EFFECT OF INTERNAL CONTROL SYSTEMS ON FINANCIAL PERFORMANCE OF PUBLIC UNIVERSITIES IN KENYA

DANIEL KAMAU MUNGAI

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DECLARATION

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

Signature .... Date 2nd May 2022 ....

Name: Daniel Kamau Mungai

Reg No: BE300/S/4260/17

Recommendation by the supervisors

We confirm that the work reported in this thesis was carried out by the candidate under our supervision.

Signed ....Date 5th May 2022 ....

Dr. Mary Maina

Business Department

School of Business and Education

Kirinyaga University

Signed ......5/05/2022.......Date 5TH MAY 2022 ....

Dr. James N. Kung'u

Department of commerce

School of Business

Laikipia University

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DEDICATION

This research thesis is dedicated to my family for their support through this research for their understanding, love and prayers and to my late parents.

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ABSTRACT

Most private universities in the world have reported better financial performance results than public Universities across the world. Majority of the public universities struggle financially and depend on government funding. The dismal financial performance in public universities can be ascribed to poor financial management practices. Ideal financial management approaches require organizations to have a strong and robust internal control systems. Though financial management and internal control systems are essential, there exists only a few studies and empirical evidence on the relationship between financial performance and internal control systems in public universities in Kenya The aim of the study was to investigate the effect of internal control systems on financial performance of public universities in Kenya. Explicitly, the research investigated the effect of budgetary controls, corrective controls, preventive controls, and detective controls on the financial performance of public universities in Kenya. Besides, the research examined the moderating effect of regulations and policies on the relationship between internal control systems on the financial performance of public universities in Kenya. The research was informed by the systems theory, agency theory, attribution theory, and stewardship theory. The research adopted a causal research design, and targeted 160 respondents from 32 public universities. Census sampling technique was applied. Semi-structured questionnaires and secondary sources were used to collect primary and secondary data respectively. The secondary data was obtained on the financial performance of public universities for five years. The study respondents were the Deputy Vice chancellors (finance), Registrars, In-charge ICT, Finance Officers and Internal Auditors. A total of 142 questionnaires were returned duly filled which was 88.75%. Descriptive and inferential analysis was done on the data collected. A pilot study was conducted to examine the reliability and validity of the research instruments. The instrument was adjusted accordingly. Diagnostic tests were carried out and the data was found to be normally distributed and did not suffer from multicollinearity. The data did not also suffer from heteroscedasticity. Regression analysis was done to determine the effect of the independent variables on the dependent variable. The findings revealed that budgetary controls, corrective controls, preventive controls, and detective controls regressed individually against the dependent variable were statistically significant. However, when jointly regressed, corrective controls variable was insignificant. The study also found that regulations and policies did not have moderating effect on the relationship between internal control system and financial performance in public universities in Kenya. The research concluded that, to a large extent, internal control system had an effect on financial performance of public higher learning institutions. The research recommends that University management in public universities strengthen their internal control systems and that policy makers, regulatory authorities, the ministry concerned should formulate sound policies that strengthen internal controls of state corporations. By strengthening the internal controls of state corporations, their financial performance would improve and thus overall growth of the economy as a whole.

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ACRONYMS AND ABBREVIATIONS

AFDB	African Development Bank
GAAP	Generally Accepted Accounting Principles.
COSO	Committee of sponsoring organizations
CUE	Commission of University Education
GAAP	Generally Accepted Accounting Principles
GDP	Gross Domestic Product
GoK	Government of Kenya
H.E	Higher Education
ICS	Internal Control Systems
IFAC	International Federation of *Accountants*
IHE	Institute of Higher Education
LIA	Letter of Interim Authority
NACOSTI	National Commission for Science Technology and Innovation
SACCO	Savings and Credit Cooperative
SME	Small and Micro Enterprises
SOX	Sarbanes Oxley Act
SWOT	Strengths, Weaknesses, Opportunities, Threats

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Today, numerous methods and processes have been established by firms in the business world and designed to contribute to the control and planning functions. Internal control system is among the most vital processes that are widely used, and involve establishing predetermined objectives, reporting the definite performance outcomes, and evaluating the performance based on the predetermined objectives (Anderson, 2012). Internal Controls comprise of procedures and policy systems that ensure reliable and accurate financial and accounting reporting, protect assets, achieve efficient operations, and foster compliance with local rules and principles. According to Statement of Auditing Standards SAS No.55, it is important for an auditor to know what an entity's internal control system (ICS) entails and its sufficiency for auditing purposes before coming up with an audit trail. Internal control frameworks, such as Sarbanes Oxley Act (SOX) and Committee of sponsoring organizations (COSO) (2004), have been established to ensure organizations reveal their internal controls on financial and accounting reporting as a response to accounting scandals that have been publicised in the recent past (Katua, 2014).

Internal control auditors and designers are helped by the assumptions that are inherent in these internal controls. These assumptions consist of the management responsibility concept, which supports the fact that establishing and maintaining an internal control scheme is a management responsibility (Muraleetharan, 2013). Also, the internal control system is supposed to give rational assurance that internal control goals are attained in a way which is cost-effective. Therefore, all internal control systems are not impeccable and the cost incurred to achieve enhanced control is not supposed to surpass its benefits.

Moreover, internal controls are supposed to meet the set goals no matter what data processing method is used. However, the control techniques used to attain these goals differ in different kinds of technology (Stephen, 2017). Internal auditing is meant to evaluate how effective is the internal control system, and establish if it is working as intended (Fadzil, Haron, & Jantan, 2008).

All internal control systems have flaws on their effectiveness. These faults include the probability of errors as workers or staff may conspire and use other means to evade the system. Control procedures are superseded by the management through distortion of transactions directly or instructing a subordinate to distort them. Thus, existing controls may weaken since conditions are subject to change over time. An audit trail is developed as part of internal control measures to document transactions. This trail limits the actions of workers or staff by requiring verification, approval, and authorization of the transactions (Mungaya, Mbwambo, & Tripathi, 2012). They separate roles since some job responsibilities are incompatible mutually and grant individuals a lot of unsupervised access to organization assets if left unchecked (Vian, 2012). These internal controls are categorized as budgetary, corrective, detective, or preventive controls.

In control structure, the first line of defence is prevention. Preventive controls include passive methods which are formulated to minimize regular occurrence of unwanted events. Preventive controls screen out deviant events by forcing compliance with desired or prescribed actions. Preventing fraud and errors saves cost much better compared to identifying and solving issues after they emerge. This first stage can be used to block all the undesired financial events in public universities. Thus, the source document from suppliers or debtors can prevent essential data from being corrupted. However, it is hard to predict and prevent all problems and some usually bypass the most comprehensive and effective preventive control networks (Ogundipe, Idowu, & Ogundipe, 2012).

The next level of defence is formed by detective controls. According to Monday, Inneh, & Ojo, (2014) this defence includes procedures, techniques, and strategies that are developed to recognize and disclose any unwanted event that escapes preventive controls. Detective controls are used in public universities to compare actual incidences to standards that are pre-established and identify any types of errors that can be present in the system. The detective control produces a distress alarm to attract attention after it identifies a departure from standard. Accountants and auditors in public universities use these detective controls before they process transactions and post to the books. They also help to recalculate the overall value of diverse situations by use of the quantity and price to eliminate any errors in the totals (Nyongesa, 2014). Therefore, these control measures are applied to reveal some specific mistakes in the internal control system by equating actual occurrences to already set standards.

Corrective controls on the other hand include the actions that are undertaken to undo the impacts of errors detected in the system (Levy, Powel, & Yetton, 2011). There is a noteworthy difference between corrective and detective controls. In the university setup, detective controls pinpoint abnormalities and create attention to them, whereas corrective controls mend the problem. However, there can be more than one practicable corrective action for any detected error. Even in cases where we recalculate the value of the transaction, we should not assume that the value of price and quantity on the transaction are recorded correctly as they may be wrong. Connecting a corrective action to a detected error, as an instinctive reaction, may produce an inappropriate action, which can cause a significant mistake than the initial error (Nobes, 2014). Correcting errors should be viewed as a distinct control action that needs to be taken with a lot of caution. There are some measures and cautions that can be put in place right from the point of preparation of the budget estimates (Nobes, 2014).

Budgeting helps to prepare comprehensive financial statements for showing the financial results that are targeted and expected in future, and therefore help in projections that guide internal controls (Kinyua, Ogollah, & Mburu, 2015). In public universities, budgetary controls are the processes used for determining varied authentic results with budgeted values of universities for the future time frame and set standards, and comparing them with the authentic performance for evaluating any variations. This helps in establishing any inconsistencies present and taking corrective measures at an appropriate timeframe. Budgetary control is a progressive procedure that aids to co-ordinate and plan. Budgetary control refers to the outcome while budget refers to the means. According to Mwaura (2013), budgetary control is a system that is used to control costs, including preparing budgets, identifying responsibilities and managing the departments, comparing real performance with the budgeted, and working on the final outcomes to attain utmost profits (Monday, Inneh, & Ojo, 2014). If this is applied in internal control in a public university, it will help in enhancing performance.

Financial performance refers to subjective measures that determine how well organisations can make use of its possessions and other resources within their capacity from their main operations mode to create revenue (Nyakundi, Nyamita, & Tinega, 2014). Public university financial performances can be evaluated using a number of benchmark indicators. These measures include borrowings to equity ratio, dependence on student fees and diversity of revenue collection, liquidity, and operating result. The operating result of universities is a valuable measure of their financial performance even though they are non-profit making organizations. Huge deficits or consecutive deficit trends show there is a necessity for analysis and review.

Universities have been forced to establish and employ effectual internal controls to ease efficient and effective financial performances because of the compelling requirements that organizational certifications have (Mungai, 2015). The financial performance reliability depends on the internal control efficiencies that provide effectiveness in book keeping, transactions, and sufficient system approval. Additionally, institutions should disclose their accounting information that is summarized (Mbroh, 2011). The quality, type, and nature of financial performance are highly influenced by internal control systems. Grant (2014) stated that organizations should focus on attaining their objectives when it has effective performance measures. Those organizations that have track record of good financial performance have always taken advantage of opportunities and prevent threats through effectual use of internal controls IFAC (2012)

1.1.1 The Global Perspective on the effect of ICS on financial performance of public universities

Globalization is the incorporation of organizations' strategies, processes, and operations into varied ideas, cultures, products, and services (Omagor & Mubiru, 2008). When managers understand how globalization affects internal controls, they can be able to equip their universities well and give them the capability of making a global impact (Wilkinson, 2010). In the current times, organizations that are being produced by the developing nations are contesting successfully with multinational giants that are produced by the most developed countries (Snell, 2012). There is an emerging remarkable array of institution of higher learning due to globalization and the varied political and economic reforms that are implemented by the developed world. This array has improved their systems using appropriate internal controls to improve performance that necessitate wider research in public universities, mainly in the developing world.

Most institutions have excellent performance nationally and have endeavoured into the international arena, becoming part of the international universities. Nevertheless, a change does not generally accompany the transformation in the manner which these institutions control budgets and internal control systems that are used to protect their resources. Therefore, these organizations get significant challenge of managing their systems efficiently in the international arena due to globalization (Pamela et al., 2010).

In the current era of increasing competition and growing globalization, higher learning institutions globally have established that the internal control systems instilled in their organizations pose significant challenges of fraud and can cause massive losses if not handled carefully (Vaiman, Scullion, & Collings, 2012). Therefore, internal control systems have become a major strategic issue within this climate. Boudreau & Cascio (2012) suggest that substantial analysis in the recent times has concentrated on the relationship between the financial performance and internal control systems instilled. The value of internal control systems is highlighted by the theme across this work as an explicit factor that contributes to the financial performance of these higher learning institutions. Most of the public universities in Europe are still centralized and cannot decide their own governance structures, and regulations on higher education dictate the details of decision-making and governance bodies (Donina et al., 2015). Internal controls were referred by the

American Institute of Accountants as everything that is required for organisations to cater for all their resources including the information and accounting data to cultivate effectiveness in financial performance with the goal of realising the required surplus or return. According to (Mercer, 2010) WorldCom and Enron's scandals caused the bankruptcy of these corporations in USA. This in effect culminated to the federal government of the United States and strengthened its internal control systems on financial performance through legislation.

Various financial scandals have recently been reported in universities that are under the international setting. For instance, in 2018, Yale University and Harvard University in America lost over $10 Million following an admission scandal that involved staff, students, and donors, who paid bribes to ensure their children were given positions in these universities. Equally, the University of British Colombia and the University of Toronto faced financial misappropriation and fraud in 2016 to a tune of $ 16 million. In 2010, various high profile corporate accounting scandals emerged, demanding tighter internal control systems and better emphasis on budgeting. The United States Congress passed the Sarbanes-Oxley Act (SOX) in July 2002 in a bid to minimize public concern over the growing number of high profile corporate failures within United States (Kennedy, Tennet, & Gibson, 2016).

The president of the Far Eastern Federal University in Russia was charged with fraud in 2018 after the university reportedly lost $ 290,000 through fraud that was attributed to failure of internal controls in the university. Oseifuah and Gyekye (2013) documented that those firms in the UK that reported internal control weaknesses and had fewer resources to invest and expand their businesses, were at an increased exposure to accounting risks, experienced recent changes in organizational structure, and had more complex operations. Moreover, Peterson & Zikmund (2004) indicated that universities with material and system weaknesses had higher chances of losses compared to those that did not report any material weakness. Also, Roque & Carvalho (2013) portrayed an adverse market response to universities that reported substantial weaknesses in internal controls.

Currently exceptional changes are being witnessed by universities in the way they view performance as the global marketplace continue to surge and many organizations compete to beat each other. The ability of engaging and developing improved control systems to lower risk is increasingly becoming more vital as universities progress towards achieving a borderless environment. Rani (2014) established that a number of trends are more likely to have a major effect on the financial performance of the universities in the view of these changes.

1.1.2 Regional Perspective on the Effect of ICS on Financial Performance of Public Universities

In the current hyper competitive and harsh global environment, it is hard for African universities to function at optimal levels within these circumstances. Therefore, financial performance is termed as a natural process that produces an effectual performance in universities and other organizations (Armstrong, 2014). African region universities are contending to encourage internal control measures by using diverse methods and means to increase financial performance in the midst of adverse competition. The fact that internal controls have become significant activities that determine universities’ success is not surprising (Kruise, 2012). The internal control system objective on financial performance is to enhance the ability of universities to augment their effectiveness to attain their set goals.

African university Councils and Chancellors are aiming to improve the financial performance of their institutions, but it is getting increasingly difficult due to fraud and heightened risk that they have to deal with in these institutions. Developing and implementing adequate internal control systems is currently a top agenda for the leaders in most African countries. According to Garavan & Heraty (2016), most of the upcoming universities in Africa have lost their resources through outright theft and fraud by workers due to lack of proper internal control systems that can eliminate such losses.

Accounting scandal cases were reported in Monash University, South Africa, where about $38 million got lost in 2010 through misuse or misappropriation. These scandals show the necessity of evaluating, scrutinizing, and formulating systems of balances and checks to direct company executives during decision-making processes. The executives are morally and legally obligated to provide accurate, trustworthy, honest, and educative financial reports of the corporate regularly (Hayes, Dassen, Schilder, & Wallage, 2009).

Muhammed (2014) analysed critically the internal control systems in Tanzania and Ethiopia. His study established that both the Tanzanian and Ethiopian reforms have succeeded in implementing internal control systems in higher learning institutions. Both pathways were selective and concentrated on systematic address of major weaknesses within financial controls. The first order task involved instilling effectual controls and the second order task involved enhancing the efficiency of controls. Both tasks had widespread customization. When the internal control system engagements of the two countries are compared, Ethiopian actions show they have been establishing a hybrid approach evolving existing systems and concentrating on the legal framework. Sufficient internal controls system is essential for appropriate management of universities (Shanmugam, Haat, & Ali 2012). Besides, internal control system that has measures of assessing the performance of the organization, no matter if it is profit making or non-profit, is imperative to ensure that institutions are controlled.

Studies in Nigeria have found that multiple internal control systems are pathetic, insufficient or disregarded, even where all the frameworks concerning compliance with ICS have been put in place (Gbeg i& Adebisi, 2015; Alao & Amoo, 2014; Abiola & Oyewole, 2013; Hamilton & Gabriel, 2012; Akinyomi, 2010) . According to Al-Atiqi and El-Azma (2007), financial accountability and monitoring in higher learning institutes has been a significant subject of attention across the globe. Salihu (2015) evaluated the impact of internal control efficiency in higher learning institutions within Adamawa state in Nigeria and established that the internal control system mechanisms were not accurately enacted and implemented by the institutions' management boards, principally in the area of personnel controls, supervision, approval and authorization, and division of duties. Consequently, there is a huge probability of losing revenue.

A case study analysis that was undertaken by Ejoh and Ejom (2014) at the Cross River State College of Education in Nigeria established that most internal controls have been put in place. For example, distinct division of duties in the finance department, regulation by top level managers, and adhering strictly to budget to eliminate any under or extra budgetary spending.

Evaluation of internal control systems of technical universities in Ghana by Dorcas Otengkoramah Badoo, Hilda Hammond, & Felix Oppong (2020) found out that Accra Technical University had formulated procedures and policies to enhance the execution of internal controls. Moreover, it established that there was little awareness of the staff concerning such penalties and policies on non-compliance. This was because the management was unable to pass on information pertaining internal control policies to staff effectively and early enough. Also, it found out that Accra Technical University demonstrated high compliance to the national regulatory policies and international standards in the preparation of its fiscal management and financial reports.

1.1.3 Local Perspective on the Effect of ICS on Financial Performance of Public Universities

Byiringiro Benjamin, Dr. Mahabaleswara Batha (2016), conducted a comparative study in Rwanda to examine the internal control system practices that existed in the chosen public business enterprises. The findings established that some have fundamental variances, and lack other elements of internal control components. Thus, the null hypothesis was acceptable to some elements and rejected to others.

Most of the organizations within the globe are increasingly restructuring their internal guidelines to improve their control systems. For instance, universities in East African countries are aligning themselves gradually to accept internal controls in their financial performance. The organizations' internal control mechanisms are essential components of ensuring enhanced performance and efficiency in universities (Kantzos & Chondraki, 2012). The economic downtrend that is currently being experienced globally does not spare anybody and has forced organization managers and executives to formulate prudent and austerity measures that aim to lower operational costs. These measures include improving budgets and integrating internal control measures that aim to enhance the financial performance of higher learning institutions (Terziovski, 2010).

Universities offer research, education, academic awards, and grants to students in different levels, which include Certificate, Diploma, Degree, and Postgraduate in various subjects as directed by their statutes. According to Onsongo (2007) Kenyan public universities are formed through a parliamentary Act to conduct research on diverse areas with the aid of a qualified staff. Institution success is determined by its capability to conduct research, extension services, and outreach programs. Public universities operate in a controlled government environment, just like all other parastatals and government institutions. Therefore, their operating environments are dependent. These universities must embrace change to survive and remain competitive because of liberation, financial instability, and government policies in this current era, which has minimal state capitation.

The scandals that have emerged in the recent years emphasize the necessity of evaluating, scrutinizing and reformulating control systems of balances and checks to direct business owners and executives in the process of making decisions. Thus, organizations should consider the amount of money that is used to implement derived control measures appropriately as much as they would like to implement them. The misappropriation of funds from organizations, mostly in public institutions and essential services, is getting more frequent. There are concerns on internal control systems due to these frequent scandals. Even though there is no reported financial scandal, there is a growing concern on whether they incur the similar deficits just like the other public regulatory institutions. Serious questions are raised over the recent reports by the media on the misappropriation of public university funds in Kenya coupled with the disclosure of poor control systems and a complex web of rot, which was highlighted in the recent past by the effort of an investigative journalist.

Several researchers have conducted various studies on the performance of internal control systems in Kenya. Measuring and evaluating financial performance is vital to control and answers trio questions; what transpired, why it ensued, and what corrective actions to undertake (Wanjohi, 2013). Financial performances give temporally response to the control systems as they observe the implementing of long-term goals by examining the position of the organization, communicating the position, compelling advancement, and authenticating priorities (Simiyu 2011). Therefore, it can be explained that financial performance is the end while internal controls are the means.

Previous studies on the relationship between internal control systems and financial performance do not show how internal control systems affect the financial performance of Kenyan public universities directly. Wainaina (2011) carried out a research to evaluate the internal control function efficiency: the case of Kenya Polytechnic University College and found out inconclusive results on the impact of internal controls on performance.

In their study on the impacts of internal controls on financial performance of deposit taking Saccos, Kiyieka and Muturi (2018) established that deposit taking Saccos had a working audit department and an internal control system that ascertains the Saccos' applicable and the risks that hinder the accomplishment of those goals. The management selected individuals to coordinate activities within the Sacco and communication helped to assess if the policies and regulations were being applied. Although the study was interested in financial performance, it focused on Saccos rather than public universities in Kenya. Due to this reason, the research sought to investigate the effects of internal controls systems on financial performance of public universities in Kenya.

1.1.4 University Education in Kenya

In Kenya, university education is the height of higher education. University education is essential to train a pool of highly qualified professionals in diverse fields and has the potential to promote development of individuals, economic capital, and other resources in their individual capacities. For good governance to apply, universities must uphold six vital governance principles, which include accountability, financial stability, meritocratic selection, clear rights and responsibilities, shared governance, and academic freedom (Kauffeldt, 2009). Financial stability is the capitation adequacy of these institutions to ensure they are capable of meeting their obligations and executing their orders efficiently. Kenyan government has a long term policy which involves providing frameworks for sustainable autonomous and competitive national university systems. (Sessional paper No 1 of Government of Kenya 2005). It is in the interest of such and other government policies and objectives including objectives of other interested parties that universities have to stay afloat. These institutions should therefore put in place strong internal control systems to sustain stable financial performances.

1.1.5 Regulations and Policies

All courses of action by the government intending to change specific situations can make use of government regulations and policies. Government uses policies and regulations to handle extensive issues, including market control, interest rates, taxes, and operation of law and regulations. These government tools can influence organizations’ financial performance directly or indirectly (Salamon, 2012).

Regulations have become imperative in enforcing rules and principles, and judging the soundness of universities and their management (CUE, 2017). This regulatory structure can develop transparency between government institutions and other corporations and individuals whom they transact business with (Oloo, 2014). The goal of regulations and guidelines is to help these public institutions of learning and other public institutions become stronger players in the area of higher education in a manner that will ensure longevity as well as greater impacts on the Kenyan economy (Ndung'u, 2013).

Internal control systems in state corporations are guided by various legislations, such as the Public Finance and Management Act of 2012. This act outlines the responsibilities of the national government with respect to managing and controlling public finance. It formulates procedures that ensure effective and efficient management of all liabilities, assets, revenue, and expenditure. Additionally, it establishes the responsibilities and duties of government officials who are in charge of finances. The aim of this Act is to guarantee sound financial management, transparency and accountability in public and government institutions. These guidelines help in reducing the risk levels in which these institutions are exposed to in the hands of their employees. Accounting officers are obligated to always act with integrity, honesty, and fidelity and in the best interests of the public entity.

The universities act (2012) part VI deals with the general financial provisions in public universities. It gives the guidelines on annual estimates of public universities including public university funds, investment of funds, accounts and audit, unexpended monies, vesting of property, and financial reporting year. These are regulations required to moderate the internal control systems of these institutions of higher learning. Commission of university education (CUE) is another regulatory body which is commissioned with the responsibility of monitoring, evaluating, and undertaking regular inspections in universities to ensure they conform to the set standards and guidelines. It should evaluate and monitor how the higher education system is run relative to the national development goals. Commission of higher education also executes such other roles and use such other powers as the Commission may consider obligatory for the proper discharge of its dictate as stipulated in Section 5 (1) of the Universities Act No. 42 of 2012.

1.1.6 Status of Public Universities in Kenya

In Kenya, higher education originated back in 1970 after a parliamentary Act allowed the University of Nairobi to be established as the first public university in Kenya. Kenyan universities are categorized into two, private or public, and are authorized to function under the Kenyan law as full-fledged universities and others with Letters of Interim Authority (LIA) (Thiga & Muturi, 2015). The rapid rise in the literacy level and university education in Kenya has made universities to operate as competitive bodies in a move that has significant effects on the performance of these institutions (Sarai, Zariyawati, & Annuar, 2010).

The Commission for University Education (CUE) was developed by an Act of Parliament vide the Universities Act No. 42 of 2012. Commission of university education is mandated to protect the relevance, quality, and standards in every aspect of university education, research, and training in Kenya. In line with Section 28 (4) of The Universities Act of 2012 and amendments thereon, commission of university education (CUE) shall publish at any one given time, the list of all universities that are accredited to carry out university education in Kenya. The public chartered universities were 31, 7 public constituent colleges, 1 specialised public university (National Defence University), 21 fully chartered private universities, 3 private constituent colleges and 11 with letters of interim authority as at December 2020. In the academic year 2018-2019 around 546,700 students were enrolled in universities. The number increased from approximately 509,500 in 2019/20. This growth of 7.3 percent was attributed to an expansion in the number of government sponsored students.

Established universities keep on undergoing transformations to achieve specific goals. If they fail to meet these goals, it becomes hard to justify their massive public expenditure (Gudo, Olel, & Oanda, 2011). Currently, the Kenyan Government is working to achieve Vision 2030, which is a recent development blueprint of the country that runs from 2008 to 2030. It targets on transforming Kenya into a newly developed and industrialised middle-income country that provides quality life to all its residents by 2030 (Government of Kenya, 2012). The current government agenda has three pillars and universities are the key drivers towards the achievement of Vision 2030 if the established goals are to be attained in relative to the proper management of revenues collected to stir growth. Universities play a pivotal role in training skilled labour, research, and innovations. Therefore, it is essential for the country to enhance the financial performance in the Institutions of Higher Education (IHE), which provide the economic power to develop a nation, and create the necessity for discussions that can to improve their financial performance (Amunga, 2011).

Higher Education (HE) has become a substantial driver of economic competition in a progressively knowledge-driven economy across the globe and as such, universities play fundamental roles in creating social capital for economic advancement and advancement

(Jalaliyoon & Taherdoost, 2012). Public universities enjoyed their sovereignty in the past years, but have recently come under immense pressure which is attributed various factors, such as global competition, unstable environments, the need for accountability, and the varying governments roles (Deshmukh, Sharma, & Ramteke, 2010). Also, the public university sector is undergoing immense competition from the private sector, since private universities have increased and to some extent offer wide-range courses in diverse fields (Thaver, 2008).

Increased competition has created a strong oblige to enhance management in public universities extensively because of the government's urge of ensuring these institutions become more accountable. Oketch (2012) argues that in the midst of swift progression and reformation of higher education provision in Kenya, there have been challenges associated with the internal control systems and their financial performance.

The government of Kenya cut funding to its public universities by $400 million in the financial year 2021/2022 as the effects of the COVID-19 pandemic continued to impact negatively the highest economy in East Africa. Universities will have to budget with $1.13 billion, down from the $1.53 billion the government planned to spend on institutions earlier in the year.

The 26% reduction was necessitated by a cost-cutting drive by the government, with the Coronavirus crisis significantly battling revenue collections and reducing economic activity. This will have adverse effects on the financial performance of public universities in Kenya and so a need to tighten or improve their internal control systems.

Internal control systems implementation has a positive effect on public universities' financial performance. However, there is a lack of adequate research to date on how internal control system is executed at these institutions, and how it contributes more broadly to their governance, especially on issues related to financial performance and also the areas related to governance practices and corruption issues. Explicitly, this research aimed to find out the effects of ICS on financial performance of public universities in Kenya.

1.1.7 Financial Performance

Financial performance is used to measure the general financial health of organizations over a given period. It is used in comparing alike firms across the similar industry or sectors collectively. It is a way of communicating a firm's outcomes in financial manner (Mwangi, 2016). Through financial performance an organization can be able to do its Strength, Weakness, Opportunities and Threats analysis. In non-profit making organizations like public universities, this can be measured using ratios like return on investment or comparison of income and expenditure. In such organisations income can include revenue or cash flow from operations (Njeru, 2012). According to Schendel & Hatten (1972), the success of an organization does not depend on a single factor. Rather, it mainly depends on the capability of managers to strike and maintain a balance between an integration of diverse factors. Kennerley & Neely (2003) suggest that using proper performance measurement system guarantees that actions are aligned to strategies, objectives, vision, and mission of the organization. Strategic management researchers advocate for the usage of several measures while others suggest that various performance aspects can be measured with a single aspect. (Hatten, Schendel,& Cooper, 1978). This study used return on investment (ROI) ratio and comparison of income and expenditure that can result to either a surplus or a deficit.

1.2 Statement of the Problem

In the recent years, higher education sector across the globe has undergone a reconstruction of exceptional magnitude (Altbach, Reisberg, & Rumbley, 2012). This sector has experienced some remarkable development in Africa, mostly in public universities, during the same period. University education requirement in Kenya is increasingly expanding as shown by the swift increment in the gross enrolment rates in public universities (Akalu, 2018).

Concerns have been raised on financial performance of Kenyan public universities, and this has become a national matter, more so at this time when the government has minimized its financial support on these public institutions (Thugge, Heller, & Kiringai, 2017). Organizations set up internal control systems to enable them prevent loss of organizational resources, meet their objectives, boost organizational compliance to financial regulations, and ensure provision of trustworthy financial reports (Emasu, 2010). Appropriate financial management and active involvement of public universities by their management through strengthening the internal control systems have a positive impact to the financial performance of these institutions. A research that was conducted in Nairobi by Mohammed (2003) on the impacts of Ethiopian Airlines' internal controls established that internal controls affected the airline performance when they were put in place.

Chira (2009) conducted a case study of internal controls of imperial bank in Nairobi and established that several internal control systems existed in the bank and affected its financial performance, even the operational controls were given more weight compared to other kinds of control. Simiyu (2011) carried out a research on internal control systems in the middle level colleges in Kenya and found out that most had numerous internal control challenges. These challenges included misuse of institutional funds, poor financial accountability, liquidity problems, frauds, and untimely generation of financial reports. Empirical literature evidence by Ndiwa (2014) and Ndifon, (2014) suggested that financial performance and internal controls of organizations are areas which have not gotten the necessary attention in terms of research.

The Auditor-General audited the financial statements of Masinde Muliro University of Science and Technology, which is a public institution for the year ended 30 June 2016. This audit was conducted according to the requirements of International Standards of Supreme Audit Institutions and so complied with ethical requirements to acquire reasonable assurance about whether the financial statements were free from misstatement of material. On the basis of those provisions, the auditor general was able to highlight inadequacies in the financial results in his report published and signed on 14 August 2017. The auditor is supposed to consider internal controls that are significant to the preparation of the entity and fair financial statement presentation when making risks assessments, and the Auditor-General did so with the university.

The Auditor-General did not get any appropriate and sufficient audit evidence for providing a basis for an audit opinion, thus he issued a disclaimer of opinion. Some of the reasons he cited included variances between the financial statements and supporting documents. There was Kshs 713,306,024 and unsupported balances were Kshs 3,264,333,663. Based on the above the accuracy, the completeness of the financial statements could not be confirmed. Other reasons included failure to maintain fixed assets register, non-supported adjustments, non-inclusion of fixed assets or failure to distinguish between capital expenditure and revenue expenditure, irregular procurement of services and goods violating the procurement and disposal act 2005, failure to prepare bank reconciliations, failure to bank and account for liquid cash, and failure to prepare journal vouchers.

On budgetary control and performance, the university did not operate within the approved budget with a difference of Kshs 113,708,154. This means that service delivery was negatively impacted. The University's IT governance and general application controls were found inadequate. This means that the data generated from the system had flaws and not reliable to generate accurate and complete data for preparing financial statements and management reports.

In another case, the Auditor-General audited the financial statements of Multimedia university of Kenya, which is also a public institution, for the year ended 30 June 2014. He issued a qualified opinion in his report published and signed on 28 April 2015 citing some reasons which indicated that the financial statements were prepared on a going concern basis instead of accrual basis, which violates the international public sector accounting standards that are generally accepted. Others included payment for goods that had not been received, payments done to a contractor who never delivered services, failure to provide doubtful debts, procurement of goods and services from un-prequalified firms, and direct procurement of consultancy services against the public procurement and disposal act 2005. These two cases are a good examples of a weak control system.

As identified earlier, preceding studies focused on the correspondence between performance and internal controls in different firms and not on the impacts of internal control systems on the financial performance of public universities within Kenya. Most of the researchers who have tried mainly concentrated on internal control system and performance in different sectors with existing literature showing deviation of thoughts

(Kilemi et al., 2017). The hypothetical perception has abandoned its integration with the internal institution environments and the possible impacts that internal controls have on financial performance, in spite of the extensive establishment of internal control system's critical role influence financial performance of public universities. Potentially, this is a critical omission (Ryals & Davies, 2013). This study aims to find out if internal control systems have any effects on the financial performance of public universities in Kenya. The inspiration of the study was cultivated by the fact that there are no previous experiential studies that were conducted in relation to financial performance and internal control systems in the said universities, and the fact that most of the areas have not been addressed in the effects of internal control systems in relation to public universities' financial performance. Therefore, this study was conducted against this background to cover the research insufficiency, and create a better understanding through statistical and empirical evidence of the effect of internal control systems on financial performance of public universities in Kenya.

1.3 Research Objectives

1.3.1 General Objective

The general objective of the study was to investigate the effect of internal control systems on financial performance of public universities in Kenya

1.3.2 Specific Objectives

Specific Objectives of the study were;

1) To investigate the effect of preventive controls on financial performance of public universities in Kenya.

2) To explore the effect of detective controls on financial performance of public universities in Kenya.

3) To evaluate the effect of corrective controls on financial performance of public universities in Kenya.

4) To examine the effect of budgetary controls on financial performance of public universities in Kenya.

5) To investigate the moderating effect of regulations and policies on the relationship between internal controls systems and financial performance of public universities in Kenya.

1.4 Research Hypotheses

The study sought to test the following hypotheses;

1) H_{01}: There is no statistically significant effect of preventive controls on the financial performance of public universities in Kenya.

2) H_{02}: There is no statistically significant effect of detective controls on the financial performance of public universities in Kenya.

3) H_{03}: There is no statistically significant effect of corrective controls on the financial performance of public universities in Kenya.

4) H_{04}: There is no statistically significant effect of budgetary controls on the financial performance of public universities in Kenya.

5) H_{05}: Regulations and policies have no moderating effect on the relationship between internal controls systems and financial performance of public universities in Kenya.

1.5 Significance of the Study

This section highlights how the various internal or external stakeholders will benefit from the study.

1.5.1 University Management Boards

The findings of this study will be of exceptional importance to the universities' management in accounting to the university council for the development, operation, and monitoring of the internal control system and for the provision of assurance to the council that it has done so. The results of the findings will also be used by the workers to enhance their revenue management skills through implementing the internal control systems and processes effectively. The study findings will inform organizations top management on which internal control systems to adopt in managing revenue in public institutions because they can rely on the study findings.

1.5.2 Regional and Global Universities

This study will not only benefit universities in Kenya, but will also be significant to other universities in African developing countries, especially the members of the East African community which are politically, economically, and culturally similar to Kenya. The findings will inform the government whether the public universities respond to the economy, and how effective and efficient resources are used to bring services to the public. This will evaluate if the implemented ICS give outcomes, outputs and results that positively transform the lives of the stakeholders.

1.5.3 Academicians and Researchers:

This study contributes to the existing information, and furnishes individual researchers, scholars, and research organizations seeking to conduct further research in this area with adequate background information. Also, the study will enable academicians and researchers to expand their study into the effect of internal control on financial performance in private universities and even into other fields of research to shed more light on the topic. The research will add to the current body of expertise relationship between ICS and financial performance in public universities. The findings will also be used as a reference point for further study in this field.

1.5.4 Government and Regulators

The Government and numerous regulatory bodies, such as the commission for university education will benefit from this report, since it will open up areas that may need supervision and open up new sources for generating revenue and other control measures especially during this time of low funding. The study findings will be used in guiding the government to ensure quality of external and internal reporting, and proper maintenance of records and processes that produce a timely flow of reliable and relevant information inside and outside the university setting.

1.6 Limitations of the Study

Study limitations refer to restrictions within a study that can lower the generalization and reliability of the research findings (Salamon, 2012). Some of the organizations' interviewees were disinclined to partake in the research because of the privacy nature of the information which they hold. The public universities consider some information as private hence they were unwilling to expose most of it. To resolve this issue, the respondents were informed the academic intention and purpose of the study and assured of their privacy protection. Additionally, they were shown a letter from NACOSTI that provided evidence that the research being carried out was for academic purposes only. The study focused on the key players to obtain more accurate information.

COVID-19 pandemic also proved to be a big challenge. The presidential declaration of containments hampered collection of data since there was no free movement during such periods. The ministry of health also put in place protocols which prevented free movement and interactions which also had a negative effect to data collection. This was mitigated by sending the questionnaires through emails and receiving the answers through the same. The issue of non-responsiveness was also a limitation since the researcher would have wished 100% response since the target population was just moderate. However, the response was impressive and adequate to carry out the study. According to (Mugenda & Mugenda, 2013), a response rate of over 70% is considered to be an excellent response rate.

1.7 Delimitation of the Study

The study was contextually restricted to the review of internal control systems and financial performance in public universities in Kenya. It was limited only to the accredited public universities in Kenya by the commission of university education. Further the study was limited geographically to those public universities operating in Kenya.

There was a total of 74 universities in Kenya composed of 31 public chartered universities, 7 public constituent colleges, 1 specialised public university (National Defence University), 21 fully chartered private universities, 3 private constituent colleges and 11 with letters of interim authority. The full list of public and private universities in Kenya and when they were issued with charters as at 2018 is contained in appendix III. The study focused on the public universities in Kenya and not the private universities as it was believed that the management of financial affairs of entities funded by the government was completely different to those privately owned. However, the information obtained was relevant to all the private and public universities in Kenya. Time for collection of data and also the respondents was also delimitation in terms of the respondents taking too long to send back the duly filled forms where it was not possible to reach them physically due to COVID-19 protocols.

1.8 Assumptions

The study assumed that the sampled universities were the representative sample of all the public universities in Kenya. Also, it assumed that the respondents would be sincere and provide the researcher and the research assistants with reliable information for the purpose of this study and that the population under study would not change whatsoever.

1.9 Operational Definition of Terms

Budgetary Controls Processes that is used to establish diverse authentic results with budgeted figures for the future period and set standards, and compare the budgeted values with the actual performance.

Control Environment This is a set of principles, procedures, and structures that provide the basis for carrying out internal control in an institution.

Corrective Controls Actions that are undertaken to undo the effects of errors detected in the system.

Detective Controls These are procedures, techniques, and strategies that are designed to identify and expose undesirable events that escape preventive controls.

Financial Performance This is an evaluation of an organisation's overall standing in terms of assets, liabilities, equity, expenses, revenue, and profitability. It refers to the degree to which financial goals have or have been accomplished.

Internal Control Systems These are structures that are put in place to ensure organizations achieve their objectives in operational efficiency and effectiveness, authentic financial reporting, and compliance with policies, regulations, and legislations.

Internal Controls These are systematic measures such as balances and checks, reviews, procedures, and methods that are developed by organizations to give rational assurance that its activities comply with applicable regulations and legislations, its operations are efficient and effective, and its financial reports are genuine and reliable,

Policies These are guidelines, rules, and principles that are developed or adopted by organizations to enable them achieve their long-term goals

Preventive Controls These refer to passive methods that are designed to minimize the occurrence frequency of undesirable events.

Private University An institution of higher learning that is established privately by individuals or institutions and is not funded by the government.

In a private university funding comes from students' tuition, investments and donors and not from taxpayers.

Public University This is the name that is applied to an institution of higher learning. A public university can be referred to as a state university, and is funded by the public through taxpayers' money.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter reviewed the empirical and theoretical literature and presented an extensive framework of the study's topic in relation to previous research works and other authors' contribution on the relationship between internal control systems and financial performance. The chapter analysed the effects of internal control systems and financial performance as independent and dependent variables respectively. Additionally, the chapter summarized previous studies and critiqued the literature to identify other researchers' contribution and address gaps in their scholarly works. Also, a conceptual framework that clearly illustrated the relationship between dependent and independent variables was provided.

2.2 Theoretical Literature Review

Theoretical literature review examined the theories that explained the research topic under study, enhanced understanding of the subject in question, and justified the current study. Abeyrathna and Kalainathan (2016) defined a theory as an ideology or declaration that is invented to elucidate a phenomenon that has been commonly acknowledged or constantly used to predict a natural occurrence. The current study evaluated four models to expound the impact of internal control systems on financial performance. The four theories studied included the Agency theory, Stewardship theory, Systems Theory, and Attribution Theory.

2.2.1 The Agency Theory

The agency theory explains and resolves issues that arise from the relationships between business principals and agents. Adam Smith (1937) identified the occurrence of principal-agent problem which inspired economists to research on the agency theory. In his book, *The Wealth of Nations*, Adam Smith (1937) established that the likelihood of agency conflicts is high when other people rather the owners manage an organization. Later, Berle and Means (1932) nurtured the issue of the agency conflict in their study and evaluated the stake holding of big businesses in the United States. Berle and Means (1932) found that agents that had been appointed by the business owners carried out operations and controlled the large firms. The study concluded that a principal- agent conflict arose as a result of the agents using the business' resources to benefit themselves.

The agency theory is a contract relationship where the principal (business owner) involves an agent (manager) to provide services on their behalf. Also, the principal delegates decision- making authority on some issues to the agent. The agency theory evaluated the relationship that exists between managers and investors in an organization or business. The manager, who acts as the agent performs specific duties on behalf of the investor (principal) and receives a reward for the tasks undertaken. Further, according to the theory, there existed a connection of contracts between the agents and principals. The principals are the investors who own economic resources and the agents are managers who use and control the resources in an organization. The agency theory proposed that the managers are well informed compared to the investors. According to Jensen and Meckling (1976), the information asymmetry between the two parties adversely affects the principal's capacity to evaluate and monitor if the agent is appropriately serving their interests.

Due to the impact of information asymmetry, the theory defined firms as essential structures that maintain contracts and through them, the agents' opportunistic behavior can be minimized by exercising control (Mwangi, 2012). However, the theory suggested that an extensive written contract that addresses the interests of agents and principals is essential to harmonize both parties in an organization. Additionally, the strength of the principal-agent affiliation can be enhanced by engaging professionals, such as accountants and internal control systems that will review and evaluate the agent's performance (Jussi & Petri, 2013). Further, the theory established that information asymmetry among the involved parties and the description of the agent's work performance results to antagonistic choice and ethical risk. Adverse selection and moral hazard affects the agents' output as a result of not having adequate knowledge on the work to be done and failing to do what is expected of them (Adams, 2010).

Fama and Jensen (1983) studied the decision- making process in an organization and the remaining beneficiaries. The study identified the agents as the main actors in the decision-making process which was separated into decision supervision and regulation. Fama and Jensen (1983) concluded that controlling agency problems is a prerequisite for a firm's survival.

The agency theory assumes that leaders and managers use contracts and act reasonably to achieve their interests and maximize wealth (Jensen & Meckling, 1976). The agency theory has been applied in this study to show the impact of internal controls as mechanisms that address the agency problems in businesses by reducing costs to enhance the firm's overall performance and increase benefits to the investors. (Payne, 2003). Internal control systems enhance the principal's (shareholder) ability to access accurate information on the agent's (management) behavior, reduce information asymmetry, and lower the chances of investor's risk and low revenue collection. Moreover, the agency theory assumes that the contract nature of the nexus that exists between principals and agents is founded on maximizing capital (Jensen & Meckling, 1976). Education and training influences the managerial conduct of the agents (Dearborn & Simon, 1958) and organizations certainly affect executives' behaviours and consciousness when dealing with conflicts between stakeholders. For instance, a conflict may arise between business owners, government, and workers over minimum wage. In a probable scenario, most of the stakeholders' perspectives would mean an upsurge in agency problems where researchers propose that the management should be more obligated to the stakeholders rather than the investors (Ferrell et al., 2014). An important modification of the agency theory would involve future considerations of the conflict that exists between agents and principals. The theory's propositions and arguments were applicable to this study because the internal control systems are established in an organization to improve the overall financial performance and reduce the intervention costs (Payne, 2003). The agency theory greatly emphasized on the detective and preventive controls' objectives in this study.

2.2.2 Stewardship Theory

Stewardship theory emanated from sociology and psychology where Davis, Schoorman and Donaldson (1997) defined a steward as "a person who safeguards and capitalizes investors' capital via an organization's functionality to maximize their utility functions". Unlike the agency theory, stewardship theory emphasizes on the senior management's responsibility in an organization's as overseers to integrate their targets with those of the firm rather than focusing on an individual (Donaldson & Davis, 1994). The stewards derive their satisfaction and motivation from the attainment of an organization's success. The stewardship theory assumes that individuals achieve their utility functions through pro-organizational conduct which forces them to realign their interests with the organizations' or the principals'. However, the theory contends that the steward places higher values on cooperation than defection even when their interests are not aligned to those of the principal's (Davis et al., 1997).

The major doctrines of the stewardship theory as outlined by its promoters in management and family business set a platform for its discussion (Davis et al., 1997; Hernandez, 2012). Stewardship theory is based on the model that defines people as individuals who actualize themselves and serve others rather than being self –centred and fulfilling their own interests. Besides, stewardship theory assumes that when people become self-actualized, they align individual interests to those of the investors and assign greater efficacy on a firm's objective rather than personal achievements. Therefore, since personal goals are alleged to be incorporated with those of the investors and business owners, stewardship theory assumes that it is not necessary to use formal internal controls, such as incentive compensation and monitoring as they will be counterproductive.

Argyris (2004) disputed that while agency theory views an worker as a financial asset, stewardship theory admits the significance of organizational structures on empowering an individual to offer optimum independence founded on trust. Besides, stewardship theory stresses on employees' or executives' position to act independently with the aim of maximizing shareholders' returns. Certainly, Fama (2004) claimed that organization's managers achieve their objectives to become good stewards in their businesses while (Shleifer, Andlei, & Vishny, 1997) asserted that executives refund finances to the investor to build a respectable name that will enable them enter the industry on their own.

Further, Meckling and Jensen (1994) stated that there is a normal arrangement of investors' and directors' interests when the owners directly manage the business. Besides, the agency costs incurred when reducing information asymmetry that is associated with moral hazards is less and growth opportunities are high when the proprietors are involved in management.

It follows that stewardship concept is completely opposite of agency theory and nullifies the need for incurring agency costs which involves internal control systems and audit functions. Further, Donaldson and Davis (1991) noted that principal's and agent's interests are maximized when the agency and stewardship theory are combined rather than applying them separately implying that a firm's management should strike a balance.

The greatest contribution of the stewardship theory is that individuals are not wholly inspired by money or controls to perform effectively. Thus, it is ironical that the proponents of stewardship theory seem to replace their absolutist outlook of social nature with another different opinion that defines individuals as faultless agents. According to Meckling and Jensen (1994), when investors are involved in managing and monitoring an organization, the costs incurred in agency problems are less. On the contrary, stewardship theory differs with the agency theory in that the model does not support investors to manage and monitor organization's functionality via internal controls. Donaldson and Davis (1991) established that an organization realizes maximum financial returns when the stewardship and agency theories are jointly applied in a firm. Consequently, based on these theories' view, the current study examined public universities' management boards that act as stakeholders, contractors, creditors, clients, employees, caretakers, and students in these organizations.

Thus, stewardship theory was applicable in this study by supporting the fact that the board of management in higher learning institutions act as agents of investors, contractors, debtors, clients, employees, caretakers, and students in these organizations. Moreover, these stewards manage the institutions of higher learning and ensure positive financial performance of the institutions. The stewardship theory focused on an organization's financial performance as predicted in the objective of this study.

2.2.3 Attribution Theory

Attribution theory is a societal attitude theory that examines people's interpretation of actions and conducts and their attribution of the causes of these actions and performances. Attribution theory was put forward by Bernard Weiner and his colleagues in the early 1970s. Attribution theorists explored the insight of causativeness, or the conclusion of the reason for the occurrence of a certain incident. The distribution of accountability distinctly monitors a consequent behavior (Weiner, 1972)

According to Schroth and Shah (2000), studies that have used attribution theory examined how information was used to illuminate the occurrence of events and behavior in a social setting. Reffett (2007) asserted that evaluators attributed the outcome of an event to a person when they believed that comparable individuals would have acted differently in a similar situation. In contrast, the outcome of an event would be attributed to a situation when the evaluators believed equivalent individuals would have performed the same way. According to Wilks and Zimbelman (2004), the former scenario is referred as internal or dispositional ascriptions whereas the later refers to external or situational designations. Using the Locus dimension, the theory sought to find out whether the cause is attributed to an individual or a situation. Dispositional attributes include ability and effort, while situational ascriptions include luck and difficulties in performing the task.

Attribution theory has been used to explicate the motivational difference between high and low go-getters. According to the theory, great go-getters approach a responsibility that leads to success rather than dodging it because they trust success is a result of capabilities and struggles which they emphasize on. The high achievers allege failure as a result of bad luck. Previous research has shown that people have a tendency of attributing others' behavior to internal ascriptions, whereas they ascribe their own behaviors to situational attributes most often when the perceived conduct is negative (Wilks & Zimbelman, 2004). Accordingly, evaluators should attribute the negligence by an organization to detect inaccuracies on income generation as an internal ascription and the burden should be borne by the accountant for their slackness. Bonner et al. (2008) established that in case accountants and auditors are negligent, they should be sued for failure to detect common embezzlements that would result to fraud in firms. Also, the evaluators believed that if the auditors would appropriately use the internal controls fraud could have been detected.

Auditor's responsibility for identifying deceit was expounded by (Reffett, 2007) who argued that accountants have a high likelihood to answer and account to evaluators for losses that may arise if they do not identify deception after predicting the incidence of risk. The conclusion of Reffett's study shows that auditors are held liable when they fail to identify a fraud risk or perform the necessary procedures to probe the identified risk. The study's findings reinforced Reffett's prediction.

Thus, attribution theory asserts that auditors and assessors should always address the efficiency of internal controls in an organization. Also, auditors and book keepers ought to have knowledge of the internal controls adopted, evaluate the strategy for execution, and test their operational efficiency. Knowledge and expertise on the internal controls is essential for accountant's confidence and possibly other practical assessment and review actions for generating the necessary business reports on financial matters. According to Bonner et al. (1998), assessors use the accounting and auditing procedures to determine whether auditors have failed to detect fraud risk related to internal control that may arise.

Despite advancements in know-how that have reformed the structure of the internal control systems, there is need for individuals with expertise to control the systems. According to

Bonner's et al. (1998) conclusions, the University council and management should ensure that the pertinent governing and compliance concerns are observed. The attribution theory was applied in this study and contributed to the fact that auditors in learning institutions should be leading in addressing mistakes and deception when they occur. Therefore, the concept suggested that in the case of a deceit, auditors and accountants should be answerable to the management for failing to detect the occurrence of risk. Also, evaluators should determine the substandard audit and accounting services available to ensure fraud is timely detected. The attribution theory emphasized on detective controls.

2.2.4 Systems Theory

The systems theory was proposed in the 1940s by a biologist Ludwig von Bertalanffy and advanced by Ross Ashby in his study "Introduction to Cybernetics" in 1956 as cited in (Keraro, 2014). Bertalanffy (1968) stressed that the actual internal control systems were available for interaction the surroundings, and they could valuably attain innovative assets via development which results to continual evolution. The study argued that system theory focused on aligning organizational inter-relations between the parts instead of subjecting an organization or business to the components of its fundamentals. An organization that would be founded on organizational theory determined an independent system that is separate from the elements in the organization's different departments, such as research and development, bookkeeping, human resource, and investment. Hence, similar organizational concepts and principles motivate different disciplines which provides a foundation for their amalgamation. Economist, Herbert Simon in his book, Administrative Behaviour (1947) introduced the systems model as an idea of making decisions in a firm. Notably, he presented ideas of confined satisfaction and prudence

Systems theory was promoted by Harvey and Brown (1998) based on the 1992 COSO context and found out that internal control systems are effective in preventing and mitigating fraud, and hence an important element in fraud alleviation. They recommended accounting and organised classification as other vital essentials significant in internal control system. Grieves (2000) supported the internal control systems model and added the roles of oversighting administration and correcting inefficiencies. According to Rae and Hartman (2010), system theory offers organizational leaders with an instrument for examining changing aspects despite having a specific model that describes the management of an organization. Furthermore, the study concluded that knowledge on systems theory enables businesses to include inner and outer structures and sub- divisions that aid in offering a well-designed impression of a specific firm. Smit and Cronje (2002) argued that a system includes a group of unified elements with the aim of achieving an overall objective. The nature of the system is altered when one part or component is removed.

The system theory is relevant in organizational management since it enables managers to view firms' operations from an extensive viewpoint. Besides, the concept has a new viewpoint for executives to understand behaviors and activities in the work place setting. The managers are able to identify the distinct organizational parts and the interrelationships between them, for instance coordinating the central administration with the supervisors, programs, workers, and other variables. In traditional setting, management practices involved taking one part of the organization and focusing on it. The managers would then shift attention to another part. The problem with the traditional management practices is that there could be an ideal principal administrative point with leaders but the different subdivisions do not collaborate (Rue & Byars, 2004).

The systems theory was used in the current study to confirm that the internal control systems apply in all departments of the organizations and all of them must work together to achieve the overall objective which is to boost the financial performance of the organization and evade risk. Bertalanffy (1968) argued that organizations are composed of elements and parts which combine together to make it whole. The main distinguishable organization's variables in relation to the systems theory were the employees, management, systems, procedures, capital and economic resources, and communication systems. The systems theory perceives the organizational variables as the components that should be strategically coordinated to form an effective business. One criticism of systems theory is its emphasis on the resources that are essential to realize efficiency relatively to a firm's success (Robbins 1990). Determining an organization's processes or means is a challenging task compared to computing definite end objectives of the goal-attainment method.

Linking the previous discussion, the systems theory ideology is very relevant in this study since it has enabled to envision the fact that what may appear as a secluded interior concern is actually part of an interrelated system of connected concerns in internal control systems of organizations and that even in cases of a stringent measures of undesirable events, there were still a few which passed through the sieve and required corrective action. The systems theory is relevant to the current study in the areas of detective and corrective controls.

2.3 Empirical Review

Empirical review is a justification of other researchers' and accredited scholars' contribution on the topic. Empirical review brings out the understanding of concepts that have been recognized on a topic and identifies their strengths and faults. Moreover, the review uses secondary sources and do not account for recent or unique investigational work. Internal control systems form a topic of discussion that follows worldwide fraudulent in reporting financial statements and accounting scandals. Following the financial fraudulent cases globally, more practical preventive approaches to the concern necessitates a critical assessment of the current internal control structures in an organization to determine their capability in ensuring that the firm's operations are carried out in agreement with established objectives, guidelines, and processes.

2.3.1 Effect of Preventive Controls and Financial Performance

Preventive controls are intended to check miscalculations, imprecision, or scam in advance, while detective controls' purpose is to expose the presence of erroneousness, mistakes, or fraud that has already been revealed. Preventive and detective controls should be simultaneously implemented to ensure that they enhance maximum protection against fraud. Preventive controls are proactive measures that attempt to prevent adverse occasions from happening and inhibit a cost that is founded on the idea of splitting responsibilities (Dixit, 2013).

Preventive controls in book-keeping include barring the same person from performing interrelated dealings, such as starting and recording business transactions; receiving bills and authorizing disbursements, purchasing and approving payments, clearing suppliers and making overheads, ordering and receiving inventory, and authorizing returns and giving out compensations. Also, preparing payrolls, distributing duties, writing and validating cheques should be executed by distinct persons. Preventive controls are indispensable because they are practical and accentuate on value (Brinkerhoff, 2013).

Abdi (2015) explored the impact of internal controls on financial performance in Mogadishu's private banks. The study's main objectives were to evaluate the effectiveness of internal control systems and to examine their impact on financial performance in Mogadishu's private banks. The study's sample size included 33 participants from a target population that consisted finance directors, accountants, internal auditors, chief cashiers, and managers of private banks in Mogadishu. Abdi (2015) established that the banks had an effective internal control system which was evident from the clear separation of duties. Additionally, there were adequate controls over access to resources that belonged to the bank which are preventive measures in internal control system.

Njaramba and Ngugi (2014) probed whether the execution of internal controls affected the growth of small firms in Kenya. The study wanted to determine the magnitude in which internal control aspects such as expertise, innovative, organizational abilities, and human investment affect small micro enterprise growth rate in the errand service business in Nairobi County. The study adopted a descriptive survey method that involved a sample size of 137 firms that were selected through stratified sampling approach. The models of multiple linear regression were used to test the proposed association between the predictive and dependent variable. The research established that the internal factors, such as managerial expertise, free enterprise skills, technical know-how, and human capital practice had a direct significant relationship with the growth rate of small micro enterprises.

Barra (2010) used the systematic method in his study on the monitoring and control activities to survey the effect of fines and other forms of internal controls on probability of the workers to engage in fraudulent activities which subsequently affect the financial performance of an organisation. Barra (2010) found that segregation of duties and the presence of the control activities upsurges the fraud commitment fee. This means that the paybacks derived from fraud commitment need to overcome the cost of diverse duties which lead to fraud. Also, the study established that the separation of duties is a deterrent of least-cost fraud. These findings propose the need for coming up with effective preventive control measures which rely on proper monitoring.

Wainaina (2011) researched on the functions of internal controls at Kenya Polytechnic University College and established that the management depended on the techniques of internal control in the execution of its decisions and regulation of all organisational activities. The argument makes the use of operative internal control systems an important aspect in managing a commercial' assets. Thus, each organization schemes its procedures to assign, device, and ensure that resources are utilized to achieve its goals. It was therefore concluded that ICS's perform a significant task in preventing and detecting fraud and protecting organizational assets.

Information and Communication Technology (ICT) is lately the interstate on which the outcome of every nation or association depends and travels. It is evident that ICT progression helps installments and makes choices for money and checks for making banking exchanges. This new practice has improved a genuinely worldwide, consistent, and web-empowered 24-hours banking. ICT advance in installments is advantageous because re-appropriating many of the bank's obligations in the installment system are conceivable and down to earth.

Mensah, G. A. (2016) uncovered that Internet banking clients visit the bank offices. One clarification for this is that when clients have an issue or a troublesome exchange for managing, they would prefer to favor a financial relationship based on human collaboration, as a need might arise for customary banking. He presumes that the Atiwa rustic bank has restricted mechanical devices set up. The bank has many innovations as major areas of strength for an instrument to eliminate clients' holding up time and draw in clients to increment its efficiency and benefit levels since the sending of ICT into its activity. The reception of ICT by the rustic banks in the nation has the capability of working on the exhibition of most country banks and giving them enough funding to meet their functional and development needs, yet they are all things considered as severe as those forced on government controllers.

Rezende, M., and J. Wu (2014, February) investigated what supervision entails for US business banks, and their findings suggest that oversight has a mixed influence on execution. This proposes that the recurrence of assessments doesn't impact bank benefits for three years ahead. Credit misfortune and wrongdoing estimates three years ahead answer more successive assessments. Furthermore, it shows that more regular assessments have longer-enduring impacts than the next year. Through this, future work should examine if such macro-prudential oversight influences the monetary framework, counting establishments that are not exposed to on-location assessment or management.

Internal control system can't be undervalued as it fills in as the soul of most organizations as far as the basic jobs that it plays in both unmistakable and elusive resources of an association. The Ghana Revenue Authority should be investigated for its impact on Ghana's monetary disclosure quality due to the government's internal control structures. The major purpose of the review was to investigate the influence of government internal control mechanisms on the quality of monetary announcements in Ghana, notably on the GRA (GRA).

Using a gambling assessment as part of the internal control framework impacts the kind of financial information, according to the research by Agbenyo, Jiang, and Cobblah (2018). Evidence like this shows that the coefficient of data and successful correspondence is critical in anticipating the type of Ghana Revenue Authority monetary announcements. GRA's numerous reports, such as their quarterly responsibility reports or their website, should make it easy for internal and external partners to discover information about the company's risk management, executive remuneration, and internal control systems.

Tertiary Institutions provide education for form four school leavers who didn't accomplish the least grade to join a University, those holding on to join university and the common laborers who need to level up their abilities for vocation and self-advancement. The overall target of the study (Chebungwe, N., & Kwasira, J. 2014) was to lay out the connection between ICS and monetary execution in Tertiary Institutions in Kenya because they failed to meet their monetary commitments. The researcher looked to lay out the presence of an internal review office in the organizations under study.

The respondents were not certain whether standard review exercises were done routinely or inward review reports tended to shortcomings in the interior control framework. The review infers that most preparation establishments had an inner review office that was generally understaffed. The preparation foundations shouldn't just lay out an Internal Audit Department but also guarantee that it is sufficiently staffed. The enlistment of the internal evaluating staff ought to be over the edge and potentially directed by autonomous human asset organizations.

Adagye (2015) looks at the viability of internal control for productivity in the Nasarawa State Tertiary Educational Institutions in Lafia. The board of every association has the line obligation regarding planning, executing, and checking their inside controls framework. A compelling internal control framework in an association could be an area of strength for accomplishing the foundation's goals. The review uncovered that the organization's resources are truly gotten, exchanges are accurately determined though not appropriately entered in the important books of records, isolation of obligations is fair, and a dependable official properly approves exchanges. The study showed that the ideal individuals are not relegated to the right work in the office, and financial plan and the executives' bookkeeping was never utilized in the institution. Thus, it may be concluded that proper staffing and routine boss-subordinate checks had been achieved.

Ejoh & Ejom, (2014) conducted a study to lay out the connection between ICS and monetary execution in Tertiary Institutions in Nigeria. It was found that the money and records divisions of the institution had an evident division of labor and that their subordinates perform work in a manner that is unparalleled in the College. Each of the executives were obligated to plan, carry out, and check their internal controls framework. The review uncovered a normal survey of monetary exchanges by the board, severe adherence to spending plan arrangements, and satisfactory isolation of obligations. However, the staff wasn't satisfactorily prepared to carry out the bookkeeping and monetary framework. On the monetary control, the review uncovered that the organization sticks rigorously to the arrangements of the yearly departmental spending plan and that control is set up to avoid bringing about overconsumption of the apportioned assets. The top administration starts movements of every sort of the College and that there is an unmistakable segregation of jobs in the institution's money and record division and that bosses in the College directed routinely work done by their subordinates. Conclusively, governing rules in all monetary exchanges and the establishment's administration ought to make customary preparation for staff on the ICS.

Randall's, T et al. (2003) investigated the relationship among measurement scheme fulfilment, financial success, and dual core methods of premeditated performance management: expanded measurement variety and improved synchronization with company strategy and value drivers. The research found that organizations that use a broader selection of economic and non-financial metrics have greater measurement scheme fulfilment and stock market success than corporations with equivalent strategies or value drivers, according to the research. However, there is little indication that precise measurement of the firm's plan or worth is beneficial. The findings demonstrated that superior measurement focus and assortment are connected to greater satisfaction and equity market success than the study benchmark model suggested. The data also suggested that greater measurement diversity among companies with identical value drivers is more associated with equity market success than greater absolute measurement. Finally, the stable scorecard method, financial worth valuation, and fundamental commercial modeling were all associated with improved measurement structure satisfaction, but there is almost no link to financial performance.

According to John (2011), ERP software manufacturers took an advantage of the amplified attention to inner controls that has ensued from the Sarbanes-Oxley (SOX) legislative changes through highlighting that a significant element of ERP systems is the use of "built-in" controls that mirror a firm's infrastructure. They claimed that the built-in controls and other aspects will assist companies in improving internal controls over financial matters, as required by SOX. This research examined SOX Section 404 compliance data for a group of companies, which deployed ERP systems between 1994 and 2003 to see if such an assumption is correct. The findings implied that ERP-implementing companies are less likely than a matched control group of non-ERP-implementing companies to raise internal control issues. According to the report, this disparity applies to both general (entity-wide) and individual (account-level) restrictions.

According to Ongeri (2010) examined how successful the internal audit procedures were in managing the LATF in Kisii Municipal Council. The study's goals were to see if LATF payments were used in line with the LATF's goals as well as to see how successful internal audit procedures were in disbursing and using LATF. This study was conducted using a descriptive study approach (survey). The researchers focused on the Kisii Municipal Council's high and intermediate management, as well as the councilors. Structured questionnaires were used to collect data. Ratios and weighted averages were used to analyze the data. According to the research, internal audit procedures were found to be averagely successful in the management of LATF funds. This was due to the internal audit department's lack of independence, a lack of skilled individuals in the department, a lack of departmental separation of functions, and a lack of careful project monitoring. The following suggestions were made: The Kisii Municipal Council needed to set up a totally independent internal audit department, which is not a sub-division of another. This would allow the department to carry out its responsibilities effectively and efficiently. The council's management should schedule regular meetings with top internal audit department staff to develop strategies to enhance the audit department's performance. The study recommended the ministry of local government and the central government to work together to guarantee that LATF payouts were made on schedule. Besides, the study recommended additional research to be conducted across industry sectors to reveal the similarities and differences when using internal audit structures in the management of finances; and other research instruments, such as interview schedules or open-ended questionnaires since they might add more information on this field of study.

According to Bangsa (2018), ICS helps to detect and prevent fraud since it estimates organization's resources, monitor resource utilization, and direct how materials are used in the firm. Moreover, ICS is used to enhance firm's performance and financial performance (Agbenyo et al., 2018). Ejoh and Ejom (2014), examined whether internal control activities affected the financial performance of Nigerian tertiary institutions. They measured the performance using reporting, liquidity, and accountability indicators. They utilized primary data from questionnaires and interviews and secondary data from college publications, journals, and text books. Data was presented using tables and percentages and analyzed using Pearson moment correlation. Their study established that external auditor audited the financial statements annually. Besides, they found out that valuable financial information was accessible to staffs without management authorization and the financial performance of Nigerian's tertiary institutions was not significantly related to internal controls.

According to Fadzil et al (2005), effective internal control system is an essential determinant of the firm's ability to meet its revenue target levels. According to Ittner et al. (2003), effective ICS entails reviewing the integrity and reliability of operating and financial information regularly, examining the controls enacted to safeguard assets, assessing employees' compliance with management procedures, policies, laws, and regulations, evaluating the management's effectiveness and efficiency towards achievement of organizational objectives.

Chebungwen and Kawasira (2014) assessed the ICS and its effect on the financial performance of tertiary training institutions in Kenya. The study examined the causes of dismal financial performance from the ICS perspective, which has led to closure of tertiary institutions. The general objective of the study was to establish the relationship between ICS and financial performance. The conceptual framework entailed both dependent and independent variables. The dependent variable was financial performance, the independent variable was internal audit, while regulations and policies were intervening variables. The research established that financial management and internal control have a positive relationship.

2.3.2 Effect of Detective Controls and Financial Performance

Detective controls are interior mechanisms that are planned to detect pre-existing difficulties and try to discover adverse activities. Besides, the controls are intended to look for errors and recognize them on the appropriate time after their occurrence. Detective controls confirm that an error or fraud had occurred but do not deter the mistake from re-occurring (Ellsworth, 2016). Organizational assessments are detective controls that a company to conform to the set policies, regulations, and procedures. Walker (2014) identified the examples of detective controls which includes evaluation and authentication of repayments, monthly settlement of bank statements, appraisal of workforce pay-outs, reconciliation of petty cash accounts, or conducting manual records.

Detective controls expose infringers of internal controls after performing unexpected checks within an organization to confirm transactions and submissions practices. The authentication process creates the foundation of the routine of company assessors who evaluate the accounts to determine value, consistency, and accuracy of monetary information during a bookkeeping period (Bawole & Ibrahim, 2016; Bryan, 2017; Charest, Bouffard, & Zajmovic, 2016). Managerial specialists argue that the public corporations over depend more on detective controls compared to individual organizations who greatly emphasize on preventive regulations. Gursoy and Swanger (2007) argues that detective controls seem more operative in advanced markets that extremely comply to regulations translating into a high possibility of complementing preventive controls.

The most prevalent investigative controls are the settlement of the cashbook and bank reports to unleash the difference between the two balances. Reconciling cashbooks and bank statements is closely related to the internal auditors' appraisal duty of the bookkeeping systems. Apart from detecting bookkeeping errors and reporting fraudulent, detective controls focuses on achieving organizational routine aims and goals and complying to a firm's ideals (Chang et al., 2014).

Ondieki (2015) studied the effects of internal audit on financial performance of commercial banks. The study's independent variables were risk assessment, monitoring techniques, control environment, and control activities while financial performance was the dependent variable. The study concluded that internal controls can have intrinsic features to warrant that the presence of deceitful transactions is signalled, complicated, and made difficult to transact. Internal control inspections do not automatically detect fraud or corruption, but they assure an organization that controls are working. The intentions of interior controls review are significant to supervisory policies and strategies that are applied to accomplish the corporate's aim, vision, and targets.

According to Fadzil et al. (2005), internal auditors considered independence, scope of audit work, audit reports, audit programs, internal audit department administration, auditing process performance, audit evaluations, and professional proficiency to be important internal auditing practices. Risk analysis, control methods, control activities, information, and monitoring are all critical features of an internal control system, as per the audit committee. The purpose of this research was to understand how internal auditing approaches affect the control environment's quality. The scope and execution of audit activity have an impact on the information and communication components of an internal control system. Audit task performance, skilled proficiency, and objectivity all have statistically significant effects on the control setting. The risk assessment of the inner control system was statistically influenced by internal audit management personnel, audit performance, program, and reporting, whereas audit activity and audit reporting have a statistical impact on control operations. According to the revised Statement of Internal Auditing Obligations granted by the Institute of Internal Auditors (1990) as a portion of the Standards context, "the goal of internal auditing is to support all affiliates of management in the effective liberation of their duties by outfitting them with analyses, appraisals, recommendations, and pertinent remarks regarding the events revised." Internal auditors were interested in any part of a company's operations where they may help the management, which meant working past accounting and financial data to acquire a full depiction of the processes at hand.

Risk management is acknowledged as a significant foundation of the bank by scholars, professionals, and controllers. A study was conducted to decide on the impact of chance administration on the monetary execution of business banks in Kenya. The meaning of concentrating the risk on the board is that it might help in the variety of the genuine result from the normal.

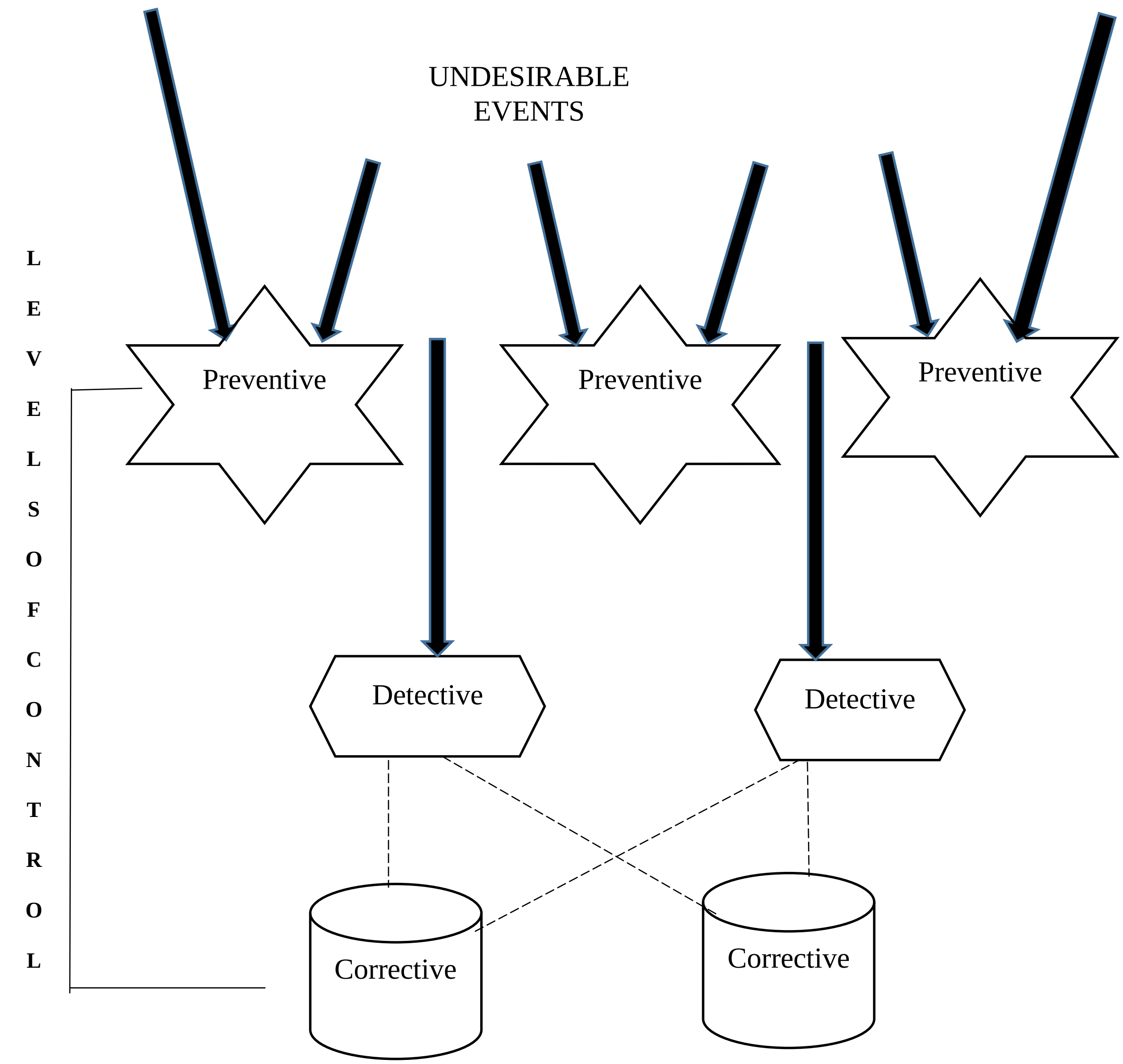
The study (Mwangi, Y. K. 2014) discovered a positive connection between capital sufficiency, size of the banks, functional productivity, and monetary execution of business banks. Essentially, it demonstrated that a superior performance saves money with great profits from resources, and reliable administration strategies can be very much promoted for future tasks. This presumes that capital ampleness, size of the banks, and functional effectiveness emphatically impact the monetary exhibition of the banks. Decisively, this has made a need to directly concentrate on the connection between functional proficiency and monetary execution of the banks in Kenya. Policymakers support banking management, contending that it assists save money by performing sufficiently. As a result, controllers utilize significant human and monetary assets to regulate banks. Regardless of being generally acknowledged, the possibility that management further develops bank execution clashes with observational proof. Government controllers should analyze banks on annual or half annual basis contingent upon banks' qualities.

2.3.3 Effect of Corrective Controls and Financial Performance

The Committee of Sponsoring Organizations of the Treadway Commission-COSO, described the obligation of managing panel as using counteractive controls to report main hindrances after checking and reviewing the organization's operations. Moreover, the corrective controls are applied in form of regulatory activities that solve the concerns raised after monitoring. (Lawson, Muriel, & Sanders, 2017; Mokhtar, Elharidy, & Mandour, 2018). Incorporating fresh educational programs and introducing innovative compensation arrangements or solider punishment for non-compliance can change the trend. These controls can be used by the management to prevent the re-occurrence of errors and faults during the process of book-keeping, reporting, and administering (Jimmieson et al., 2017). Also, the controls may be a component of the repetitive strategies that enforce amenability and influence valuable financial performance (Dang, Henry, Yin, & Vo, 2017; Ge, Koester, & McVay, 2017). Mohd-Sanusi et al. (2015) believed that in spite of the presence of detailed strategies and course of action of regulators, the ultimate approach of executing counteractive controls should be adopting a continuous structure that enhances improvement in management and supervisory roles.

The purpose of corrective controls is to remedy identified miscalculations or hazards and minimize the possibility of the recurrence of more inaccuracies in the future (Barrett, 2013). Corrective controls are executed when adverse outcomes are detected on a particular issue so that the management can counteract the fault immediately. Corrective controls comprise of superior groups that find solutions to the current challenges to counteract procedures and mitigate damages once risks have occurred. An organization can document its corrective policies and enforce them through warning and terminating employees when appropriate (Brinkerhoff, 2015). Data backup can enable managers to restore an operational system in the event of a crash. When an effective continuity and disaster management plan is in place, it ensures that businesses recover even when adversities strike unexpectedly. Corrective controls are formulated to avert errors and irregularities from reoccurring after identifying them.

Mwachiro (2014) investigated the impact of internal controls in operation at Kenya Revenue Authority to establish if the corporate's internal control systems have affected the amounts of revenue collected. The study used a descriptive case study applying an instrumental/illustrative study strategy. Statistics was analysed through numerical and description techniques, while the effect of internal controls and revenue collection was evaluated using correlation analysis. The study established that for internal controls to be effective in an organization, the five constituents which includes control environment, risk valuation, control actions, data and communication, and monitoring must be present Further, the study results revealed that fragile inner controls and poor moral standards within the institute encourages involvement in deception, loss of income, and misappropriation of total returns. Figure 2.1 below shows that the internal control system consists of three control levels: preventive controls, detective controls, and corrective controls. This is the Preventive-Detective-Corrective (PDC) control model.



Source: Author, 2019
Figure 2.1: The Preventive-Detective-Corrective (PDC) Internal Control Model

2.3.4 Effect of Budgetary Control and Financial Performance

An institution is basically founded on management style, finances, and economic systems to achieve their goals despite its size, complexity, or sector. The accounting process is among the greatest industrious, dynamic, and convenient organization book-keeping practices that administrations apply to enhance effectiveness in institutions of higher learning. The main purpose of the budgeting process is to evaluate, control, plan, motivate, and communicate. Applying the budget tolls greatly influences the growth of any organization. According to (Silva & Jayamaha, 2014) there is a robust connection in the middle of the accounting process, financial performance, and internal control systems employed.

Hemsing and Baker (2013), conducted a research on the effect of constricted Budgetary Controls on supervisory behaviour in Swedish Public corporations including public universities. The study findings revealed that mainstream of considerable local directors in Swedish Public sector faced constricted budgetary regulators. However, Hemsing and Baker (2013) did not capture the impact of monetary controls on a firm's economic functionality which created the need to examine the effect of budgetary controls on financial performance of Public Universities in Kenya.

When the management involves workers in the budget preparation process, this encourages and inspires them to accomplish the organization's budgetary objectives (Hansen et al., 2012). Hansen et al. (2012) advocated for total employee involvement in budget preparation and emphasized that all stakeholders accountable for accomplishing organization's objectives ought to be referred in formulating the accounts and finances. There is no budgetary control mechanism that can prosper without a good relationship between the seniors and subordinates. Employees' participation enhances full support and obligation for making the budget realistic, workable, and the preparation successful.

There exists a conflicting concern among different scholars on the significance of the budget. Sterdy (2010) and Cherrington and Herrington (2008) described an undesirable connection between employee participation and financial performance while Merchant (2008) and Brownell (2006) established a constructive connection. Additionally, Cress and Pettijohn (2010) surveyed 219 publicly traded US corporations and revealed that 79 per cent of the companies evaluated involved low-level managers in the preliminary and review stages of budget preparation and deemed them to have a significant role. Similarly, (Shields & Young, 2013) concluded that participative budget preparation is frequently used than principal supervision when a section of the director's compensation bundle is associated to financial plan's performance

Nwoye (2015), studied Budgeting and Budgetary Control as the measure for company performance in different selected states in Nigeria. The study concluded that struggling to achieve set goals and purposes without operative accounting and budgetary controls would be comparable to pursuing goals blindly. The study only surveyed budgeting and economic control and its importance as a forecaster of general company performance without concentrating on any particular metric of financial performance creating a gap to be filled in this study

Previous studies stated the pros and cons of the accounting processes and its influence on the financial achievement of an organization. Nickson and Mears (2012) studied the connection between monetary control and performance of state ministries in Boston, Massachusetts. The study examined the connection between budgetary control and financial performance of five state ministries. Secondary data not exceeding ten years from publication were reviewed. Also, data was analysed using a regression model, and the study found a significant optimistic and positive statistical relationship between budgetary regulation and performance of state ministries. The grades of the regression analysis settled that effective budgetary control procedures enhanced performance of state ministries.

Silva and Jayamaha (2012) assessed the financial process of apparel industry in Sri Lanka and determined if the budgetary process significantly affected the performance of such a business. The information obtained from the apparel industry's financial statements was evaluated using regression and correlation analysis. Regression analysis and correlation coefficients revealed that a budgetary process had substantial links with the managerial performance of apparel industry in Sri Lanka. The study confirmed that clothing businesses that maintained comprehensive budgetary process contributed to advanced intensities of managerial performance exhibiting a progressive association.

Gacheru (2012) studied the relationship between budgetary process on budget variances in Pension Benefit Organisations in Kenya and their effects of the process on the variances. The study population was 6,075 and a sample 21 of 20 was used to collect data. Also, descriptive data analysis method was applied. Gacheru (2012) concluded that the budget preparation process, control, and execution meaningfully influenced budget inconsistency. Ade (2012) pursued to achieve the subsequent goals; define the significant components of budgetary controls in government firms, institute the personal factors within budgetary controls, inaugurate the budgetary control process in state institutions, and define the encounters affecting budgetary control. Correlation analysis of the dependent and independent variables established the link to a great extent amid financial control and performance in a firm. The results established a very strong positive correlation between the two variables.

Marcormick and Hardcastle (2011) evaluated budgetary control and organizational performance in government parastatals in Europe. The study used a sample of 40 public parastatals to determine whether there existed a link between budgetary control and organizational performance. Further, secondary data was used and reviewed for a period of ten years. A regression model was the suitable method for analysing data and the study findings indicated a progressive link between the managerial performance of state corporations and budgetary control.

Karanja (2011) studied the effect of budgetary control process in Sacco specifically focusing on SACCOs in Nyeri County. Karanja (2011) chose a descriptive research design because it enabled him to broaden conclusions in relation to the general population. The population under study was 120 finance officers of SACCOs in Nyeri according to ministry of cooperative development and marketing 2011. The researcher nominated 30% of participants from each section of the population using simple random sampling method. Further, the researcher gathered primary data directly from respondents using questionnaires. Karanja (2011) concluded that money and management units were involved in the budgetary control processes. Besides, budgetary control processes are not closely interrelated with respect to labour regulators. However, participation and involvement of different stakeholders in the budgetary process makes it long and time-consuming

Adongo and Jagongo (2013), investigated the connection between budgetary control and financial performance of government parastatals in Kenya to establish the process of budgetary control in public organizations and define the encounters facing the controls. Findings indicated an encouraging substantial link between budgetary controls and economic performance of public firms. However, the research did not address public universities thus creating a gap.

Most of the previous available local literature have investigated the connection between budget controls and financial performance in the reserved and communal areas. Nonetheless, Gachithi (2010) conducted a case study on the challenges of budget implementation in public institutions. The study discovered that financial plans are adopted to predict prospect revenues and expenditures, thus they are effective planning and communication tools in other levels in a department and can act as control measures. However, participation in the budget preparation process is not the key influence for motivating workers to perform well. Gachithi (2010) revealed the challenges encountered in budget preparation as allocating insufficient funds to departments affecting budget implementation in public institutions.

2.3.5 Regulations, Policies and Financial Performance

Previous research has acknowledged regulations and policies within and outside an institution as an imperative consideration in studying financial performance (Chadee & Roxas, 2013). Helfat and Peteraf (2015) defined the circumstances fronting many public organizations today as being characterized by multifaceted and speedy modifications, extremely demanding clients, strong rivalry, and technological advancements. However, the study did not consider public institutions of higher learning. Helfat and Peteraf (2015) intended to establish the controlling outcome of regulations and established policies on financial performance of Kenyan universities to address that gap. A study by Gao (2008) comprising international enterprises in China revealed that organizational policies positively impacted financial performance. The study found out that the set regulations and structures were the main drivers influencing performance positively. The current study sought to know whether existence and enforcement of regulations and policies had any moderating effect in the financial performance of public universities in Kenya.

A study by (Anyadike-Danes et al., 2008) analyzed the relationship between regulation and performance in small businesses. The study had a different approach from previous studies where the researchers conducted 124 qualitative interviews with small business owners and 1205 small micro enterprises by telephone interview. The results from the interviews revealed that regulation in business generates influences which can be empowering and inspiring but restraining. The researchers used subjective instruments and acknowledged their strength which is yet to be tested. However, they failed to find any clear link based on the multivariate Structural Equation Modelling approach (SEM).

(Aghion et al., 2010) conducted a study that involved public universities in European countries. The study concluded that university guidelines and effectiveness were established as being absolutely related to performance. Also, the university self-governance was positively associated with university performance levels. In Russia (Chadee & Roxas, 2013) used a Structural Equation Model to examine the respondents' direct and indirect perception of the effects of institutional policies on advancement in modernization ability and organizational performance. The study affirmed that issues relating to supervisory quality and the regulation had a strong and direct impact on both advancement and performance. These two studies didn’t address the situation in Kenyan public universities, hence the need for the current study to address the gap.

According to Kimotho and Gekara, (2016), credit risk management affected productivity. The research helped the government to define policy direction to improve the finance division as a predecessor to credit menace scrutiny and its input to development in relations to savings, increased per capita income, upgraded private sector credit, and increase in employment levels, both direct and indirect. Although no precise indication on the relationship between credit risk management and SACCO efficacy was established, credit risk was reported to have an impact on financial performance in the empirical studies reviewed. Previous research had primarily focused on financial results rather than efficiency, and the direction of the association between the two factors had also differed. Methodological discrepancies and operationalization of the research variables could explain the disparity in outcomes across the scholars. Because most of the studies focus on financial institutions and in different economies, contextual variations may potentially explain the disparity in results. The study recommended that future research examine the underlying characteristics that explain the link between management of credit risk and SACCO efficiency.

Bangsa (2018) examined how the region's systems of internal control and financial accounting systems affected the credibility of financial statements and organizational commitment. The study's participants were 47 Regional Device Organizations (OPD) in the Kendal regency. A saturated sample was utilized in this investigation. In 2017, the total sample size was 84 OPD responders. The data was analyzed using Moderated Regression Analysis (MRA). The findings revealed that internal control systems and financial accounting systems both had a significant positive impact on financial statement quality, while organizational commitment had no effect on the involvement of internal control and domestic financial accounting systems on financial statement quality. According to the results, both internal control systems and financial accounting systems have a positive effect on the quality of financial information. However, the effect of internal control systems and financial accounting systems on the quality of financial reports is not lessened by performance over time.

Regulation and policies have also been found to determine the overall strength, output, and effectiveness of the company in the long run that affects the firm's performance compared to its peers in the same industry (Prajogo & McDermott, 2011). Empirical research by Zheng, Yang, and McLean (2010) implied a constructive connection between strategies and enactment even though the inferences were based on findings from a single participant to make conclusions on the study who was likely to amplify or underreport certain occurrences. Karemera (2013), studied the connection between regulation and productivity selected commercial banks in Rwanda. The study established that all the metrics of instruction used were irrelevant analysts of financial performance of Rwanda's commercial banks.

Braithwaite (1982) lay claim to the term "enforce self-regulation", which refers to the situation that the controller enforces a prerequisite to attain assured policy conclusions on the institution while it reacts in view of that by defining and executing their own rules and protocols. A critical component for enforced individual control is its internal control system of the controlled to accomplish the regulator's aim.

The current study has built on previous research to offer understanding into the intricate relationship between the formal policies of universities and their impact on financial performance. Similar works that embraced related methods were (Sigmund, Semrau, & Wegner, 2015). The result of this research established that both the existence and enforcement of regulations and policies had a very small or insignificant moderating effect on the financial performance of public universities in Kenya. This was demonstrated by the findings and discussions as later reported in another section of this report.

2.3.6 Financial Performance of Public Universities

Ahmed et al. (2018) conducted a study to determine the impacts of internal controls on the financial performance of Asia cell as a telecommunication company in Kurdistan Region of Iraq. The researchers determined the impacts of internal controls by focusing on the effects of monitoring the return, control environment, information and communication, risk valuation, and control activities on assets of the designated corporation. Ahmed et al. (2018) revealed that Asia cell was able to lessen fraud by capitalizing in strong internal control systems. Further, the outcomes indicated that some smaller-scale telecommunication corporations wanted to assess regulation actions and autonomous procedural reviews frequently. The investigation findings settled that telecommunication companies that capitalized heavily in strong internal control systems substantially improved financial performance in contrast to those corporations that had adopted minimal internal control mechanisms.

Abdulahi and Muturi (2016) in their study on effect of internal control systems on financial performance of higher education institutions in Puntland, wanted to establish whether internal control systems helped organizations achieve their various financial goals. This was despite the fact that the institutions in Puntland state of Somalia had applied internal control systems. The research outcomes revealed that the dimensions of inner control system have an affirmative substantial impact on the financial performance of these institutes. The findings established that the supervision of these institutions is dedicated to the internal regulators and aggressively contribute in observing and evaluating the universities' activities.

Ndifon et al. (2014) examined the effect of internal control activities on financial performance of Tertiary Institutions in Nigeria in particular Cross River State College of Education. The objective of this study was to determine the association amongst interior regulation actions and financial performance in Tertiary Institutions. Ndifon et al. (2014) concluded that all College activities were commenced by the senior administration, there was a distinct splitting of roles in the institutes' accounts and finance department, and the senior officer in the College frequently oversaw subordinate's work. The study concluded that the institution adhered sternly to the requirements of yearly departmental financial plan and that controls were adopted to avoid expenses that were in additional of the distributed fund.

Wainaina (2011) examined the effects of internal control functions in the Kenya Polytechnic University College. The variables for the study included control environment, risk assessment, control activities, information and communication, monitoring and information technology. Wainaina (2011) revealed that an organization must rely on internal control practices as an ancillary for its presence on the operation scenes to execute its choices and control the activities for which it would eventually be answerable for. Consequently, any organization's management schemes internal control techniques to distribute, regulate, and utilize resources efficiently to accomplish the organization's set goals and objectives. Further, the study established that internal control mechanisms are imperative in detecting and averting deception and safeguarding an organizations intangible assets. Fraud detection and prevention is attained through effective approval and certification of controls.

Mawanda (2008) studied the effect of internal control systems on financial performance in Uganda Martyrs University. The researcher pursued to understand the relationship between internal control systems and financial performance in the institution. Measures of internal controls measures comprised of internal accounting, control situation, and regulator activities, while financial performance focused on liquidity, responsibility, and published accounting reports. Mawanda (2008) wanted to understand the reasons that led to undesirable economic performance from the viewpoint of interior regulators. The work's findings found a noteworthy connection between internal control system and financial performance. The research suggested proficiency outlining in the internal assessment unit to be based on the University's expectations on the review's report and the suitable workers that would be appropriate for the task. The current study proved that financial performance was directly affected by the ICS put in place in public universities in Kenya.

Jones (2008) equated the contemporary internal control systems, culpability, and company governance with those in Medieval England. Jones (2008) adopted a current referential structure (control environment, risk assessment, information and communication, monitoring, and control activities) as fundamental factors to examine primitive internal controls used in the twelfth century state exchequer and other out-dated organizations. Jones (2008) confirmed that the greatest number of the present internal controls were available in feudal England. Stewardship and individual responsibility were the basic essentials of primitive interior controls and had a direct connection with financial performance of the said institutions under investigation.

John (2011) asserted that enterprise resource planning (ERP) vendors have taken advantage of the emphasis on internal controls by highlighting the built-in controls as key components of the ERP systems. They highlighted the features in marketing campaigns and asserted that their systems would enable firms to enhance their internal controls effectiveness. These findings were key motivators that informed this research, which focused on the ICT department personnel' in the public universities to collect the primary data.

2.4 Conceptual Framework

A conceptual framework is defined as extensive concepts, principles, and ideologies derived from applicable areas of analysis and used to edify a subsequent demonstration (Reichel & Ramey, 2012). A conceptual framework enables the researcher to derive conclusions from the study results and make inferences for the general population when evidently expressed. Besides, it represents a researchers' idea on the relationship between the independent and dependent variables. The independent variables are preventive controls, detective controls, corrective controls and budgetary controls, while financial performance of public universities in Kenya is the dependent variable. Regulations and policies make the moderating variable. Figure 2.2 below represents the conceptual framework.

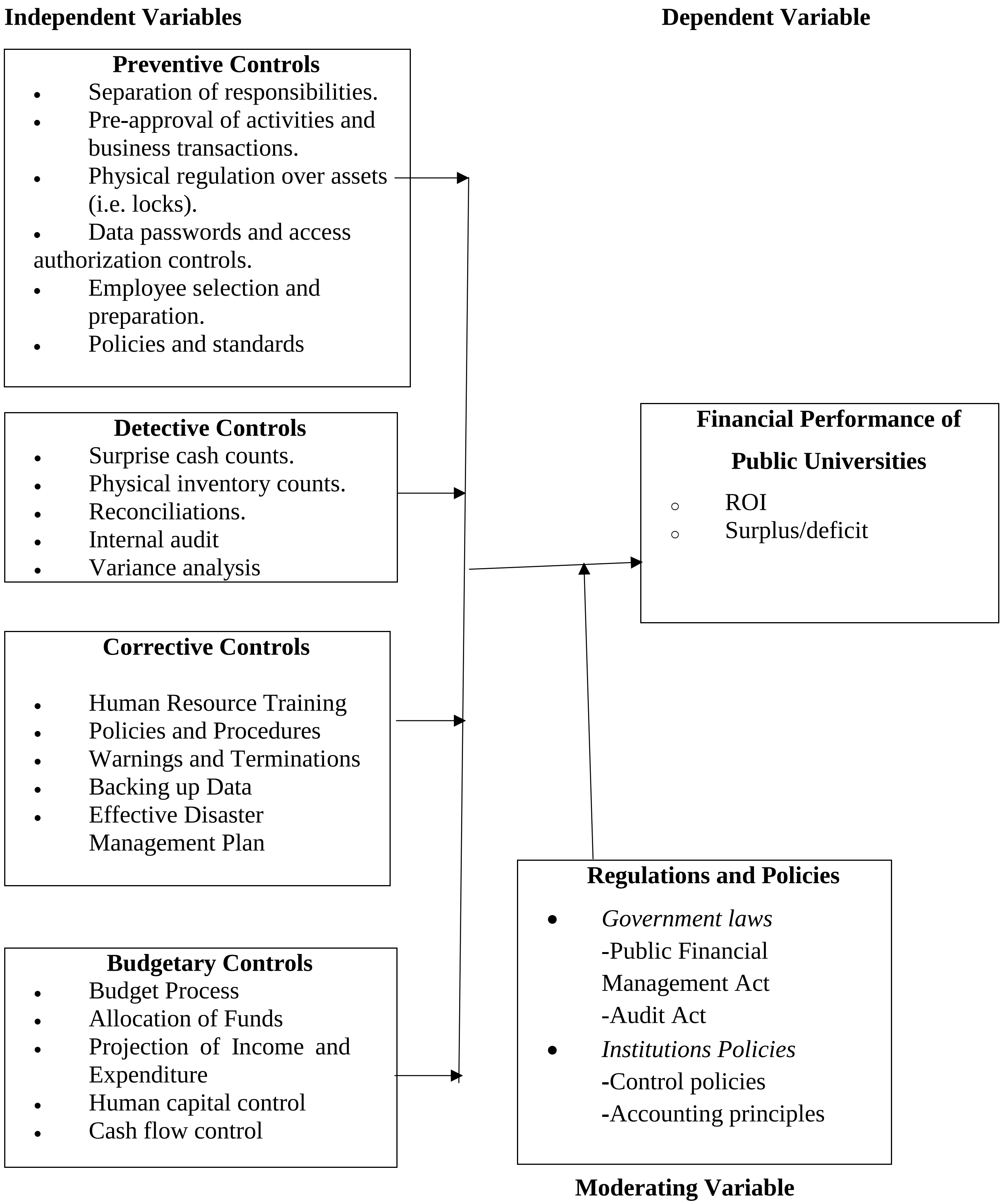


Figure 2.2 Conceptual Framework

Figure 2.2 above presents the current study's conceptual framework that proposes a direct relationship between the independent variables; preventive controls, detective controls, corrective controls, and budgetary controls with the dependent variable; financial performance of public universities in Kenya. According to the conceptual framework, regulations and policies will play a moderating role in the relationship in an attempt to further explain the influence of internal control systems on the financial performance of public universities in Kenya.

2.4.1 Critique of Existing Literature

Muhammed (2014) critically analysed the internal control systems in Ethiopia and Tanzania. The researcher revealed that the Ethiopian and Tanzanian restructurings were effective in executing internal control techniques in institutions of advanced education. Restructuring in both countries were discriminatory or biased and concentrated on analytically attending to the main flaws in monetary regulations. The initial directive duty was to inculcate operational controls and then increase the effectiveness of the instilled controls. The first and second tasks involved general customization. A comparison of the two countries on the extent of engagement of the interior regulatory mechanisms revealed that Ethiopia's internal control systems have been evolving to the current systems while creating a hybrid approach and concentrating on the authorized context or legal context. This study concentrated on higher institutions in Ethiopia and Tanzania and so did not cover public universities in Kenya.

Salihu (2015) evaluated the efficiency and effectiveness of internal controls in tertiary institutions in Adamawa state in Nigeria and established that the mechanisms of internal control system were incorrectly placed by the institution's supervision board particularly in the obtaining consent and authorization, approvals, management, separation of responsibilities, and employees' controls. This study only dealt with preventive controls whereas the current study deals with three other aspects including detective controls, corrective corrective and budgetary controls.

Ejoh and Ejom (2014) analysed a case study on Cross River State College of Education, Akamkpa Nigeria and found that numerous controls have been put in place, for example distinct separation of responsibilities in the finance section, administration by top level managers, and stringent devotion to budget to avoid additional or under financial expenditure. This study only concentrated on one college and mostly on preventive and budgetary controls unlike the current study at various other aspects of internal control system related to financial performance.

In their study, Dorcas Otengkoramah Badoo, Hilda Hammond, Felix Oppong (2020) assessed the internal control systems of Technical Universities in Ghana and revealed that Accra Technical University has put in place strategies and measures to boost the execution of internal controls. It was also found that, there was minimal staff awareness concerning such strategies and fines for non-compliance. The study fails to point out whether the policies and procedures are mediating, moderating or any other effect in the link between internal control system and financial performance. In the current study it is clearly articulated that the research had an objective of investigating the curbing outcome of guidelines and policies relating to the link between internal controls systems and financial performance of public universities in Kenya.

Wainaina (2011) evaluated the efficiency of an internal control function in the Kenya polytechnic university college and found out inconclusive results on the impact of internal controls on financial performance. Nevertheless, the current study has given conclusive outcomes on the link between internal control system and financial performance.

Muhammad (2015) undertook a study on the effect of internal audit function and internal control system on financial performance of an education entity of higher learning in Pakistan. The results indicated an affirmative relationship between internal audit, internal control situation and financial performance of the institution. The study focused on three elements of internal control including internal audit, internal control environment but failed to show the effect of preventive, detective, corrective and budgetary controls on financial performance of the said institution. The study was done on one institution without focusing on other institutions which may exhibit different operative characteristics.

Mawanda (2008) undertook a study on the effect of ICS on financial performance of Uganda Martyrs University and focused on internal control environment, internal happenings and internal audit. The research failed to prove that financial performance was directly affected by the ICS put in place in in other institutions of higher learning.

Researchers can agree that internal control system is an ultimate part of an effective financial performance. However the cost involved in maintaining the whole system is colossal and therefore delays the process to effectively manage failures. Many organizations are struggling with the implementation of their internal control system. A lot of time is spent on evaluation, monitoring, risk assessment and implementation. Even in cases that this is done effectively, many firms still fail to effectively implement the requirements of the internal control system. A school of thought has it that without successful implementation, a system is but a fantasy. So if well implemented it still works well even if the initiator left the university. This now justify the huge cost and time spent on formulation and implementation (Qaisar and Javid 2012)

Based on the literature reviewed, it is true that most universities and even other organizations include different people during the internal controls implementation procedure. However even in cases where high level experts are involved, one of the most important organizations' expert is forgotten in almost all such instances. These are the controls staff. These staff have all the details and knowledge of the firm or University in question, its controls procedure, the organizational culture and the risks being faced currently and in the long run. Therefore, the knowledge with this internal control department should not just be wished away. More important is the expertise of the University Management Board (UMB) on the relationship between internal controls system and financial performance which makes them excellent candidates to help the university to successfully implement the internal control docket. Once challenges in the internal control system have been identified, they should be brought to the attention of the senior management (COSO, 2013).

2.4.2 Research gaps

The researcher did not find any study investigating effect of internal control system on financial performance of public universities in Kenya with a particular focus on preventive controls, detective controls, corrective controls and budgetary controls. The current study was conducted to fill the numerous unaddressed areas relating to the impact of internal control systems on the financial performance of public universities because there are no previous related practical studies found out.

Simiyu (2011) conducted a research on internal control techniques in the middle level colleges in Kenya and found out that most had numerous internal control challenges. Though this study was carried on institution of higher learning, there was a gap since universities were not included.

Gacheru (2012) who investigated the impact of budgetary process on financial plan variances in PBOs in Kenya wanted to understand the relationship that existed between accounting practice and financial plan discrepancies in Kenyan PBOs. The study targeted a population of 6,075 where the researcher used a sample 21 of 20 to collect data. Also, the study used descriptive data analysis and established that the process of budget preparation, control 20, and execution meaningfully influenced the budget inconsistency. However, Gacheru (2012) only addressed one variable of ICS whereas the current study addresses four variables.

2.4.3 Summary of the Chapter

Preventive controls are unreceptive practices that are intended to lessen the incidence of adverse events. Besides, the regulators force amenability with recommended or anticipated activities excluding unexpected occasions. An organization takes preventive measures through separation of responsibilities, initial consent of activities and businesses, manual regulation or physical control over assets, computer personal identification numbers and authorized approval controls, and worker selection and preparation. Detective controls are introduced to support the preventive controls. An organization uses detective controls to reveal particular forms of faults in the system by equating real occurrences to pre-established principles. An organization can use surprise money counts, physical inventory counts, reconciliations, review of university performance, and internal audit to detect errors. When a departure from standards is identified, it sounds a miserable apprehension to appeal consideration to the challenge.

To rectify the identified problem, corrective controls are applied. Corrective controls are activities undertaken to inverse the outcomes of faults identified in the system. An organization can correct these errors through human resource training, introducing policies and procedures, issuing warnings letters and employee terminations, backing up data to prevent loss, and having in place an effective disaster management plan. Budgetary controls help in projections that guide internal controls. This is normally done through having a budget process, allocation of funds to various projects, projections of expected incomes and expenditures, human capital control, and having cash flow control within the organization.

Regulations and policies are introduced to moderate the relationship between internal control systems and financial performance. The moderating factor explains how or why there is a connection between the independent and the dependent variables. The relationship between the dependent and independent variables here can be affected by the organizational policies, and Public Financial Management Act that guides the effective administration of funds collected and spent by government institutions. Financial performance which is key to any organization is normally denoted by the self- funding capacity (economic stability) of the institution, having effectiveness in disbursements, incorporating enhanced systems and capitals, culpability, and proper asset supervision. The study reviewed relevant theories including agency, attribution, systems, and stewardship theories to anchor the study properly to fit in its general objective of investigating the effect of internal control systems on financial performance of public universities in Kenya.

CHAPER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter explains the study's research design and methodology. It examines various data sources, sampling technique, sample size, procedures used in the study, piloting and methods or procedures of testing the reliability and validity of the study instrument. The procedures and tools used in data gathering and analysis are also covered in this chapter. It also contains the operationalization of the variables, the study model and summary.

3.2 Research Design

A causal research design was used in this study. Causal studies focus on examining a condition or an exact problem in order to understand the patterns of relationships among variables (Cooper & Schindler, 2013). Since the study only required to create correlations between variables at one point in time, and data was obtained from multiple organizations at the same time, this methodology was appropriate. According to Preko, Agbanu, and Feglo (2014), the purpose of using a causal research design is to obtain in-depth replies in order to develop a deeper knowledge of the phenomena being studied while also evaluating the cause-effect relationship between the variables and the general objective of the study.

This study design was suitable since it allowed the researcher to investigate the settings, processes, and relationships of a phenomenon in depth, and also quantify attitudes and consequences specifically. The researcher was aided in establishing whether there are any significant connections between variables at any point in time by the research design (Saunders, 2012).

3.3 Target Population

Mugenda & Mugenda (2008) describes a population as a clearly-defined group of people, services, elements, and events, as well as groupings of items or residences under inquiry. Alternatively, the population can be defined as a group of people from whom the sample is collected (Saunders et al., 2009). The population helps determine if the cases sampled are eligible or unqualified for the study.

The members who meet the predetermined criteria for inclusion in an investigation's target population are referred to as the target population. It consists of all individuals from a real or hypothetical group of people, events, or articles are included (Borg & Gall, 2007). Statistically, the sample size (population) is also known as the population in which information is obtained for analysis (Mugenda, 2012).

Until Decmber 2019, the study's population covered all Kenyan public universities. According to CUE, Kenya had 31 chartered public universities and six public university constituent colleges as of December 2019. Five of the thirty seven universities were used for pilot study. Target population consisted of 32 public institutions. The overall respondents were selected from the line of ICT and finance in the 32 public universities and included the deputy vice chancellor finance, registrar finance and administration, ICT personnel, finance officers, and internal auditors. Every public university in the survey had a single respondent from each category. As stated in table 3.1, this produced a total of 160 respondents below. These respondents were selected because they were the officers in charge of implementing the internal control system at their respective universities on a daily basis.

Table 3.1: Target Population

Position		Number
Deputy Vice Chancellor	Finance	32
Registrars	Administration and Finance	32
ICT personnel		32
Finance officers		32
Internal auditors		32
Total		**160**

Source: Author, 2019

3.4 Sampling Frame

A sampling frame, according to Lavrakas (2014), is a list of the target population from which the sample is drawn, and it is made up of a determinate number of people. A sample frame, according to Kothari (2010), is a list containing the names of all the elements in a population. A sample is a group of people chosen from a larger group (Polit & Beck, 2010). All 37 public chartered and constituent colleges were included in the sampling frame (CUE, 2019).

3.5 Sample Size and Sampling Technique

Sampling is a technique for obtaining inferences about populations by taking a sample of a limited number of objects or a fraction of the entire population and making conclusions. It enables the researcher to establish population generalizations and approximate any unknown population elements (Zikmund et al., 2013). According to Kothari (2011), sampling is the process of selecting representatives of the population for analysis and from which a verdict or conclusion about the study population is made. It is a method of learning about an entire population by studying a subset of it (Mugenda & Mugenda, 2012). Using sampling techniques, a researcher can verify that the characteristics of the population are accurately represented in the sample.

A sample is a fraction of the target population from which the sample is collected, summarized, analysed, and inferences about the target population are made (Mwangi, Muturi, & Ngumi, 2016). Based on the sample characteristics, the objective of sampling is to study about some attributes or features of the total population (Zikmund et al., 2010). The researcher used the census method of sampling to distribute the research instrument to the entire population of 160 respondents. According to Saunders, Lewis, and Thornhill (2009), sampling is only necessary when it is impossible to survey the entire population, there is a budgetary and predicted time limitation, or the population size is unmanageable.

3.6 Instrumentation

Data collection is the methodical procedure of gathering and examining information on targeted variables with the aim of answering the research questions, test hypotheses, and assess outcomes (Cooper & Schindler, 2013). Data collecting techniques, according to Kumar (2011), are the tools or tactics used to collect data in a study.

The various data gathering methods available, which differ in terms of expenditure, time spent, and other resources available to the researcher (Orodho, 2008). Data in this study was collected by means of a semi-structured questionnaire as they are cost efficient. They can also be used to collect data and record responses (Zikmond, 2003). Questionnaires comprised of a collection of precise, brief questions that were either queried on the respondents in a method of interview or handed to them to answer on their own.

The current survey comprised of the open-ended and closed-ended questions. The closed ended questions were answered on a 5-point Likert scale, which is the most widely used method of scaling responses in survey research (Carifio & Perla, 2007). Likert scale was appropriate for this study since it reduces answer variability, while pre-selecting a range of answer options to increase rate of response (Jarvenpaa et al., 2000). The open-ended questions gave respondents the opportunity to express their views and provide comments (Cooper & Schindler, 2003).

To accomplish the objectives of the study, the researcher designed the questionnaire with the aim of expressing what was meant to the respondents and eliciting desirable response to factual data from the participants. It is an ideal technique of gathering information from a group of people. (Cooper & Schindler, 2014).

Questionnaires can be distributed to a large number of people and allow academics to study a large number of population. They are inexpensive, and no prior planning or personal management is necessary. They shield responders from shame by enabling them to analyse responses, particularly when pre-coded options are available. They also ensure respondent confidentiality and, when done correctly, eliminate interviewer bias. Three research assistants were employed to primarily follow up on the questionnaires given out.

The questionnaire was divided into several sections. Part A of the survey focused on the respondents' origins or demographics, whereas part B concentrated on preventive controls. Part C dealt with detective controls, whereas Part D dealt with corrective controls and Part

E with budgetary controls. Part F dealt with policies and regulations, whereas Part G was on the financial performance.

3.6.1 Pilot Study

A pilot study was conducted to evaluate the research instrument's efficiency. Pilot testing, according to Cooper and Schindler (2011), should be conducted to reveal design and instrumentation errors as well as offer alternative data for probabilistic sampling.

To ensure that the instruments remained valid, the researcher pre-tested the questionnaires in a pilot study. The study results prompted the researcher to make certain changes to the questionnaire to improve its validity. Piloting is critical because it allows the researcher to spot ambiguities, misunderstandings, or insufficient things (Tracy, 2013).

The questionnaire was tested on five public universities that were intended to be representative of the general population but not part of the target population. In the study the sample and the target population was similar. The five universities were sampled using simple random sampling. This strategy offered them an equal chance of being chosen from the total population. According to Mugenda and Mugenda (2003), stated that a good pilot research utilises 1% to 10% of the total sample size. The respondents completed the questionnaires themselves, and they were used to gather both primary and secondary data (secondary data collection sheet has been provided as an appendix). The information gathered was analysed. Following that, the questionnaire was adjusted relative to the basis of pilot test results to develop the final copy for use.

3.6.2 Validity of the Research Instrument

According to Picardi and Masick (2013) validity is the accuracy and significance of conclusions drawn from research findings. Besides, validity refers to the extent in which the outcomes of data analysis precisely reflect the topic being investigated. Validity relates to how well an instrument measures what it was designed to measure or how accurate the research findings are. The main validity approaches used are criterion validity, content validity, and construct validity. The study used content validity to test the extent of the conformity of the information gathered with the perception being measured. The research instruments for both primary and secondary data were presented to five selected finance officers from five different universities and requested to assess the relevance of the instruments and whether they were suitable and meaningful for the current study. The questionnaire was improved as a result of their helpful feedback.

Construct validity was also used to determine whether the questions measured what they were supposed to measure or to determine the relationship between observed variables and latent variables relative to the theories that were used to develop the objectives and constructs. Based on the conceptual framework, the questions were divided into parts relative to the aims of the study and a factor analysis with a factor loading of 0.4 was conducted. Gay, Mills and Airasian (2013) argued that factor analysis allows the examination of underlying constructs, which cannot be quantified directly through items that are assumed to reflect measures of the construct. Factor analysis assisted to confirm that the perceived measurements were in line with the research variables they measured. All the constructs with a loading factor below 0.4 were removed from the questionnaire.

3.6.3 Reliability of the Research Instrument

Reliability measures the extent to which a research instrument yields steady results or data following recurrent trials (Crowther & Lancaster, 2012). A dependable indicator provides constant results relative to indicator's characteristics, measurement design, and research instrument. Cronbach's alpha (α) was used to determine the study instrument's reliability coefficient. Internal consistency, test-retest technique, alternate or parallel method, and split half method are all methods that are used to test the reliability of the research (Drost, 2011). This research study used the internal consistency approach since it is more relevant than the others. Consistency was tested using the Cronbach's alpha statistic. The SPSS software was used after making sure that all the items in each scale moved the same direction without mixing positively and negatively worded statements.

The Cronbach alpha coefficient was used to determine the reliability of the research instruments used in this study. Reliability is a measure of sample item one-dimensionality and inner consistency (Tavakol & Dennick, 2011). Another reason to choose Cronbach alpha was that the components under evaluation assessed the same constructs and thus had a positive correlation. If a variable reaches the recommended cut-off threshold of 0.7 for reliabilities, it is considered acceptable. A score of less than 0.70 indicates that the components of the tool may not be assessing the same underlying construct.

3.7 Methods of Data Collection

Kombo and Tromp (2009), refers data collection to the act of gathering raw data in order to serve or verify particular specifics. This study's information was obtained from both primary and secondary sources. A questionnaire can be distributed to respondents through mail, telephone, internet, or face to face, depending on the nature of the survey research

(Malhotra et al., 2006). Face-to-face technique was used to distribute the questionnaires in this study. This approach is advantageous because it allows the researcher and the respondent to have a direct conversation. The method usually takes one of two forms: a self-administered questionnaire or an interview. During interviews, the researcher reads the questions to the respondents orally and records their responses. To obtain primary data, this study used a self-administered questionnaire. This method offers researchers the advantage of reaching a big number of probable respondents in a broader geographical and diverse localities (Cooper & Schindler, 2003). Public universities consider some information as confidential and so classified. This was overcome by declaring the academic goal of the study and confidentiality of the information given. NACOSTI licence provided evidence that the research carried out was for academic purposes only. At some point Covid-19 pandemic became a challenge in data collection. The presidential declaration of movement restrictions hampered collection of data since there was no free movement during such periods. The ministry of health also put in place protocols, which prevented free movement and interactions, which also had a negative effect on data collection. This was mitigated by sending the remaining questionnaires through emails and receiving the answers through the same. This method increased the response rates considerably. The respondents in the finance and information communication technology line of operations comprised the deputy vice chancellor finance, the registrar finance and administration, ICT staff, finance officers, and internal auditors, or their substitutes. The questionnaire was developed relative to the research objectives and to address the study's unique goals and evaluate the hypothesis. Secondary data was gathered through reports, organizational journals, and publications, as well as material from the universities' websites. Secondary data, as defined by Cooper and Schindler (2014), is information gathered by others and identified by the comparative researcher in ethnographic research, censuses, and histories.

3.8 Operationalisation and Measurement of Study Variables

The necessity for operationalising the variables arises from the need to determine whether a relationship exists between the variables and theoretical models (Dillman, 2000). The independent variables of the study included; preventive, corrective, detective and budgetary controls. The dependent variable was financial performance and the moderating variable was rules and regulations. The study sough to establish the participants' views on whether these variables in the internal control system had any effect on the financial performance of the public universities in Kenya. The independent variables including moderating variable were measured by respondents' view as determined by a 5-point Likert scale. The dependent variable was measured using income and expenditure account to assess surplus/deficit.

Table 3.2 Operationalisation and Measurement of Study Variables

Nature of variable	Name of variable	Indicator	Measurement	Results
Dependent	Financial performance	• Efficiency of Expenditures against revenue	• Income and expenditure account • Current ratio	• Surplus or deficit • ROI
Independent	Preventive controls	• Segregation of duties. • Pre-approval of actions and transactions. • Computer passwords and access authorization controls.	The independent variables including moderating variable were measured by Respondents view as determined by means of a 5 point likert scale.	Descriptive statistics

	• Employee screening and training. • Policies and standards • Physical control over assets
Detective controls	• Reconciliations. • Internal audit • Variance analysis • Surprise cash counts. • Physical inventory counts
Corrective controls	• Human Resource Training • Warnings and Terminations • Backing up Data • Effective Disaster Management Plan • Policies and Procedures
Budgetary controls	• Budget Process • Allocation of Funds • Human capital control

		• Cash flow control • Projection of Income and and expenditure
Moderating	Regulations and policies	• Government laws -Public Financial Management Act -Audit Act • Institutions Policies -Control policies -Accounting principles

3.9 Data Analysis Methods

Data processing involved cleaning, sorting and coding the obtained data using numerical numbers. It was then run through SPSS software and checked for accuracy of data input. The data was then analysed in accordance with the four objectives of the study. It was then necessary to run frequency distributions on all variables and assumptions verified. To investigate the underpinning characteristics of the research variables; dependent and independent variables, descriptive statistical analysis, such as mean scores, standard deviations, percentages, and frequency distribution were computed to define the features of the variables of interest in the study. Descriptive statistics identifies the basic characteristics of the obtained data on the research variables and offers impetus to conduct more analysis (Mugenda, 2008). Besides, they show the elements that have a tendency to collect and display the features of the data collected (Kothari, 2011). Descriptive statistics revealed the essential characteristics of the data gathered on the variables under investigation and prompted additional examination (Mugenda, 2008). The second step involved quantitative analysis where the data was regressed using SPSS and the implication of the inferential results discussed.

3.9.1 Diagnostic Tests

These assessments illustrate whether the collected data fulfils the requirements of cardinal requirements of Classical Linear Regression Model (CLRM). The following tests were run to establish whether the data fulfilled the said objective.

3.9.2Tests for Normality

These assessments were used to determine whether the variables were symmetrical and devoid of outliers, as well as whether they had a linear relationship. A normality test was used to examine whether the data set was modelled appropriately by normal distribution (Paul & Zhang, 2010). To examine whether there were any inconsistencies, the data was summarized and assessed for normalcy using kurtosis and skewness. Kurtosis is a measure of distribution flattening, whereas Skewness is a measure of asymmetry and divergence from a normal distribution. If skewness and kurtosis are between +2 and -2, data is considered to satisfy normalcy parameters (Kothari, 2004).

3.9.3 Test of Heteroscedasticity

Heteroscedasticity, according to (Vinod, 2008), is a state in which a variable's variability is unbalanced across the array of values of a second variable that predicts it. Homoscedasticity, on the other hand, occurs when the value of "Prob > Chi-squared" is greater than 0.05. (Park, 2008). The heteroscedasticity condition was assessed using the Breusch-Pagan/Cook-Waisberg test, which covers the entire model. Heteroscedasticity is present if the test result shows a significant value of less than 0.05. When the significance value is more than 0.05, it is inferred that the data is not heteroscedastic.

3.9.4 Test for Multicollinearity

Multicollinearity is defined as a condition in which two or more variables in a multiple regression model are highly correlated (Martz, 2013). A factor VIF test was carried out to compute a mean VIF. VIF is a measure of how much collinearity increases the variance of an estimated regression coefficient. A VIF statistic higher than 10 and tolerance value greater than 1, is a clear indication of multicollinearity and should be eliminated from the regression model (Mugenda, 2013).

3.9.5 Correlation Analysis

The Pearson correlation coefficient (r) was used to identify the extent and the nature of the relationships among variables. Correlation coefficients range from -1 to +1, with a +1 being a perfect positive relationship, 0 indicating no relationship, and -1 showing a perfect negative relationship. The assumptions of Pearson's product moment correlation comprise the level of measurement, related pairs, absence of outliers, and linearity. The data in the study did not violate the assumptions of Pearson's product moment correlation and so there was no need to use Spearman rank correlation. According to Cooper and Schindler (2013), correlation technique is used to examine the extent of relationship between two variables.

3.9.6 Inferential Analysis

The Statistical Package for Social Sciences (SPSS) software Version 25 was used to regress quantitative data. To ease data entry, all questionnaires acquired were referenced and the items in the questionnaire were coded. Construct validity was examined to determine whether the questions measured what they were supposed to measure or to discover the relationship between observable measures and latent variables based on previously discussed theories that were used to develop the constructs and objectives, The perceived measurements were compared to the study variables they were measuring using factor analysis. All constructs having a loading factor of less than 0.4 were eliminated from the survey.

Following data cleaning, which included inspection for entry mistakes, descriptive statistics and frequencies were computed for all variables and data presented in tables. Descriptive statistics were chosen because they allow the researcher to utilize a few indices to meaningfully describe the spread of scores or measurements (Picardi & Masick, 2013). The data was analysed using measures of central tendency, such as mean and standard deviation. Pearson correlation coefficient, regression, and ANOVA analysis were carried out. The individual significance of the coefficients was determined using the P-value and t-statistic. The F statistic was computed and used to measure the model's overall significance.

According to Tracy (2012), many statistical procedures, particularly those utilizing parametric data, assume that the variables have a normal distribution. As a result, normal distribution of variables was required to employ parametric statistics like Pearson correlation and regression analysis, and thus, the variables were internally standardized. The 1986 Baron and Kenny model was used to determine the moderating effect of rules and policies on the relationship between internal control system and financial performance. A moderator is a variable that influences the strength and direction of a link between a predictor and a dependent variable (Baron & Kenny, 1986). In stage one, the effect of ICS on financial performance of public universities was established. The moderator regulations and policies were introduced as an extra predictor in the second stage. In the third stage, an interaction term was added to the dependent variable as an extra predictor. Moderation could only be available if the combined effect describes a statistically significant volume of variance in the dependent variable.

Multiple regression examination is used to examine whether a set of factors can predict a specific dependent variable when used jointly (Tracy, 2012). As a result, based on the regression model, multiple linear regression was utilized to create an equation that defined the dependent variable in terms of the independent variables. Multiple linear regression is utilized in instances where there is more than one independent variable (Crowther and Lancaster, 2012). Multiple regression analysis is also useful to calculate the impact of multiple concurrent influences on a single dependent variable.

3.9.7 Empirical Model and Hypothesis Testing

The extent of variance in the dependent variable accounted for by the set of predictors is calculated using multiple regression analysis (Mugenda &Mugenda, 2003). Multiple regression analysis gives an R-squire which indicates the proportion of variance in the dependent variable described for by the blend of predictors (Mugenda &Mugenda, 2003). Multiple regression analysis was carried out at a p- value of 0.05 and the regression model as shown in a table 3.3 showing a synopsis of research objectives, hypotheses and statistical tests below.

Table 3.3: Summary of Objectives, Hypotheses and Statistical Tests

Objectives	**Hypothesis**	**Analysis**
Objective 1 To investigate of preventive measures on the financial performance of Kenyan public universities.	H_{01}: Preventive controls have no statistically significant effect on the financial performance of Kenyan public universities.	1. Regression 2. T- test to determine individual significance 3. F –test to establish overall significance of the model $Y=\beta_0 + \beta_1X_1 + \varepsilon$
Objective 2 To explore the effect of detective controls on the financial performance of Kenyan public universities.	H_{02}: Detective restrictions have no statistically significant effect on the financial performance of Kenyan public universities.	1. Regression 2. T- test to determine individual significance 3. F –test to establish overall significance of the model $Y=\beta_0 + \beta_1X_1 + \beta_2X_2 + \varepsilon$
Objective 3 To evaluate the effect of corrective procedures on the financial performance of Kenyan public universities.	H_{03}: Corrective controls have no statistically significant effect on financial performance of Kenyan public universities.	1. Regression 2. T- test to determine individual significance 3. F –test to establish overall significance of the model $Y=\beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \varepsilon$
Objective 4 To examine the effect of budgetary controls on the financial performance of Kenya's public universities.	H_{04}: Budgetary controls have no statistically significant effect on the financial performance of Kenyan public universities.	1. Regression 2. T- test to determine individual significance 3. F –test to establish overall significance of the model $Y=\beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \varepsilon$

Objective 5 To investigate the moderating effect of regulations and policies on therelationship of internal control systems and financial performance of Kenyan public universities.	H_{05}: Regulations and regulations have no moderating effect on the relationship between internal control systems and financial performance of Kenya's public universities.	1. Regression 2. T- test to determine individual significance 3. F –test to establish overall significance of the model $Y=\beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \beta_5X_5 +\varepsilon$

Multiple regression analysis, according to Saunders et al. (2013), entails integrating numerous predictor variables, and because this study had four independent variables and a moderating variable, the multiple regression model assumed the following equation.

$Y=\beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \beta_5X_5 +\varepsilon$ where: -

Y = represents the dependent variable, financial performance

β_0 = constant

X_1 = Preventive Controls

X_2 = Detective Controls

X_3 = Corrective Controls

X_4 = Budgetary Controls

X_5 = Regulations and Policies

ε = Error Term

The findings were presented in the form of tables. Tables are the simplest approach to summarize data for individual variables in order to read specific values (Eriksson & Kovalainen, 2008).

CHAPTER FOUR

RESULTS AND DISCUSSION

4.1 Introduction

This chapter presented the research results and study discussion. Besides, it utilized numerous statistical techniques and causal research design to find out the effect of the independent variables and dependent variable. Each specific objective's pattern was examined and interpreted, and implications were discussed. Besides descriptive statistics, Cronbach alpha coefficients were used to determine the reliability of the data using the statistical packages for social sciences (SPSS) software. The moderating effect on regulations and policies was tested and results discussed.

4.2 Response Rate

The research targeted 160 respondents and 142 questionnaires were filled and returned, which was a response rate of 88.75 % as shown by the frequency distribution table 4.1 below. The response rate was adequate to draw inferences and study conclusions.

Mugenda and Mugenda (2013) posited that a 50% response rate is adequate for data analysis and reporting, 60% is good, while 70% is excellent. The high response rate was attributed to the assistance from research assistants who aided in the distribution of questionnaires and respondents were given ample time to fill the questionnaires. During covid-19 containment period questionnaires were sent to the respondents through email where the research assistants could not be able to reach them. The responses were considered adequate and representative and taken as ideal to derive conclusions upon data analysis.

Table 4.1 Study's Response Rate Frequencies

Response	Frequency	Percent
Successful	142	88.75
Unsuccessful	18	11.25
Total	**160**	**100**

Source; reseacher

It was not possible to establish why some respondents failed to return the questionnaires. This was especially from the group of questionnaires that were sent through emails when it became completely impossible to self-administer the same during the covid-19 containment period.

4.3 Demographic Analysis of Responses

The researcher begun by analyzing the respondents' demographic responses namely gender, level of education, and duration of the time they had worked in the institution. Analysis of the demographic information was essentially necessary to support validity of the gathered data across the target population and allow equity of representation of views. The analysis helped to identify trends relative to the respondents' profiles that were associated with the study variables

4.3.1 Distribution of the Respondents by Gender

The study sought to identify the gender of the respondents. It was established that 47.4% were female, while 52.6% were male. Thus, the responses were balanced across the genders and the findings were not gender biased. The distribution therefore represents a fair gender balancing as proposed by the gender rule in employment in Kenya as per the constitution (2010), and also an indication of efficacious gender mainstreaming efforts and campaigns.

Table 4.2 below represents the data on gender distribution of the sample of the population selected.

Table4.2: Distribution of Respondents by Gender

Gender	Frequency	Percentage
Male	85	52.6%
Female	75	47.4%
Total	160	100%

4.3.2 Distribution of Respondents by Education Level

The study required the respondents to indicate their education level. The research found among the respondents, 32.1% were post graduate holders, 44.9% were undergraduate holders, and 21.8% were diploma holders, while 1.2% held secondary certificates. The variations in the level of education were expected since the target population was mainly targeting employees at the management level, which requires high level of competence, skills, and qualifications. The study findings implied that the respondents were skilled and well informed. Thus, the information collected was valuable and in tandem with the research objectives. The level of education was therefore very important in this respect. The results were represented in Table 4.3 below.

Table 4.3: Respondent's Level of Education

Level	Frequency in %
Post Graduate	32.1
Undergraduate	44.9
Diploma	21.8
Secondary/ Certificate	1.2
TOTAL	100

4.3.3 Period of Service in the University

The research sought to establish the period of service that the respondents had offered to their organization. The research established that majority of the respondents had served for 5-10 years at 43.1%. On the other hand, 6.0% had served for more than 10 years, 27.4% for 3-5 years, 15.3% for 1-3 years, while 8.2% had served for Less than 1 year. These findings imply that majority of the respondents had adequate work experience in the organization and hence had the necessary acquaintance and information, and thus useful in the study. The results are indicated in Table 4.4 below;

Table 4.4 Period of Service in the University

Period	Frequency in %
10 years and above	6.0
5-10 years	43.1
3-5 years	27.4
1-3 years	15.3
0-1 years	8,2
TOTAL	100

4.4 Pilot Test and Reliability

A pilot test was conducted to ascertain the reliability and validity of the study instrument and to make the instrument suitable and serve its purpose as expected. Polit and Beck (2003) posited that pilot tests are essential since even though they do not test research hypotheses, they test the protocols and strategies of the data collection instruments before they are used in the field.

4.4.1 Validity Test

A pilot study was conducted prior to the main study to test the reliability and validity of the data. All the respondents in the five selected universities returned their questionnaires. Factor analysis was conducted as explained in chapter three. All items with a load of 0.4 was considered as adequate for the study but those below that threshold were dropped from the questionnaire. Based on respondents input, the questionnaire was edited and a final version used in the study. The list of Universities under the pilot study is provided in appendix IV. Results for factor analysis are provided in table 4.5 below.

Table 4.5: Results for Factor Analysis

Variable	composite	Dropped	Retained
Preventive controls	21	3	18
Detective controls	17	0	17
Corrective controls	22	3	19
Budgetary controls	20	3	17
Regulations and policies	11	0	11

4.4.2 Reliability

The Cronbach alpha was used to test and measure the reliability of the data collection instrument. Since the research instruments were measuring similar aspects, it was essential to test the internal consistency using the Cronbach's alpha. The SPSS software was used after making sure that all the items in each scale moved the same direction without mixing positively and negatively worded questions. According to Mugenda and Mugenda (2013), the greater within subject variability than between subject variability results to a negative Coefficient alpha. Besides, Sekaran (2003) argued that a higher consistency reliability is depicted by a Cronbach’s Alpha that is closer to one (1). Relevant items have a coefficient alpha value of more than 0.7, while items with a weak internal consistency have a coefficient alpha that is less than 0.7.

Table 4.6 below shows the reliability statistics for budgetary controls, detective controls, preventive controls, corrective controls, and regulations and policies as a moderating variable. The outcomes indicate that all the variables were reliable and acceptable because they had a Cronbach Alpha Coefficient of more than 0.7.

Table 4.6: Reliability Statistics

Variable	Cronbach's alpha Co-efficient	Number of items
Preventive Controls	0.842	18
Detective Controls	0.788	17
Corrective Controls	0.878	19
Budgetary Controls	0.764	17
Regulation and policies	0.991	11

Source: Research Data, 2020

4.5 Diagnostic tests

Various diagnostic tests were carried out and the results are as provided in the next few paragraphs.

4.5.1 Normality

This study used kurtosis and skewness to test normality. The key assumption of linear regression is that all variables should be multivariate normal and the assumption is satisfied if the residuals are not skewed. According to (Cramer, 1998) where the z-scores range between +1.96 and -1.96 in the test for skewness and kurtosis, then the distribution is said to be normally distributed. Table 4.7 below show the results of skewness and kurtosis being within the required range. George and Mallery (2014) posited that the acceptable values for asymmetry and kurtosis should be between -2 and +2 since they prove that the univariate distribution is normal.

Table 4.7 Skewness and Kurtosis

Statistics							
		Finanancial performance	Preventive controls	Detective controls	Corrective controls	Budgetary controls	rpqs
N	Valid	142	142	142	142	142	142
	Missing	4	4	4	4	4	4
Skewness		.223	-.014	.076	.014	.056	.028
Std. Error of Skewness		.203	.203	.203	.203	.203	.203
Z score		1.09	-0.07	0.37	0.07	0.28	0.14
Kurtosis		-.302	-.704	-.381	-.658	-.082	-.583
Std. Error of Kurtosis		.404	.404	.404	.404	.404	.404
Z score		-0.75	-1.74	-0.94	-1.63	-0.20	-1.44

4.5.2 Multi-collinearity

The multicollinearity diagnostic tests were done to obtain collinearity statistics and establish the correlation between the predictors. Principally, multicollinearity is a challenge in regression analysis and it is caused by a high correlation between independent variables. It is difficult to distinguish or identify the variations between the methods of analysis when the independent variables are highly correlated since it bars the multi-regression from estimating coefficients, which renders the equation unsolvable (King, Keohane, & Verba, 1994).

A test interchanging the variables were run and found to be within acceptable levels with Variance Inflation Factor (VIF) of less than 5. According to (Greenberg & Parks, 1997), a VIF of more than 10 indicate trouble and more than 2.5 raise concern. Table 4.8 shows the Collinearity Tests output.

Table 4.8: Collinearity Tests

Model	Collinearity Statistics	
	Tolerance =1/VIF	**VIF**
Preventive Controls	.899	1.112
Detective Controls	.953	1.049
Corrective Controls	.973	1.028
Budgetary Controls	.948	1.055
Regulations & Policies	.907	1.102

Dependent variable: Financial Performance

4.5.3 Heteroscedasticity Test

Heteroscedasticity is a regression issue that is normal with cross-section information, where there are expansive contrasts in measure between perceptions. The test is done to establish whether the variables' variability are similar or dissimilar across the independent variable range. If the variability is not the same then the data suffers a state of heteroscedasticity. This study used Breuch Pagan test to detect the heteroscedasticity problem in the model. A p-value that is less than 0.05 means that heteroscedasticity is present, but a value that is more than 0.05 means that the variable is not homoscedastic. As shown in Table 4.9 below, the study tested for heteroscedasticity, using the Breusch-Pagan test. The null hypothesis was that the error term was homoscedastic. The results in the Table 4.9 shows that the variables p-value is 0.061, which is higher than 0.05. Therefore, the data was not heteroscedastic.

Table 4.9: Heteroscedasticity Test Results

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	251.519	5	50.304	2.168	.061[b]
	Residual	3154.898	136	23.198		
	Total	3406.417	141			

a. Dependent Variable: squires

b. Predictors: (Constant),regulations and policies, Corrective controls, Budgetary controls, Detective controls, Preventive controls

4.6 Descriptive Analysis Results

In this section, trends of variables under study were cross-examined using three approaches of data analysis; descriptive analysis, correlation analysis and regression analysis. That is, in the case of descriptive analysis, the aim was to establish the association in thematic variables under investigation. The study relied on the following descriptive statistics; percentages, frequencies, mean, and standard deviation.

4.6.1 Descriptive Results for Preventive Controls on Financial Performance

The first objective of the study was to investigate the effect of preventive controls on financial performance of public universities in Kenya. Respondents' opinions on the effect of preventive controls on the financial performance based on a Likert scale are given in Table 4.10 below.

Table 4.10: Frequency Distribution Analysis of Preventive Controls

Statement	**SA (%)**	**A (%)**	**N (%)**	**D (%)**	**SD (%)**	**Mean**	**Std. Dev**
In my organization, there is segregation of duties.	**34.1**	**47.7**	**15.0**	**3.2**	**0**	**4.13**	**0.78**

In my organization there is the pre-approval of actions and transactions by the supervisors.	**37.3**	**45.5**	**14.1**	**2.7**	**0.4**	**4.16**	**0.80**
The supervisors have physical control over sensitive assets such as locks.	**34.4**	**52.7**	**10.0**	**2.3**	**0.5**	**4.14**	**0.78**
My organization values computer passwords and access authorization and exercises control over them.	**40.8**	**42.3**	**10.1**	**3.8**	**3.0**	**4.25**	**0.74**
Controls are in place to exclude incurring expenditure in excess allocated funds	**35.5**	**20.5**	**36.0**	**8.0**	**0**	**4.16**	**0.80**
In my organization there is employee screening to ensure that employees implement the accounting and financial management system in place efficiently.	**40.8**	**29.3**	**5.2**	**15.3**	**9.4**	**3.27**	**1.18**
I like the way my organization develops its organizational culture in order to inform its preventive controls.	**32.9**	**45.5**	**17.1**	**4.5**	**0**	**4.06**	**0.85**
Our security system identifies and safeguard organizational Assets.	**39.2**	**23.0**	**18.9**	**12.1**	**6.8**	**3.28**	**1.17**
It is impossible for one staff to have access to all valuable information without the consent of senior staff.	**29.6**	**46.8**	**16.7**	**6.9**	**0**	**3.99**	**0.86**
Our organization has a well-developed Chart of Accounts.	**35.6**	**50.7**	**11.4**	**2.3**	**0**	**4.20**	**0.73**
The reporting system on organizational structures spells out all the responsibilities of each section/unit in the organization.	**33.6**	**34.6**	**20.5**	**10.6**	**0.7**	**4.22**	**0.67**
Management has identified individuals who are responsible for coordinating the various activities within the entity.	**32.6**	**53.2**	**13.3**	**0.9**	**0**	**4.17**	**0.68**

Every employees work checks on the others work.	**17.0**	**47.7**	**21.5**	**13.8**	**0**	**4.08**	**0.86**
Staff are trained to implement the accounting and financial management system to prevent fraud.	**31.8**	**52.3**	**15.9**	**0**	**0**	**4.16**	**0.67**
Departments have budget reviews where actual expenditure is compared with budgeted expenditure and explanations for the variances given.	**18.9**	**28.7**	**35.8**	**12.5**	**4.1**	**3.46**	**1.06**
All employees understand the concept and importance of internal controls including the division of responsibility	**37.8**	**40.8**	**19.2**	**1.3**	**0.9**	**4.13**	**0.85**
The university has appropriate entity policies regarding such matters as acceptable business practices in the areas of financial performance that are always adequately communicated.	**38.0**	**45.6**	**15.5**	**0.9**	**0**	**4.22**	**0.72**
My organization has a system in place that monitors and controls all the assets of the organization.	**19.3**	**37.4**	**35.1**	**5.1**	**3.1**	**3.64**	**0.96**
New employees are always screened to ensure they have the right qualifications and don't have integrity issues.	**41.3**	**45.7**	**11.6**	**1.4**	**0**	**4.27**	**0.72**
Average	**30.44**	**43.37**	**20.34**	**4.97**	**6.01**	**4.048**	**0.797**

N = 142; Key: SD = Strongly Disagree; D = Disagree; N = Neutral; A = Agree; SA = Strongly Agree; Std Dev = Standard Deviation

The research sought to find out whether there was segregation of duties in the organization. Results revealed a mean 4.13 and a standard deviation of 0.78. Only 3.2% disagreed with the statement implying that there was segregation of duties in most universities. This was in agreement with (Mwangi, 2014) who asserted that segregation is important in organizations as it ensures that there is oversight and review to eliminate errors and prevent fraud.

The research also sought to establish if there was the actions and transactions pre-approval by the supervisors. The results indicated that majority of the respondents 82.8% (mean 4.16, std. dev 0.80) concurred with the statement, while 3.1% of the respondents disagreed. Further, 14.1% of the respondents were neutral. This implied that in majority of the universities, pre-approval of transactions was in place. This was in agreement with (Okoth, 2016) who affirmed that pre approval helps in ensuring that all organizational functions adhere to the established guidelines since all activities are authorized by the responsible managers.

The study sought to find out whether supervisors physically controlled sensitive assets, such as locks. The findings showed that majority of the respondents 87.1% (mean 4.14, std. dev 0.78) were in agreement with the statement. On the other hand, 10% of the respondents were neutral to the statement, while 2.9% of the respondents disagreed. These findings imply that there were physical control over sensitive assets, such as locks. This was in line with Okoth (2017) sentiments that people in authority in organizations should work to protect equipment, networks, company assets, important data, facilities, and confidential information in the organization to prevent fraud.

On whether universities valued and controlled computer passwords and oversee access authorization, the results showed that majority of the respondents with 83.1% (mean 4.25, Std. dev 0.74) concurred with the statement, which implied that passwords and access controls were important. Besides, 10.1% of the respondents were neutral to the statement, but 6.8% of the respondents were of a contrary opinion and did not support the statement.

These findings concurred with those of Rosa (2018) who reiterated that passwords provide the first line of defense against unauthorized access to computers and personal information and organizations should endeavor to protect them to ensure that they are free from hackers and malicious software.

The study sought to establish whether there were enough controls to avoid excessive expenditures beyond the allocated funds. Findings from the study revealed that majority of the respondents, 56% (mean 4.16, std. dev 0.80) concurred with the statement, while 36% of the respondents were neutral to the statement. Besides, 8% of the respondents did not support the statement, which implied that controls were put in place to avoid spending more than the allocated funds. These findings were in tandem with Tracy (2014) who argued that internal controls abate risks, ensure spending accuracy by promoting operational efficiency, protect assets, and ensure adherence to laws, regulations, and policies.

The study sought to establish whether the organizations screened employees to ensure that they implement the financial and account management system in place efficiently. The study findings found out that majority of the respondents, 70.1% (mean 3.27, std. dev 1.18) agreed that the organizations screened the employees to ensure that they implement the financial and accounting management system efficiently. A further 5.2% of the respondents were neutral. This implied that there was employee screening put in place. 24.7% of the respondents disagreed with the statement. These findings were in tandem with Wanjala (2015) who believed that employee screening expands business results and reduces corporate risk since the practice promotes a secure and safer working environment for employees and customers because it enables employers to make informed decisions when hiring.

The study sought to determine whether employees like the way organizations develop their institutional culture to inform their preventive controls. The study findings showed that majority of the respondents, 78.4% (mean 4.06, std. dev 0.85) supported the statement, a further 17.1% of the respondents were neutral, and 4.5% of the respondents disagreed with the statement and were of a contrary opinion. This implied that universities develop organizational culture to inform their deterrent controls. This was in agreement with Sturdy (2014) who asserted that the organization culture defines organizational behaviour and approach to work and peoples' performance as a team. This approach eliminates team barriers, provides guidance in decision making, and improves organizational workflow.

The research sought to establish whether security systems in organizations identify and safeguard organizational assets. The study findings indicated that majority of the respondents, 62.2% (mean 3.28, std. dev 1.17), concurred with the statement, and while 18.9% were neutral. On the other hand, 18.9% disagreed with the statement. This was in agreement with (Warue & Wanjira, 2013) who asserted that workplace security is very important because it reduces liabilities, insurance compensations and other social security expenses, and therefore increases the business revenue and reduce the operational charges that the organization may incur.

The study sought to find out the impossibility of one staff to access all valuable information without the senior staff consent. The study findings revealed that majority of the respondents, 76.4% (mean 3.99, std. dev 0.86), agreed that it was impossible for any staff to access critical information without senior staff's consent. Besides, 16.7% were neutral to the statement, while 6.9% disagreed with the statement. These findings implied that it was not possible for a staff to access all valuable information without senior staff's consent.

These findings concurred with those of (Singleton, 2018) who reiterated that valuable information in the organization should not be assessed by only one staff, rather it should be dual access with the consent of senior staff for security and accountability purposes.

The research further sought to establish if their organizations had a well-developed Chart of accounts. The findings showed that majority of the respondents, 86.3% (mean 4.20, std. dev 0.73), agreed with the statement, while 11.4% of the respondents were neutral. However, 2.3% of the respondents disagreed meaning that organizations had a well-developed chart of accounts. These findings were in agreement with those of (Ochoge, 2011) who was of the opinion that a well-designed chart of accounts was important in an organization and acts as a way to separate expenditure, revenue, assets, and liabilities, so that an organization can have a clear understanding and view of its overall financial health.

The study sought to find out whether the organizational structures reporting system spelled out all the responsibilities of each unit/section in the institution. Findings from the analysis showed that majority of the respondents, 68.2% (mean 4.22, std. dev 0.67), agreed with the statement and another 20.5% of the respondents were neutral. The results also showed that 11.3% of the respondents disagreed with the statement. Hence, the research found that the reporting system on organizational structures spelled out all the responsibilities of each organizational section/unit. These findings were in agreement with those of Olumbe (2012) who asserted that organizational structure planning ensures that the institution has adequate skilled human resources to realize the firm's goals, and ensure that roles are defined clearly.

The study sought to find out whether management had identified people responsible for coordinating activities within the entity. The study findings revealed that majority of the respondents, 85.8% (mean 4.17, std. dev 0.68) concurred with the statement, 13.3% were neutral, and 0.9% disagreed. This implied that management had recognized employees responsible for coordinating activities within the organization. These results were in agreement with those of Njenga and Osiemo (2013) who posited that the management should lead the organization towards a defined goal by designing and assigning roles and responsibilities to the employees and ensuring that the individual worker's productivity contribute towards achievement of the firm's overall goals.

The study sought to find out whether all worker's role checked on the others. Findings from the analysis showed that majority of the respondents, 64.7% (mean 4.08, std. dev 0.86) agreed with the statement, 21.5% were neutral, and 13.8% disagreed. Hence the research found out that every employee's work checked on the others work within the organization. These findings were in agreement with those of (Tanui, 2016) who asserted that collaboration within the workplace enables organizations to complete critical projects and meet vital deadlines.

The research sought to establish whether staffs are trained to implement the financial management and accounting system to avert fraud. The results show that majority of the respondents, 84.1% (mean 4.16, std. dev 0.67), agreed with the statement, and while 15.9% were neutral. These findings were similar to those of Bowlby (2011), who asserted that skilled and competent workers can protect the organization by providing an effective approach to communicate management's commitment to ethical operations that prevent fraud within the business, and identifying suspicious activity.

The study sought to find out if departments had budget reviews that compared actual and budgeted expenditures and explanations for the discrepancies given. Findings from the analysis showed that majority of the respondents, 47.6% (mean 3.46, std. dev 1.06) supported the statement, 35.8% were neutral, and 16.6% disagreed. This meant that departments reviewed budgets by comparing actual and budgeted expenditures and explained the variations. These findings were in agreement with those of Abdi (2015) who reiterated that budget analysis enables the firm to identify revenue shortfalls and cost overruns. Besides, it enables the management to identify and address variances in production, revenues, and expenses. Analyzing the variations between budgeted and actual expenditures helps to strengthen the internal control system.

The study sought to find out whether all employees understood the concept and benefits of internal controls including the division of roles. Findings of the study showed that majority of the respondents, 78.6% (mean 4.13, std. dev 0.85) agreed with the statement, whereas 19.2% were neutral, and 2.2% of the respondents disagreed. This implied that all workers understood the concept and benefits of internal controls together with the division of responsibility. These findings were in agreement with those of (Hamza, Mutala, & Antwi 2015) who asserted that employee's professional integrity and competence are indispensable components of an ideal internal control system, and by understanding their responsibilities and internal control system, they can afford judicious assurance that the internal control systems used are suitable and functioning efficiently.

The study also sought to examine whether universities had suitable entity guidelines regarding acceptable business practices in the areas of financial performance that were always adequately communicated. Results showed that majority of the respondents, 83.6% (mean 4.22, std. dev 0.72), agreed, 15.5% were neutral, while 0.9% disagreed. This meant that universities had appropriate entity policies regarding such matters as acceptable business practices in the areas of financial performance that were always adequately communicated. These findings were in agreement with those of (Njaramba & Ngugi, 2014) who asserted that policies and procedures in the areas of internal controls in organizations should always be adequately communicated to the employees in organizations so as to ensure that they are well informed to prevent fraud.

The study also sought to find out whether organizations had systems that controls and monitors all the organization assets. The research established that majority of the respondents, 56.7% (mean 3.64, std. dev 0.96), concurred with the statement, whereas 35.1% of the respondents were neutral. However, 8.2% of the respondents disagreed with the statement implying that universities had systems that monitored and controlled all the assets. These results were similar with those of Magara (2013) who found that that a well-designed internal control system protects the assets of an organization from accidental loss or loss from fraud, and also ensures the integrity and reliability of financial data.

The study sought to find out whether new workers were screened always to ensure that they had the required qualifications and didn’t have integrity questions. The study findings showed that majority of the respondents, 87% (mean 4.27, std. dev 0.72), agreed with statement, 11.6% were neutral and a further 1.4% disagreed with the statement that new employees were examined to ensure that they had the required qualifications and did not have integrity questions. These results implied that employee screening reduces corporate risk and improve business results, promotes a secure and safer work environment for employees and customers since employers make informed hiring decisions.

4.6.2 Descriptive Results for Detective Controls on Financial Performance

The second research objective was to examine the effect of detective controls on financial performance of public universities in Kenya. The opinions of the respondents are shown in the Table 4.11 below.

Table 4.11: Frequency Distribution Analysis of Detective Controls

Statement	SA (%)	A (%)	N (%)	D (%)	SD (%)	MEAN	SD
My organization conducts surprise cash counts on all the employees handling cash.	**41.5**	**45.5**	**11.7**	**1.3**	**0**	**4.27**	**0.72**
There are physical inventory counts in all departments to detect inconsistencies.	**37.3**	**48.5**	**12.3**	**1.9**	**0**	**4.21**	**0.73**
Reconciliations at the end of every period are conducted to detect areas having balances.	**44.1**	**39.7**	**13.8**	**1.5**	**0.9**	**4.52**	**0.36**
Internal reviews of compliance of internal controls in units are conducted periodically	**48.2**	**39.7**	**9.4**	**1.8**	**0.9**	**4.31**	**0.83**
Management has assigned responsibilities for the timely review of audit reports and any non-compliance items noted in those audit reports.	**39.9**	**48.4**	**9.4**	**2.3**	**0**	**4.13**	**0.77**
Internal audit evaluate and contribute to the improvement of risk management, control and governance using a systematic and disciplined approach.	**32.1**	**53.0**	**12.2**	**2.8**	**0**	**4.12**	**0.82**
Management is committed to the ethical values in the operation of the systems within the university.	**34.2**	**52.2**	**10.8**	**1.3**	**1.4**	**4.16**	**0.78**

Management has a criteria for detection of which risks to the university are most critical.	**40.4**	**43.4**	**13.4**	**2.8**	**0**	**4.20**	**0.78**
There are independent process checks and evaluations of controls activities on ongoing basis.	**9.6**	**41.3**	**34.8**	**8.7**	**5.6**	**3.41**	**0.97**
Management control method is conducted regularly and is adequate to investigate unusual activities in the university.	**39.6**	**47.8**	**10.6**	**2.0**	**0**	**4.25**	**0.72**
Internal audits are carried out twice a year to detect areas with internal weaknesses.	**40.7**	**46.7**	**11.7**	**0.9**	**0**	**4.27**	**0.70**
Internal audit findings are reported directly to top management and the audit and risk sub-committee of the board.	**34.6**	**54.3**	**8.7**	**2.4**	**0**	**4.21**	**0.70**
The university has a monitoring system that identifies potential Risks and threats and provides appropriate actions to be taken.	**39.3**	**44.8**	**14.3**	**1.4**	**0.2**	**4.20**	**0.84**
Internal audit findings are acted on immediately.	**29.9**	**58.4**	**8.4**	**3.3**	**0**	**4.12**	**0.78**
The university has developed a tool and mechanisms for detecting fraud by its employees.	**31.0**	**54.1**	**12.1**	**2.9**	**0**	**4.13**	**0.82**
There is a quarterly review of performance by the university to detect areas that are not at par with the set objectives.	**45.2**	**42.7**	**9.4**	**2.7**	**0**	**4.31**	**0.83**
All the staff in our institution are aware of the internal control measures by the university to prevent fraud.	**38.3**	**47.5**	**13.3**	**0.9**	**0**	**4.20**	**0.73**

Average	**36.8**	**47.5**	**12.7**	**2.4**	**0.5**	**4.18**	**0.76**
N = 142; Key: SD = Strongly Disagree; D = Disagree; N = Neutral; A = Agree; SA = Strongly Agree; Std Dev = Standard Deviation							

The research sought to investigate whether organizations conduct surprise cash counts on all the employees handling cash. Results revealed that 87% (mean 4.27, std. dev 0.72) of the respondents agreed with the statement while 1.3% disagreed. Besides, 11.7% of the respondents were indecisive. These results implied that universities conduct surprise cash counts on all the workers handling cash. These results concurred with those of Ellsworth (2016) who emphasized that intermittent cash counts are essential in controlling fraud irrespective of whether they are conducted by the management or the internal audit department.

The study sought to investigate whether all departments undertook physical inventory counts to identify inconsistencies and losses. Findings from the analysis revealed that 85.8% (mean 4.21, std. dev 0.73) of the respondents agreed with the statement, 12.3% of the respondents were neutral, and 1.9% disagreed implying that all departments undertook physical inventory counts to detect inconsistencies. These results were similar with those of Walker (2014) who argued that a physical inventory count prevents theft and ensures that firm's inventory management system is accurate and is undertaken before balance sheet is issued.

The study sought to investigate whether periodic reconciliations were conducted to identify areas with balances. The study results revealed that majority of the respondents, 83.8% (mean 4.52, std. dev 0.36) agreed with the statement, 13.8% were neutral, and 2.4% of the respondents disagreed. The results implied that periodic reconciliations were conducted to identify areas with balances. These findings were in agreement with those of (Mugo, 2015) who asserted that periodic reconciliations at the end of a certain period helps to identify any fraudulent and erroneous transactions especially if the institution uses multiple bank accounts.

The study also sought to investigate whether internal compliance reviews on internal unit controls were periodically conducted in the institution. The analysis results revealed that many respondents, 87.9% (mean 4.31, std. dev 0.83), agreed with the statement, 9.4 were neutral to the statement, and 2.7% disagreed. Hence, the results indicated that internal compliance reviews were conducted periodically in the institution. These findings concurred with those of Barra (2014) who was of the idea that internal control review was beneficial because it led to compliance with the firm's internal control procedures and policies, and applicable laws and regulations. Besides, it ensured that the firms reporting system were in tandem with governing standards.

The study sought to find out whether management had assigned responsibilities for the timely review of audit reports and any non-compliance items noted in those audit reports. Findings from the analysis revealed that many respondents, 88.3% (mean 4.13, std. 0.77), agreed with the statement, 9.4% of the respondents were neutral to the statement, and 2.3% disagreed. Therefore, the results found that, management had assigned responsibilities for the timely review of audit reports and any non-compliance items noted in those audit reports These findings were in agreement with those of Mugo (2015) who asserted that timely preparation of audit documentation enhances audit quality and effective evaluation and review of the obtained audit evidence and conclusions made before finalization of assurance engagement report.

The study sought to find out whether internal audit evaluated and improved risk control, management, and governance using a disciplined and systematic approach. The study established that majority of the respondents, 85.1% (mean 4.12, std. dev 0.82), supported the statement, 12.2% were neutral, and 2.8% disagreed. The results implied that internal audit evaluated and improved risk control, management, and governance using a disciplined and systematic approach. These findings agreed with those of Barra (2014) who argued that internal audit evaluation offers objective and independent assurance to the senior management and board on the effectiveness of internal controls, risk management, and governance, including how both first and second defense lines attain risk control and management objectives.

The study also sought to investigate whether management was committed to the ethical values in the operation of the systems within the university. The study results revealed that majority of the respondents, 86.4% (mean 4.16, std. dev 0.78), agreed with the statement, 10.8% were neutral, and 2.7% disagreed. These findings imply that the management operated the university systems ethically. These findings were in agreement with those of Rosa (2018) who asserted that organizations establish business ethics to promote integrity among their employees and the systems they operate, and also as a way of gaining trust from key stakeholders.

The study sought to investigate whether management had a criterion to detect critical risk factors to the university. The analysis revealed that majority of the respondents, 83.8% (mean 4.20, std. dev 0.78), agreed with the statement, 13.4% were neutral, and 2.8% disagreed with the statement. This implied that management had a criterion to detect risks that were most critical to the university. These results agreed with those of Barrett (2013) who argued that it was essential to develop a risk acceptance criterion within the organization, since it is difficult to balance risk and cost reduction without a generally agreed acceptance criterion by all the interested parties.

The study aimed at establishing whether there were independent process checks and evaluations of controls activities on ongoing basis. The research established that majority of the respondents, 50.9% (mean 3.41, std. dev 0.97), agreed with the statement, 34.8% of were neutral, and 14.3% disagreed. It was found out that generally there were independent process checks and evaluations of controls activities on continuous basis. These results were in tandem with those of Brinkerhoff (2015) who established that systems and performance independent checks carried out by auditors ensure that the operations are efficient and accounting information is reliable.

The study also sought to investigate whether management control method was regularly conducted and was adequate to examine suspicious activities in the university. The study findings revealed that majority of the respondents, 87.4% (mean 4.25, std. dev 0.72) were in agreement with the statement, 10.6% were neutral, and 2.0% disagreed. This meant that the university conducted regular management controls method and they were adequate to investigate unusual activities. These findings are in tandem with those of (Magara, 2013) who argued that control management was essential to the organization as it helped to examine errors and implement corrective action, which minimizes variations from the standards and ensures that projects are on track.

The study sought to find out whether internal audits were undertaken two times per annum to identify areas with internal weaknesses. An analysis of results revealed that majority, 87.4% (mean 4.27, std. dev 0.70), of the respondents concurred with the statement, 11.7%

were neutral, while 0.9% disagreed. These findings implied that internal audits were carried out twice a year to detect areas with internal weaknesses. These findings were in agreement with those of (Njaramba & Nguri, 2014) who stated that the internal audit offers independent assurance that an organization's internal control processes, governance, and risk management, are operating effectively since as it is designed to nurture and improve organization's business practices.

The study also sought to establish whether internal audit findings were reported directly to top management and the audit and risk sub-committee of the board. An analysis of findings revealed that majority, 88.9% (mean 4.21, std. dev 0.70), of the respondents agreed with the statement, 8.7% were neutral, and 2.4% of the respondents disagreed. This meant that, the findings of the internal audit were reported to the top management directly and the board's audit and risk sub-committee. These findings were in agreement with those of (Mwachiro, 2014) who postulated that the internal audit report findings should be reported to the top management as they provide the current effectiveness of various systems in the company which will help the management in determining the organization's efficiency status of the internal audit, and the way forward for the audit queries.

The study also sought to investigate whether universities have a monitoring system that detects potential threats and risks and provide remedies. The research findings revealed that majority of the respondents, 84.1% (mean 4.20, std. dev 0.84), were in agreement with the statement, 14.3% were neutral, and 1.6 disagreed. This implied that universities have a monitoring system that identifies potential risks and threats and provides appropriate actions to be taken. These findings were in agreement with those of (Wanjala, 2015) who postulated that organizations should have a risk monitoring system that provides them with the means to continuously verify compliance, establish the effectiveness of risk responses, and identify changes within the firm's environment and information systems that affect risk,

The study sought to explore whether internal audit findings were acted on immediately. The findings from the analysis showed that majority of the respondents, 88.3% (mean 4.12, std. dev 0.78) concurred with the statement, 8.4% were neutral, and 3.3% disagreed. This meant that universities acted upon internal audit outcomes immediately. These findings were in agreement with those of (Wanjala, 2015) who asserted that audit findings should be acted upon immediately by ensuring that the recommended action plans are effected soonest. Manager's failure to act on the internal audit findings exposes the institution to more risk.

The study sought to investigate whether universities have developed a tool and mechanisms to identify fraud by its employees. The results revealed that majority of the respondents, 85.1% (mean 4.13, std. dev 0.82), supported the statement, 12.1% of the respondents were neutral, and 2.9% disagreed with the statement. These findings were in agreement with those of (Mutiso, 2016) who opined that organizations should develop their own mechanisms of detecting fraud by its employees in ways that it finds most reliable and cost effective. This shows that universities have developed mechanisms and tools to detect fraud by its employees

The study also sought to examine whether universities undertook quarterly performance reviews to identify areas that varied with the set objectives. Majority of the respondents, 88.9% (mean 4.31, std. dev 0.83), concurred with the statement, 9.4% were neutral, but 2.7% disagreed. These results implied that universities carried out quarterly review of performance to detect areas that were not at par with the set objectives. These findings were in agreement with those of Mwachiro (2014) who contended that quarterly reviews enabled top management to address performance issues promptly, develop employees' improvement plan, and review performances to ensure it was continually improving.

Lastly, the study sought to establish whether staff members in institutions were conversant with the university's internal control measures to prevent fraud. The results revealed that majority of the respondents, 85.8% (mean 4.20, std. dev 0.73), agreed with the statement, 13.3% were neutral, and 0.9% of the respondents disagreed. These findings were in tandem with those of Ondieki (2015) who established that executives should inform employees about the institution's internal controls to ensure accurate financial reporting during audits and improve firm's operational efficiency

4.6.3 Descriptive Results for Corrective Controls on Financial Performance

The third objective of the study was to assess the effect of corrective controls on financial performance of public universities in Kenya. The respondents' opinions are shown on the table 4.12 below.

Table 4.12: Frequency distribution analysis of corrective controls

Statement	SA (%)	A (%)	N (%)	D (%)	SD (%)	Mean	Std. Dev
Corrective action is taken to address weaknesses within the accounting and audit system of the university.	**40.8**	**49.0**	**7.9**	**1.5**	**0.9**	**4.27**	**0.76**
Management has put in place mechanisms for mitigation of critical risks that may result from fraud.	**41.2**	**46.2**	**11.2**	**1.4**	**0**	**4.28**	**0.70**
Management has put in place a reporting system on organizational	**33.1**	**55.7**	**9.4**	**1.3**	**0.5**	**4.36**	**0.70**

structure that spells out all the responsibilities of each section/unit in the organization							
Appropriate measures are taken to correct misfeasance in operation of our Accounting & Finance Management System.	**35.1**	**48.5**	**14.6**	**1.8**	**0**	**4.16**	**0.77**
Frequent reviews of operating performance done both to staff through appraisals, and the university systems.	**31.5**	**51.3**	**15.0**	**2.4**	**0.8**	**4.12**	**0.83**
Management provides feedback to the junior officers about the operation of the university accounting and control systems	**43.3**	**32.6**	**7.4**	**14.9**	**1.8**	**2.42**	**0.82**
The university issues warnings to employees who are found to have been involved in accounting malpractices.	**46.5**	**24.9**	**14.6**	**10.6**	**3.4**	**3.71**	**1.17**
There is an effective disaster management plan in place to take care of issues that might affect the systems of the university.	**23.2**	**35.4**	**15.3**	**17.7**	**8.7**	**3.46**	**1.26**
There is a data back-up system within the university that is fool proof to counter any fraud and act as a point of reference.	**21.5**	**39.4**	**9.2**	**23.1**	**6.8**	**3.45**	**1.25**
The university has policies and procedures which the unit staff are conversant with.	**33.8**	**53.9**	**10.4**	**1.5**	**0.4**	**4.18**	**0.74**
The university has put up in place policies and procedures that are geared towards providing a framework of reference within the university.	**17.7**	**36.0**	**17.3**	**18.4**	**10.6**	**3.31**	**1.20**
My organization trains employees on various areas of weaknesses to counter fraud and improve on financial performance.	**21.3**	**29.0**	**26.8**	**14.6**	**8.3**	**3.39**	**1.20**

Managers always take timely corrective actions when adverse variances are reported	**14.4**	**41.7**	**22.4**	**15.0**	**6.5**	**3.42**	**1.11**
Managers in my organization focus on continuous improvement through in-training to ensure issues are sorted out amicably.	**23.9**	**32.1**	**24.2**	**10.5**	**9.3**	**3.50**	**1.22**
The university has adequately implemented any inspection plans to reduce the inherent risks which are periodically revised.	**13.0**	**39.1**	**25.0**	**16.4**	**6.5**	**3.36**	**1.10**
University management uses instruments for risk transfer or risk sharing with other organizations (e,g insurance companies) to reduce risk.	**31.4**	**28.9**	**15.8**	**15.6**	**8.3**	**3.40**	**1.21**
My organization makes use of warnings to those found culpable, with dire consequences for repeat offenders.	**35.8**	**51.9**	**11.4**	**0.5**	**0.4**	**4.17**	**0.74**
My organization terminates employment of those employees found to have engaged in serious malpractices.	**25.2**	**43.4**	**7.7**	**15.3**	**8.7**	**3.46**	**1.26**
My organization has sought the services of external data managers to ensure that data is well backed up and managed.	**40.5**	**30.9**	**15.6**	**9.6**	**3.4**	**3.70**	**1.16**
Average	**30.1**	**43.1**	**14.4**	**8.1**	**4.2**	**3.69**	**0.94**

N = 142; Key: SD = Strongly Disagree; D = Disagree; N = Neutral; A = Agree; SA = Strongly Agree; Std Dev = Standard Deviation

This study sought to investigate whether corrective action was taken to address weaknesses within the accounting and audit system of the university. Findings from the analysis revealed that 89.8% (mean 40.8, std. dev 0.76) of the respondents agreed with the statement, 7.8% were neutral, and 2.4% disagreed. This meant that institutions took corrective actions to address weaknesses within the accounting and audit system of the university. These findings were in agreement with those of Dixit (2013) who posits that correction is an immediate action taken to fix issues identified during an audit identifying areas of weaknesses, or while monitoring, and works to resolve the root cause of the issue, and is very important in ensuring that the identified issues or weaknesses have been rectified to prevent loss.

The study also sought to find out whether management had put in place mechanisms for mitigation of critical risks that may result from fraud. The findings revealed that majority of the respondents, 87.4% (mean 4.28, std. dev 0.70), agreed with the statement, 11.2% were neutral, and 1.4% disagreed. This meant that majority of the universities' management had devised mechanisms to mitigate critical risks that emanate from fraud. These findings were in agreement with those of Brinkerhoff (2013) who asserted that mitigation mechanisms actions prevent adverse impacts of the organization's planned project risks, and ensures systematic risks are within the acceptable levels.

The study sought to investigate whether management had put in place a reporting system on organizational structure that spelled out all the responsibilities of each section/unit in the organization. Results from the analysis showed that majority of the respondents, 88.8% (4.36, std. dev 0.70), of the respondents agreed with the statement. However, 9.4% were neutral and 1.8% of the respondents disagreed. This means that management had put in place a reporting system on organizational structure that spelled out all the responsibilities of each section/unit in the organization. These findings are in agreement with those of Oanda and Jowi (2013) who asserted that a reporting system on the organization structure affords workers clarity, provide consistency, enable better decision-making, and help to manage expectations.

The study also sought to investigate whether proper measures were taken to correct misfeasance in operation of their Accounting & Finance Management System. The results from the analysis showed that majority of respondents, 83.6% (mean 4.16, std dev 0.77), agreed with the statement, 14.6% were neutral, and 1.8% disagreed with the statement. This implied that appropriate measures were taken to correct misfeasance in operation of their Accounting and Finance Management System. These results were in tandem with those of Abdi (2013) who asserted that measures should be taken to correct any operational failure in the accounting management system to ensure that it is always consistent with what the system is expected to deliver.

The study sought to investigate whether there were frequent reviews of operating performance done both to staff, and the university systems through appraisals. The study results revealed that majority of the respondents, 82.8% (mean 4.12, std. dev 0.83), agreed with the statement, 15.0% were neutral, and 3.2% disagreed. This implied that there were frequent reviews of operating performance done both to staff through appraisals, and the university systems. These findings were in tandem with those of Oketch (2012) who argued that regular performance feedback minimizes speculations since offers consistent assessments, improvement suggestions, and praises, which enhance productivity.

The study also sought to examine whether the management offered feedback to the junior officers about the operation of the university accounting and control systems. Majority of the respondents, 75.9% (mean 2.42, std. dev 0.82), agreed with the statement, 7.4% were neutral, and 16.7% disagreed with the statement. Hence these results meant that management offered feedback to the subordinate officers about the university's operation and the accounting and control systems. These findings were similar to those of Walker (2014) who reiterated that feedback improves employee's confidence, motivation to learn and ultimately, the employee's attainment of their operation.

The study sought to investigate whether universities issued warnings to employees who were found to have been involved in accounting malpractices. The results showed that majority of the respondents, 71.4% (mean 3.71, std. dev 1.17), agreed with the statement, 14.6% were neutral, and 14% disagreed with the statement. Therefore, this meant that universities issued warnings to employees who were found to have been involved in accounting malpractices. These findings were similar to those of Ellsworth (2016) who argued that warning letters informed employee of their poor performance, unacceptable conduct, poor performance, and consequences of their actions.

The study also sought to find out whether there was an effective disaster management plan in place to take care of issues that might affect the systems of the university. Findings from the analysis revealed that, 58.6% (mean 3.46, std. dev 1.26), of the respondents agreed with the statement, 15.3% were neutral, and 26.4% disagreed with the statement. These results show that, there was an effective disaster management plan in place to take care of issues that might affect the systems of the university These findings were in agreement with those of Barrett (2013) who asserted that organizations that have effective disaster management in place respond more effectively to disasters when they take place and avert major losses that could possibly lead to the closure of most organizations.

The study sought to investigate whether there was a data back-up system within the university that is fool proof to counter any fraud and act as a point of reference. The research established that majority of the respondents, 60.9% (mean 3.45, std. dev 1.25), agreed with the statement, 9.2% were neutral, and 29.9% disagreed with the statement, which meant that there was a data back-up system within the university that was fool proof to counter any fraud and act as a point of reference. These findings were in agreement with those of Brinkerhoff (2015) who asserted that data back-up systems are essential for organizations to prevent major loss of vital information for the organizations. Organizations that invest in a data back-up system are more prepared to deal with eventualities of major systems breakdowns that may lead to loss of crucial information.

The study sought to investigate whether universities have policies and procedures which the unit staff are conversant with. The results showed that majority of the respondents, 87.7% (mean 4.18, std. dev 0.74), concurred with the statement, 10.4% were neutral, and 1.9% of the respondents disagreed with the statement. Universities therefore have policies and procedures which the unit staff are conversant with. These findings were in agreement with those of Brinkerhoff (2015) who argued that institutions have policies and procedures that provide reference to employees.

The study also sought to investigate whether universities have put up in place policies and procedures that are geared towards providing a framework of reference within the university. The results showed that majority of respondents, 53.7% (mean 3.31, std. dev 1.20), concurred with the statement, 17.3% were neutral, and 29% disagreed with the statement. This meant that universities had put up in place policies and procedures that were geared towards providing a framework of reference within the university. Similarly, Okoth (2017) established that public universities and other organizations have enacted policies and procedures that provide a framework for reference, which guides all internal operations and relationship with stakeholders.

The study sought to find out whether organizations train employees on various areas of weaknesses to counter fraud and improve on financial performance. The findings showed that majority of the respondents, 50.3% (mean 3.39, std. dev 1.20), agreed with the statement, 26.8% were neutral, and 22.9% of the respondents disagreed with the statement. These results implied that universities train employees on various areas of weaknesses to counter fraud and improve on financial performance. Rosa (2018) established that training employees on frauds and measures to counter it helps to improve organizational performance.

The study also sought to investigate whether managers always took timely corrective actions when adverse variances were reported. The findings showed that majority of the respondents, 56.1% (mean 3.42, std. dev 1.11), agreed with the statement, 22.4% were neutral, and 21.5% disagreed with the statement. This meant that university managers always took appropriate counteractive actions when adverse discrepancies were reported. Tracy (2014), posited that management's counteractive actions are informed by the adverse variations observed in the organization.

The study sought to investigate whether managers in the organization focus on continuous improvement through in-training to ensure issues are sorted out amicably, and majority of the respondents, 56% (mean 3.50, std. dev 1.22), agreed with the statement, 24.2% were neutral, and 19.8% disagreed with the statement. This implied that managers in the universities focused on continuous improvement through in-training to ensure issues are sorted out amicably. Wanjala (2015) observed that universities are continuously improving their processes to reduce risk and provide a safer and secure operating environment.

The study also sought to investigate whether universities had adequately implemented any inspection plans to reduce the inherent risks which are periodically revised. An analysis of findings revealed that majority, 52.1% (mean 3.36, std. dev 1.10), of the respondents agreed with the statement, 25.0% were neutral, and 22.9% disagreed with the statement. The results showed that universities had adequately implemented periodically revised inspection plans to reduce the inherent risks. Similarly, Sturdy (2014) established that majority of the organizations implement periodic revision inspection plan to reduce risks and enhance performance.

The study sought to establish whether university management used instruments for risk transfer or risk sharing with other organizations, such as insurance companies to mitigate risk. The results showed that majority of respondents, 60.3% (mean 3.40, std. dev 1.21), agreed with the statement, 15.8% were neutral, and 11.7% disagreed with the statement. This implied that university management used risk transfer or sharing instruments with other organizations such as insurance companies to reduce risk. Similarly, Warue and Wanjira (2013) argued that institutions manage risks through risk transfer with insurance companies. Therefore, universities can insure their assets and operations to reduce risk.

The study also sought to investigate whether organizations make use of warnings to those found culpable, with dire consequences for repeat offenders. The results revealed that majority of respondents, 87.7% (mean 4.17, std. dev 0.74), agreed with the statement, 11.4% were neutral, and 0.9% of the respondents disagreed with the statement. These results meant that organizations make use of warnings to those found culpable, with dire consequences for repeat offenders. According to Singleton (2018), warnings deter offenders, and therefore, it is an ideal approach to enhance performance.

The study sought to investigate whether organizations terminate employment of those employees found to have engaged in serious malpractices. The results showed that majority of the respondents, 68.6% (mean 3.46, std. dev 1.26), agreed with the statement, 7.7% were neutral, and 24% of the respondents disagreed with the statement. The results imply that organizations terminate employees found to have engaged in serious malpractices. Ochoge (2011) established that engaging in serious malpractices, such as repeated indiscipline cases and neglect of duty, led to employee's termination. Therefore, institutions should have a clear HR policy defining aspects that can lead to job termination.

The study also sought to investigate whether organizations have sought the services of external data managers to ensure that data is well backed up and managed. The results revealed that majority of the respondents, 71.4% (mean 3.70, std. dev 1.16), agreed with the statement, 15.6% were neutral, and 13% of the respondents disagreed. It was found out that most universities have sought the services of external data managers to ensure that data is well backed up and managed. Similarly, Olumbe (2012) established that institutions seek data backing services to lower the risk of data loss. Universities should invest in data clouds to back up information for easy retrieval in case of losses.

4.6.4 Descriptive Results for Budgetary Controls on Financial Performance

The Fourth objective of the study was to assess the effects of budgetary controls on financial performance of public universities in Kenya. The opinions of the respondents on the influence of budgetary controls on the financial performance in public universities in Kenya are given in Table 4.13 below.

Table 4.13: Frequency Distribution Analysis of Budgetary Controls

Statement	SA (%)	A (%)	N (%)	D (%)	SD (%)	M	SD
Managers hold budget review meetings regularly to review performance.	**41.8**	**49.0**	**7.5**	**0.8**	**0.9**	**4.30**	**0.73**
My organization has both short term and long term budgets plans	**37.0**	**50.5**	**10.1**	**2.0**	**0.4**	**4.22**	**0.74**
There are budget Approval levels to check on spending within the university.	**46.5**	**40.9**	**10.7**	**1.4**	**0.5**	**3.32**	**0.76**
Coordination among various departments during budgeting process is achieved.	**35.6**	**53.3**	**9.8**	**1.3**	**0**	**3.23**	**0.70**
The university departmental budgets have very clear goals and objectives to be achieved.	**34.6**	**49.5**	**11.7**	**3.3**	**0.9**	**4.13**	**0.81**
Budget performance evaluation reports are prepared regularly by the university.	**33.5**	**59.2**	**3.1**	**2.8**	**1.4**	**4.14**	**0.77**
There is a regular follow up on budget plans by the budget committee/Departmental heads.	**33.1**	**50.9**	**11.7**	**3.5**	**0.8**	**3.12**	**0.81**
Managers hold budget conferences/meetings regularly to review performance.	**44.8**	**43.2**	**10.2**	**0.9**	**0.9**	**4.29**	**0.76**
Comparison is made between plans and actual performance and the difference is reported often.	**46.1**	**39.9**	**12.1**	**1.4**	**0.5**	**4.30**	**0.77**
The costs of activities are always reviewed by the executive committee.	**41.4**	**45.9**	**11.4**	**0.8**	**0.5**	**4.27**	**0.73**
The university has set a budget variance percentage that has to be	**40.8**	**43.0**	**15.5**	**0.7**	**0**	**3.24**	**0.74**

explained while reviewing variance reports.							
Corrective action is always taken on budget variance.	**38.2**	**48.2**	**11.9**	**1.7**	**0**	**3.26**	**0.73**
My organization has a budget committee that monitors the budgeting process and its implementation.	**43.7**	**46.5**	**6.5**	**2.3**	**1.0**	**3.27**	**0.77**
Budgetary control contributes positively to the financial performance of the organization.	**32.6**	**51.5**	**12.7**	**2.3**	**0.9**	**4.13**	**0.80**
Budgets motivate managers to achieve objectives and thereby motivate them to set controls for the organization.	**40.8**	**50.0**	**8.4**	**0.8**	**0**	**4.29**	**0.76**
The budget prepared is a projection of the incomes and expenditures of the university.	**47.2**	**38.8**	**12.2**	**1.3**	**0.5**	**4.30**	**0.77**
The university exercises human capital control to ensure that it’s within the budget limits.	**31.6**	**58.1**	**8.2**	**0.8**	**1.4**	**4.10**	**0.80**
The university has an elaborate cash flow control system to manage liquid cash.	**35.5**	**54.2**	**8.7**	**0.8**	**0.9**	**4.13**	**0.81**
Average	**39.1**	**48.4**	**10.2**	**1.6**	**0.7**	**3.89**	**0.76**

N = 142; Key: SD = Strongly Disagree; D = Disagree; N = Neutral; A = Agree; SA = Strongly Agree; Std Dev = Standard Deviation

From the analysis, the research examined whether managers held budget review meetings regularly to review performance. Findings from the analysis revealed that majority 90.8% (mean 4.30, std. dev 0.73) of the respondents agreed with the statement, 7.5% of the respondents were neutral, and 1.7% of the respondents disagreed with the statement. This meant that managers of universities hold budget review meetings regularly to review performance. Njenga and Osiema (2013) posited that managers hold regular budget review meetings to examine performance and discuss approaches that can be assumed to enhance productivity. Thus, periodic budgetary reviews enhances performance.

The study sought to establish whether organizations had both long-term and short-term budget plans. A review of findings showed that majority of the respondents, 87.5% (mean 4.22, std. dev 0.74) agreed with the statement, 10.1% were neutral to the statement, and 2.4% of the respondents agreed with the statement. This implies that public universities have both long-term and short-term budget plans to govern expenditures and revenue generation. Tanui (2016) established that majority of the institutions under study had long-term and short-term budgetary plans to enhance performance monitory and improve financial management.

The study also sought to establish whether there were budget approval levels to check on spending within the university. The research analysis revealed that majority of the respondents, 87.4% (mean 3.32, std. dev 0.74) agreed with the statement and 10.7% of the respondents were neutral, and 1.9% of the respondents disagreed with the statement. It was found out that there were budget approval levels to check on spending within the universities. Bowlby (2021) also established that budget approvals help institutions to regulate spending. Therefore, budget approval levels are essential in regulating expenditures.

The study sought to establish whether coordination among various departments during budgeting process was achieved. The study findings showed that majority of the respondents, 88.9% agreed with the statement, 9.8% of the respondents were neutral to the statement, and 1.3% of the respondents disagreed with the statement. This implied that university departments coordinated well during the budgeting process. Similarly, Abdi

(2016) established that budgeting process is rigorous and requires coordination between all departments.

The research also sought to establish whether the university's departmental budgets had very clear goals and objectives to be achieved. The study findings revealed that majority of the respondents, 84.1% (mean 4.13, std. dev 0.81), agreed with the statement, 11.7% of the respondents were neutral, and 4.2% of the respondents disagreed with the statement. This implied that universities' departmental budgets had very clear goals and objectives to be achieved. Similarly, Hamza et al. (2015) posited that budgeting is centred on clear institutional goals and objectives that are developed at both strategic and departmental levels.

The study also sought to establish whether universities prepared budget performance evaluation reports regularly. An analysis of findings revealed that 92.7% (mean 4.14, std. dev 0.77) of the respondents agreed with the statement, 3.1% of the respondents were neutral to the statement and 4.2% of the respondents disagreed with the statement. This disclosed that universities prepared budget performance evaluation reports regularly. Njaramba and Ngugi (2014) found that institutions prepare budget performance evaluation reports regularly to monitor performance.

The study sought to establish whether departmental heads and budget committee followed up on budget plans regularly. The study showed that majority of respondents, 84% (mean 3.12, std. dev 0.81) agreed with the statement, 11.7% were neutral, and 4.3% of the respondents disagreed with the statement. Therefore, this meant that departmental heads and budget committee followed up on budget plans regularly. Similarly, Magara (2013) noted that strong internal control systems not only protects that organization's assets from damages and theft, but also ensures that budgetary plans are periodically reviewed by the budget committee and followed-up regularly.

The study sought to establish whether managers held budget conferences/meetings regularly to review performance. The study showed that majority of the respondents, 88.0% (mean 4.29, std. dev 0.76), agreed with the statement, and 10.2% of the respondents were neutral to the statement. However, 1.8% of the respondents disagreed with the statement. However, this meant that managers held regular meetings and budget conferences/meetings to review performance. Ellsworth (2016) also noted that institutions hold regular conferences and meetings to review budget and firm's financial performance.

The study sought to establish whether comparison was made between plans and actual performance and the difference was reported often. The study findings showed that majority of respondents, 86% (mean 4.30, std. dev 0.77) agreed with the statement, 12.1% were neutral to the statement, and 1.9% disagreed with the statement and so this meant that comparison was made between plans and actual performance and the difference was reported often. Similarly, Ellsworth (2016) observed that variance analysis was conducted often by both audit team and management to track progress and identify variances.

The study also sought to establish whether the costs of activities were always reviewed by the executive committee. The research established that majority of the respondents, 87.3% (mean 4.27, std. dev 0.73), agreed with the statement, 11.4% of the respondents were neutral to the statement, and 1.3% of the respondents disagreed with the statement. The study results implied that the costs of activities were always reviewed by the executive committee. Walker (2014) made similar observations and argued that executive committees review the cost of activities to ensure that it remains within the institutions stipulated threshold.

The study also sought to establish whether universities had set a budget variance percentage that has to be explained while reviewing variance reports. Findings from the analysis showed that majority of the respondents, 83.8% (mean 3.24, std. dev 0.74), agreed with the statement, 15.5% of the respondents were neutral, while 0.7% of the respondents were neutral to the statement. This implied that universities had set a budget variance percentage that has to be explained while reviewing variance reports. Similarly, Mugo (2015) observed that periodic reconciliations are common in institutions and help organisations to identify causes of budgetary variations and formulate possible remedies.

The study sought to establish whether Corrective action was always taken on budget variance. The findings showed that majority of respondents, 86.4% (mean 3.26, std. dev 0.73) agreed with the statement and 11.9% of the respondents were neutral to the statement. Only 1.7% of the respondents disagreed with the statement. This shows that corrective action was always taken on budget variance. Similarly, Barra (2014) noted that internal budgetary reviews are essential because they help firms to take corrective actions to enhance their financial performance.

The study sought to establish whether organizations had a budget committee that monitored the budgeting process and its implementation. The research results showed that majority of the respondents, 90.2% (mean 4.31, std. dev 0.76), agreed with the statement, 6.5% of the respondents were neutral to the statement, and 3.3% of the respondents disagreed with the statement. It was found out that universities had a budget committee that monitored the budgeting process and its implementation. Similarly, Mugo (2015) argued that institutions have budget committees that monitor budgetary process and implementation.

The study also sought to find out whether budgetary control contributed positively to the firm’s financial performance. The study showed that majority of the respondents, 84.1% (mean 4.13, std. dev 0.80), agreed with the statement, 12.7% of the respondents were neutral to the statement, and 3.2% of the respondents disagreed with the statement. These results indicated clearly that budgetary control contributed positively to the financial performance of the university. Barra (2014) observed a strong positive correlation between budgetary control and financial performance.

The study also sought to establish whether budgets motivated managers to achieve objectives and thereby motivate them to set controls for the organization. An analysis of the research findings showed that majority of respondents, 90.8% (mean 4.29, std. dev 0.76), agreed with the statement, 8.4% of the respondents were neutral to the statement, and 0.8% of the respondents disagreed with the statement. This implied that budgets motivated managers to achieve objectives and thereby motivated them to set controls for the organization. Rosa (2018) also identified budgets as control measures that motivate managers to work towards attainment of the institutional goals.

The study sought to establish whether the budgets prepared are a projection of the incomes and expenditures of the universities. The research showed that majority of the respondents, 86.0% (mean 4.30, std. dev 0.77), agreed with the statement, 12.2% of the respondents were neutral to the statement, and 1.8% of the respondents disagreed with the statement. Hence, it was found out that budgets prepared are a projection of the incomes and expenditures of the universities. Similarly, Barret (2013) noted that budgets forecast institutional incomes and expenditures.

The study also sought to establish whether universities exercise human capital control to ensure that it's within the budget limits. The research showed that majority of the respondents, 89.7% (mean 4.10, std. dev 0.80), disagreed with the statement, 8.2% of the respondents were neutral, and 2.2% of the respondents disagreed with the statement. However, the results indicated that universities exercise human capital controls to ensure that they are within the budget limits. Similarly, Brinkerhoff (2015) noted that controlling human capital is a prerequisite for achieving budget projections.

Finally, the study sought to establish whether universities had an elaborate cash flow control system to manage liquid cash. A review of the findings revealed that majority of the respondents, 89.7% (mean 4.13, std. dev 0.81), agreed with the statement, 8.7% of the respondents were neutral, and 1.7% of the respondents disagreed with the statement. The implication was that universities had an elaborate cash flow control system to manage liquid cash. The results show that 87.5% agreed with budgetary control measures. This was in agreement with Gacheru (2012) who while examining the budgetary process effects on budget variances in PBOs in Kenya established that budget control, implementation, and preparation significantly affected the budget variance.

4.6.5 Descriptive Results for Regulations and Policies on Financial Performance

The other study objective assessed the effects of regulations and policies on financial performance of public universities in Kenya. Respondents' opinions on the influence of regulations and policies on financial performance in public universities in Kenya are shown in table 4.14 below;

Table 4.14: Frequency Distribution Analysis of Regulations and Policies

Statement	SA (%)	A (%)	N (%)	D (%)	SD (%)	M	SD
The university follows and abides by set regulations by the government.	**40.7**	**47.0**	**12.3**	**0**	**0**	**4.29**	**0.67**
There are set internal policies and guidelines that govern the university's internal control systems.	**34.6**	**54.1**	**10.9**	**0.4**	**0**	**4.23**	**0.65**
Fraudulent activities are kept to the minimum as a result of the regulations and policies.	**42.3**	**46.7**	**10.8**	**0**	**.0**	**4.33**	**0.64**
Stern action is taken by the relevant government body as a result of non-conformance with the regulations.	**36.0**	**51.5**	**11.6**	**0.9**	**0**	**4.20**	**0.71**
The university has internal disciplinary measures guided by the policies on how to discipline financial offenders.	**41.6**	**41.0**	**16.0**	**1.0**	**0.4**	**4.22**	**0.75**
Adherence to the set guidelines and policies positively contributes to financial performance of the university.	**37.7**	**49.1**	**10.9**	**2.3**	**0**	**4.22**	**0.75**
The guidelines are enough to curb all the university's financial irregularities.	**44.1**	**38.3**	**16.2**	**0.6**	**0.8**	**4.24**	**0.80**
My university follows strictly the financial reporting guidelines stipulated to enhance financial performance.	**39.6**	**44.8**	**13.6**	**0.4**	**1.8**	**4.20**	**0.82**
The university adopt and follows industry standards and guidelines in financial reporting.	**39.8**	**43.1**	**10.6**	**6.5**	**0**	**3.22**	**0.93**
Internal control policies impact on the overall financial performance of the university.	**38.1**	**43.0**	**17.7**	**1.2**	**0**	**4.17**	**0.78**
The generally accepted accounting principles act as policy guidelines that dictate what is to be done to	**42.2**	**47.6**	**8.8**	**1.4**	**0**	**4.25**	**0.83**

prevent fraud and improve on the financial performance of the university.							
Average	**39.6**	**46.0**	**12.7**	**1.5**	**0.2**	**4.14**	**0.75**

N = 142; Key: SD = Strongly Disagree; D = Disagree; N = Neutral; A = Agree; SA = Strongly Agree; Std Dev = Standard Deviation

The research sought to investigate whether universities follow and abide by set regulations by the government. The study findings revealed that majority of the respondents, 87.7% (mean 4.29, std. dev 0.67), agreed with the statement, and 12.3% of the respondents were neutral to the statement. There were no respondents who disagreed with the statement. The results showed a strong support that, universities follow and abide by set regulations by the government. Magara (2013) also observed that institutions of higher learning are controlled by the government and are required to meet all academic standards that are frequently reviewed.

The research sought to find out whether there were set internal policies and guidelines that governed the university's internal control systems. The study findings revealed that majority of respondents, 88.7% (mean 4.23, std. dev 0.65), agreed with the statement, 10% of the respondents were neutral to the statement, and 0.4% of the respondents disagreed with the statement. This implied that there were set internal policies and guidelines that governed the university's internal control systems. Njaramba and Nguri (2014) noted that internal control systems are centered on the firm's internal policies and guidelines.

The research sought to establish whether fraudulent activities were kept to the minimum as a result of the regulations and policies. The research established that majority of the respondents, 90% (mean 4.33, std. dev 0.64), agreed with the statement, 10.8% of the respondents were neutral to the statement and none of the respondents disagreed with the statement. This implied that fraudulent activities were kept to the minimum as a result of the regulations and policies. Mwachiro (2014) argued that strong regulatory framework reduces fraud and enhances performance.

The research sought to find out whether stern action was taken by the relevant government body as a result of non-conformance with the regulations. The research showed that majority of the respondents, 87.5% (mean 4.20, std. dev 0.71), agreed with the statement, 11.6% of the respondents were neutral to the statement, and 0.9% of the respondents disagreed with the statement. The results meant that Stern action was taken by the relevant government body as a result of non-conformance with the regulations. Wanjala (2015) posited that non-compliance to set standards should be reviewed and corrective actions taken to ensure that institutions performance standards are maintained.

The study also sought to establish whether universities had internal disciplinary measures guided by the policies on how to discipline financial offenders. The research showed that majority of the respondents, 81.6% (mean 4.22, std. dev 0.75), agreed with the statement, 16% of the respondents were neutral to the statement, whereas 1.4% of the respondents disagreed with the statement. It was found out that universities had internal disciplinary measures guided by the policies on how to discipline financial offenders. Similarly, Wanjala (2015) observed that institutions of higher learning have internal disciplinary measures that address non-conformance and ensure compliance to organizational standards.

The study sought to establish whether adherence to the set guidelines and policies positively contributed to financial performance of the university. A review of findings revealed that majority of the respondents, 86.8% (mean 4.22, std. dev 0.75), agreed with the statement, and 10.9% of the respondents were neutral to the statement. However, 2.3% of the respondents disagreed with the statement. This implied that adherence to the set guidelines and policies positively contributed to financial performance of the universities. Similarly, Mutiso (2016) noted that adherence to policy standards and guidelines enhance performance of the institutions.

The research sought to establish whether the guidelines were enough to curb all the university's financial irregularities. The study revealed that majority of the respondents, 82.4% (mean 4.24, std. dev 0.80) agreed with the statement, 16.2% of the respondents were neutral to the statement, whereas 1.4% of the respondents disagreed with the statement implying that the guidelines were enough to curb all the university's financial irregularities. Mwachiro (2014) noted that regulatory framework and monitoring help to curb financial irregularities.

The study also sought to establish whether universities follow strictly the financial reporting guidelines stipulated to enhance financial performance. The research showed that majority of the respondents, 84.4% (mean 4.20, std. dev 0.82) were in agreed with the statement with the statement, 13.6% were neutral to the statement, and 2.3% of the respondents were not in agreement with the statement and this meant that universities follow strictly the financial reporting guidelines stipulated to enhance financial performance. Ondieki (2015) noted that universities follow the financial reporting guidelines, which help to enhance their financial performance.

The study sought to investigate whether universities adopt and follows industry standards and guidelines in financial reporting. A review of the findings showed that majority of the respondents, 82.9% (mean 3.22, std. dev 0.93), agreed with the statement and 10.6% of the respondents were neutral to the statement, while 6.5% of the respondents were not in agreement with the statement. This indicated that universities adopt and follow industry standards and guidelines in financial reporting. Dixit (2013 argued that universities adopt financial reporting standards to enhance their performance.

The study also sought to establish whether internal control policies impacted on the overall financial performance of the university. The research established that majority of the respondents, 81.1% (mean 4.17, std. dev 0.78), agreed with the statement, 10.7% of the respondents were neutral to the statement, whereas 8.2% of the respondents disagreed with the statement. The implication was that internal control policies impacted on the overall financial performance of the university. Brinkerhoff (2013) observed that internal control policies affect institution's financial performance.

Finally, the research sought to find out whether generally accepted accounting principles act as policy guidelines that dictate what is to be done to prevent fraud and improve on the university's financial performance. A review of the study findings showed that majority of the respondents, 89.8% (mean 4.25, std. dev 0.83), agreed with the statement, 8.8% of the respondents were neutral to the statement, while 1.4% of the respondents disagreed with the statement. The results showed that generally accepted accounting principles act as policy guideline that dictate what is to be done to prevent fraud and improve on the financial performance of the universities. Oanda and Jowi (2013) noted that accounting principles and standards help to prevent fraud and enhance financial performance of the institutions.

4.6.6 Financial Performance of Public Universities in Kenya

The study sought to evaluate the trends of performance of public universities in Kenya from 2014 to 2018. From the findings, majority of the public universities have been reporting deficits or very low surplus in their books clearly indicating challenges existing in their internal controls or other factors like financial instability due to poor funding by the government. Financial stability is the adequacy of capitation to these institutions for them to be able to fulfil their obligations and operate effectively. As (Abdulahi & Muturi, 2016) clearly situates, dimensions of internal control system have a positive significant effect on the financial performance of most of these public universities.

4.7 Inferential Analysis

The general objective of the study was to investigate the effect of internal control systems on financial performance of public universities in Kenya. Correlation analysis was performed to identify the extent and the direction of the relationships between the variables.

4.7.1 Correlation Analysis

The Pearson correlation coefficient (r) was used to identify the direction and extent of the relationships between variables. Correlation coefficients range between -1 to +1. +1 shows a perfect positive relationship, 0 indicating no relationship, and -1 showing a perfect negative relationship. The assumptions of Pearson's product moment correlation include level of measurement, related pairs, absence of outliers, and linearity. The data in the study did not violate the assumptions of Pearson's product moment correlation and so there was no need to use Spearman rank correlation. Some other assumptions in Pearson's product correlation about the data being tested include interval data or continuous data and the data should be approximately normal (Saunders et al., 2009). Results in table 4.15 indicate that all the study variables were positively correlated

Table 4.15: Correlation between Study Variables

		Financial performance	Preventive controls	Detective controls	Corrective controls	Budgetary controls
Financial performance	Pearson Correlation	1				
	Sig. (2-tailed)					
Preventive controls	Pearson Correlation	.798**	1			
	Sig. (2-tailed)	.000				
Detective controls	Pearson Correlation	.928**	.872**	1		
	Sig. (2-tailed)	.000	.000			
Corrective controls	Pearson Correlation	.891**	.925**	.932**	1	
	Sig. (2-tailed)	.000	.000	.000		
Budgetary controls	Pearson Correlation	.876**	.943**	.897**	.958**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	142	142	142	142	142

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

From the findings on the correlation analysis the independent variables were positively correlated to the dependent variable. The study established that preventive controls and financial performance were positively correlated as shown by correlation coefficient of 0.798 with a p-value of .000. This implies that preventive controls promote financial performance of public universities in Kenya. This is in agreement with Brinkerhoff (2013), who established the benefits of preventive controls since they emphasize on quality and are proactive.

The study found out that there was a positive significant correlation coefficient between detective controls and financial performance as shown by correlation factor of 0.891 with a p- value of 0 .000 and hence shows that detective controls have a very high effect on financial performance of public universities in Kenya. This is in tandem with (Ellsworth, 2016) who found that detective controls are designed to identify and search for errors on a timely basis after they have occurred, and they do not bar loss occurrence, but provide evidence that a loss has occurred.

Association between corrective controls and financial performance was found to have a very positive relationship as shown by correlation coefficient of 0.926 and a p-value of 0.000. This implies that corrective controls are a very important component of ICS on financial performance of public universities in Kenya. This is in agreement with (Dixit, 2013) who posits that correction is an immediate action taken to fix issues identified during an audit identifying areas of weaknesses, or while monitoring, and works to resolve the root cause of the issue, and is very important in ensuring that the identified issues or weaknesses have been rectified to prevent loss.

The study also established a positive correlation between financial performance and budgetary controls as shown by correlation coefficient of 0.876 and a p-value of 0.000. This means that budgetary controls have a very high positive influence on financial performance of public universities in Kenya. This was in agreement with (Adongo & Jagongo, 2013) who investigated the relationship between budgetary Control and Financial performance of State Corporations in Kenya to establish the process of budgetary control in public organizations and determine the challenges affecting the controls. The findings indicated a positive significant relationship between budgetary controls and financial performance of state corporations.

The fact that some or all predictor variables are correlated among themselves does not, in general, inhibit the ability to obtain a good fit nor does it tend to affect inferences about mean responses or predictions of new observations. (Applied Linear Statistical Models, p289, 4th Edition)

4.7.2 Regression Analysis for Preventive Controls

The first objective of the study was to investigate the effect of preventive controls on financial performance of public universities in Kenya. The objective was tested through a number of composite measures on a scaled questionnaire and the descriptive results presented on frequency table which shows the frequencies of responses, mean and standard deviations

Table 4.16 Model Summary for Preventive Controls

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics		
					R Square Change	F Change	Sig. F Change
1	.798[a]	.636	.634	1.43277	.636	244.823	.000

a. Predictors: (Constant), Preventive controls

A regression analysis was conducted to empirically determine whether preventive controls were significant in determining financial performance in public universities. Regression results in table 4.16 above indicate the goodness of fit for the regression between preventive controls and financial performance was strong. An R square of 0.636 indicates that 63.6% of the corresponding variances in financial performance by universities were explained by change in preventive controls. The rest 36.4% can only be explained by other factors that are not in the model. The linear regression model found preventive controls statistically significant meaning that the variable was a significant predictor of financial performance since p-value is lower than 0.05.

Table 4.17 ANOVA for Preventive Controls

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	502.582	1	502.582	244.823	.000[b]
	Residual	287.397	140	2.053		
	Total	789.979	141			

a. Dependent Variable: financial performance
b. Predictors: (Constant), Preventive controls

ANOVA provided information about ranks of variability within the model forming a basis for tests of significance. Findings in Table 4.17 above show the F value indicating whether the set of independent variables as a whole contribute to the variance in the dependent variable. The F value was significant (p = 0.000) at 95%. This means that preventive controls were significant in predicting financial performance in public universities in Kenya.

Table 4.18 Regression Coefficient for Preventive Controls

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.614	.383		1.604	.111
	Preventive controls	3.366	.215	.798	15.647	.000

a. Dependent Variable: financial performance

Table 4.18 above displays the regression coefficients of the preventive controls. From the above regression model, it was established that, there is a positive beta co-efficient of 3.366 with a p-value = 0.000 < 0.05 and a constant of 0.614 with a p value of 0.111. This shows that, the constant does not contribute significantly to the model and so not any different from zero. However, preventive controls contribute significantly to the model. This shows that the model can provide the information desired to predict financial performance from preventive controls. Therefore, the regression equation was $Y = 0.614 + 3.366X1 + \varepsilon$; Where Y = financial performance, X1 is preventive controls and ε is the error term. This implies that, when the variable preventive controls are held constant, financial performance of public universities in Kenya will be at the intercept 0.614. A unit improvement in preventive controls while all other factors held constant results in 3.366 increase in financial performance.

The results of the study have shown that preventive controls have the ability to promote financial performance of public universities in Kenya and are essential since they are proactive and emphasize quality. The study concluded that since preventive controls significantly and positively affected financial performance, it was good enough to fail to accept the null hypothesis that;

H_{01}: *There is no statistically significant effect of preventive controls on the financial performance of public universities in Kenya.* The hypothesis was therefore rejected.

4.7.3 Regression Analysis for Detective Controls

The second objective of the study was to explore the effect of detective controls on financial performance of public universities in Kenya. The objective was tested through a number of composite measures on a scaled questionnaire and the descriptive results presented on frequency table which shows the frequencies of responses, mean and standard deviations.

Table 4.19 Model Summary for Detective Controls

					Change Statistics		
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	Sig. F Change
1	.928[a]	.862	.861	.88219	.862	875.054	.000

a. Predictors: (Constant), Detective controls

Regression analysis was conducted to empirically determine whether detective controls were significant in determining the financial performance of public universities in Kenya. Regression results in Table 4.19 above indicate the goodness of fit for the regression between detective controls and financial performance was strong. An R squared of 0.862 indicates that 86.2% of the corresponding variances in financial performance by universities were explained by change in in detective controls. The rest 13.8% can only be explained by other factors that are not in the model. The linear regression model found detective controls statistically significant meaning that the variable was a significant predictor of financial performance since p-value is lower than 0.05.

Table 4.20 ANOVA for Detective Controls

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	681.022	1	681.022	875.054	.000[b]
	Residual	108.957	140	.778		
	Total	789.979	141			

a. Dependent Variable: financial performance
b. Predictors: (Constant), Detective controls

The F value in Table 4.20 above indicate whether the set of independent variables as a whole contributed to the variance in the dependent variable. The F value was significant (p = 0.000) at 95%. This means that detective controls were significant in predicting financial performance in public universities in Kenya.

Table 4.21 Regression Coefficient for Detective Controls

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.627	.206		3.050	.003
	Detective controls	3.504	.118	.928	29.581	.000

a. Dependent Variable: financial performance

Table 4.21 above displays the regression coefficients of the independent variable. From the above regression model detective controls and financial performance to a constant of p =

0.003, it was established that, there is a positive beta co-efficient of 3.305 with a p-value = 0.000 < 0.05 and a constant of 0.627. This clearly shows that there is a positive relationship between detective controls and financial performance. P-value was less than 0.05, which shows that variables covered in the study on detective controls were statistically significant to affect financial performance. The results therefore reveal that detective controls are statistically significant in explaining financial performance in public universities in Kenya. The model can hence provide the information desired to predict financial performance from detective controls. Therefore, the regression equation was $Y = 0.627 + 3.504X1 + \varepsilon$; Where Y = financial performance, X1 is detective controls and ε is the error term. This implies that, when the variable detective controls were held constant, financial performance of public universities in Kenya will be at the intercept 0.627. A unit increase in detective controls while all other factors held constant results in 3.504 increase in financial performance.

The results of the study have shown that detective controls have the ability to promote financial performance of public universities in Kenya Detective controls are designed to search for and identify errors on a timely basis after they have occurred and they provide evidence that a loss has occurred. The most common detective controls are the reconciliation of the cashbook and the bank statements to discover the difference between the two balances. Such activities should be strengthened to support financial performance. The study concluded that since detective controls significantly and positively affected financial performance, it was good enough to fail to accept the null hypothesis which states that; H_{02}: *There is no statistically significant effect of detective controls on the financial performance of public universities in Kenya*. The hypothesis was therefore rejected.

4.7.4 Regression Analysis for Corrective Controls

The third objective of the study was to evaluate the effect of corrective controls on financial performance of public universities in Kenya. The objective was tested through a number of composite measures on a scaled questionnaire and the descriptive results presented on frequency table which shows the frequencies of responses, mean and standard deviations.

Table 4.22 Model Summary for Corrective Controls

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics		
					R Square Change	F Change	Sig. F Change
1	.891[a]	.794	.793	1.07757	.794	540.339	.000

a. Predictors: (Constant), Corrective controls

The study further conducted a regression analysis in order to empirically determine whether corrective controls were a significant determinant of financial performance in public universities in Kenya. Regression results in Table 4.22 above indicate the goodness of fit for the regression between financial performance and corrective controls was postulated as strong. An R squared of 0.834 indicates that 83.4% of the corresponding variances in financial performance by universities were explained by change in in corrective controls. The rest 16.6% can only be explained by other factors that are not in the model. The linear regression model found corrective controls statistically significant meaning that the variable was a significant predictor of financial performance since p-value was lower than 0.05.

Table 4.23 ANOVA for Corrective Controls

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	627.417	1	627.417	540.339	.000[b]
	Residual	162.562	140	1.161		
	Total	789.979	141			

a. Dependent Variable: financial performance
b. Predictors: (Constant), Corrective controls

The overall model significance was presented in Table 4.23 above. The F value in the table indicated whether the set of independent variables as a whole contributed to the variance in the dependent variable. The F value was significant (p = .000) at 95%. This means that corrective controls were significant in predicting financial performance in public universities in Kenya.

Table 4.24 Regression Coefficient for Corrective Controls

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.647	.260		2.492	.014
	Corrective controls	3.374	.145	.891	23.245	.000

a. Dependent Variable: financial performance

Table 4.24 above displays the regression coefficients of the independent variable corrective controls. From the above regression model corrective controls and financial performance to a constant of p = 0.014, it was established that, there is a positive beta co-efficient of 3.374 with a p-value = 0.000 < 0.05 and a constant of 0.647. This clearly shows that there is a positive relationship between corrective controls and financial performance. P-value was less than 0.05, which shows that variables covered in the study on corrective controls were statistically significant to affect financial performance. The results therefore reveal that corrective controls are statistically significant in explaining financial performance in public universities in Kenya. The model can hence provide the information required to predict financial performance from corrective controls. Therefore, the regression equation was $Y = 0.647 + 3.374X1 + \varepsilon$; Where Y = financial performance, X1 is corrective controls and ε is the error term. This implies that, when the variable corrective controls were held constant, financial performance of public universities in Kenya will be at the intercept 0.647. A unit improvement in corrective controls while all other factors held constant results in 3.3374 increase in in financial performance.

The results of the study have shown that corrective controls have the ability to promote financial performance of public universities in Kenya. Corrective controls are a very important component of ICS on financial performance of public universities in Kenya. Correction is an immediate action taken to fix issues identified during an audit. Corrective controls are designed to prevent those errors and irregularities from reoccurring once they are discovered.

The study concluded that since corrective controls significantly and positively affected financial performance, it was good enough to fail to accept the null hypothesis which states that; H_{01}: *There is no statistically significant effect of corrective controls on the financial performance of public universities in Kenya.* The hypothesis was therefore rejected.

4.7.5 Regression Analysis for Budgetary Controls

The fourth objective of the study was to examine the effect of budgetary controls on financial performance of public universities in Kenya. The objective was tested through a number of composite measures on a scaled questionnaire and the descriptive results presented on frequency table which shows the frequencies of responses, mean and standard deviations.

Table 4.25 Model Summary for Budgetary Controls

Model Summary

					Change Statistics		
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	Sig. F Change
1	.876[a]	.768	.766	1.14498	.768	462.583	.000

a. Predictors: (Constant), Budgetary controls

The study further conducted a regression analysis in order to empirically determine whether budgetary controls were a significant determinant of financial performance in public universities in Kenya. Regression results in table 4.25 above indicated that the goodness of fit for the regression between budgetary controls and financial performance was found strong. An R squared of 0.768 indicates that 76.8% of the corresponding variances in financial performance by universities were explained by change in in budgetary controls. The rest 24.2% can only be explained by other factors that are not in the model. The linear regression model found budgetary controls statistically significant meaning that the variable was a significant predictor of financial performance since p-value was lower than 0.05.

Table 4.26 ANOVA for Budgetary Controls

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	606.441	1	606.441	462.583	.000[b]
	Residual	183.538	140	1.311		
	Total	789.979	141			

a. Dependent Variable: financial performance

b. Predictors: (Constant), Budgetary controls

The overall model significance was presented in Table 4.26 above. The F value in the table indicated whether the set of independent variables as a whole contributed to the variance in the dependent variable. The F value was significant (p = 0.000) at 95%. This means that corrective controls were significant in predicting financial performance in public universities in Kenya

Table 4.27 Regression Coefficient for Budgetary Controls

Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.824	.272		3.026	.003
Budgetary controls	3.202	.149	.876	21.508	.000

a. Dependent Variable: financial performance

Table 4.27 above displays the regression coefficients of budgetary controls. From the above regression model, budgetary controls and financial performance to a constant zero, financial performance would be 2.503. It was established that a unit increase in budgetary controls would cause an increase in financial performance by a factor of 0.412. This clearly showed that there was a positive relationship between budgetary controls and financial performance. P-value was less than 0.05, which showed that variables covered in the study on budgetary controls were statistically significant to predict financial performance. The results revealed that budgetary controls were statistically significant in explaining the financial performance of public universities in Kenya. The model can hence provide the information required to predict financial performance from budgetary controls. Therefore, the regression equation was $Y = 0.824 + 3.202X1 + \varepsilon$; Where Y = financial performance, X1 is budgetary controls and ε is the error term. This implies that, when the variable budgetary controls were held constant, financial performance of public universities in Kenya will be at the intercept 0.824. A unit increase in budgetary controls while all other factors held constant results in 3.202 increase in in financial performance.

The results of the study have shown that budgetary controls have the ability to promote financial performance of public universities in Kenya. Budgetary controls help in projections that guide internal controls. This is normally done through having a budget process, allocation of funds to various projects, projections of expected incomes and expenditures, human capital control, and having cash flow control within the organization. The study concluded that since budgetary controls significantly affected financial performance aspects, it was good enough to reject the null hypothesis which states that; H_{01}: *There is no statistically significant effect of budgetary controls on the financial performance of public universities in Kenya*. The hypothesis was therefore rejected.

4.7.6 Inferential Statistics on the Effect of ICS on Financial Performance

In order to analyse the joint effect of independent variables (preventive controls, detective controls, corrective controls and budgetary controls) on the dependent variable (financial performance) multiple regression was employed. The following model was employed:

$Y = \beta 0 + \beta 1X1 + \beta 2X2 + \beta 3X3 + \beta 4X4 + e$. where Y represent financial performance,

X1 preventive controls, X2 detective controls, X3 corrective controls and X4 budgetary controls.

The regression analysis for internal controls system was run to determine the proportion of financial performance (dependent variable) which would be predicted by the four independent variables. The results were presented in table 4.28 below. The overall model was found to be statistically significant at $F (4, 137) = 285.33$, $p <.005$. In the model 89.3% in financial performance can be explained by variations in all the four independent variables but 10.7% was explained by other factors not in the model. This means that the model is very strong with R squire at 0.893. However corrective controls variable was found to be insignificant

Table 4.28 Joint Effect of Independent Variables

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics: R Square Change	F Change	df1	df2	Sig. F Change
1	.945[a]	.893	.890	.78612	.893	285.327	4	137	.000

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	705.314	4	176.329	285.327	.000[b]
	Residual	84.664	137	.618		
	Total	789.979	141			

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	.970	.214		4.528	.000
	Preventive controls	-1.898	.364	-.450	-5.215	.000
	Detective controls	2.870	.291	.760	9.846	.000
	Corrective controls	.317	.457	.084	.694	.489
	Budgetary controls	1.964	.418	.538	4.698	.000

a. Dependent Variable: financial performance

b. Predictors: (Constant), Budgetary controls, Detective controls, Preventive controls, Corrective controls

When a joint regression is run the results indicate goodness of fit for the regression between independent variables and financial performance as being strong. An R squared of 0.893 indicates that 89.3% of the corresponding variances in financial performance in universities were explained by change in the independent variables. The rest 10.7% can only be explained by other factors that are not in the model. The linear regression model however found corrective controls statistically insignificant meaning that the variable was not a significant predictor of financial performance since p-value was higher than 0.05. This implies that in theory, corrective controls are part of ICS but in practice in case water tight preventive controls are put in place, in most of the cases preventive controls would override corrective controls. In this study, this is evidenced by the high correlation between the two variables at 99% confidence level as shown in the table 4.29 below;

Table 4.29 Correlation between Preventive and Corrective Controls

Correlations

		Preventive controls	Corrective controls
Preventive controls	Pearson Correlation	1	.925**
	Sig. (2-tailed)		.000
	N	142	142
Corrective controls	Pearson Correlation	.925**	1
	Sig. (2-tailed)	.000	
	N	142	142

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

Therefore, there are some elements of facts that the null hypothesis that H_{01}: *There is no statistically significant effect of corrective controls on the financial performance of public universities in Kenya,* can be accepted. This results have been displayed in table 4.29 above.

This means that all the variables were important predictors of financial performance. These findings concurred with those of (Jayamaha, 2014) who asserted that the budgeting process is one of the most productive and useful management accounting techniques that organizations use to enhance performance in institutions of higher learning. The primary goals of budgeting are control, evaluation, planning, communication, and motivation. The application of budget tools has a great impact on the growth of any organization. According to (Silva & Jayamaha, 2014), there exists a strong relationship between the internal control systems employed and the financial performance of organizations, and public universities are no exception. These findings also concurred with those of (Chege, 2013) who established a positive influence of controls on the financial performance of public universities in Kenya.

4.7.7 Moderating Effect of Regulations and Policies on ICS and Financial Performance

The fifth objective of the study was to to investigate the moderating effect of regulations and policies on the effect of internal controls systems and financial performance of public universities in Kenya. A moderator variable influences the relationship between the dependent variable and the independent variables. The extent and the direction depends on the value of the moderator (Sekaran, 2006). Moderation implies an interaction effect, where introducing a moderating variable changes the direction or magnitude of the relationship between two variables. A moderation effect could be enhancing, buffering or antagonistic. The objective was tested through a number of composite measures on a scaled questionnaire and the descriptive results presented on frequency table which shows the frequencies of responses, mean and standard deviations. To determine if regulations and policies moderates the relationship between ICS and financial performance in public universities in Kenya, a hierarchical regression analysis was run through SPSS where three models were fitted.

1) Model 1 having X1, X2, X3, X4 as the predictors.

$Y = \beta 0 + \beta 1X1 + \beta 2X2 + \beta 3X3 + \beta 4X4 + e$. …………………………………model 1

Where Y represent financial performance, X1 preventive controls, X2 detective controls, X3 corrective controls and X4 budgetary controls.

2) Model 2 having X1, X2, X3, X4 and the moderation variable X5 as predictors

$Y = \beta 0 + \beta 1X1 + \beta 2X2 + \beta 3X3 + \beta 4X4 + X5 + e$………………………………. model 2

Where Y represent financial performance, X1 preventive controls, X2 detective controls, X3 corrective controls, X4 budgetary controls and X5 regulations and policies (moderating).

3) Model 3 which was model 2 with interaction term

$Y = \beta 0 + \beta 1X1 + \beta 2X2 + \beta 3X3 + \beta 4X4 + \beta 5X5 + \beta iX5\ X_i{*}X5 + \varepsilon$. ………………Model 3

Where Y represent financial performance, βiX5 is the coefficient of X*X5 the interaction term between regulations and policies as a moderator and each of the independent variable for i= 1,2,3,4. X1 preventive controls, X2 detective controls, X3 corrective controls, X4 budgetary controls and X5 regulations and policies (moderating). The model summaries were presented in Table 4.30 below.

In model 1, the study was only interested on whether the model was significant and if the amount of variance accounted for in Model 2 (with moderation) was significantly more than Model 1 was as significant at $F(4, 137) = 285.33$, $p < .005$. The model explains that about 89.3% in financial performance can be explained by variations in all the four independent variables. The overall model was significant. This implies all the independent variables had a significant effect on the financial performance of public universities in Kenya.

In model 2, when regulations and policies variable was added as a predictor to the previous model, the new model was significant at F (5, 136) = 227.27, p <.005. However, in the overall model, there was no change in R squire and the model was insignificant (p = 0.548). This implies that there was no significant evidence to show that regulations and policies had any moderating factor on the relationship between ICS and financial performance in public universities in Kenya.

In model 3, to avoid potential challenges caused by high multicollinearity with the interaction term, the variables were centred and an interaction term between ICS and the dependent variable was created. (Aiken & West, 1991). When the interaction term was introduced, the model remained significant. F (6, 135) = 191.85, p <.005. However, in the overall model, there was a slight change in R squire of 0.002 and the model was insignificant (p=0.119). However, the t-score for corrective controls, regulations and policies (moderator) and the interaction term remained insignificant with a p-value = 0.759, p-value = 0.707 and p = 0.119 respectively. These statistical results of hierarchical regression analysis, implies that regulations and policies has a very small moderating effect on the relationship between ICS and financial performance of public universities in Kenya.

Table 4.30: Multiple Regression Analysis on Effect of Moderation Variable

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics: R Square Change	F Change	df1	df2	Sig. F Change
1	.945[a]	.893	.890	.78612	.893	285.327	4	137	.000
2	.945[b]	.893	.889	.78796	.000	.362	1	136	.548
3	.946[c]	.895	.890	.78374	.002	2.468	1	135	.119

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	705.314	4	176.329	285.327	.000[b]
	Residual	84.664	137	.618		
	Total	789.979	141			
2	Regression	705.539	5	141.108	227.271	.000[c]
	Residual	84.440	136	.621		
	Total	789.979	141			
3	Regression	707.055	6	117.842	191.847	.000[d]
	Residual	82.924	135	.614		
	Total	789.979	141			

Coefficients[a]

Model		Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	.970	.214		4.528	.000
	Preventive controls	-1.898	.364	-.450	-5.215	.000
	Detective controls	2.870	.291	.760	9.846	.000
	Corrective controls	.317	.457	.084	.694	.489
	Budgetary controls	1.964	.418	.538	4.698	.000
2	(Constant)	.973	.215		4.529	.000
	Preventive controls	-1.885	.365	-.447	-5.159	.000

	Detective controls	2.735	.368	.725	7.425	.000
	Corrective controls	.236	.477	.062	.495	.621
	Budgetary controls	1.962	.419	.537	4.683	.000
	Regulations and policies	.199	.331	.056	.602	.548
3	(Constant)	.778	.247		3.145	.002
	Preventive controls	-2.463	.517	-.584	-4.765	.000
	Detective controls	2.955	.392	.783	7.533	.000
	Corrective controls	.147	.478	.039	.307	.759
	Budgetary controls	2.644	.602	.724	4.394	.000
	Regulations and policies	.126	.333	.036	.377	.707
	interaction	-.002	.001	-.094	-1.571	.119

a. Dependent Variable: financial performance

a. Predictors: (Constant), Budgetary controls, Detective controls, Preventive controls, Corrective controls

b. Predictors: (Constant), Budgetary controls, Detective controls, Preventive controls, Corrective controls, Regulations and policies

c. Predictors: (Constant), Budgetary controls, Detective controls, Preventive controls, Corrective controls, Regulations and policies, interaction

The hypothesis for the fifth objective was as follows:

H_{05}: Regulations and policies have no moderating effect on the relationship between internal controls systems and financial performance of public universities in Kenya.

The results after running model 2 the regression indicate that the inclusion of the moderating variable did not result in any change in R squire and overall model was statistically insignificant. This concluded that regulations and policies did not have a moderating effect on financial performance. This was in agreement with (Karemera, 2013) who studied the relationship between regulation and profitability of Rwanda selected commercial banks. The study concluded that all the measures of regulation used in the study were not significant predictors of financial performance of commercial banks in Rwanda. The results also disagreed with a study by (Gao, 2008) involving multinational enterprises in China that found organizational policies having a positive impact on financial performance. The study revealed that the set regulations and systems were the key drivers affecting performance positively.

Model 3 represents the multiple regression model with the independent variables, the moderating variable and the interaction term. The results after running regression indicated that the inclusion of the interaction term did not result in any significant change in R squire. The change was from 0.893 to 0.895 a difference of 0.002. However, the model was significant ($p = 0.000$) showing presence of moderating effect of very low magnitude. This shows that one would suspect some greater form of moderation, maybe with a larger sample size. The study concluded that the results from the data collected from the ground could have some evidence of non-conformity by public universities in adhering to regulations and policies put in place by the regulatory bodies. Another possibility could be that regulations and policies play a mediating rather than a moderating role in the relationship between ICS and financial performance in public universities in Kenya. Mediation is a situation where the effect of the independent variable on the dependent variable can only be best explained using a third variable (mediator) which is caused by the predictor variable and is itself a cause for the dependent variable. A path model is used in case of a mediator to depict the causal relationship between two variables to which a coefficient or weight is assigned. Exogenous and endogenous variables are used in path analysis instead of the normal independent and dependent variables.

4.7.8 Chapter Summary

Results of correlation analysis show that all independent variables have a positive correlation to the dependent variable. Regression analysis for all individual independent variables against the dependent variable show a significant relationship. This implied that all the variables were important predictors of financial performance. Analysis of the joint effect of independent variables (preventive controls, detective controls, corrective controls and budgetary controls) on the dependent variable (financial performance) using multiple regression, resulted to an overall significant model. However, the corrective controls variable was insignificant implying that it has a predictive power if it is on its own otherwise when tested on joint effect of all the independent variables does not predict financial performance. The results after running the regression to test the moderating effect of regulations and policies, indicate that the inclusion of the moderating variable did not result in any change in R squire and overall model was statistically insignificant. This concluded that regulations and policies had very little or did not have any moderating effect on financial performance.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter presents a summary of findings, the conclusion and the study recommendations. The primary research findings on variable manifestations together with the revealed interrelationships between and among factors under consideration were undertaken. Besides, the chapter highlights the implications of the research outcomes to theory, policy and internal control practices. Lastly, the chapter brings forth suggestions for further research.

5.2 Summary of Findings

The study sought to examine the effect of ICS on financial performance of public universities in Kenya. A total of 160 questionnaires were administered out of which 142 were duly filled and returned, which was 88.75%. The reliability and validity of the instrument was tested. The Cronbach alpha was used to measure the dependability of the data collection instrument. The study's internal consistency was relevant since the data instruments were measuring the same thing. Factor analysis was conducted to test validity of the instrument and items with satisfactory threshold taken on board. The data was analysed quantitatively and diagnostic tests conducted. A multi-collinearity test was carried out, and the test results showed that the data had no multi- collinearity issues. A test for heteroscedasticity was carried to examine whether the error term variability was similar among variables, and it was established that the data did not have heteroscedasticity issues. Besides, normality tests were done using kurtosis and skewness and the values for asymmetry and kurtosis were acceptable to demonstrate normal univariate distribution.

The study conducted linear regression on all the independent variables to determine the effect of each on financial performance. A joint regression was also carried out and it was established that corrective controls were not a significant predictor of financial performance. Moderating effect of regulations and policies was also tested and the results did not indicate any substantive moderating effect.

5.2.1 Effect of Preventive Controls on the Financial Performance of Public Universities in Kenya

The first research objective sought to examine the effects of preventive controls on the financial performance of public universities in Kenya. A regression analysis was empirically performed to examine whether preventive controls were significant in determining financial performance in public universities. The regression results indicated that preventive controls and financial performance had a strong goodness of fit. These findings implied that preventive controls were significant determinants of financial performance in public universities in Kenya.

5.2.2 Effect of Detective Controls on the Financial Performance of Public Universities in Kenya

The second objective sought to determine the effect of detective controls on the financial performance of public universities in Kenya. Regression analysis was conducted to empirically determine whether detective controls were significant in determining the financial performance of public universities in Kenya. Regression results indicated the goodness of fit for the regression between detective controls and financial performance was strong. The findings showed that detective controls were statistically significant determinants of financial performance in public universities in Kenya, and there was a positive relationship between detective controls and financial performance.

5.2.3 Effect of Corrective Controls on the Financial Performance of Public Universities in Kenya

The research further carried out a regression analysis to empirically examine whether corrective controls were a significant determinant of financial performance in public universities in Kenya. The regression results revealed a strong goodness of fit between financial performance and corrective controls. The findings revealed that corrective controls were significant predictors of the financial performance in public universities in Kenya. However, the corrective controls variable was insignificant implying that it has a predictive power if it is on its own otherwise when tested on joint effect of all the independent variables does not predict financial performance.

5.2.4 Effect of Budgetary Controls on the Financial Performance of Public Universities in Kenya

The research further carried out a regression analysis to empirically determine whether budgetary controls were a significant determinant of financial performance in public universities in Kenya. The regression results showed a strong goodness of fit for the regression between budgetary controls and financial performance. The results also indicated that budgetary controls were significant in predicting financial performance in public universities in Kenya.

5.2.5 Moderating effect of regulations and policies on the relationship between internal controls systems and financial performance of public universities in Kenya

The fifth objective was to examine the moderating effect of regulations and policies on the relationship between internal control systems (ICS) and financial performance of public universities in Kenya. The results after running model 2 that included regulations and policies as a moderating variable, the regression revealed that the overall model was statistically insignificant. This implies that, regulations and policies did not have a moderating effect on financial performance. After inclusion of an interaction term, the results after running regression indicated that the inclusion of the interaction term did not result in any significant change.

5.3 Conclusion

The following conclusions were made relative to the research;

The general study objective was to examine the effect of internal control systems on financial performance of public universities in Kenya. Several hypotheses were formulated based on the constructs of the independent variables in relations to the dependent variable. Numerous logical conclusions were achieved relative to the empirical evidences and results of the analysis.

5.3.1 Preventive Controls

Founded on the research findings, the study concluded that preventive controls had a positive and significant effect on financial performance of public universities in Kenya. Various aspects of preventive controls, such as segregation of duties, pre-approval of actions and transactions by the supervisors, physical control over sensitive assets such as locks, computer passwords and access authorization and, employee screening to ensure that employees implement the accounting and financial management system in place efficiently. Other aspects include, having a security system that identifies and safeguard organizational Assets, and having a well-developed Chart of Accounts, all had a direct influence on financial performance.

5.3.2 Detective Controls

The study also concluded that detective controls had a positive and significant influence on the financial performance of public universities in Kenya. Aspects of detective controls such as conducting surprise cash counts, physical inventory counts, conducting reconciliations at the end of the period, having internal reviews of compliance of internal controls, and having management that was committed to ethical values all had an influence on the financial performance of public universities in Kenya.

5.3.3 Corrective Controls

The study concluded that corrective controls had a positive and significant influence on the financial performance of public universities in Kenya. Various aspects of corrective controls such as corrective actions to address weaknesses within the accounting and audit system, management putting in place mechanisms for mitigation of critical risks and putting in place a reporting system on organizational structure that spells out all the responsibilities of each sections, were all found to have a positive effect on performance. However, the corrective controls variable was found to have a predictive power if it was on its own otherwise when tested on joint effect of all the independent variables it did not predict financial performance.

5.3.4 Budgetary Controls

The study concluded that budgetary controls had a positive and significant influence on the financial performance of public universities in Kenya. Various aspects of budgetary controls such as holding budget review meetings regularly to review performance, the organization having both short term and long term budgets plans, having budget approval levels to check on spending within the university, coordination among various departments during budgeting process and conducting budget performance evaluation reports prepared regularly were all found to have a positive influence.

5.3.5 Moderating effect of Regulations and Policies

The study concluded that regulations and policies did not have any moderating effect on the relationship between internal control systems and financial performance of public universities in Kenya. The study observed that all the measures of regulations and policies used in the study were not significant predictors of financial performance. Aspects of regulations and policies such as having set internal policies and guidelines that govern the university's internal control systems, stern action taken by the relevant government body as a result of non-conformance with the regulations, did not have any moderating effect on financial performance.

The study also observed that the results from the data collected from the ground could have some evidence of non-conformity by public universities in adhering to regulations and policies put in place by the regulatory bodies. Another possibility could be that regulations and policies play a mediating rather than a moderating role in the relationship between ICS and financial performance in public universities in Kenya.

This implies that the management of public universities and other regulatory bodies like CUE and ministry of education should revisit the policies in place to find out whether they are still relevant to the contemporary operations of public universities in Kenya and whether the universities adhere to them.

5.4 Recommendations

The results of the study show that ICS in public universities have a positive effect on financial performance on these institutions. The study therefore recommends that the management of the universities and other regulatory bodies strengthen the internal control systems of the said institutions.

The findings of the study established that corrective controls require to be reviewed to have a positive relationship with financial performance. The study recommends that the ministry of education should do a benchmarking with private universities to find out how their corrective controls are formulated in relation to their internal control systems.

The study also established that rules and regulations did not have a moderating effect on financial performance of public universities. The study recommends that the department of university education in the ministry of education does a thorough audit to establish conformity or non-conformity by the public universities on the laid down regulations and policies guidelines

The study also found out that most of the public universities reported deficits in their financial statements in periods sampled in the study as reported in the auditor general reports. This was unfavourable. The study recommends that the government increase the capitation to the said institutions to reduce the gap between income and expenditure. They should also be given incentives to enhance the already existing appropriations in aid activities or initiate new ones.

Lastly, the study recommends that policy makers, regulatory authority, and the ministry concerned should formulate sound policies that strengthen internal controls of state corporations. By strengthening the internal controls of state corporations, their financial performance would improve and thus overall growth of the economy as a whole.

5.5 Contribution to Body of Knowledge

The current study findings add to the body of knowledge by demonstrating empirically that success of any organization in terms of finance will largely depend on its ability to put in place an agile internal control system. By establishing that an organization's financial performance as a function of several variables is a confirmation that individual organizations should focus on drivers of performance success.

5.6 Areas for Further Research

This study focused on the moderating effect of regulations and policies on the relationship between internal control systems and financial performance. It is recommended that future studies be carried out to establish whether regulations and policies have a mediating or intervening effect on the relationship between ICS and financial performance.

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APPENDIX I: LETTER OF INTRODUCTION

University ……………………….

Position in the University…………………...

Dear sir/madam,

<u>RE: Request to Conduct Academic Research</u>

I am a student at Kirinyaga University School of Business and Education undertaking a Doctor of philosophy Degree in Business Administration. It is a pre-requisite that one has to conduct an academic research before award of the Degree. Consequently, your organization has been chosen to provide information relating to my topic Effect of Internal Control Systems on Financial Performance of Public Universities in Kenya.

All the chosen deputy vice chancellor finance, registrar finance and administration, ICT personnel, finance officers and internal auditors are requested to fill in the questionnaires appropriately. The information obtained will be used for academic purposes only and will be treated in strict confidence.

Thank You in advance.

Daniel Kamau Mungai

Student Reg No BE300/S/4260/17

APPENDIX II: THE QUESTIONNAIRE

Kindly tick the most appropriate answer (s) or fill in the information required. Your response will go a long way in making this study a success. This information will be treated with utmost confidence and will be used for the purposes of the research only

SECTION A: BACKGROUND INFORMATION

1. Gender   Male   [ ]
             Female [ ]

2. Level of education?

i. Post Graduate [ ]

ii. Undergraduate [ ]

iii. Diploma [ ]

iv. Secondary Certificate [ ]

3. How long have you worked for this University?

i. 10 years and above [ ]

ii. 5 - 10 years [ ]

iii. 3 - 5 years [ ]

iv. 1 - 3 years [ ]

v. 0-1 years [ ]

SECTION B: PREVENTIVE CONTROLS

1. In your own opinion, how does the following statements relating to preventive controls affect the financial performance of public universities in Kenya?

(5- Strongly agree, 4- agree, 3- Neutral, 2- Disagree, 1- Strongly Disagree)

Statement	**1**	**2**	**3**	**4**	**5**
In my organization, there is segregation of duties.					
In my organization there is the pre-approval of actions and transactions by the supervisors.					
The supervisors have physical control over sensitive assets such as locks.					
My organization values computer passwords and access authorization and exercises control over them.					
Controls are in place to exclude incurring expenditure in excess allocated funds					
In my organization there is employee screening to ensure that employees implement the accounting and financial management system in place efficiently.					

I like the way my organization develops its organizational culture in order to inform its preventive controls.					
It is impossible for one staff to have access to all valuable information without the consent of senior staff.					
Our organization has a well-developed Chart of Accounts.					
The reporting system on organizational structures spells out all the responsibilities of each section/unit in the organization.					
Management has identified individuals who are responsible for coordinating the various activities within the entity.					
Every employees work checks on the others work.					
Staff are trained to implement the accounting and financial management system to prevent fraud.					
Departments have budget reviews where actual expenditure is compared with budgeted					

expenditure and explanations for the variances given.					
All employees understand the concept and importance of internal controls including the division of responsibility					
The university has appropriate entity policies regarding such matters as acceptable business practices in the areas of financial performance that are always adequately communicated.					
My organization has a system in place that monitors and controls all the assets of the organization.					

SECTION C: DETECTIVE CONTROLS

1. In your own opinion, how does the following statements relating to detective controls affect the financial performance of public universities in Kenya?

2. (5- Strongly agree, 4- agree, 3- Neutral, 2- Disagree, 1- Strongly Disagree)

Statement	**1**	**2**	**3**	**4**	**5**
My organization conducts surprise cash counts on all the employees handling cash.					
There are physical inventory counts in all departments to detect inconsistencies.					

Reconciliations at the end of every period are conducted to detect areas having balances.					
Internal reviews of compliance of internal controls in units are conducted periodically					
Management has assigned responsibilities for the timely review of audit reports and any non-compliance items noted in those audit reports.					
Internal audit evaluate and contribute to the improvement of risk management, control and governance using a systematic and disciplined approach.					
Management is committed to the ethical values in the operation of the systems within the university.					
Management has a criteria for detection of which risks to the university are most critical.					
There are independent process checks and evaluations of controls activities on ongoing basis.					
Management control method is conducted regularly and is adequate to investigate unusual activities in the university.					

Internal audits are carried out twice a year to detect areas with internal weaknesses.					
Internal audit findings are reported directly to top management and the audit and risk sub-committee of the board.					
The university has a monitoring system that identifies potential Risks and threats and provides appropriate actions to be taken.					
Internal audit findings are acted on immediately.					
The university has developed a tool and mechanisms for detecting fraud by its employees.					
There is a quarterly review of performance by the university to detect areas that are not at par with the set objectives.					
All the staff in our institution are aware of the internal control measures by the university to prevent fraud.					

SECTION D: CORRECTIVE CONTROLS

1. In your own opinion, how does the following statements relating to corrective controls affect the financial performance of public universities in Kenya?

(5- Strongly agree, 4- agree, 3- Neutral, 2- Disagree, 1- Strongly Disagree)

Statement			**3**	**4**	
Corrective action is taken to address weaknesses within the accounting and audit system of the university.					
Management has put in place mechanisms for mitigation of critical risks that may result from fraud.					
Management has put in place a reporting system on organizational structure that spells out all the responsibilities of each section/unit in the organization					
Appropriate measures are taken to correct misfeasance in operation of our Accounting & Finance Management System.					
Frequent reviews of operating performance done both to staff through appraisals, and the university systems.					
Management provides feedback to the junior officers about the operation of the university accounting and control systems					
The university issues warnings to employees who are found to have been involved in accounting malpractices.					
There is an effective disaster management plan in place to take care of issues that might affect the systems of the university.					

There is a data back-up system within the university that is fool proof to counter any fraud and act as a point of reference.					
The university has policies and procedures which the unit staff are conversant with.					
The university has put up in place policies and procedures that are geared towards providing a framework of reference within the university.					
My organization trains employees on various areas of weaknesses to counter fraud and improve on financial performance.					
Managers always take timely corrective actions when adverse variances are reported					
Managers in my organization focus on continuous improvement through in-training to ensure issues are sorted out amicably.					
The university has adequately implemented any inspection plans to reduce the inherent risks which are periodically revised.					
University management uses instruments for risk transfer or risk sharing with other organizations (e,g insurance companies) to reduce risk.					
My organization makes use of warnings to those found culpable, with dire consequences for repeat offenders.					

My organization terminates employment of those employees found to have engaged in serious malpractices.					
My organization has sought the services of external data managers to ensure that data is well backed up and managed.					

SECTION E: BUDGETARY CONTROLS

1. In your own opinion, how does the following statements relating to budgetary controls affect the financial performance of public universities in Kenya?

(5- Strongly agree, 4- agree, 3- Neutral, 2- Disagree, 1- Strongly Disagree)

Statement	**1**	**2**	**3**	**4**	**5**
Managers hold budget review meetings regularly to review performance.					
My organization has both short term and long term budgets plans					
There are budget Approval levels to check on spending within the university.					
Coordination among various departments during budgeting process is achieved.					
The university departmental budgets have very clear goals and objectives to be achieved.					

Budget performance evaluation reports are prepared regularly by the university.					
There is a regular follow up on budget plans by the budget committee/Departmental heads.					
Managers hold budget conferences/meetings regularly to review performance.					
Comparison is made between plans and actual performance and the difference is reported often.					
The costs of activities are always reviewed by the executive committee.					
The university has set a budget variance percentage that has to be explained while reviewing variance reports.					
Corrective action is always taken on budget variance.					
My organization has a budget committee that monitors the budgeting process and its implementation.					

Budgetary control contributes positively to the financial performance of the organization.					
Budgets motivate managers to achieve objectives and thereby motivate them to set controls for the organization.					
The budget prepared is a projection of the incomes and expenditures of the university.					
The university has an elaborate cash flow control system to manage liquid cash.					

SECTION F: REGULATIONS AND POLICIES

1. In your own opinion, how does the following statements on regulations and policies affect the relationship between internal control systems and the financial performance of public universities in Kenya?

(5- Strongly agree, 4- agree, 3- Neutral, 2- Disagree, 1- Strongly Disagree)

Statement	**1**	**2**	**3**	**4**	**5**
The university follows and abides by set regulations by the government.					
There are set internal policies and guidelines that govern the university's internal control systems.					
Fraudulent activities are kept to the minimum as a result of the regulations and policies.					
Stern action is taken by the relevant government body as a result of non-conformance with the regulations.					
The university has internal disciplinary measures guided by the policies on how to discipline financial offenders.					
Adherence to the set guidelines and policies positively contributes to financial performance of the university.					

The guidelines are enough to curb all the university's financial irregularities.					
My university follows strictly the financial reporting guidelines stipulated to enhance financial performance.					
The university adopt and follows industry standards and guidelines in financial reporting.					
Internal control policies impact on the overall financial performance of the university.					
The generally accepted accounting principles act as policy guidelines that dictate what is to be done to prevent fraud and improve on the financial performance of the university.					

SECTION G: FINANCIAL PERFORMANCE

1. Analysis of financial data was done through a survey of previous financial statements and statistics of the various public universities in Kenya.

University		**Performance**			
	2018	2017	2016	2015	2014

University of Nairobi					
Moi University					
Kenyatta university					
Egerton University					
Maseno University					
Masinde Muliro University of Science and Technology					
Technical University of Kenya					
Technical University of Mombasa					
Pwani University					
Kisii University					
University of Eldoret					

Maasai Mara University					
Jaramogi Oginga Odinga University of Science and Technology					
Laikipia University					
South Eastern Kenya University					
Meru University of Science and Technology					
Multimedia University of Kenya					
University of Kabianga					
Kibabii University					
Rongo University					
The Co-operative					

University of Kenya					
Taita Taveta University					
Murang'a University of Technology					
Machakos University					
Kirinyaga University					
Garissa University					
Alupe University College					
Kaimosi Friends University College					
Tom Mboya University College					
Turkana University College					

Tharaka University College					
Bomet University College					

SECONDARY DATA COLLECTION SHEET

University code per	2018	2017	2016	2015	2014
Surplus/Deficit					
Net investment					
ROI					

THANK YOU FOR YOUR COOPERATION

†

APPENDIX III: PUBLIC AND PRIVATE ACCREDITED UNIVERSITIES IN KENYA

In line with Section 28 (4) of The Universities Act, 2012 and amendments thereon, CUE is authorised to publish, the list of universities accredited to undertake university education in Kenya. As at December 2019, the list of accredited universities authorised to operate in Kenya is as follows**:**

No.	NAME OF UNIVERSITY / UNIVERSITY COLLEGE	YEAR OF ESTABLISHMEN T/ ACCREDITATIO
	Public Chartered	
1.	University of Nairobi	Established - 1970 Chartered - 2013
2.	Moi University	Established - 1984 Chartered - 2013
3.	Kenyatta university	Established - 1985 Chartered - 2013
4.	Egerton University	Established - 1987 Chartered – 2013
5.	Jomo Kenyatta University of Agriculture and Technology	Established - 1994 Chartered - 2013
6.	Maseno University	Established - 2001 Chartered – 2013
7.	Masinde Muliro University of Science and Technology	Established - 2007
8.	Dedan Kimathi University of Technology	2012
9.	Chuka University	2013
10.	Technical University of Kenya	2013
11.	Technical University of Mombasa	2013
12.	Pwani University	2013
13.	Kisii University	2013
14.	University of Eldoret	2013
15.	Maasai Mara University	2013
16.	Jaramogi Oginga Odinga University of Science and Technology	2013

†

17.	Laikipia University	2013
18.	South Eastern Kenya University	2013
19.	Meru University of Science and Technology	2013
20.	Multimedia University of Kenya	2013
21.	University of Kabianga	2013
22.	Karatina University	2013
23.	Kibabii University	2015
24.	Rongo University	2016
25.	The Co-operative University of Kenya	2016
26.	Taita Taveta University	2016
27.	Murang'a University of Technology	2016
28.	University of Embu	2016
29.	Machakos University	2016
30.	Kirinyaga University	2016
31.	Garissa University	2017
	Public University Constituent Colleges	
1.	Alupe University College	2015
2.	Kaimosi Friends University College	2015
3.	Tom Mboya University College	2016
4.	Turkana University College	2016
5.	Tharaka University College	2017
6.	Bomet University College	2017
	SPECIALISED DEGREE AWARDING UNIVERSITY	
1.	National Defence University-Kenya	2021

	Private Chartered Universities	
1.	University of Eastern Africa, Baraton	1991
2.	Catholic University of Eastern Africa (CUEA)	1992

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3.	Daystar University	1994
4.	Scott Christian University	1997
5.	United States International University	1999
6.	Africa Nazarene University	2002
7.	Kenya Methodist University	2006
8.	St. Paul’s University	2007
9.	Pan Africa Christian University	2008
10.	Strathmore University	2008
11.	Kabarak University	2008
12.	Mount Kenya University	2011
13.	Africa International University	2011
14.	Kenya Highlands Evangelical University	2011
15.	Great Lakes University of Kisumu	2012
16.	KCA University	2013
17.	Adventist University of Africa	2013
18.	KAG EAST University	Registered -1989
19.	Umma University	2019
20.	Presbyterian University of East Africa	2020
21.	Aga Khan University-Kenya	2021
Private University Constituent Colleges		
1.	Hekima University College	1993
2.	Tangaza University College	1997
3.	Marist International University College	2002
Institutions with Letters of Interim Authority		
1.	Kiriri Women’s University of Science and Technology	2002
2.	GRETSA University	2006
3.	The East African University	2010
4.	Management University of Africa	2011

5.	Riara University	2012
6.	Pioneer International University	2012
7.	International Leadership University	2014
8.	Zetech University	2014
8.	Lukenya University	2015
9.	RAF International University	2016
10.	AMREF International University	2017
11.	Uzima University	2020

Source: Commission of University Education 2020

APPENDIX 1V: PILOTED UNIVERSITIES

University	Position	Number
Dedan Kimathi University	Deputy Vice Chancellor Finance	1
	Registrar Administration and Finance	1
	ICT personnel	1
	Finance officers	1
	Internal auditors	1
Karatina University	Deputy Vice Chancellor Finance	1
	Registrar Administration and Finance	1
	ICT personnel	1
	Finance officers	1
	Internal auditors	1
University of Embu	Deputy Vice Chancellor Finance	1
	Registrar Administration and Finance	1
	ICT personnel	1
	Finance officers	1
	Internal auditors	1
Chuka University	Deputy Vice Chancellor Finance	1
	Registrar Administration and Finance	1
	ICT personnel	1
	Finance officers	1
	Internal auditors	1
Jomo Kenyatta University of Technology	Deputy Vice Chancellor Finance	1
	Registrar Administration and Finance	1
	ICT personnel	1
	Finance officers	1
	Internal auditors	1