decade?

   No extent at all [ ]

   Little extent [ ]

   Moderate extent [ ]

   Great extent [ ]

   Very great extent [ ]

Section E: Financial Risk Management

1. Indicate your level of agreement with the statement that the Institutions efficiently managed the following financial risks in order to enhance financial sustainability. Rate your response on scale of five units whereby 1=strongly disagree, 2= disagree, 3=moderately agree 4= agree, and 5=strongly agree.

Statements on Financial Risk Management	**1**	**2**	**3**	**4**	**5**
1. Market risk due to movement in prices of financial instrument such as stock price, interest rate and foreign exchange rates					
2. Credit risks in which borrowers in the institutions fail to pay due debt obligation					
3. Liquidity risk arising from inability to execute transactions					
4. Operational risk characterized by monetary loss from inadequate processes, people, and systems or from external events					
5. Legal risk arising from legal constraints such as lawsuits					

2. Indicate your level of agreement with the following statements. That the institution employed following strategies on financial Risk Management in order to improve financial sustainability. Rate your response on scale of five units whereby 1=strongly disagree, 2= disagree, 3=moderately agree 4= agree, and 5=strongly agree.

Statement on Financial risk management strategies	**1**	**2**	**3**	**4**	**5**
1. Establishment of the financial risks management framework					
2. Avoidance of unprofitable risk positions and activities					
3. Hedging against liability					
4. Transaction hedging					
5. Hedging against loss to protect cash flows value from movements in financial prices e.g. interest rates					
6. Asset-liability management and hedging					
7. Contingent financing provision to covers unexpected losses					
8. Post-loss financing and recapitalization					
9. Diversifying sources of fund					
10. Holding liquid assets to protect against liquid risk					
11. Establishment of credit limits in the institutions					
12. Forecasting the probabilities of adverse price changes					

3. Indicate your level of agreement with the following statements, on how the institution assess their financial risk by ticking the column that best reflects your opinion. Rate your response on scale of five units whereby 1=strongly disagree, 2=

disagree, 3=moderately agree 4= agree, and 5=strongly agree.

Assessment of financial risk management	**1**	**2**	**3**	**4**	**5**
1. The Institution carry out comprehensive assessment of asset-return volatilities					
2. The Institution undertakes portfolio-level risk assessment					
3. The institution undertakes asset-level risk assessment					
4. The Institution regularly conduct risk assessment					
5. The Institution closely monitor the links between industry risks and macroeconomic determinants.					
6. The Institution has a very strong corporate Governance					

4. To what extent are the assets of Institution likely to be impaired in a financial distress?

   No extent at all [ ]
   Little extent [ ]
   Moderate extent [ ]
   Great extent [ ]
   Very great extent [ ]

5. Outline the financial risks that the Institution is exposed to.....
6. Are there cases of conflict between the management and the board that affect financial sustainability of the institution Yes [ ] No [ ]
   If yes specify to what extent does it affect the organization performance/ sustainability? No extent at all [ ], little extent [ ], Moderate extent [ ], Great extent [ ], Very great extent [ ].
7. Outlines some of the measure that the management of the institution has undertaken in Financial Risk Management ……..……...
8. Indicate in your opinion how your organization can effectively enhance Financial Risk Management processes for financial sustainability .....

Section F: Financial Sustainability

1. How does your institution ensure financial efficiency ……
2. Rate in a scale of five units, the financial strength of your organization.

   0-25% [ ], 26-50% [ ], 50-75%[ ], 76-100% [ ]
3. Indicate your level of agreement on the following statements on financial sustainability in your Institution. Rate your response on scale of five units whereby 1=strongly disagree, 2= disagree, 3=moderately agree 4= agree, and 5=strongly agree.

Statements on financial sustainability	**1**	**2**	**3**	**4**	**5**
1. The institution sets adequate allocation of financial resources for all planned activities					
2. The institution ensures that projects are completed in time according to the planned budget and schedule					
3. This organization has enough money for all contingencies					
4. The institution manages debt and ensures the debts accrued are less than the previous year.					
5. The institution has diversified its income sources					
6. Managers are trained in financial management and cost management					
7. The institution has a monitoring and reporting system is in place					
8. The institution has developed and maintained a strong stakeholders relationship over the last two years,					
9. The institution ensures that projects are completed in time according to the planned budget and schedule					
10. The institution often calculates the asset replacement ratio to show if assets are replaced after attaining their useful life					
11. The institution often calculates ratio to inform on financial sustainability					
12. The institution often calculates the operating surplus ratio to measure ability to fund ongoing operations over the long-term					

4. How can Institution improve their financial sustainability?.....

Appendix 111: Secondary Data Collection Sheet Guide

SECONDARY DATA COLLECTION SHEEET

This sheet was used by the researcher to collect secondary data among the thirty six selected Government owned Entities which formed the sample size of the study. The data collected was based on four key ratios, Working Capital ratio, Net financing Liability ratio, Asset sustainability Ratio and Net operating Surplus ratio used to analyse the financial sustainability of GoEs in Kenya.

The table was used to collect the data for the duration of the study

1. Data on input for average Working capital Ratio for the Institutions for the period 2009/10 to 2014/15.

Particulars	Extract from Financial Statements (Million KS.)2005/2015					
Financial Year	2009/2010	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015
Current assets						
Current liabilities						
Stock						

2. Data on input for Net operating surplus ratio &Net financing Liability ratio of the Institutions for the period 2009/10 to 2014/15.

Particulars	Extracts from Financial Statements (Amount in Million (000) Kes.)2005/2015					
Financial Year	2009/2010	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015
Net Surplus						
Capital Revenue						
Current Income						
Total Income						
Expenses						

3. Data on input for Asset sustainability ratio of the Institutions for the period 2009/10 to 2014/15.

Particulars	Extracts from Property, Plant and Equipment Note and Depreciation and Amortization Note (Amount in Million (000) Kes.)					
Financial Year	2009/ 2010	2010/ 2011	2011/ 2012	2012/ 2013	2013/ 2014	2014/ 2015
Capital Expenditure (on Replacement of assets						
Depreciation						
Amortization						

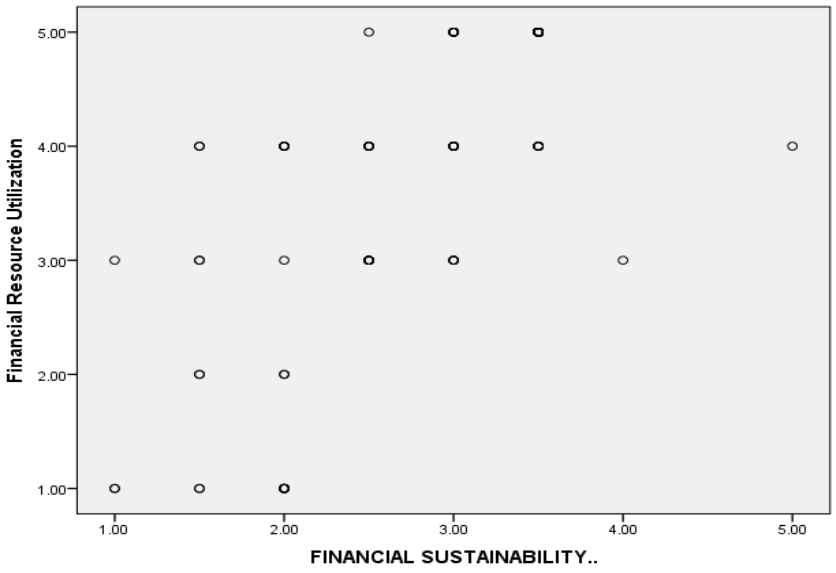
Appendix IV: Government Owned Entities

Sno	Government Owned Entities	Location
1.	Agriculture, Fisheries and Food Authority (AFFA)	Naivasha Rd, Nairobi
2.	Agricultural Development Corporation (ADC)	Moi Avenue, Nairobi
3.	Kenya Agricultural & Livestock Research Organization (KARLO)	Westlands, Nairobi
4.	Coffee Research Institute	Ruiru
5.	Dairy Research Institute	Naivasha
6.	Food Crops Research Institute	Kitale
7.	Genetic Bank Research Institute	Kabete, Nairobi
8.	Horticulture Research Institute	Kandara –Thika
9.	Sugar Research Institute – Kibos	Kisumu
10.	Tea Research Institute	Kericho
11.	Veterinary Research Institute	Kabete, Nairobi
12.	Agricultural Information Resource Centre	Muguga, Nairobi
13.	Agro-Chemical and Food Company	Muhoroni
14.	Bukura Agricultural College	Kakamega
15.	National Irrigation Board	Nairobi
16.	Chemelil Sugar Company	Kakamega
17.	Kenya Dairy Board	NSSF BLD 10th Floor, Nairobi

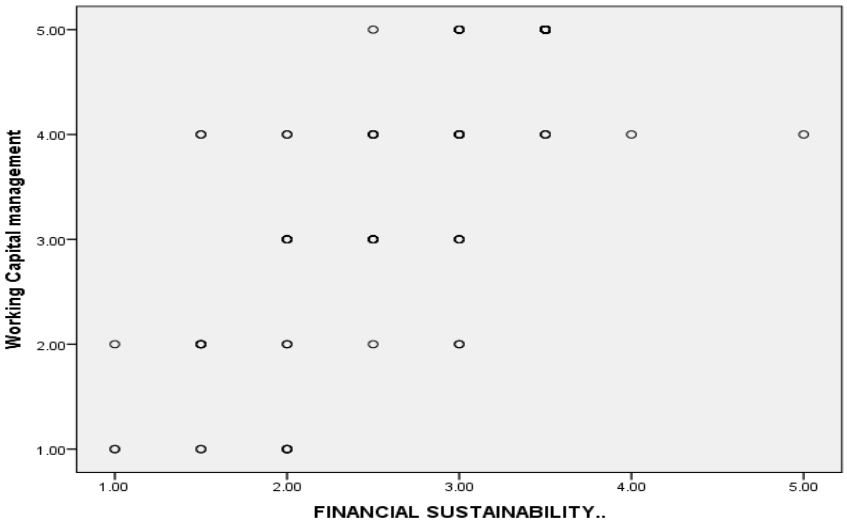
18.	Kenya Marine and Fisheries Research Institute	Mombasa
19.	Kenya Meat Commission	Athi River
20.	Kenya Plant Health Inspectorate Service	Karen, Nairobi
21.	Kenya Seed Company	Kitale
22.	Kenya Sugar Board	Westland, Nairobi
23.	Kenya Veterinary Vaccine Production Centres	Industrial Area, Nairobi
24.	Miwani Sugar Factory	Kisumu
25.	Muhoroni Sugar Factory	Kisumu
26.	National Bio-Safety Authority	Gigiri, Nairobi
27.	National Cereals and Produce Board	Industrial Area, Nairobi
28.	Nyayo Tea Zones Development Corporation	Nyayo House, 11th Floor, Nairobi
29.	Nzoia Sugar Company	Kakamega
30.	Tana and Arthi River Development Authority Tarda	Nairobi
31.	Tea Board of Kenya	Nairobi
32.	Pest Control and produce Board	Westlands
33.	South Nyanza Sugar Company	Migori
34.	Kenya Veterinary Board	Nairobi
35.	Kenya Trypanosomiasis	Nairobi
36.	Kenya animal Genetic recourses Centre (Kagric)	Muguga, Nairobi

Appendix IIV: Test of Linearity Graphs

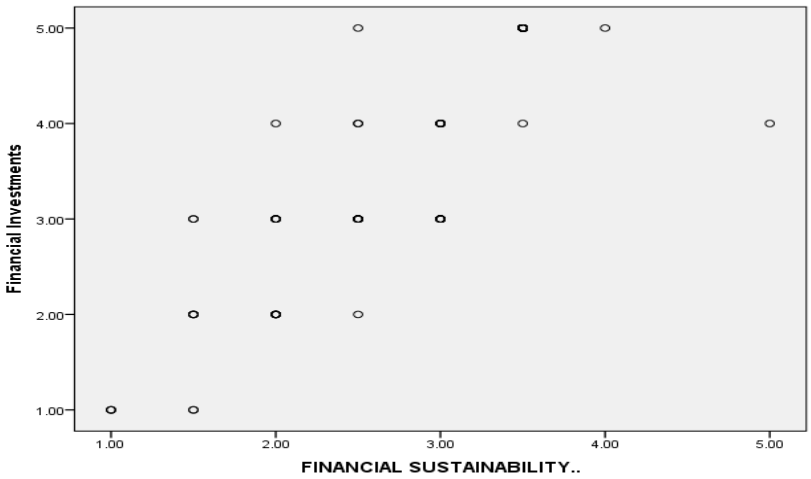
Scatter plot of Financial Resource Utilization Versus Financial Sustainability



Scatter plot of Working Capital Management Versus Financial Sustainability



Scatter plot of Financial Investment Versus Financial Sustainability



Scatter plot of Financial Risk Management Versus Financial Sustainability