UTILIZATION OF MONITORING AND EVALUATION TOOLS, PERFORMANCE CONTRACTING, HUMAN CAPACITY FOR MONITORING AND EVALUATION AND RESEARCH PROJECTS ENHANCEMENT IN PUBLIC UNIVERSITIES IN COAST REGION, KENYA

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A Thesis Submitted in Partial Fulfilment of the requirement for the award of the Degree of Doctor of Philosophy in Project Planning and Management of the University of Nairobi

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DECLARATION

This research work has not been submitted for any academic award at any other University.

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DEDICATION

I dedicate this thesis to my family: my wife; Jedidah Kananu; my daughter; Nuru Kadii Mwaguni, my parents, Prof. Saeed Mwaguni and Mrs. Nuru Kadii for their valued guidance and support, and my sisters N'kweli Siema and the late Anisa Furaha for their encouragement which contributed to completing the project.

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ABBREVIATIONS AND ACRONYMS

AAPAM:	Africa Association for Public Administration and Management
CEC:	Commission for European Communities
CPM:	Critical Path Method
CUE:	Commission for University Education
Danida:	Danish International Development Agency
GoK:	Government of Kenya
ICLEI:	International Council for Legal Environmental Initiative
LFA:	Logical Framework Approach
M&E:	Monitoring and Evaluation
MDAs:	Ministries, Departments and Agencies
MoE:	Ministry of Education
MTP:	Medium Term Plans
NORAD:	North America Aerospace Defense Command
PC:	Performance Contracting
PERT:	Programme Evaluation Review Technique
PU:	Pwani University
TUM:	Technical University of Mombasa
USAID:	United States Agency for international Development
WB:	World Bank

ABSTRACT

The rapid growth of higher education has largely occurred at the expense of poor Research Projects as more emphasis is put on teaching. The economic environment combined with Government policies to lower public-sector funding but ostensibly increase regulation, present both a squeeze on student enrolment and a more competitive market. This coupled with failure by universities to comply with the Universities Act of 2012 and the Universities Standards and Guidelines of 2014 has hindered research projects in public universities. The main objective of this research was to assess how utilization of various monitoring and evaluation tools, performance contracting and human capacity for monitoring and evaluation influences research projects of public universities in Coast region, Kenya. The study used a pragmatism paradigm. A descriptive survey and causal comparative research design were adopted. A targeted population of 1110 academic and non-academic employees for the two universities were used for this study. A sample of 285; consisting of 173 from Technical University of Mombasa and 112 from Pwani University was employed through proportionate and simple random sampling to obtain a representative sample. Data analysis was by inferential and descriptive statistics; mean, frequencies, percentages and standard deviation. Shapiro-Wilk Test was employed to establish whether data was normally distributed or not and adjustments were made to make the data normal. Durbin Watson method was also used to test autocorrelation of the variables. The study established that utilization of logical framework (m = 3.564; SD = 0.7855; p-value = 0.076 and a weak correlation of 0.211) had no significant influence on performance of research project in public universities. Utilization of budget (m = 3.93; SD = 0.74737 and a positive strong correlation at 0.89) significantly influenced Research Projects in public universities. Application of Stakeholder Involvement (m = 3.88; SD = 0.74421 and positive strong correlation of 0.658) significantly influenced research projects. Utilization of BSC, (m = 3.96; SD = 0.77759; and strong positive correlation of 0.578) significantly influenced research projects. Performance Contracting (m = 3.96; SD =0.7178 and correlation of 0.05) significantly influences research projects. Human capacity for M&E (m = 3.74; SD = 0.6764 and correlation of 0.05) significantly influences on research projects. Combined M&E (LFA = 0.076, budgets = 0.000, stakeholder involvement = 0.000, BSC = 0.000). The data also established a positive relationship amongst utilization of budget, BSC and stakeholder involvement on Research Projects in public universities. Data analyzed revealed a weak relationship between utilization of LFA and Research Projects. The study also found that PC only had a moderating effect on utilization of budgets (LFA p-value = 0.292, budgets p-value = 0.005, stakeholder involvement p-value = 0.775 and BSC p-value = 0.432). Human capacity for M&E did not have any moderating effect on the independent variables (LFA p-value = 0.655, budgets p-value = 0.227, stakeholder involvement p-value = 0.546 and BSC p-value =0.191) which were above 0.05. The study concludes that treasury should increase funding in public universities, members of staff should be trained and sensitized regularly on the significance of conducting M&E as and enhancing their human capacity for conducting M&E. The study recommends MoE and CUE should adopt common M&E tools for all public universities in Kenya, promotion of continual use of PC and enhancing human capacity for M&E. Further studies can be done on other monitoring and evaluation tools to ascertain the most appropriate tool for monitoring and evaluation. Studies should be conducted in other universities.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

University training worldwide is an important building block for human growth and development. This is where people are prepared to take up relevant duties within a setting. It is considered an influential instrument for attaining social motion (Otunga, 1998). It is viewed as the highest level of professional and academic growth for man and generally the society. These institutions of higher learning are anticipated to focus more on training, research, and public service to the community.

The core mandate of a university is teaching and research. Both aspects of teaching and research are considered important from the government perspective, government funding has focused more on teaching than on research. Consequently, research in universities is largely funded by foundations and the philanthropists. Government funding has fallen short from 15% to 8%. The government is therefore concerned more about the component of teaching (student or employer satisfaction) than on research (Goldin and Katz, 2007).

Worldwide calls for higher education linger for growth as the race for placement increases yearly. Investing in university education for purposes of economic growth and social development has brought a crisis throughout the world (World Bank, 2007). Universities are therefore threatened with queries regarding their influence to the economic growth and social development (World Bank, 2007). Output of university research in human capital development are subject to critical assessment.

Performance in public universities in Africa and much of the developing world has been declining in the past due to limited government finance, support and lack of some sort of reward for the academic staff. This scenario has led to brain-drain, occasioned by migration of professionals to Europe in pursuit of improved remuneration and compensation that are not offered in African countries (World Bank, 2007).

African universities have achieved significant accomplishments in maintaining their staff complements (Saint, 2002). Remuneration is generally poor due to their non-competitive purchasing power as major source of academic staff dissatisfaction (Blair and Jordan, 1994).

Universities all over African are faced with a test of attracting and retaining competent staff (Amonoo-Neizer, 1998). African universities have been adversely affected by the brain-drain syndrome of good and greatly trained specialists from the continent. Many African institutions of higher learning remain with young, lacking experience and inadequately qualified personnel.

As reported by the Economic Commission for Africa between the years 1960-1989 estimated that over 127,000 highly qualified African specialists have migrated in search of greener pastures (Olusola, 2007). The African continent has been losing a little over 20,000 professionals yearly since 1990s. The continuous depletion of skillful workforce contributes to increase gap in technology and science amongst other continents and Africa (Olusola, 2007). There is exodus of more scientists and engineers from African to the USA compared to other continents. This outcome has left Africa reliant on foreign expatriates for a majority of the development projects as professionals seek greener pastures elsewhere.

Kenyans higher education dates back to 1922 with Makerere University which was previously known as Makerere College in Uganda. It was later developed to satisfy wishes of the East African nations namely Kenya, Uganda, Tanganyika and Zanzibar, among Zambia and Malawi. Between years 1940-1950s, this was the only institution of higher learning that was offering university education in the region. In 1965 there was the formation of the Royal Technical College (Chacha, 2004). After independence of Kenya college transformed its name to became Nairobi's University College, after the formation of East African University and its principal colleges in three capital cities of the then east African Countries of Kenya, Tanzania and Uganda; Dar es Salaam, Kampala and Nairobi respectively. East African University where degrees and diploma programmes were offered at the University of London up to the year 1966. The rapid increase in enrolment of students between the years prompted the then president, Jomo Kenyatta, to create a university in Kenya to cater for the need. The idea of the East African University was abandoned in 1970 to form the three autonomous universities of Nairobi, Makerere and Dar-es- Salaam. This led to the creation of the University of Nairobi being the first Kenya University (Chacha, 2004).

In Kenya, public university had below a thousand students enrolling in the Royal College, Nairobi (Weidman, 1995). These structures have experienced significant growth from seven public universities and a further establishment of fifteen newly created constituent colleges (CUE, 2012).

Through several legal notices, Kenya has fast-tracked on a determined drive of coming up with University College in all counties with establishment of new University Colleges from the already established Universities. It was hoped that upcoming Constituent Universities Colleges, will help in admitting more than 10,000 students, easing the admission headache where the Kenyan Government had been working towards clearing excess of more than 40,000 potential students – a pool whose genesis of growth is 1982 when an attempted coup on the government led to university closures. Unfortunately, no adequate infrastructure was provided, and hence left many of the newly created institutions relatively deprived of facilities.

Creation of the additional 15 universities in Kenya begun with the implementation sweeping reforms in the higher education sector intended to streamline and improve in management of University affairs (Nganga, 2013). The Head of State has granted charters to eight additional (8) newly established universities, but with a rider by stopping award of any charters to new university colleges so to maintain quality standards in teaching and research. Eight newly established universities were awarded charters and these are; Murang'a University of Technology, Taita Taveta University, KAG East University, Rongo University, Cooperative University of Kenya, University of Embu, Machakos University and Kirinyaga University (CUE, 2016). This brings the total number of public chartered universities to 31. Performance in public universities has thus been generally poor. Now the question that begs is: have these universities been audited to ensure they offer quality education?

1.1.1 Research Projects Enhancement in Public Universities

Research Projects in Kenyan universities has dwindled over the year due to failure by universities to comply with the Universities act of 2012 and University Standards and Guidelines 2004. The Kenyan government's main challenge in higher education is to find a financially sustainable way of expanding access in an equitable manner, improving the quality and relevance of programs offered, and strengthen university-based research and technology transfer (Kenya Higher Education Policy Note, 2019).

A large number of indicators can be used to measure and evaluate performance that could be related to various magnitudes (clusters) like students' enrollment and graduating, research publications, research activities, financial performance and academic promotions (Cheung, Baker

and Traeger, 2004). The three major performance evaluation dimensions are cost, quality and time. Another 3 fascinating way of project performance evaluation is through two common sets of indicators. One is connected the owner, consumers, public and stakeholders; clusters of persons, who resolve to view project performance from the macroeconomic point of view. The second includes the developer and a contractor; the clusters of persons who view performance of project from a microeconomic point of view (Pheng and Chuan 2006). Assessment of organizational performance can be organized around these areas of performance of institutions of higher learning (Millerand Swope, 2006).

A study of benchmarking practices in institutions of higher learning, found out that participating in benchmarking would give institutions of higher learning a better understanding of performance (Magutu *et al.,* 2011). Several areas of performance being used by institutions of higher learning; productivity, effectiveness, customer and stakeholder satisfaction, efficiency, quality and innovation (Miller, 2007). A performance measures study was conducted with an intention of state the significance of measuring public services performance in terms of effectiveness, impact and efficiency (Low *et al.,* 2008). A performance model was developed to measure performance of institutions of higher learning. It highlights academic and management as the two main performance measurements closely linked to the goals of the university. They were further divided into education and research, human resource and finance (Low *et al.,* 2008).

Studied were conducted to measure performance of institutions of higher learning and recommended these main methods: analysis of input-output ratio, assessment based on outcome and evaluation of stakeholder (Karathanos and Karathanos, 2005). BSC use in the education field has lacked academic research related to these issues (Karathanos and Karathanos, 2005). Due to the difference in nature of industry and profit modes, it is hard to set a universal indicator to measure institutions performance. Measurement of performance should be founded on different dedications and encourage the use varying performance indicators. Performance measurement is dependent on the environment, approaches and objectives (Anderson and Adam 2004). Performance in public universities can therefore be improved through the intervention of various M&E tools, Performance Contracting and enhancing human capability to conduct M&E.

Research in academics remains the major source of innovation and knowledge at international, national, and regional levels (UNDP, 2012). In the last decade, most industrialized countries were

indebted to solve the challenges of providing broader access to high school education, training and safeguarding suitable investment on high-level research activities. This provides a subtle balancing act, which hinges on a more specialized funding base and visionary policies (Hazelkorn, 2007).

Research in Kenyan is largely social science based. In the last 10 years, there has been complex growth in research, dimensions and size where, university departments, research institutes, independent think tanks, international agencies, and collaborations with NGOs and government to boost research activities (ANIE's, 2014). Lower funding in research was due to a government directed due to stressed financial commitment (Treasury reports 2015). International agencies had to come in and fund research activities. There are inadequate local researchers at less than 230 per a million inhabitants to lead research activities among local researches due to lack of funding (UNESCO, 2017). The 2015 CUE report noted that the government of Kenya funds research in science and technology related areas. In the financial year 2014/2015, the government allocated 53.8 billion for research and development in science & technology. Public universities and university colleges got Ksh. 47 billion. The outstanding balance was transferred to research institutions like Research Endowment and NACOSTI. Lack of coordination and networking in research at the national level leads to depletion of funds due to duplication of research topic (Mwega, 2013).

1.1.2 Utilization of Monitoring and Evaluation tools

Utilization of monitoring and evaluation assists in enhancing performance and achievement of outcomes. Its main purpose is improvement of present and future outputs, outcomes and impacts of management (Garley *et al.,* 2016). Monitoring and evaluation is employed to evaluate the institutions and programmes performance (Scott, Kurian, Wescoat, 2015). It creates relations between actions of the past, present and future.

Monitoring and evaluation enhances communication by identifying, clarifying, and conveying information on the project objectives and scope as well as providing numbers and facts that help explain the program logic; helps make a justification for the continuation, alteration or termination of a project/programme (Locke, 2002). It offers a means for supporting or contesting arguments, promoting understanding and clarifying issues for the purpose of and underlying logic of policies, documenting and implementation programme; making it easy to garners support for the

programme when vital policy decisions touching the programme has to be made; and provides approaches for determining the practicality of programs, quick visualization of difficult concepts, and in identification of resources and time requirements (Poister, 2010).

Utilization of several M&E tools to check on project status by systematical collecting and evaluating of project information. It provides data on whether activities follow to the original plan. The tools used in this study are: Logical framework approach, budget, stakeholder involvement, and the balanced scorecard.

1.1.2.1 Utilization of Logical framework approach (LFA)

This tool used in planning and management of project to aid in project cycle management for purposes of completing a project. It solves problems by taking the inputs of various interested parties. It acts as a benchmark aimed at project realization and highlights the main norms (Pradhan, 2011). It analyzes current situation; stakeholders documenting, pinpointing their needs and defining set objectives, establishment of a connection between the purpose, objective, inputs, activities, results; (vertical logic), defining assumptions; identification of risks and purpose; develop a monitoring and evaluating system, learning process and communication among the stakeholders; for instance, the consumers or recipients, policy makers, planners, and implementers. It examines strengths, weaknesses, opportunities and threats (SWOT) analysis (Milika, 2011). The LFA is best defined in the Strategic Plan of most institutions in the implementation matrix. The implementation matrix gives a summary of all the objectives, strategies, indicators, activities, outcomes, budget and duration (TUM Strategic Plan 2014-2018).

1.1.2.2 Utilization of Budgets

A budget is a tool used in monetary management which frequently formulates budget requests and performance plans that measures output, define performance goals and outcomes of various actions that are intended at attaining performance goals. This helps as plans set on an annual basis set forth in measurable monetary performance standards for every objective set within the financial year (Larson, 1999).

1.1.2.3 Application of Stakeholder Involvement

Stakeholder involvement is yet another monitoring and evaluation tool. Stakeholder involvement dictates that diverse groups of people have diverse needs, fears, capabilities and interests which must be recognized and understood. This is complete during objective setting, problem identification, implementation, strategy, completion and selection. Stakeholder analysis process identifies; strength, weakness, opportunity and treats Strengths, Weaknesses, Opportunities and Threats (SWOT) analysis is extensively used by donors. Stakeholder engaging has become progressively become essentially a huge and more multifaceted project planning and implemented (Gray *et. al,* 2001). The stakeholders can contribute at different levels; the lowest being sharing information and consultancy for purposes of decision making. Collaboration for purposes of making decision that are usually the key at the higher level such as in options development and identification of the ideal outcome.

1.1.2.4 Utilization of Balanced Scorecard (BSC)

This is a tool used to interpret an institutions vision and strategy into wide-ranging performance measures that offers an outline for a strategic management and measurement system (Martin and Sauvageot, 2011). Universities need examples of fruitful adaptation and implementation of management approaches that address the need to become accountable, efficient and productive. This tool utilizes measures beyond financial performance, as it assists institutions of higher learning to become more accountable and efficient (Rollings, 2011). In universities, the balanced scorecard stresses importance of academic measures, as opposed to financial performance and presents the strategic goals of institutions of higher learning while providing prospects for execution from diverse viewpoints (Martin and Sauvageot, 2011). Tool that supports the execution of strategies through performance-oriented management (Kohlstock, 2009). Further, it is defined as a set of selected of quantifiable actions resulting from the strategy of an institution (Niven, 2003).

1.1.3 Performance Contracting

The Performance contracting concept formally started in Kenya in the year 2003 with an aim of achieving; enhancing performance, reduction of government finance, improved openness in utilization and operations of resource, enhanced accountability, creation of accurate and fair

performance impression, performance based reward system, little confusion occasioned from a wealth of goals, apportionment of responsibility, enhancement in the association in planning and implementation, attainment of better independence and creation of supporting regulatory and legal environment (GOK, 2001). Performance contracting implementation began in 2004 in all state institutions. This resulted in the signing the Performance Contract's by December 2004 by all sixteen State Corporations. Selecting of experimental institutions comprised of representation from various divisions and organizations with Strategic plans. Successful executing the performance contracts in state corporations resulted in extending Performance Contracting to the Public Service. The government of Kenya made a decision to engage all Local Authorities on Performance Contracts.

Performance Contracting introduction in all public Universities Kenya aimed at enhancing quality of higher education through assessing performance of lecturer on routine activities; attending lectures, and setting, making and moderating of exams. The aim was to enhance excellence of higher education in public institutes of higher learning. These contracts specified the mutual performance responsibilities, intents and duties of the two parties; the government and the universities (GoK, 2007). This put more emphasis on results/outputs instead of inputs, rules; enhance the process of target-setting and follow-up. Performance contracts represented a devolved, and flexible means of making government bodies more accountable, responsible, and cost-conscious. Like other management structures, performance contract used financial indicators for performance measurement (GoK, 2007). The targets given in the Performance Contract guidelines include; curricula development/review, research publications, research proposals submitted, research projects funded, expenditure on research and development, innovation and extension (innovations) and collaborative research linkages (GoK, 2016). This introduction was cognizant by the present worldwide trend to employ and appraise employees through the engagement of performance contracts (Kobia and Mohammed, 2006).

1.1.4 Human Capacity for Monitoring and Evaluation

Efficient and effective monitoring and evaluation is pegged on an institution's human capacity to conduct monitoring and evaluation in leadership, human resource and infrastructure (Brown, Jacobs and Leith, 2012). Building the capability for strong monitoring and evaluation (M&E)

includes putting good structures, and developing leaders at all levels who can inspire and engage their teams. Effective monitoring and evaluation leaders hold their organizations accountable for using monitoring and evaluation structure to enhance organizational performance and health results. With funding from USAID from 2008 to 2013, measure evaluation Population and Reproductive Health (PRH) offered three types of leadership development programs. The purpose was to build capacity for individuals and teams to realize monitoring and evaluation results, such collecting data, creating clear monitoring and evaluation policies, and developing a supportive monitoring and evaluation culture (USAID, 2013).

Performance can be enhanced through training in order to foster learning new skills and means of approaching and performing a task with efficiency and effectiveness. Regular development and training assist program development with an aim to strategically place a good working relationship with the employees. Employee regular training aided them to focus on their individual career growth and eventually achieving short and long term organizational objectives. Institutions should put more emphasis to staff involvement in designing training methods and modules so as to aid in the improve efficiency in training. Training through encouraging employees to participate in design inspires them to study objectively hence enhancing performance and faster specialized pledges. Post training evaluation needs to be conducted to ensure efficiency of inclusive training curricula and acts as an unbending device to design, improve and correct present and forthcoming training requirements and approaches (Brown *et. al.*, 2012).

The value and importance of regular training has long been realized. Train an individual fishing and you feed him in eternity (McClelland, 2002). It enhances confidence building within staff in an organization for improved performance. Training is key for an influential part of employee growth to meet the vision of an institution. Human capital, with proper experience and training is key for the production of monitoring and evaluation outcomes. It is necessary to have an effective monitoring and evaluation human resource capacity; quantity and quality, hence monitoring and evaluation human capital management is a requirement for maintaining and retaining stable M&E employees (World Bank, 2011). Capable staff are a key limitation in selecting a functioning M&E structures (Koffi-Tessio, 2002).

International benchmark practices require monitoring and evaluation to have an allocation of 10%-12% of the entire programme cost; however, it has been noted that most programmes in Kenya

were known to disburse less. There is also a variation in selection of performance indicators amongst programmes which leads to incomprehensive and incoherent monitoring and evaluation structures (Kenya social protection sector review, 2012).

1.2 Statement of the Problem

Universities world over are a key component in the growth and development of human capital. Growth and sustainability of universities is paramount to development of people and economies. Public and private institution of higher education are faced with challenges in growth, growth of curricula, and inadequate funding which has adversely affected Research Projects in Kenyan Universities. The country's economic situation together with Government policies to cut public-sector spending but escalating guideline, present both a shortfall on student enrollment rates and a competitive market place. This has adversely affected performance of research in this sector as universities have resorted to concentrate more on teaching than research thus not following the set guidelines; (Universities Standards and Guidelines 2014 and Universities Act 2012). Funding in research has dropped from 15% to 8% hence affecting Research Projects Enhancement in public universities.

Lack of strong M&E structures in the managing of public Universities as highlighted in policy citations as one of the factors negatively influencing performance of research projects and teaching/lecturing in public Universities. Studies carried out in developed and developing countries further affirm that M&E system remain a key challenge and its adoption is slow for national government but more so to other sectors, including education (UNICEF, 2013; Duguay, 2010; Mackay, 2007; Arild, 2001). Recent university rankings have also shown that Kenyan universities are performing below par. In universities, other than research, ranking incorporates teacher-student ratio, ratio of international to local faculty staff and ratio of international to local students. Other gauge used are levels of application and training of science and technology; contribution to new knowledge and research outputs; number of published material on the digital repository; visibility on the online platform and adoption of Information and Communication Technologies; for students and websites surveys, scholars or employers to make evaluations between institutions; visibility and impact of the universities' websites measured by the citations; institutional statistics; perceived quality; articles in citation indexes; articles published and academic performance with respect to size of the organization (Webometric ranking, 2017).

Sectoral-level challenges have attributed towards dwindling research projects due to capped funding (Wangenge-ouma, 2008) and in-effective governance (Mwiria and Ng'ethe, 2006). Previous studies have credited dwindling research projects in public universities in Kenya to capped funding and absence of new innovation (Manyasi, 2010). Human capacity for M&E is key in enhancing research. It is a complex, skill intensive and multidisciplinary processes (Engela and Ajam, 2010). Performance improvement can be enhanced through the building of a resulted based monitoring and evaluation structure so as to enhance performance which governments will regularly check for purposes of effective resource use, benefits and impact brought by the various research projects.

1.3 Purpose of the Study

This study sort to assess how the utilization of monitoring and evaluation tools, performance contracting, human capacity for monitoring and evaluation influences Research Projects Enhancement in public universities in Coast region, Kenya. It also purposed to examine the moderating effects of Performance Contracting and human capacity for monitoring and evaluation on the relationship between utilization of monitoring and evaluation tools on Research Projects in public universities in Kenya.

1.4 Objectives of the Study

The study aims to accomplish the subsequent objectives:

i. To establish how utilization of logical frameworks approach influences Research Projects Enhancement in public universities.
ii. To determine how utilization of budgets influences Research Projects Enhancement in public universities.
iii. To establish how application of stakeholder involvement influences Research Projects Enhancement in public universities.
iv. To assess how utilization of balanced scorecard influences Research Projects Enhancement in public universities.
v. To examine how performance contracting influences Research Projects Enhancement in public universities.

vi. To establish how human capacity for monitoring and evaluation influences Research Projects Enhancement in public universities.
vii. To examine how combined monitoring and evaluation tools influence Research Projects Enhancement in public universities.
viii. To examine the extent to which Performance Contracting moderates the relationship between monitoring and evaluation tools and Research Projects Enhancement in public universities.
ix. To assess how human capacity for monitoring and evaluation moderates the relationship between monitoring and evaluation tools and Research Projects Enhancement in public universities.

1.5 Research Questions

The study pursued and answered the subsequent research questions:

i. How does utilization of logical framework approach influence research projects enhancement in public universities?
ii. How does utilization of budgets influence research projects enhancement in public universities?
iii. In what way does Application of Stakeholder Involvement influence research projects enhancement in public universities?
iv. How does utilization of balanced scorecard influence research projects enhancement in public universities?
v. How does Performance Contracting influence research projects enhancement in public universities?
vi. How does human capacity for monitoring and evaluation influence research projects enhancement in public universities?
vii. How does combined monitoring and evaluation tools influence research projects enhancement in public universities in Kenya?
viii. To what degree does the moderating influence of Performance Contracting on the relationship between monitoring and evaluation tools and research projects enhancement in public universities?

ix. What is the moderating influence of human capacity for monitoring and evaluation on the relationship amongst Performance Contracting and research projects enhancement in public universities?

1.6 Research Hypotheses

The resulting null hypotheses were tested:

1. **H_0**: Utilization of logical framework approach has no significant relationship on research projects enhancement in public universities.
2. **H_0**: Utilization of budgets has no significant relationship on research projects enhancement in public universities.
3. **H_0**: Application of Stakeholder Involvement has no significant relationship on research projects enhancement in public universities.
4. **H_0:** Utilization of balanced scorecard has no significant relationship on research projects enhancement in public universities
5. **H_0:** Performance Contracting has no significant relationship on research projects enhancement in public universities
6. **H_0:** Human capacity for monitoring and evaluation has no significant relationship on research projects enhancement in public universities
7. **H_0:** Combined monitoring and evaluation tools has no significant relationship on research projects enhancement in public universities
8. **H_0:** Performance Contracting has no moderating significant influence on the relationship between monitoring and evaluation tools and research projects enhancement in public universities.
9. **H_0:** Human capacity for monitoring and evaluation has no moderating significant influence on the relationship between monitoring and evaluation tools and research projects enhancement in public universities.

1.7 Significance of the study

It is expected that discoveries from this study shall promote policy discussion between the National government and public universities level regarding implementation of standard M&E tools in

monitoring and evaluation hence enhancing performance of research projects in public universities. This is expected to be done through the development of a standard format and templates for monitoring and evaluation that can be widely used among the public universities. It is also anticipated that the study discoveries will lead to enhanced understanding of various and appropriate monitoring and evaluation tools, Performance Contracting and importance of human capacity for monitoring and evaluation and how their application contribute to significantly enhance research projects in public institution of higher education in Kenya and world over. It is also hoped that the study outcomes will build onto the scientific knowledge base in academia, planning, implementation and sustainability projects at international, regional, and national levels.

It is foreseen that the results and recommendations of this study could influence to stakeholders for policy formulation and investment on follow up and institutionalization of monitoring and evaluation application.

1.8 Limitations of the study

The various monitoring and evaluation tools used in this study will be few. The tools to be used are the ones that are most versatile and complementing to this study.

The study experience poor response rate during data collection due to poor record keeping and busy schedule of respondents. This limitation was countered through training the two research assistants from both TUM and PU on methods data collection and modes of doing regular follow-ups through regularly calling the respondents, periodic visits and where respondents had issues, they were readily available on site. Periodic site physical visits by the researcher were also done to check on the progress from the research assistants.

Logistical and impeding access to information was also be experienced during this study. The two trained research assistants from both the universities were assisted by key resource persons who were seconded by the Administrative Registrars from both universities.

1.9 Delimitation of the study

The focus of this study was new universities which attained charter after promulgation of the 2010 constitution of Kenya. The study focuses on public institutions of higher learning at the Coastal

region, Kenya; Pwani University and Technical University of Mombasa this region was selected because these were the first three universities in the region which also have main campuses in the area. The Taita Taveta University was left out due to the fact that it got its charter in 2016 thus been in operation for a shorter period while TUM and PU attained charter in 2013.

The core business of universities is teaching and research. The study was delimited to lecturers and student's research projects as it has lagged behind as most universities focus more on teaching. The study was also delimited to the following monitoring and evaluation tools; logical framework approach, budgets, stakeholder involvement, and balanced scorecard with Performance Contracting and human capacity for monitoring and evaluation served as the moderating variables to providing the baseline information for gauging performance improvement.

1.10 Basic Assumptions of the study

The researcher presumes that selected public Universities would participate and share information by answering the questionnaires accurately and correctly. Lastly, the selected sample size would be a representation of the population of the staff of public Universities in Coast Region, Kenya.

1.11 Definition of significant terms used in the study

Balanced Scorecard: A tool (commonly used in business) used for tracing and managing the strategy of an organization. It examines an organizations financial position, customer needs, learning and growth and in-house business processes.

Budget: This is a monitoring and controlling tool used to provide timely caution in case of deviancies from agreed plans and analyze the expected versus actual results. It examines reviews, compliance, guidelines and controls in place.

Enhancing: The process of improving, increasing or intensifying the value of an already existing object or element.

Human capacity for monitoring and evaluation: These are competences of staff in institution to implement monitoring and evaluation tasks proficiently, sustainably and effectively to sustain M&E structure. Organizations should have a budget for M&E, and right number of employees who have the training, expertise and experience to conduct M&E.

Log Frame: A planning tool consisting of a matrix which provides an overview of a project's goal, activities and anticipated results. It provides a structure to help specify the components of a project and its activities and for relating them to one another. It also identifies the measures by which the project's anticipated results will be monitored. It contains research project goals, outputs, outcomes and activities of an organization or institution

Logical Framework Approach: A methodology used for designing, monitoring and evaluation of projects in an organization or institution through goal oriented project planning. It provides an overview of the situation at hand, and stakeholders involved and describes the log frame matrix with its activities. It also provides details of the implementation of the matrix through the set goals, outcomes, outputs and activities of research projects.

Monitoring and Evaluation tool: These are tools used in checking the progress of a task by regularly gathering and evaluating data on the project. They provide information on whether activities follow to the original plan. The tools used in this study are logical framework approach, budgets, stakeholder involvement and balanced scorecard.

Performance Contracting: This is a negotiated performance covenant between an implementing organization/entity and the government. The main indicators used to measure performance contracting are signed performance contracts, targets set, number of trained staff and service delivery charter.

Research projects enhancement in public universities: This is defined as achievements of a set task against a predetermined know criteria: research outputs, grants, staff and students' completion rate, and number of staff and student's research.

Research projects: A scientific endeavor to answer a study question initiated by either by a lecturer or a student. A research project can be measured through the outputs, grants, and students and staff project completion rate.

Stakeholder Involvement: This is the process of engaging individuals who have a stake or interest in a particular matter. This entails the process of involvement and frequency of interaction with the identified stakeholders. The main indicators involved are number of stakeholders involved, the

stakeholder scoping process and what stakeholders have contributed towards the success of research projects.

Utilization: An action of making practical and effective use of something. For this study, it has been used to highlight the effective and efficient use of the various tools.

Utilization of monitoring and evaluation tools: An application of the different M&E tools during monitoring and evaluation process. Use of these tools is determined individual choice and understanding of the tool. The tools used in this study are logical framework approach, budgets, stakeholder involvement and balanced scorecard.

1.12 Organization of the study

This study is structured into five chapters; chapter one gives a brief introduction of; background of the study, statement of the problem, purpose of study, the objectives, limitations, delimitations of the study and finally definition of significant terms applied in this study.

Second chapter reviewed literature on Research Projects in public universities, utilization of monitoring and evaluation tools; utilization of logical framework, utilization of budgets, Application of Stakeholder Involvement, and the utilization of balanced scorecard and the influence it has on Research Projects in public universities, and the moderating effects of Performance Contracting and human capacity for monitoring and evaluation on the relationship between tools for monitoring and evaluation and Research Projects at public Universities.

Third chapter outlines research procedure that was used for this study. It comprises of the research paradigm, research design, target population, sample size and sampling techniques, research instruments, data collection procedures, data analysis techniques, ethical consideration and operationalization of the variables.

Fourth chapter presents data analysis, presentation, interpretation and discussions. The fifth chapter present a summary of outcomes, conclusions, recommendations and areas intended for further research.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter reviews literature correlated in the study founded on: Research Projects in public universities, utilization of monitoring and evaluation tools; logical framework and Research Projects in public universities; budgets and Research Projects in public universities; stakeholder involvement and Research Projects; balanced scorecard and Research Projects at public universities; Performance Contracting and Research Projects in public universities; human capacity for monitoring and evaluation and Research Projects at public universities at the coastal region of Kenya; theoretical framework and the conceptual framework.

2.2 Research Projects Enhancement in Public Universities

University education is known to plays a key part in the development of a national (Republic of Kenya, Session paper 1 of 2005). Higher education is a key pillar in human growth and development in the world. It does not only provide skills, but is also key in training for essential personnel in different fields. Performance improvement is as a concept of the institutional change where management and the governing entity of the University puts measures to manage a several projects so as to establish the level of performance of the University on a continuous basis and then generates ideas for adapting University behaviors and structure in order to attain better output. The main goals of University are to advance research so as to enhance the capability of the University to offer its services and flourish in the niche where the University strives (Ramarapu, and Lado, 1997).

Just like other government institutions, public universities operate in an environment dependent of the government. As a result of emancipation, uncertain economic changes, and new and existing regulations, public universities have been forced to go through changes to compete effectively and survive (GoK, 2005). This has consequently led to poor performance due to compromised quality of university education as competition amongst universities has soared. Most countries in Africa have gone through financial limitations owing to unpredictable changing economic conditions coupled with uncontrolled increase in population and delivery of social services to the populace.

This has forced University education to compete with other sectors of the economy due to inadequate funds from government.

Performance of University comprises several undertakings that help in instituting the University goals and subsequent monitoring the development towards the set target. It makes variations to realize the objectives more effectively and efficiently (Raelin, 2003). Numerous methods have been advanced to help spot and improve University performance. Business scorecards are one of the approaches whereby the undertakings of a University are measured against its visions and mission. Other techniques include time management. Performance of universities can be accomplished by comprehensively using these approaches which could enhance research projects in university. Similar goals can be enhanced through improved quality of services, encouragement of use of best practices and enhancing process control (Raelin, 2003).

Universities need to know more about how research attitudes and activity differ between institutions, disciplines and departments whether this activity is influenced by such factors as the colleague or work environment, teaching loads and funding arrangements; socialization of young researchers into the academia; engagement in research and teaching; degree of autonomy staff should to choose their preferred research topics; and proper utilization of research funds. As part of this process, the challenges highlighted by “an aging, highly tenured teaching staff, restricted economic resources, and low opportunities to employ new employees with desired skills and expertise" need to faced head-on (Baldwin, 1985; Reskin, 1977; Bean, 1982).

The following challenges have been found to adversely affect Research Projects in Kenyan public universities; Low university funding by the; Lack/inadequate of research facilities; equipment and laboratories; Lack of qualified personnel; Universities growing too thin; lack of direction; Hastily mounting privately sponsored courses thus leading to overreliance on teaching; Poor linkages between industry and the University; hence undermining industry-university research funding; Poor intellectual property policies, plagiarism, lack of research ethos, poor access to information; Poor linkage of university research to nations vision; poor supervision, management, absence of monitoring and evaluation of university research projects; and low influence of university research and utilization of research findings at the national level (CUE, 2016).

The question remains on whether or not the resources disbursed for research assignments are effectively absorbed in universities and how the projects findings help in resolve problems. It is

wise to investigate whether these resources were properly utilized to engage in planned activities. A study by Gudo, (2011) on 'Financing Kenyan Higher Education: Public-Private Partnership Approach', a number of concerns that affected university research centers were addresses. The study revealed that funding for higher education under government sponsorship has been on high demand amongst undergraduates who tussle to get placement in universities. Regrettably, the funds disbursed for this opportunity has been decrease yearly. A mere 25% of those who get direct entry points get government funding. In the end, the remaining 75% have created room for investment and growth of private universities (Gudo, 2011).

CUE report of 2014 noted that some local institutions of higher learning had collaborated with international universities, corporations, and parastatals to enhance Research Projects. This was also extended to financial institutions, faith-based institutions, and social organizations and other private companies that support sustainable development will be a strategic importance for universities in the future (Muinde 2009). Addition, when the national government provides subsidies and incentives to the private sector will lead to promotion of research activities in the country which could lead to growth and development (Kiriti, 2009).

Researchers can be motivated in three key ways; recognition among their peers including promotion, monetary reward, availing resources or funding or through encouragement to increase their productivity through publications and patents (Goktepe - Hultein, 2008). Researcher's motivation towards generating research outputs is key for them to develop exploitative behavior. To boast their motivation; training by university on importance of transferring knowledge is a crucial element as well as setting up a reward program for researchers involved in commercialization. Reputation and recognition has been found to supersede any financial or economic profits researchers may accrue from the commercialization process (Goktepe - Hultein, 2008). Lam, (2010) categorizes factors which motivate researchers in commercializing research outputs into three concepts which she names "ribbon" (reputational/career rewards); "puzzle" (intrinsic satisfaction) and "gold" (financial rewards). She concludes that researchers who are entrepreneurial by nature are driven by "puzzle" and "gold" factors while traditional researchers who cannot link research and business more often are motivated by "ribbon" factors.

Research and Development (R&D) funding is a key indicators of a nation's economic position (OECD, 2014). Investments in R&D form the foundation of new knowledge generation through

research which ultimately leads to generation of products and services through applied research. Research is an expensive venture which constantly requires funding mechanisms and commercialization leads to alternative income to fund more research activities. An estimated 60% of R&D expenditure in most African countries comes from Governments, donors and public Institutions as reported by African Union.

Exploitation of publicly funded research by Universities is important to demonstrate and justify public investment and therefore commitments to commercialize research needs to be prioritized right from the funding stage (Narayan & Hooper, 2010). This is so much so since about 70% of Research activities are funded by Governments in developing countries. While it is factual that many Governments are the greatest funders for University research, little or no funds are set 12 aside for Commercialization of the research results. A study conducted in New Zealand Universities to determine the part of Governments towards encouraging development of academic research indicate that lack of funding coupled with lack of foresight into commercialization leads to few academic research moving past the research results (Narayan & Hooper, 2010).

An average 18 OECD nations availed data, 31% of students enroll in technical institutions without graduating from a courses comparable to this education level. Through these limitations in mind, underachievement and drop-out incur high fiscal costs resulting to lesser returns to non-degree university education in comparison to degrees, while fees per student are similar in both cases – at an average of USD 13,700 yearly throughout the OECD countries in 2009 (OECD, 2012b). This rises queries on the scope for enhancing the "productivity" of university education through targeted policies to improve the excellence of service, and consequently, students' success and retention.

Promotion has a significant impact to employees, particularly to their motivation. This notion has been justifying by previous studies. For example, Farroque *et. al.* (2010), have found that the promotional factor has direct impacts on the level of staff motivation in the institution. Similarly, Islam and Ismail, (2013) also established a positive association between promotion and motivation of staff. Kongala, (2013) study proposed a technique to inspire staffs through equal chances of advancement to all qualified staffs, this lead the employees become more fascinated in conducting their duties as they feel that they shall be compensated. Training amenities ought to also be availed therefore that staffs can make themselves entitled to advancement.

2.3 Utilization of Monitoring and Evaluation Tools

Monitoring and evaluation is critical in planning for attainment of success in project (Ika, Diallo and Thuiller, 2010). Monitoring project process is a key element of project management methods with a view of realizing success in projects (Chin, 2012). Monitoring and evaluation is a substantial backer to success of project across managing projects fields. Project monitoring and evaluation is significant in achieving a successful project (PMBOK, 2001).

Monitoring is the method of tracking, regulating progress and reviewing of a project to meet the set objectives. This includes but is not limited to reporting project status, measuring progress, and projecting. These reports provide data on performance of project while focusing on the project scope, cost, resources, schedule, quality and risk, which are key inputs in a project (PMBOK, 2001). This process is of great importance to project financiers as it would ensure projects can be copied somewhere else as viewed in numerous projects initiated by the different stakeholders which may be revolving in other fields (Marangu, 2012).

Effective monitoring and evaluation of projects has become progressively accepted a crucial tool for portfolio and project management. In view of this, it can lead to enhanced performance for paying close attention to providing information to management for purposes of supporting project/programmes. Monitoring and evaluation offers a foundation for responsibility in use of funds for development (WBG, 1998).

Various monitoring and evaluation tools can assistance in reinforcing the design of a project and execution and motivate collaborations with interested parties. This has been known to influence project strategy. Analysis for purposes of policy and project evaluation has been known to highlight outcomes, interventions and strength and weaknesses of project implementation. This can lead to improvement in design of project and employment of project monitoring and evaluation tools like the logical framework in methodical identification of project pointers for performance of project (WBG, 1998). For this study, the focus was on four M&E tools; utilization of logical framework, utilization of budgets, application of stakeholder involvement and utilization of balanced scorecard. These were the main tools that were deemed appropriate for this study.

2.4 Utilization of Logical Framework and Research Projects in Public Universities

This is the most resilient and common methods employed in project management for project planning and monitoring. It is applicable in government and non-governmental organizations (Middleton, 2005; Martinez, 2011). There is constant use of this tool notwithstanding several disapprovals (Hummelbrunner, 2010). This approach has however not been necessarily being damaged by critics. However, financiers admit it has limitations and weaknesses but they continue to employ it as a planning and monitoring tool. A realistic method to monitoring and evaluation is ideal. In the real world, it may be limited by restrictions that averts its regular use of either a LFA or some too practical method to monitoring and evaluation (Myrick, 2013). Further, whatever the method used, the basic values for monitoring and evaluation (M&E) which are quantifiable objective, target, performance indicator, and regular reporting. This is the simplest and most efficient method of data collection, reporting and recording.

This tool is used for efficient planning for project complete. It aids in solving problems takes in view inputs of interested parties. This is a principle for project realization and highlights the key expectations (Pradhan 2011). It started in early 1960s with the aim of assisting project managers to plan and monitor project development (Pradhan, 2011). The initial model was developed for NORAD and USAID made a substantial impact in 1990s (Pradhan, 2011).

It comprises of a set of interconnecting ideas combined to develop a well-designed, evaluable project and objectively-described. The results continued using this tool is displayed in a model consisting of four columns and four rows (4 x 4 matrix) on a page, briefly summarizing key fundamentals in a project and their associations one another. The Logical Framework allows a sequential conceptualization of significant elements in a project. Proper use concepts enable clear communication among all interests (Pradhan, 2011).

The logical frame work aids to examine present scenario by identifying the various stakeholder needs, definition of objectives, linking inputs objective to results, activities, purpose and; (vertical logic), identify risks; define the assumptions; institute a structure for monitoring and evaluating, decision- makers, learning and communication between the stakeholders, implementers and planners. It considers strengths, weaknesses, opportunities and threats (Milika, 2011). This tool is best used in the Strategic Plans of most institutions in the form of an implementation matrix. The

implementation matrix is a summary of all the objectives, strategies, indicators, activities, those responsible for the activities, outputs, budget and duration (TUM Strategic Plan, 2014). This (Logical framework) is essentially the first phase in project planning and implementation. It requires three main undertakings: (i) clearly stating goals/objectives, (ii) target group/ beneficiaries, and (iii) time frame. This enhances planning through the identification of linkages among these three undertakings (Nyandemo and Kongere, 2010). This involves planning, monitoring and evaluation instrument where authority is dependent of the nature of incorporates to different views of anticipated recipients (Leuzzi, 2013). It integrates interested parties in the programme design. It summarizes the main components of a programme and aids stakeholders and programme designers. It provides a roadmap to be tracked to reach the designation within specified timeline. Many planners stress inclusion of log frame in planning of projects however, this has not been forthcoming.

Utilization of the logical framework approach in has been evident a Nations such as Ghana where a consulting firm by the name JMK was engaged by Denmark to help in the logical framework approach workshop. They wanted to establish a consensus to develop a programme with LEV national association to facilitate capacity building to handle advocacy in various organizations. This enable the nation to design and implement projects using the approach (JMK, 2014).

The logical framework method is a key tool which should be readily available to project planners and managers. It relies on the manager's experience in project management and a sense of what institutes good insight and management. It doesn't offer solutions or decision making; but assistances in organizing information, identifying project weaknesses, decision making and better insight and knowledge. This concept should not only be limited to project use only, but can be applicable in varying circumstances, including, program design, clarifying career objectives and curriculum development. Logical Framework Approach provides a map that should be tracked in order to arrive at a decision within specified timeline. Most if not all planners stress the addition of logical framework in the plans, however this is conflicting to current situations on the ground. The need to include a monitoring and evaluation structure which has clear indicators therefore, the governments must consider provision of adequate resources for an efficient and effective monitoring and evaluation structure to aid project implementation (Wabwire, 2010). If this tool is

clearly designed and adhered to, it can have an important part in planning and implementation of project hence successful project completion (WBG, 1996).

Many authors have proposed various project success dimensions so as to establish the achievement or downfall of a project. A stakeholder approach has been used to focus on success of projects in a multi-dimension and multi-criteria approach. Project realization dimensions as benefits to the performing organization, benefits to customers, project efficiency, and preparation for the future (Shenhar *et al*., 2001).

The Canadian Space Agency (CSA) highlights how the LFA was employed to back the corporate process in project selection to facilitate decisions making and analysis of general approaches at high level project management, development of the scope of the organizations' and project mission. It was also key in fostering participation and involvement of stakeholder, aiding in project planning, assigning roles and tasks with regard to success of projects, and integration with the current tools. It was flexible enough to accommodate dissimilar project management methodologies such as extreme and agile project management (CSA, 2005).

A qualitative study by Juup and Ibn Ali, (2010) in Bangladesh generated data for monitoring high-ranking policy makers and enhance practices at on the ground: they linked participatory and systems processes management. The monitoring data summarizes the opinions of anticipated recipients, likened to client contentment data in business. Data collection method and deliberating it in the field creates prospects of enhancing projects, reinforce associations and help achieve their development goals. The survey research noted that performance was monitored as per the local people's sentiments, personnel have incentives to listen and get answers to their worries and urgencies. For instance, a social group uses responses from ladies' self-help assemblies to assess employee performance. This descriptive research design however was too general and only focused on qualitative data leaving out quantitative data.

In a descriptive study by Bakewell and Garbutt (2005), they established that when logical framework is employed for monitoring and evaluations emphasis is frequently on logical framework; to examine anticipated accomplishments highlighted in the model, and not to focus on the work. In principle, Bakewell and Garbutt debate, that in practice it rarely happens, but the

logical framework is reviewed through the programme cycle and modifications effected, to the output level.

Businge's study of Ugandan Rwenzori region discovered that funders hardly function out of the log frame approach whereby, they are fixated into results in the log frame, occasionally the scenario on the field may affect the success of some outcomes henceforth necessitating changes in some project aspects. Therefore, any proposed alterations by the executing establishments had to go through lengthy to and fro communication over the modifications (Busiinge, 2010).

2.5 Utilization of Budget and Research Projects Enhancement in Public Universities

A budget is financial tool that qualifies an organizations plan for the future. It shows the attainment and use of monetary resources over a specified timeframe. In organizations, a budget acts as an instrument for effective controlling and planning (Flamholtz, 1983). It is a gauge against which genuine performance of institutions can be measured and likened. It specifies activities to be followed and at a specified time. It acts as a periodic measureable statement, which include planned assets, liabilities, revenues, and cash flows (Lucey, 2002).

The key to good management is proper planning and control of related resources and its costs. Budgetary control is a method of developing plans for an institution's likely operations while controlling these operations thus helping conduct the plans. The main objective of budgetary control is to assist in creating processes for preparing an organizations planned costs and revenues. They also help in the management principles of coordinating and communicating the various plans at various stages in management (Kariuki, 2010).

As a policy, a budget helps to decide the way in which resources are managed (Premchand, 2000). The aim of budgeting is limited to expenditure on money, maximizing savings, and capping expenditures. Budget implementation requires advance course of action which progressed within the limits of the end of the means available and budget (Frucot and Shearon, 2001). Effective implementation of budgets is frequently evaluated by addressing variances between budgeted items and the actual performance (Horngren, 2000).

The two common techniques for budgeting are zero and incremental budgeting. An incremental budget is whereby statistics are based on actual spending for the preceding financial year with an additional calculation for inflation. It is time saving but at time provides inaccurate information.

This technique is only appropriate for institutions which have similar terms of actions in the preceding years. However, limited dynamic institutions or tasks are so steady as to make this budgets work (Lucey, 2004). In zero budgeting is where historical data is not put into consideration as the process starts from the beginning of the financial year. Result of this is a comprehensive and precise budget. However, this approach is more tedious. This route is mostly used especially when institutions are new (Kariuki, 2010).

Modern budgeting support management of performance in organizations by incorporating known financial conclusions with regular re-forecasting by analysis of the trends without losing the control and accountability mechanism. An organizations reporting system on financial performance management will get several sources of information and reflect the series of departmental perspectives and stakeholder (MelekEker, 2007). Performance reporting can be developed through several approaches to development of performance metrics. Organizations cannot measure their organizations smart decisions or value for money about future priorities and resources without an integrated financial resources. Considerations should be made to encourage development of management reports for purposes of providing an all-round picture of an organization through integrating operational and financial performance information. (Hansen and Mowen, 2005).

A good management report provides exhaustive information of what is presently ongoing and what is expected to transpire in the near future. These reports provide information that is key to making necessary corrections or necessary action. All areas need to be covered for the actions to cover the whole organization. This infers that financial data and operational are presented together in a form that is consistent and comparable (Kariuki, 2010). Other performance and risk aspects are documented along within financial reports. Risks are computed financially thus hindering doubt in financial forecasts. Some organizations find it supportive to present a frequently updated board-level for opportunities and risks report, where periodic forecast is the key financial ups and downs are displayed beside each periodic forecasts (Horngren, 2000).

There has been a global shift in government policies, regulations and laws in public Universities as these institutions have grown from simple governmental agencies into public corporations. This has thus given the management of new universities and corporate-style governing board's new accountability requirements (Altbach, Reisberg and Rumbley, 2009).

Universities have a duty in autonomy in financial management and management due to the regular management changes. The speedy uncontrolled development of these universities has led to various shortfalls especially in financial management. The Office of the Auditor General for the financial year 2015/2016 noted that 12 out of the 33 Public Universities revealed audit queries in the management of finances. The sampled institutions reported grave financial malpractice while some were functioning in unjustifiable financial situation.

The procedures, practices and principles of realizing objectives through budgets is called budgetary controls. These control help the systems in setting the goals for the institutions as a whole and resolute efforts made for its realizations (Scarlett, 2008). Its advantages include profit maximization through, proper co-ordination and planning of different functions, revenue expenditures and appropriate controls over various resources and utilizing funds into proper use. Coordination is usually realized through working with different departments and divisions (Preetabh, 2010). Organization have different units which have a bearing on each another which makes coordination necessary in realizing of budgetary targets (Waren, 2011). Other advantages include having specific time frames, policies, plans, and goals as decided by management (Preetabh, 2010). Efforts are gathered to attain a common goal. The set department's targets are achieved through directing all efforts towards achieving some specific aims. Budgetary controls provide comparison between actual and budgeted targets and highlights any deviations. In the end, departmental performance is conveyed to the management which allows institution of management by exclusion.

A successful budgetary control program must have to be complete, support and accepted of individuals in key positions of management. If middle or lower level management employees sense that management is reluctant budgetary controls, or if they feel that the institutions management purely tolerate budget as an essential evil, then their outlook will mirror the same lack of interest. Budgets are hard work and if top management is not committed and enthusiastic to budget program, it is highly doubtful that anyone in the institution was either (Perrin, 2012). The budgetary administration control program is mostly important to the top management but is not used as a budget club to pressure on staff or as way of blame employees if something fails (Egan, 2007). Negative usage of budgets broadens tension, mistrust and hostility rather than greater productivity and cooperation. The steps taken during the development of a budgetary control

system include; budgets for each functional area and setting up plans (Ghosh, Kim, Mendoza, Ostry, and Qureshi, 2011). Budgetary control in Kenya revealed that budgets played an important part in financial performance of government institutions. Some challenges have been identified in budget management in government institutions and these included: a lack of an accountability framework and shortfall of budget process attention on institutions long term goals (Adongo and Jagongo, 2013).

Financial controls entail the maintenance of proper records of accounting to help ensure not needlessly exposed an organization is to financial risks and that the financial information is used only within the business (Hayles, 2005). A control environment is the ability, attitude, action and awareness of a client and particularly management in relation to control (Khoove, 2010). Policies and procedures are financial control activities that help ensure the directives of management are executed (Walters and Dunn, 2001).

A survey of budgeting control practices at Wilson Airport, showed that the shortfalls experienced were lack participation from staff in budget preparation, budget evaluation deficiencies, and a general lack of support from management. Further, it was determined that the airline use and operate budgets to for performance planning and evaluation (Ambetsa, 2004). Most organizations plan using budgets in a formally and systematically, others plan informally. The issue that arises here is not if organizations formulate a budget but how to do it efficiently.

A study on budgetary and management control practices established that budgets could enable the creation of sustainable competitive advantages by adhering to functions of management. Management functions here include planning, communicating, coordination, control and decision making (Amalokwu and Obiajulum, 2008).

The Caucasian and Chinese cultures highlight that performance was different due to cultural backgrounds on management styles and observed a positive association between accounting and performance management information system of participation in budgeting. Previous studies put into consideration institutions culture as a component of organizational structure (Tsui, 2001).

Research on shortcomings of budgets at National social security fund (NSSF) was conducted with an aim to investigate the shortcomings of process of budgeting and the shortfalls in the budgeting process employed by an institution and how these organizations can effectively counter the

challenges. The sample constituted of 9 board members and 16 senior managers who were troubled with issues of budgeting in their institution. Tools used to collect data were; observation, interviews and questionnaire. The researcher established that the institution faced a myriad of problems in budget making process and this included lack of commitment, seriousness by various head of department leading to ambitious budgeting which led to underachievement of set targets, and complaints from the members (Wamae, 2008).

The research realized that budgeting was helpful at NSSF as it aided their function by assisting in control, management used it as a communication tool to other departments. Furthermore, the budgeting process at NSSF faced some shortfalls which include insufficient ability to spend despite allocation, weak co-ordination of the exercise, inability to attain the required value of business, cost inflation, and poor participation. The investigator recommends that all units in the institution should be engaged in the budget making and sufficient time is allotted to prepare.

Research on budgets on performance managers was conducted on a single large institution which had a significant number of manufacturing amenities, producing comparable merchandises dispersed within United Kingdom. The units were independent on each other. The outcomes determined a positive relationship amongst budgets and levels of performance dissimilar to (Hop-wood, 1972) who found little proof to show that any particular budgeting style used affected performance.

A study on the effects of different budget based styles of evaluation had on performance of managers. A firm evaluation style established to determine whether or not managers have their budget targets. It concluded that the belief that the evaluation brought about wide-spread tension, was unfair, and brought about worry at the work environment and a brought about feeling of dissatisfaction and distraction with the top management using the management style to evaluate. This led to accounting data manipulation with a view on improving their documented performance and policy making so as to determine to the long-term success of the institution. It was also observed that when a flexible evaluation style was employed, long-term economic performance was sustained with fewer side effects. However, Hop-wood's stress was mainly on the effect use of budget had on the feelings and beliefs of manager's and not the overall effectiveness of processes. The findings also established no existence of significant difference on evaluation of managers under different styles as they met their budget targets. The findings also concluded that

there was probability that the manipulations and tensions noted under the rigid evaluation style caused deterioration on performance on the long-run (Hop-wood, 1972).

A study by Otley and Pollanen (2000), showed that partaking in budget making, task and control vagueness negatively influences performance. But effects differ in scenarios where there is collective interaction of variables. The study established that budgetary control, participations, and task ambiguity have a negative effect on performance, in instances where budget control is high, participant's makes positive influence to performance. A single explanation for this rise in performance could be associated to bureaucratic justice, since budgetary control permits more participation in budgeting, as their view of procedural justice is positively influenced by budget control.

Participation in budgeting is a key controlling variable in the relations between type of performance of subordinates and budgetary control. The findings noted that budgetary control has no direct outcome on employee performance, while budgetary participation negatively and directly affects performance. In case where there is high budgetary control, a positive meaningful relationship exists between participation in budgeting and performance (Brownell, 2002).

An examination on the relationship between effects of budget control on performance, using a representative of enormous cities in United States between the years 2003-2004. It scrutinized whether the tightness of budget controls or effective level of budget control within the towns as scaled by variance budgets contribute to measuring performance by rating bonds and established that active level of budget control is considerably associated to rating bond (Carolyn, 2007).

A descriptive study on the elements that influence the implementation of budgets in Kenya universities, University of Nairobi, it established that there is inefficient procedure in the budget preparation and budgeting faces a myriad of problems. Further, it established that budgets are strong tool for planning (Gachithi, 2010).

An investigation on how budgets influences performance of SMEs in China by Player (2010) found that formal budget plans stimulates greater sales returns, challenging and clear goals for budgeting improve performance of organizations, a high level of complex budgets results in a lower profit, formal budget control leads to higher profit growth in the organizations and a higher participation in budgeting leads to improved performance of managers.

A study conducted by Onduso, (2013) examining effects of budgets financial performance of industrial corporations in County of Nairobi. The research used primary and secondary data. SPSS was adopted to analyze the outcomes. The findings concluded that financial performance as measured by ROA is influences budgets and has an influence of performance of management. The findings also showed that qualifications of the staff engaged by the firms were not qualified and hence firms had to outsource services of consultants in budget preparation.

Mbugua, (2013) studying a sample of 60 companies using a cross-sectional research design concluded that aspects of budgeting practices such as budget planning and participation in budgeting has a substantial positive effect on the revenue collection efficiency of water service providers while budget control practices and budgeting approach have no significant effect on revenue collection in the studied industry.

Investigations on evaluating the budget effects on performance of financial listed public service vehicle corporations in Kenya by Mwangi, (2014) highlighted that, vehicle companies that adoption of budgets had positive performance ratios and those that do not have budgets had negative performance ratios. It also exposed that most individuals in the industry were not conscious of budgeting procedures and even those who were aware did not effectively put them into use.

Research on budget control influence on performance of finances on a number of industrial corporations in Kenya employed descriptive research design and stratified sampling technique. 10 largest firms from every subgroup of the manufacturing firms were identified. A sample size was 50 respondents were employed. It used primary and secondary data; descriptive statistics was adopted for analyzing data. Results established existence of a significant positive association between financial performance in manufacturing firms and the three variables (monitoring and evaluation, planning, and participatory budgeting) was hereafter attained (Koech, 2015).

A paper on budgets and its effect on financial performance of Ghana's non-banking financial organizations. Their outcomes showed an existing positive relationship between budgeting and organizational performance. Further, it showed that, the organizations employed established processes of budgeting to a greater extent and that coordination in budgeting positive relationship on organizational performance (Pimpong, and Laryea, 2016).

2.6 Application of Stakeholder's Involvement and Research Projects Enhancement in Public Universities

Stakeholder involvement is a concept where different factions have different worries, interests and capacities that need to be clearly stated, addressed and understood (Milika, 2011). This is usually carried out in the process of objective setting, problem identification, and selection of strategy, execution and completion. A stakeholder matrix analysis the strengths, weakness, opportunities and threats among the donors. Engaging stakeholder is becoming gradually essential as more complex and large projects are planned and executed (Gray, 2001). Stakeholder's can partake at numerous levels from the lowest which; information sharing to the highest level which is consultancy for purposes of decision making. There is stakeholder collaboration at higher level on all features of making decision such as in the development of options and the identifying ideal solution.

Stakeholder's involvement process from design of desired outcome, scooping, engagement plan, and finally evaluation by involving the different stakeholder's. These influence the technique of involving interested parties in project planning, implementation and completion at different levels can lead to production of different outcomes, which will determine the final results (Milika, 2011). It helps in selection of the more suitable approaches and methods for engagement but also ensures no loss of sight as the project advances (Milka 2011; IEA, 2006).

Identification of stakeholder includes; "Scoping Process**"** which is dependent on organizational support and mode of engagement so that the interested parties involvement is considered. A good resolve will greatly come up with clear objectives and aims which should be coming from a desired outcomes. The purpose allows the assigning institution to ensure that right instruments are in order. Clarification of the purpose ensures that any assigning institution knows what it is involved in and also confirm whether "participation" is appropriate (Milika, 2011).

Stakeholders are expected to make their own choices without any influence whatsoever. They should make their choices that donors will accept with and be free to pick changes. Consistent discussions are seen to be healthy amongst shareholders which will characterize respect, trust and responsibility amongst themselves (Mulwa, 2010). A new methodology calls for a change of paradigm from orthodox methodologies to extents that are basically banking in nature conveying practical skills and knowledge to the native communities (Chambers, 1993).

The government of Ethiopian wanted donor funders committed directly to support budgeting without an M&E component for the sustainable development and poverty reduction program (SDPRP) (Robinson, 2003). Project goal aimed to establish models at the local capacity which can be built and have future updates. Initially, the projects were directed by a committee on national advisers which consisted of vital interested parties and potential beneficiaries and customers of the project with the hope of realizing anticipated outcomes. It was subject to public participation from both the benefactors and stakeholders. The project was internal to review schemes and evaluation of both Institute of Development Studies (IDS) and Ethiopia Development Research Institute (EDRU) with purpose of pinpointing the milestones and indicators of accomplishments as well as overall project success. Prominence was emphasized on the role of interested parties be it nationwide, provincial level.

Kenya has legal and institutional structure to aid the sustainability drive ideologies. For instance, Kenya's Vision 2030 blue print desires to revolutionize Kenya to an industrialized middle income nation by 2030 for sustainability. National Integrated Monitoring and Evaluation System (NIMES), with a mandate to monitor the evolution of execution of Kenya Vision 2030. The constitution of Kenya's clearly specifies how the public will be involved in development via public participation in the devolved county governments. However, NIMES role is Monitoring and Evaluation development projects in the entire republic should be emphasized. They should work with other sectors such as relevant ministries which should in turn facilitate by availing guidelines such as adherence to the estimates for construction in the bill of quantities as approved in the strategic plan.

High education level contributes to understanding of the different aspects of government policies (Kariuki, 2013). It emerged that individuals with small sources of income tend to display high levels of participation to increase their annual income. Seemingly high literacy levels increase the ability to communicate effectively ultimately generating easy participation. Studies conducted concluded there was existence of a positive association between performance of organizational and stakeholders' involvement. Further, it has recognized that strategic planning is often done to satisfy key funding bodies, leaving out others thus culminating in an unproductive progression. Strategic planning is inefficient save an institution has resources, expertise, and an assurance by main interested parties to produce a meaningful plan.

Stakeholders are allowed to indicate the efforts and the resources they provide the organization based on their insights of fairness and justice (Bosse, Philips, and Harrison, 2009). The findings further suggests that stakeholders form their opinions of fairness founded on dissemination of materials achieved from trade, if they observe a material product to be fair (unfair) they are motivated to show positive (negative) acceptance towards other stakeholders by tapping in more(less) energy; for instance, distribution fairness. Other than distributing justice, it recognizes the efforts put by interested parties towards the organization is swayed by the interested parties' perception of justness emanating from interaction and procedural justice (Bosse, Philips, and Harrison, 2009). Stakeholder that perceive an organization is fair will have an incentive to contribute abundantly to the struggles of the organization than those that see the organizations as only fair on these magnitudes absence in any of the justice might offset affirmative features stemming from the other forms of justice.

Managers face substantial challenges in effective management of stakeholders to minimize the negative impact while maximizing stakeholder's positive influence on organizations overall performance (Bourne and Walker, 2005b). Stakeholder management discusses why, what and how project actions allows them to efficiently appreciate the desires of different stakeholders and promotion of inclusion and significant participation (Donaldson, 2003). They need early involvement in planning stages of the evaluation. It comprises of supporting political agents and prominent persons who might be intent on using instruments and learning for effectiveness demonstrate (Jones, 2008). The analysis of process and findings of impact evaluation particularly interpretation can be enhanced through the involvement of envisioned benefactors being the main interested parties and the greatest judges of state (Produlock, Ramalingam and Sandison, 2009).

Stakeholder's involvement requires management with caution as excessive interested party involvement can lead to unnecessary effect on the evaluation procedure while little may result to evaluators' process dominance (Patton, 2008). Most politicians take government funding like Youth Development Fund as their initiatives to their subjects (Mapesa and Kibua, 2006). With elements such as misuse and misappropriations of funds cannot be put to account. A layman may not know how to express their issues. Largely, the political class play a significant part in the identification, implementation and project decisions are swayed by partisan influence (Mwangi and Kimenyi, 2005).

Empirical studies show that involvement of the main stakeholders of the institution, both external and internal has a positive impact on an organizations sustainable innovation orientation (Ayuso and Rodriguez, 2011). The study also revealed the worth of identifying and mapping the stakeholders for stakeholder engagement to achieve sustainability.

Kuyini (2011) study on Ghana's Rehabilitation program for the Community for disabled persons established that, the government needs to develop a structure for disability action which outlined the roles and responsibilities of all interested parties engaged with issues of disability as well as a good funding system that are essential for sustainability of the program for sustainability of donor supported disability project,.

A descriptive study by Tiffow (2013) established that, sustainability in sector issue require mutually supporting act of many interested parties at the nationwide and regional levels of government, the community and private sector partner as well as increasing their participations in project.

A qualitative study by done by Zacharia and George (2008) concluded that, community participation took on diverse practices at different phases of project cycle. Despite differences in time, the extent and nature of participation for vast majority of indigenous societies is generally restricted to consultation, information giving, and contribution. Local communities are mostly not actively consulted in planning, policy-making, monitoring and evaluation. From these findings, none provided an in depth analysis and depiction of the part played by interested parties to enhance sustainability of project funded by donor as much as this study has articulate.

A quantitative and qualitative study on the significance of participation of communities in construction of schools in Tanzania by Mnaranara (2010). Triangulation methodology of collecting data established that: for sustainability of a project, there has to be collaborative participation is key for project success, the study findings noted that, involvement by measureable giving was significant thus project sustainability and community ownership. The paper also emphasizes on usefulness and importance of professional knowledge even if it was in minor activities. The paper also commended on the vitality of mobilizing communities in making joints decision on matter economic and social development.

Empirical research on sustainability of water supply project in rural areas funded by donor Hodgkin (1994), in all USAID WASH project in the world. The researcher employed a qualitative, quantitative and triangulation data collecting modes. The findings established that, for project sustainability, continuous flexibility and analysis is needed to embrace new methods. The findings also highlighted other factors such as identifying and assessing project benefactors or target populace, knowledge understand and practice of the targeted populace as well as involve the stakeholder and other beneficiaries in designing the project.

2.7 Utilization of Balanced Scorecard and Research Projects Enhancement in Public Universities

This is a management tool that deciphers institutions of higher learning strategy and mission into all-inclusive agreed measures of performance that offers a structure for management system and strategic measurement (Kaplan and Norton, 1996). Institutions of higher learning require examples of adaptation strategies of management and successful implementation that address the need to become more accountable, efficient and productive. The tool employs measures beyond financial performance, and can aid institutions of higher learning become efficient and accountable (Rollings, 2011).

This structure that allows institutions to implement the selected strategy effectively by providing suitable linkages, while facilitating institutions implement intricate and multifaceted activities in implementing the corporate strategies and monitor activities of the institution with an intent of achieve the institutions strategic objectives. It is a system that links strategy to performance using non-financial and financial performance measures. It leads to focus on improved understanding of the pivotal links and relationships within institutions and the strings to pull in order to enhance corporate governance (Dye, 2003).

Universities world over make strategic plans that are supplemented by a monitoring and evaluation structure, like the BSC (Martin and Sauvageot, 2011). This is viewed as a useful instrument aimed at improving planning in the education sector (Kaplan and Miyake, 2010). It implementation contributes to the organizational goals in a multidimensional structure of parameters and indicators that measures performance of organizations (Kaplan and Norton, 1997).

This tool provides a structure for comprehending the casual relationships amongst the strategic objectives positioned into viewpoints (Kettunen, 2009). It is used in institutions of higher learning to emphasize academic processes, rather than financial performance and highlights the institutions strategic opportunities and goals for application from diverse viewpoints (Martin and Sauvageot, 2011). This methodology supports strategy implementation through performance-oriented management (Kohlstock, 2009). It is a set of measureable actions acquired from an institutions strategy (Niven, 2003).

The inclination that "performance measurement is important" has ensued in the creation of several structures of institutional performance (Lynch and Cross, 1991). Government and non-profit organizations which includes universities have experienced rising demands for more efficient management of resources and more effective decision making. Pressure from citizens has triggered the reorganization of market-based control models in governmental organizations and non-profit (Kaplan and Norton, 2001) therefore the need for the balanced scorecard. Few institutions have readily available performance data. It is generally not easy to get this information from present data or to develop instruments for collecting data on performance. It is harder to get agreement on the qualities of particular performance data and indicators.

Discussions by most academicians on performance matters puts more attention on private sector institutions (Atkinsonand Epstein, 2000b, Kaplan and Norton, 2001) however, public organizations are reinventing themselves by emphasizing on performance. This shows a significant role in enhancing efficiency and effectiveness of their organizations operations. Effective decision making will only be aided through a framework that helps institutions to examine their existing shortfalls and introduce frameworks that will help them in this area.

This tool has attracted significant curiosity among practitioners and researchers. 60% of Fortune 1000 organizations are either are attempting to or implementing the BSC or (Niven, 2003). Literature on performance measurement appears to show there has been a delicate change in focus from developing frameworks and models capable of providing a set of balanced performance measures. This is being done through the implementation of models and frameworks, on how measures, resulting from the balanced frameworks and models that are essentially used practically (Franco and Bourne, 2003).

The BSC is a strategic implementation practice and not an alternative for strategy formulation (Gautreau and Kleiner, 2001). Organizations must formulate sound strategy and for navigating the institution to its goals through the use of the BSC. Management needs to be conscious of the alterations in the environment. Strategy formulating needs adaptation to the environment and involves widening perspectives (Mintzberg, 1994). Managers need to be alert and proactive to environmental changes to ensure a fit balance between the institutions BSC program and strategy (Braam and Nijssen, 2004).

Measurement of institutional performance of universities should address a triple time viewpoint that is; the previous, current and future. A structure of institutional performance should provide early signs of forthcoming business performance as well achievements of the past (Bourne *et. al*., 2000). This combination constitutes of a prominent characteristic of the balanced scorecard. It has advanced from initial use to a complete strategic management and planning structure. This has transformed institution's strategic plan from an inactive article into the "marching orders" for the institution. It provides a structure that shows measures of performance, and helps planners in highlighting what ought be measured and done. Balanced scorecard permits institutions to get a holistic opinion of performance by identifying different key performance elements and understanding how their changes affects others (Chan, 2004).

The equilibrium among different viewpoints guarantees that all alternatives are used for the strategy implementation. One risk of this tool is over-modulation. Institutions of higher learning that will not hinder its indicators and goals as suggested by Kaplan/Norton to between 5 and 7 per strategic viewpoint but involved in a detailed and brimming pool of objectives will certainly forms a close-meshed control net which deters supports and self-organization to bureaucratize (Nickel, 2011). Financial indicators tend to be insufficient to performance measuring in higher education due to a tendency of these institutions regarding themselves as non-profit organization. That is why this concept is suitable for uniqueness of routines of institutions of higher learning. However, one must deliberate the distinctive features of activity of definite institutions (Ruf, 2008). Effective implementation of objectives on measurement basis needs changing strategy into certain form of devolved Balanced Scorecards. This implies that all fundamental component of the institution has to forge its own Balanced Scorecard by use of approaches defined for the institution (Ruf, 2008).

This methodology provides a structure for actual discussion about objectives and values of the organizations and inputs of single elements into intentions (Stewart and Carpenter-Hubin, 2000).

Measures developed by this tool are usually build around aspects like demographics; graduation rates; student/faculty number (ratios);percentage graduates employed on graduation; dispersion of scores and student pass percentages; class rank, percentile scores; statistics on physical resources; teaching load/ research/publications (Pingle and Natashaa, 2011).This tool can resolve such complications such as: establishment of actions based on strategic goals, goals coordination at dissimilar levels and accomplishment of institutions mission statement. Moreover, it aims to stabilize define the indicators and strategic process of institutions of higher learning performance which is not associated with funding (Ziegele, 2005).

The balanced scorecard has a potential to form a competitive edge which is positively linked to performance of institutions (Schulz and Jobe, 2001). A report proposed three performance capabilities or "value disciplines", each proposing a path towards competitive edge (Treacy and Wiersema, 1995). Product leadership signifies competition based mainly on service innovation or product; retaining and satisfying customers, customer relationships signifies competition based on operational and understanding excellence representing competition based on efficient operations. Institutions often implement the BSC to enhance one or more disciplines (O'Dell and Grayson 2003). Organizational performance is based on: employees, management structure, work processes, knowledge and information, rewards and decision-making, which plays out differently thus building a one of a kind interlink (Nalbantian *et al*., 2004).

Literature review on the effect of BSC in a public sector setting with a goal of providing experimental evidence of the impact measurement institutional performance (Greatbanks and Tapp, 2007). The report explored longitudinal association between business strategy and performance measures (McAdam and Bailie, 2002). It proved that performance measures derived from strategically important projects of institutions are more successful. Further, it noted that BSC is particularly applicable for ensuring the strategic alignment of performance measures (Lipe and Salterio, 2002).

A study by Amboga (2009), on balanced scorecard adoption at the Kenya Wildlife Service established that KWS exclusive dependence on financial indicators encouraged interim behavior at the expense on long term performance. Many empirical studies done by Ishtiaque, Khan, Akhter and Fatima (2007), Mosarraf and Ahmed (2008), Khan and Halabi (2009), Khan, Halabi and Masud (2010); Khan, Halabi and Sartoriud (2011) stated BSC in industries like food and allied, pharmaceutical, tannery, cement engineering, textile, ceramics, among other industries. Financial measures was found to be more dominant. However, a large number of organizations were embracing non-financial methods. Morium (2002) proposed that BSC can be an efficient instrument for lasting strategic planning in the Bangladesh banking sector. Nevertheless, there was a gap in the study that shows the unexpected relationships of the application and workings of BSC among the banks.

A study by Neely (2007), reported that to realize the customer needs and interested parties' expectations, the institutions has to identify the procedures through which events generates the true ideals. An institution must frequently pinpoint new courses of actions to meet customer perspectives and finances. The measures and objectives in this perspective accomplish the short and long trend invention operations cycle.

In Kenya, studies on effects of the BSC use on performance. Ombuna *et., al.* (2012) study on how BSC influences performance of profitmaking banks found a positive impact of BSC use on performance of profitmaking banks found that many of the respondents noted that achievements were considerably high when BSC was employed.

Nyaega (2012) study on application of BSC in measuring performance of Kenya's Essar telecom Limited, established that the company used BSC mainly for performance measurement and strategy execution. However, challenges were experienced which made them unable to harness BSC's full potential. Further, the profits of BSC outweighed the full implementation costs, effectively and efficiently and it complemented the financial procedures of historic performance with functioning measures encouraging imminent growth and performance.

Studies by (Hoque and James, 2000; Davis and Albright, 2004 Ittner, Larcker and Randall, 2003) found that existence of negative and positive correlations between the utilization of BSC and performance. A likely account of these inconsistent results may be due to absence of regulations in the research for dissimilarities in the execution and the genuine way BSC is employed. Findings

on studies conducted by Lipe and Salterio, 2002; Olson and Slater, 2002; Malina and Selto, 2001 on the use BSC confirms the serious differences in the implementation and use of BSC. BSC use as comprehensive measurement system, influences the quality of facts for purposes of decision making. With careful co-aligned to corporate strategy, it aids an organization to focus on strategic hence increasing performance. The findings propose that the level of use or intensity affects the performance of organizations but the manner or quality of BSC application is important (Braam and Nijssen, 2004).

A study on descriptive study on the effect of execution of consumer viewpoint of BSC on service quality in commercial banks in Thika town by Najjari *et al*. (2015) discovered that the customer-related perception of BSC positively influences performance of employees'.

2.8 Performance Contracting and Research Projects Enhancement in Public Universities

The resolution to institute performance contracts in management in government was taken at Economic Recovery Strategy for Wealth and Employment Creation (2003-2007). Kenya's Vision 2030 blue print acknowledged performance contracting as one of the crucial policies to reinforce service delivery and public administration. The approaches focused on enhancing the application of citizen service delivery charters entrenching as a crucial performance indicator and as one of the accountability tools, practice in the Public Service (Kenya Vision 2030).

As a present way of managing workers, the government introduced the performance contracting concept. This stands as a unit of management recognized as a management control structures (MCs). It was founded on the process of signing of performance contracts (PCs) between governments and the implementing agencies (Lienert, 2003). This is a freely negotiated performance covenant between two entities clearly specifying the performance intentions, responsibilities and obligations of the Government, and the implementing agency. It also shows the main result areas, performance level against anticipated achievement which have been agreed on and how to evaluate and measure performance (Kobia and Mohammed, 2006).

The Performance Contracting structure highlights commitment of the governments' to provide resources so as to enhance performance in management and governance of the public service by introduction of recent performance management techniques. The institution of performance contracts in all state institutions including public universities has elicited mixed reactions. The

institution of the performance contracts in public universities in Kenyan was informed by the present-day universal trends to engage workers the basis of performance contracts (Kobia and Mohammed, 2006).

Performance contracts are founded on the statement that what is done is quantified (Kobia and Mohammed, 2006). This has been prompted world over because, Governments view PC as a valuable vehicle for expressing clearer objective definition, promoting a new structure of control methods and management-monitoring and leaving daily running of the functions to the mangers (AAPAM, 2005). In Kenya, public universities, the use performance contracting is intended at improve lecturer performance assessment based on routine activities like; moderating, attendance of lectures, setting and moderation of exams as well as making. The purposes of PC is to shed light on the objectives of service in an organization, affiliation with the government and to enable performance evaluation founded on outcomes instead of conformism with administrative regulations and rules which have destroyed revolution, creativity and thinking in government (Hitt, Nickson, Clifford and Coyne,1999). A Performance Contracts identify the shared performance commitments, responsibilities and intentions of which a government needs management of public organizations or public officials convene a meeting over a specified time frame (Hope, 2001).

Performance Contracting was intended at enhance excellence of training in universities. This highlights rules, results/outputs in place of inputs, and enhances target-setting and follow-up. This resulted in elastic ways of making institutions in government becoming cost-conscious, accountable and responsible. Performance Contracts also use financial indicators. Performance contract is known to have dissimilar effects on performance. In Korea, there has been evidence of improved performance. The study only relied on the opinion of staff and management (Song, 1988). PC in India revealed enhancement in communication between government and state corporations but effects on performance was not clear. In China, PC incentives provided enhanced efficiency (Shirley and Xu, 1998). The government of Canada's methodology to performance contracting and management was intended to reduce costs during budget shortfalls (Kernaghan and Siegel, 1999). In France, it was started by the Directorate General for Taxes (DGI) and it was drafted to respond to two main worries; guarantee consistency in a decentralized setting and improve burden on the whole network services so as to enhance performance (Grapinet, 1999).

Performance Contracting involves a demanding technical exercise and a moral boosting exercise to staff and managers. There is need for injection of resources for the PC to function efficiently (Grapinet, 1999). This included selecting possibilities and plan for action on development to access the highlighted chances (Armstrong, 2006). In monitoring performance, members of the workforce were required to provide feedback on a regular basis to their managers on their work progress to check the achievements on the agreed objectives. Manager in return provide regular informal and formal response on their assessment of the employee's accomplishments.

In performance evaluation context, managers and employees should frequently (periodically) appraise the performance of employee's to check on the accomplishment of the set objectives as indicated in their respective work plan (Armstrong and Baron, 2004). This phase then feeds into the next performance cycle process. There was also need to reward outstanding performers, keeping in mind their outstanding work as reported in their evaluation reports. Top achievers are remunerated in various ways (Armstrong, 2006).

In Kenya, performance contracting was familiarized in the Public Service to enhance service delivery. Since its inception, Performance Contracting is being undertaken in all the Ministries, Departments and Agencies (MDAs). This was further cascaded to cover all MDAs to improve the benefits that were being manifest by participating organizations through improved financial, administrative performance and improved delivery of services. These efforts have stayed international recognition in the African continent especially those wanting to get feedback from PC experience in Kenya (GoK, 2010). Government of Kenyan recognize that performance has been poor in resource management in the public which has stalled achievement of economic development that is sustainable (GoK, 2005). Government echoes on Economic Recovery Strategy (ERS) that certain elements that unpleasantly influences the performance in government included too many controls and regulations, frequent mismanagement, political interference, and ballooned staff establishment. This has forced the government to heed to improving performance through reforms in different sectors. The re-introduction was considered through an administrative circular by the public service head, later affixed through supplementary legislature for Local Authorities and State institutions. Implementation of PC is fixed in Governments executive arm (GoK, 2010).

Parameters used in assessment of the PC at the close of the financial year are established on performance benchmark categories of each MDAs. Each organization is categorized in its own cluster each having a weight criteria and total sub-weights which are preset. All criteria have indicators clearly set and defined. The external evaluator is required to determine a performance score which will determine the level of performance each institution. This process entails rating of institutions authentic accomplishments against set performance objectives which were negotiated and settled on at the beginning of the financial year (GoK, 2010). Public institutions are obliged to submit quarterly and yearly reports in agreed formats for purposes of constant monitoring and reporting on their performance. Performance evaluation for every government institution is grounded on their signed Performance Contract (GoK, 2010).

It is significant for staff to embrace performance contracting and the generated. This will aid in the establishment of higher performance levels of their local authorities which will subsequent be improved over the years. If employee negative attitude towards PC, then management should establish why and build on how to improve it. Performance contracting and performance appraisals often highlights an untruthful annual ritual' (Armstrong and Murlins, 1998). Attitude is important because if staff believe that performance contracting will aid in getting them fired, it important to try and comprehend how attitudes were shaped, their work-behavior relationship and how it can be changed. Employees seek out consistency in their attitudes and behavior (Schleicher *et. al*., 2004). Employees seek to resolve differences in attitudes by align their behavior so that they can appear consistent and rational. This will be achieved by changing either the behavior or attitudes, or developing a validation for inconsistencies (Robbins and Judge, 2007).

Employees worldwide back sustained usage of performance contracts in their institutions (Heywood, 2007). The Government of Ghanaian is hopeful that the apathy will be overpowered steadily as employee's participation, ownership and involvement for the work of their institutions. A weighty difference between the level of wellbeing and eagerness of local authorities' managers of the institutions (Angiola, Blanchi and Marino, 2010). Performance contract process begins with setting plans which outline anticipated behavior in management terms, anticipated behaviors and performance standards. For instance, objectives provide the criteria. Performance of manager's can be measured by how close their departments come to achieving their set goals. For others, actions done are measured by criteria. There are grievances on poor service delivery due to lack

of specific, realistic, achievable, visible, time frame, measurable, evaluable and result-oriented (V-SMARTER) objectives not being. Setting of these objectives for purposes of performance contracting aid in producing noticeable results and helps in achieving realistic targets.

Performance evaluation leads to ranking and rating of institutions. However, in some instances, it reflected poor delivery of service (Kenya Development Partners and GoK, 2009). Planning enables management to derive foundation for performance developing standards founded on objectives and aims set by organizations. Performance standards are hard to describe as those that may developed may be conflicting to the institutions mission and values (Ivancerich *et. al.*, 1992). Shortfalls faced by these organizations include inadequate financial, political interference, and human resources (Mboga, 2009). When staff set sensibly high target and realize them, it serves as an influencer. This occurred in the Ministry of Agriculture, during the 2009/2010 financial year results as they arose to be the best ministry and cerebrations were witnessed countrywide. Republic of Kenya (2005a, 2005b) debate that the shortfalls civil service face is not a lack of skills but a lack of attitude. It also established that PC is capable of drastically altering working environment through proper implementation and good leadership based values. The government is also developing a structure of service for high achievers to attract, retain and motivate self-driven, proactive, and result oriented staffs (Republic of Kenya, 2005a).

Performance Contracts is a modern tool for enhancing performance in the public sector (Republic of Kenya, 2012). It is a critical tool for improving accountability and good governance for attaining results in the public sector. It aids in founding responsible principles whereby employees make emphasis on constant enhancement of business processes and for their own expertise, behavior, performance, sharing expectations and offerings. Managers can identify and simplify what they expect teams and individual to do. Employees and their group members can communicate their expectations of what they need to do and how they should be managed in order to complete their jobs. Performance contracting is about enhancing the quality of relations, interrelationship sand results - between individuals and managers, between management and their respective teams (Directorate of Personnel Management, 2010).

Service charter is rooted in the performance contracting pegged to facilitate changes of workplace cultural norms in the public sector (Republic of Kenya, 2012). Service charter includes actions

which provide services and products to clients (Mulinge, 2000). The nature of these undertakings is dependent on the types of services and products as well as the target markets. Performance contracting if properly executed by institutions may well lead to improved behavior orderliness, dominants values, norms, rules and organization environment that improve institutions performance (Kobia and Mohammed, 2006).

Empirical research by Kobia and Mohammed (2006), Obong'o (2009), Muthaura (2007) focused on the influence of performance contracting found that through the management methodology of PC, the government debated that its employees were being put to account for use of public resources assigned unto them on as the levels of their achievement were being raised every year. The public institutions were initially required to compare with the best practices worldwide, within and outside Africa.

The fundamental principle as observed by (Obong'o, 2009 and Mugambi and Gakure, 2010) shows that once the public are enabled with facts, they are capable of hold the government, its institutions and the public service answerable, hence activating their behavioral change. A service charter is an obligation by public institution of their commitments to meet and exceed their clients/customers (Republic of Kenya, 2005b). Performance contracting review by Republic of Kenya (2012) for the financial year 2010/2011, the Government maintains that the public service are getting closer to a norm of personal liability. Through the review, the Government acknowledges a strong culture and work principles of performance can be instilled in their youthful years as they begin their employed life, it instills a formidable basis for the institutions to niche a place among the league of 1st world nations (Kenya Vision, 2030). A study on Performance Contracts in Kenya discovered that any effort geared towards performance measurement resulted in encouraging results because staff determinations were focused to institutions goals thus enhancing performance (Prajapati, 2010).

Empirical studies on Performance Contracting and Public Sector Reforms saw that the public service sector in Kenya was among the nations which has experienced an "impaired image" both in Africa and internationally (Ochieng, 2010). It also highlighted that PC had instilled a culture of discipline in government organizations by ensuring they stick to agreed strategic plans, work-plans and sector plans. Kenya's Vision 2030 blue print has its basis laid on performance contracting.

Studies based on data based on results from the government noted that PC allowed acknowledgement of achievers from non-achievers hence steering to a competitive public service. In review of the 2005-2006 financial year, it showed enhanced performance in government delivery of services and governance (Obong'o, 2009).

A study by Akaranga (2008) discovered that all government state corporations and ministries in Kenya officially implemented performance contracts. The findings shows clear indication of increment in income over expenditure and service delivery in the government ministries and state corporations. This is demonstrated by results of the 2005/2006 financial year where most state organs posted excesses of income over expenditure. Ketelaar, Manning and Turkisch (2007) identified the following as the challenges of performance contracts; Focusing only on targets can be unfavorable to public sector efficiency if the indicators or targets are not relevant to the desired outcomes.

In analyzing the issues affecting implementation of PC in state corporations in Kenya specifically in Kenya Civil Aviation Authority (KCAA) Gathai, Ngugi, Waithaka and Kamingi (2012) descriptive research design which targeted staff of KCAA that had signed Performance Contracts between 2008/09 to 2011/12. The study concluded that targets are negotiated and are in tandem the institutions goals; measures of performance are employed to, improve, control and evaluate process so as to guarantee that the institutions realizes its objectives; institutions avails required resources essential for implementation of strategy and finally, that implementation strategy revolves either from a winning group process pledges through a collective decision making form, or as an outcome coalitional participation of implementation employees through a strong business culture.

In their descriptive research design study Letangule and Letting (2012) studied of Performance Contract effect on performance of organization: Given the influence of performance contracting on the effectiveness and operation of public sectors in Kenya, it is essential that all workers are included in the signing of the performance contract. Data was analyzed descriptively to ascertain the association amongst the variables using regression analysis. The findings showed PC affected quality of service, efficiency, and consistency and workers innovativeness at Ministry of Education at a great degree.

In a study on changing performance of Kenyan public service in through performance contracting by Wanyama (2013), the study benchmarked applications that can be embraced in public sector, the emerging constraints/challenges, hybrid approaches to performance management, and lessons learnt. The study sort to establish whether performance contract had reinvented the government organs in Kenya; from its evolution to whether it has increased efficiency, effectiveness, transparency and accountability to validate allocations of resources in future. These traced the history of public sector transformation in Kenya and its rationale and implementation of different types of reform interventions to its Ministries, Public Universities, and Local Authorities, State Corporations, and Tertiary institutions for efficient, effective, moral services delivery to the public.

2.9 Human Capacity for Monitoring and Evaluation and Research Projects Enhancement in Public Universities

The monitoring and evaluation structure cannot function devoid of skillful employees who excellently perform monitoring and evaluation duties they are accountable. Therefore, understanding the capacity and expertise needed for people to be engaged in the monitoring and evaluation structure and addressing their capacity gaps key fora monitoring and evaluation structure (Gorgens and Kusek, 2010). In its system for an operational monitoring and evaluation structure, it is key to have adequate and dedicated numbers of monitoring and evaluation staffs who have the right expertise for the job (UNAIDS, 2008). Building human capacity for monitoring and evaluation entails; mentorship, in-service training, formal training, internships and coaching. Building this capacities, the main focus should be on the practical facets of monitoring and evaluation, financial management, solve gaps in management, facilitation, advocacy, supervision and communication.

Monitoring and evaluation is done for numerous resolves specifically to study what functions and what does not; this aids in making well-versed decisions regarding service delivery and project tasks based on objective data; track progress of project; ensure efficient and effective use of resources; assess extent the project as a desired impact; appreciate support and satisfy donor needs to create openness and foster public support; and create institutional memory.

Monitoring puts emphasis on execution processes and asks important question like “how fit is the project being realized while evaluation analyzes the realization procedure” (UNDP, 2009).

Monitoring breeds quarterly reports during the program, which puts attention on outputs from project for making appropriate corrections and monitoring progress for staff improvement and monitors financial costs against the budget. Evaluation equates how program actions have met goals, look at the degree to which conclusions are credited to project goals and defines effectiveness and quality of program by recording its impact (UNDP, 2009). State Corporations (SCs) have not realize their goals due to pilferage, bureaucracy, mismanagement, wastage, irresponsibility and incompetence by managers and staff (Kamunga, 2000). SCs have fallen short despite government intervention (Kamunga, 2000).

Evaluation is known to increase openness, improve performance and strengthen accountability, while performance management structures found performance targets, goals, and monitoring progress, communicate results and stimulates performance improvements to for purposes of making policy (Wholey, Hatry and Newcomer, 2010). Monitoring and evaluation roles predominantly the one it exhibits on performance in Kenyan public universities with emphasis on research.

An effective M&E structure requires well trained and skilled personnel to sustain it. While the plan for monitoring and evaluation identifies responsibilities for the purposes of data collection, it is also key to plan responsibilities for monitoring and evaluation procedures; data analysis, reporting, management, monitoring and evaluation training. The initial step in planning for monitoring and evaluation is human resources so as to scrutinize the available monitoring and evaluation expertise in the programme/project team, target communities, partner institutions, and other stakeholder in the monitoring and evaluation structure. It is vital to identify any shortfalls between the programme/project's monitoring and evaluation requirements and available staffs, which informs the need for capacity building or outsourcing for expertise from outside (IFRC, 2011).

It's vital to have well-defined tasks and personnel responsible at all level of monitoring and evaluation structure. Monitoring and evaluation structure identifies people accountable for the specific activity for instance data collection, but there are other responsibilities throughout the monitoring and evaluation (M&E) system, from data management, analysis, reporting and finally

feedback eventually depend on the scope of the project/programme and what structures are already in place within the project/programme and/or the executing institutions (Clara, 2008).

Efficient and effective monitoring and evaluation is pegged on an organization's human capacity for M&E in leadership, human resource and infrastructural terms (Brown *et. al.,* 2012). Establishing a satisfactory quantity of human capital is significant for a monitoring and evaluation sustainable structure is ongoing. It needs to be acknowledged that for "growing" evaluator's needs it needs a more technically aligned monitoring and evaluation skills enhancement and development gained with one or two workshops. Prescribed and on-the-job training capabilities is key in developing evaluators with numerous possibilities for development and training prospects like in: the public and private sectors, professional associations, universities, mentoring programs and job task (Acevedo *et. al.,* 2010).

Training enhances learning of new methods and techniques to perform a task with effectiveness and efficiency. Effective training programs aids staff to concentrate on their personal career growth which eventually aid in realization of institutions short and long term objectives. Fruitful development and training program aid the strategic prerequisite of the institutions and meet the needs of individual implementing it. To enhance effectiveness in training programs, institutions should place emphasis to staff's participation in designing training modules and methods. Staff involvement in design of training motivates the workforce to learn objectively which leads to improved accelerated professional assurances and performance development. Post training evaluation due to efficiency of participative in training programs, works as a stubborn tool to design, correct and thus leading to improved present and future training methods and needs (Brown *et. al.*, 2012).

Building the capacity for strong monitoring and evaluation (M&E) includes putting good structures in place, and developing leaders at all levels who can inspire and engage their teams. Operational M&E leaders hold their organizations accountable for using M&E structures to improve performance of organizations and health results. With funding from USAID from 2008 to 2013, measure evaluation Population and Reproductive Health (PRH) offered three types of management development programs. The purpose of these initiatives was to develop employees capacity and teams to achieve monitoring and evaluation (M&E) results, such as improving

processes for data collection, creating clear M&E policies, and crafting a supportive monitoring and evaluation (M&E) culture (USAID, 2013).

Human capital is important for producing of M&E outcomes. It is necessity to have an efficient M&E quantity and quality in human capacity, is obligatory in order to uphold and retain a functioning monitoring and evaluation (M&E) personnel (World Bank, 2011). Since skilled personnel are a major restriction in choosing an appropriate M&E system (Koffi-Tessio, 2002).

International benchmark condition that the monitoring and evaluation allocation should be between the ranges of 10% - 12% of the total project budget. Many reviewed project in Kenya disburse far less. There is also inconsistencies in the decision of selecting performance indicators amongst projects which has led to incomprehensive and in coherent monitoring and evaluation structures (Kenya social protection sector review, 2012). Out of 88.1% of the total projects, merely 16.7% provided an analysis within a logical framework. This review showed that though monitoring and evaluation hardly change the decision making, gathered data was used to inform project designs and apprise policies. It also noted that nations rely more on international monitoring and evaluation experts and therefore, it endorses training of progressive and national wean project of government institutions (locals) as they will remain in the government institutions for the long term.

In Kenya, weak or lack of M&E systems is a common feature in both educational institutions and the Ministry of Education (GoK, 2012a). The existing systems are constrained by lack of or inadequacy of appropriate skills for M&E, comprehensive work plans, insufficient funding, lack of personnel with technical competencies in M&E, as well as lack of appreciation, and a positive attitude towards M&E (GoK, 2012a). This state of affairs has negative implications on accountability and support for learners with disability in utilizing physical facilities. According to Mutisya (2012), lack of or weak M&E systems in inclusive educational institutions may affect accountability regarding the quality of support provided to learners with disability; while UNICEF (2009) notes that weak M&E systems have implications on the functionality and maintenance of physical amenities, which in turn, affects their use.

Institutions lacking M&E systems, the management is often involved in data collection and reporting to the Ministry. However, some managers often provide exaggerated information or

information that is skewed regarding learners with disability to cover-up gaps, particularly because they lack skills in M&E ethical principles (GoK, 2012a; Lahey, 2005). The review revealed a lack of empirical studies that have directly determined the relationship between human resource capability for M&E and the utilization of logical framework on Research Projects in public universities.

A study focusing on main projects of social protection division in Kenya noted that few programmes have a working monitoring and evaluation structures, notwithstanding being attributed for encouraging accountability and transparency (Kenya social protection sector review, 2012). From the projects reviewed, only 96% had developed an indicator system for monitoring and evaluation, 91% undertook monitoring undertakings, 61% had an ongoing or planned impact evaluation and while 39% did not have monitoring and evaluation reports for scrutiny by the public. This stayed as a result of a projects not allotting the required capital at the M&E structure design stage.

Monitoring and evaluation best practices in development International Non-Governmental Organizations, showed that INGOs experience numerous shortfalls when managing or implementing M&E undertakings one being inadequate monitoring and evaluation capability where M&E staffs frequently recommends more than a single project at one interval, and have sectoral or provincial duty with a huge assortment (White, 2013). Moreover, taking on the monitoring and evaluation work of several projects overstretches inadequate M&E capability and leads to fatigue of monitoring and evaluation employees. A study on the “kazi kwa vijana project” recommends that a key component of the projects all over Kenya is capacity building, and this proposes improved asset in development training for human capital in the critical technical areas and subsequent monitoring and evaluation (Mibey, 2011).

In the examination of Pacific CSOs, UNDP (2012) deliberations of few of the shortcomings of institutions development has insufficient monitoring and evaluation structures. To add to that, there is also a lack of opportunities and capabilities to equip employees in technical expertise in these. In the cause of consultations, there was an agreement amongst CSOs that lacking monitoring and evaluation instrument and expertise was a key shortfall in all the regions. On top of that, there was not necessary for Civil Society Organizations to have extremely multifaceted monitoring and

evaluation structure, there's definitely a need to have elementary understanding of, and capability to monitor, evaluate and use reporting.

A study conducted by Sharma (2012) focusing on higher education in India found out that 52 (44%) of universities indicated not providing trained staff for learners with disability, while 38 (32%) indicated that provision of staff learners with disability was so low due to uncertainty of the institution admission of the type of disability. Only 24 (20%) institutions were providing learners with disability with the staff they needed.

In Kenya, Gekonde, Nyambonga and Nyahoroo (2014) used a descriptive survey design with a populace 308 respondents of different bands who were thought to be aggressively involved in the public services delivery to examined organizational capacity building and strategic human resource on performance enhancement of public service delivery in 9 sub-counties within Nakuru County. The study confirmed the need for properly trained human resource can improve delivery, he also noted the adequacy of personnel to be key in some sector. Gekonde and others further confirmed the importance of experience and continue training as key for service deliver.

Contrastingly, effective utilization of M&E structure has contributed to efficiency of public sector service delivery programmes in Nations such as Chile, Australia, United States of America, United Kingdom, among others. In Chile for instance, a study commissioned by the World Bank in 2004 reported a high level of efficiency of public service, which the consultancy attributed to the capacity for intensive utilization of information generated through the public M&E structure. The study established that government's evaluations, which were mainly subcontracted from the academia, were utilized by the Ministry of Finance for allocation of resource and decisions making in the budgetary process, and to efficiency improvements and impose management on sector ministries in the programmes in their dockets (World Bank, 2005; Mackay, 2007). The study also revealed that the Chilean M&E structure had in place a mechanism for reporting the findings of M&E processes to the National Congress, which in turn, is highly appreciative.

Moreover, Lahey (2005) asserts that programme management should have capacity to use and include M&E data as a fragment of the usual trade procedures. However, it may be fallacious to assume that project managers, have an appropriate obligation of M&E model and that there are suitable 'incentives' within the institution to guarantee that managers essentially used M&E data

and report reliable facts in an appropriate time. Mackay (2007) notes that this assumption has contributed to the failure of public sector M&E systems in countries such as Nigeria, Sri Lanka and Romania, among other countries.

2.10 Utilization of Monitoring and Evaluation Tools, Performance Contracting, Human Capacity for Monitoring and Evaluation and Research Projects Enhancement in Public Universities

Monitoring and evaluations tools main purpose is to monitor, evaluate and support effectiveness in and performance public services. Monitoring and evaluation tools such as logical frame work/log-frame approach, budgeting, stakeholder analysis, and the balanced scorecard are regularly used to monitor and evaluate institutions performance.

Performance Contracting has been applauded as a promising and effective way of enhancing performance of public institutions as well as government organs all world over. Successful nations such as Pakistan, France, Malaysia, India, and South Korea has ignited a wide ranging interest worldwide. African countries public service is faced with many obstacles which limit their delivery capabilities like; key capabilities, lack of suitable mind sets, shortages of personnel numbers, and accountability (GoK, 2010).

Performance in Kenya has been dwindling since independence largely due to a management system which put importance on acquiescence with processes rather than outcomes, together with the absence of well-articulated and clear goals making it hard to evaluate performance of institutions and employees (Government of Kenya, 2005a). The government undertook on a series reforms in the public sector aimed effective utilization of resources and enhancing service delivery. Improvements were to be done in stages namely; performance improvement, consolidation and sustenance, and cost containment of the advances made in first two phase. The first two phase accomplished a reduced workforce by 30%, enhancement of performance and productivity of the public sector remained an illusion up to 2003 after the government announced the public service Results Based Management founded on Economic Recovery Strategy (ERS) aimed at employment and prosperity formation (2003- 2008). Amongst the embraced approaches were; Citizens Service Delivery Charter, Performance Contracting (PC), Repaid Results Initiative (RRI), Institutional

Capacity Building and Transformative Leadership (GoK, 2003). PC has the uppermost effect on delivery of service as it used a basis of what gets done gets measured (Trivedi, 2000).

Performance Contracting is viewed as a suitable management practice for clear articulate on of goals and its decentralized management technique which emphasis more on result rather than procedure. It allows executives to do daily management of institutions and providing systematic monitoring and evaluation by the oversight organs. The implementation of PC through the Performance Appraisal embraced by public universities (GoK, 2008).

Monitoring and evaluation has the ability to transform public sector departments and government into an efficient system which are representative and participatory (UNDP, 2013). World Bank Operations Evaluation Department (OED) has thus carried out several measures to reinforce developing Nations so as to support their M&E skills and capacities which are vital in public sector transformation, achievement good governance and service delivery (UNDP, 2013). The Paris Declaration on Aid and Effectiveness (PDAE) in France underline the capability to implement, manage, account and plan for the outcomes of programs and policies through M&E structures (Mosse and Lewis, 2005).

An effective monitoring and evaluation (M&E) structure needs capable employees to support it. The M&E plan identifies responsibilities for the data collection and plans for the responsible persons who will undertake the monitoring and evaluation. This will include data management, reporting, investigation and monitoring and evaluation training. The initial phase in planning for purposes of M&E human capacity is to determine the available monitoring and evaluation personnel within the programme/project partner, team, institutions, target communities and potential interested parties in the M&E structure. It is significant to highlight any shortfalls between the project/programme's monitoring and evaluation available staff and needs, which will form the basis for capacity building or outsourcing expertise (IFRC, 2011).

Performance of project is the overall project quality of in terms of whether the interventions are or sustainable whether beneficiaries have impacted (Chandes *et. al.*, 2010). The main yardstick against which the performance is evaluated including; relevant, effective, and efficient, whether the interventions are sustainable or it has impacted the recipients (Hill, 2005).

Performance of projects can be evaluated with respect to whether it adds value or it makes the institution effective (Onukwube, Iyabga and Fajana, 2010). Performance is quantified as an individual's work achievement after through exerting effort (Hellriegel, *et. al.,* 2009). From the above definitions, project performance touches on how the ability of workers to finish the jobs they are responsible for and how those jobs help in achieving the goals of the organization.

A combination of all these variables; M&E tools, PC and human capacity for M&E meaningfully impacts the performance in public universities. From the literature presented, they are key for monitoring and evaluation of progress of public universities in Kenya as well as ensuring the success and achievement the objectives and goals of universities and other entities.

2.11 Theoretical Framework

This segment will present the theories guiding this study and application towards application of various monitoring and evaluation tools, performance contract and human capacity to conduct monitoring and evaluation tools. These are: goal-setting and equity theories.

2.11.1 Goal-Setting Theory

The main theory for this study was the goal-setting theory which was put forward by Edwin Locke in the 1960s. This theory denotes that performance and motivation is higher when people set specific goals, which at times may be problematic but acceptable and there is constant response on how employees perform (Armstrong, 2005). Goal-setting theory proposes that employee evaluation is based on the attainment of set objectives or goals (Saleemi, 2006). The theory emphasizes workers should discuss the targets together with their line managers within a specified period of time (Saleemi, 2006). The harder the goals, the harder to attain them and this in term leads to higher performance and rewards once the goals have been attained. (Latham and Lock 2002). The harder the goals, the higher the performance as opposed to easy goals/targets (Latham and Locke, 2009). The main components of this theory are; setting specific and clear goals, having realistic and challenging targets, commitment from employees', providing better and appropriate feedback and employees' participation in setting the goals.

Employees are supposed to participation in setting goal as this is vital to agreeing between the employees' and their managers (Armstrong, 2005). The theory can best be applied in utilization of

the performance contracting and various monitoring and evaluation tools when employees set targets and negotiate for their respective areas of operation with management. This is further cascaded down at lower levels within the institution where workers negotiate their specific targets with their section heads.

This theory puts little importance on reward, but encourages motivation on attainment of suitable goals while involving employees on commitment (Marsden, French and Kubo, 2001). Several studies endeavored to study on relationship between performance and goals setting. Majority of the evidence strongly support this theory. It found that where managers failed to clearly establish their goals and therefore doubt emerge on the system. Managers who peg their pay on performance are more likely to experience higher incentives for their employees (Marsden, French and Kubo, 2001). Unionized staff had job satisfaction and high performance with their performance evaluation due to the high goals that had been set (Brown and Latham, 2000).

For this study, utilization of monitoring and evaluation tools; utilization of logical framework, utilization of budgets, Application of Stakeholder Involvement and utilization of balanced scorecard; and PC are essential as staff set their goals and targets which have been negotiated and agreed upon by their line managers. Studies involving a variety of tasks have reliably found that performance positive related to goal setting (Latham and Locke, 2007). Contrary findings have been experienced when identifying performance dimensions by this theory has been accompanied by a set of difficulties regarding in what way these goals and dimensions will be equated (Mullin, 1999). Experiences from the Inland Revenue, suggested that there is no indication to show the relationship of how clearer goals helped have helped with employee motivation towards performing better particularly when employees felt like they were already over working. Determination is essential in setting challenging objectives which may be problematic when criticism is acknowledged to proposing that previously set goals were not achieved (William *et. al*., 2005).

There is endless modification of hands-on action plans which tie resource use to significance goals and finally forging clear measureable targets make enhancing performance is a motivating and realistic procedure (Grapinet, 1999). This is done through initiation of formal in depth audits of department regularly to highlight the strengths and weaknesses in every area. Performance contract

makes departments spells out resources that will be made available and strategize clear operational units for realizing the targets that they have set. The contract places more emphasis on the results delivered and attainment of a way forward towards achieving long term results. Feedback of the performance evaluation moderates the goal-setting effects (Locke and Latham, 2002).

The goals setting theory argues to enhance research projects in public universities, goals have to be set. Proper application of tools for monitoring and evaluation, leading to enhanced Research Projects in public universities. Human capacity for M&E is a significant element of M&E systems, it provides the expertise for gathering and analyzing data to aid decision-making and effective management of resources. The facts occasioned through M&E structures is also critical for optimal utilization of M&E tools. The quality of facts generated by an M&E structure is dependent on the quality of human resource involved, which in turn, determines the level of management efficiency. Consequently, having adequate human resource that is trained in M&E is indispensable for effective M&E structures, better management of resources provided by nature and utilization of such resources by intended beneficiaries to achieve economic autonomy, cooperatives, environmental balance, among other paybacks (World Bank, 2004).

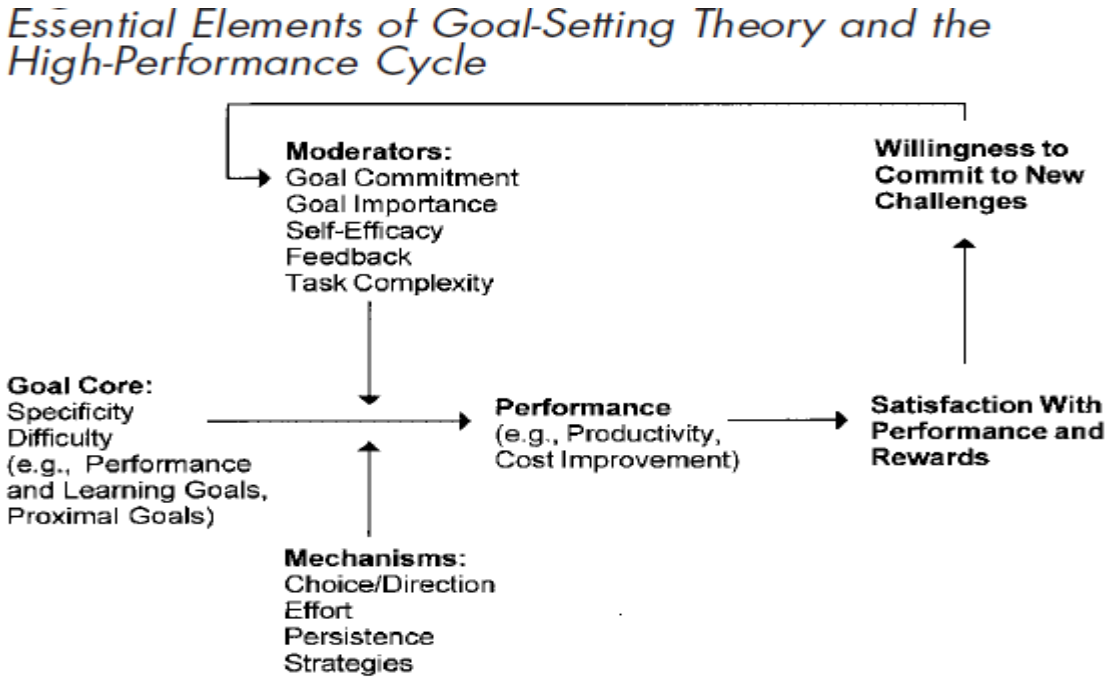

Figure 1: Goal setting theory

Source: Locke & Latham, 2002

2.11.2 Equity Theory

This was recommended by John Stacey Adams in 1963 and it was subsequently called Adams' Equity Theory (Adams, 1963). It calls for a just equilibrium to be hit between staff inputs; effort, hard work, loyalty, level of skills, ability, commitment, adaptability, determination, flexibility, enthusiasm tolerance and a staff yields; salary, benefits, training, recognition, development and travel. Finding a just balance serves to ensure productive and strong association is attained with the staff leading to motivation of staffs (Adams, 1963). If a worker feels that their contribution at work environment is not equivalent to the work, truancy creep in and performance drops below par (Greenberg, 1999).

Training is crucial in enhancing performance of personnel besides backing them; it aids in highlighting their capabilities to accomplish a duty and evaluating their performance (Wagonhurst, 2002; Ridha, 1998). Lack of investment in skillfulness training by organizations results in poor turnout resulting to deprived excellence education that is not matched with necessities of the local livelihoods or labour market (Nyerere, 2009). "Relevance, effectiveness, efficiency, impact measures and sustainability, can be useful in measuring training evaluation. This can be completed through crafting a logical framework showing the expected outputs, activities, verification measures, M&E responsibilities, resource requirements, action centers, and time-frame" (Susan, 2013). It signifies the association between employees training and performance. Success of any project is highly dependent on employee training, and monitoring and evaluation. In this research, human capacity for monitoring and evaluation as employees require proper training in order to enhance their M&E capacity.

The essence for program implementation is performance (Cleland and Garesi, 2006). World Bank (2010) pinpoints applicability (a degree of how the program addresses the requirements of the target group), effectiveness (a measure of how the program is realizing its objectives), efficiency (how well inputs are transformed into outputs), impact (the changes in beneficiaries life due to the program) and sustainability (duration of the benefits of the program) as the best indicators for performance measurement of the program. This is supported by Kerzner, 2004; Harvey and Reed, 2004, as the best way to gauge program success Therefore, this study used these indicators for performance determination.

Dependent variable employed in this research is performance of Kenya public universities. Performance is measured by sustainability, relevance, effectively, efficiency as determined by the customers. This will be determined by the ability of the University to monitor the universities vision through various monitoring and evaluation tools so as to determine where improvements and decisions need to be made. These numerous M&E tools which have been discussed below enable the university to plan for its activities and also where there is need for improvement. This will enable the universities to make informed decisions.

2.12 Conceptual framework

Research Projects enhancement has been designated dependent variable, which shall be measured in terms of consistency over the preceding two months' period. The study holds that there is significant correlation between utilization of M&E tools and Research Projects in public universities. The relationship will be nurtured, by ensuring proper and consistent utilization of the M&E tools to add value for both individual and collective well-being to employees and public universities for growth and sustainability of research projects.

Research Projects enhancement in public universities is important in providing quality education, especially where the performance is supported with effective utilization of M&E tools, appropriate human capacity for M&E, PC as well as suitable policies. The policy and few empirical literature reviewed suggest that poor Research Projects in public universities constrains growth of research outputs, grants, and completion rate.

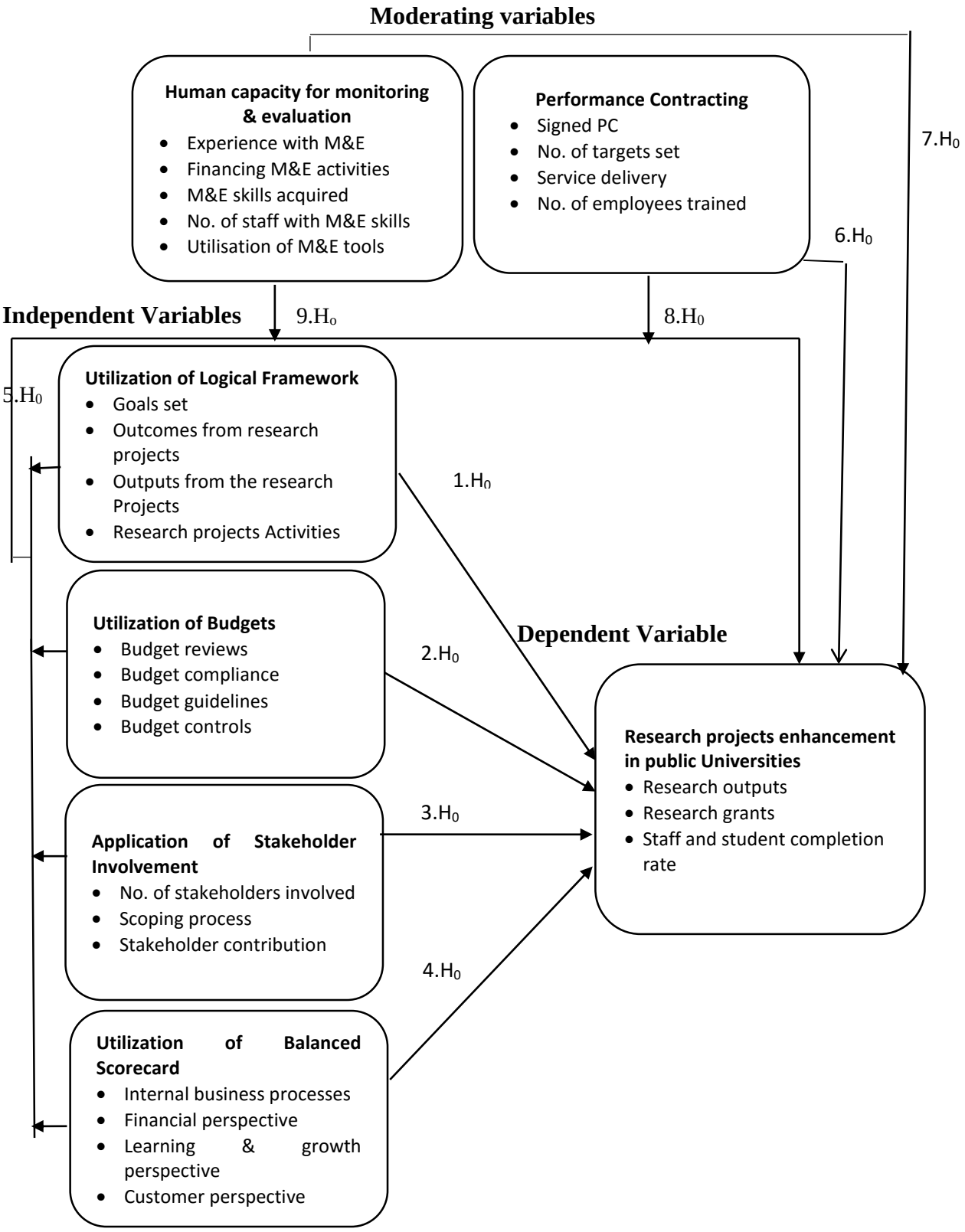

Figure 2: Conceptual Framework for Utilization of M&E tools, PC and Human Capacity for M&E and Research Projects Enhancement in public universities

2.13 Knowledge Gaps

The literature review has shown that the application of various tools for monitoring and evaluation influence Research Projects in public universities. Notably, utilization of monitoring and evaluation like: Logical framework, budgets, stakeholder involvement and balanced scorecard enhances Research Projects. Although the selected components of application of M&E tools may directly influence Research Projects, their influence may also be moderated by factors such as the human capacity for monitoring and evaluation and performance contracting. The Research Projects in public universities can be enhanced by utilization of various monitoring and valuation tools, implementation of Performance Contracting in addition to enhancing human capacity for monitoring and evaluation. Underutilization or lacking suitable monitoring and evaluation structures in public universities has adversely affected performance in various universities.

Performance of public universities is important, especially where there is proper utilization of M&E tools, including Performance Contracting and enhanced human capacity for M&E, as well as suitable policies. The policy and few empirical literature reviewed suggest that poor utilization of the M&E tools, lack of adherence to signed Performance Contracts and institutions lacking capacity for M&E has dilapidated Research Projects in Kenyan public universities.

Literature reveals a number of financial, structural, management and political issues constraining the efficiency of utilization of M&E tools in Kenyan public universities. However, the association between application of various monitoring and evaluation tools: logical framework, budgets, stakeholder involvement and balanced scorecard and Research Projects in public universities has not attracted many empirical studies, in Kenya and in other countries. Table 2.1 shows a summary of the information revealed by literature review, besides gaps that make the proposed research necessary.

	Table 2.1 Knowledge Gaps				
Variable	**Author (Year)**	**Title of the study**	**Methodology**	**Findings**	**Knowledge Gaps**
Utilization of Logical Framework	Busiinge, (2010)	Impact of NGOs donor assisted projects.	Case study research	Donors hardly function outside the log frame	The study was conducted on NGO projects hence cannot be generalized to public universities
	Jacobs, A., Barnett, C., &Ponsford R., (2010)	Methodologies to Monitoring: logical framework, participatory M&E, and feedback systems	Critical literature review	The log frame met the desires of decision-makers in institutions	The findings of the study were too general hence cannot be generalized to public universities
	Jupp and Ibn Ali (2010)	Quantifying Empowerment? Quantifying qualitative findings from people's investigations	Qualitative study	Use of LFA generated monitoring figures for high-ranking decision-makers and enhance the exercise at the field: they linked management structures to participatory procedures.	The findings of the study were too general hence cannot be generalized to public universities. The study used a qualitative approach.
Utilization of budgets	Amalokwu and Obiajulum, (2008)	Budgetary and management control practices	Descriptive design	Budgets facilitate sustaining and creation of competitive advantage by enabling management functions	The study was done in Nigeria hence cannot be generalized to public universities
	Tsui, (2001)	Impact of culture on the relationship between management accounting systems, budgetary participation and managers performance	Descriptive design	The interaction influence of management accounting structure and budget participation on performance management differed due to cultural background of managers	The study was done in China hence cannot be generalized to public universities as cultures vary

	Ambetsa, (2004)	Budgetary control practices by commercial airlines operating at Wilson airport	Survey	Airlines function and use budgets to implement, plan and evaluate performance	The study was done on airlines and looks at business performance leaving out employee performance
	Melek, (2007)	Budgetary participation and its impact on managerial performance via institution's commitment	Survey	Organizational assurance and influence of budget input on performance of managers are positive and significant. Performance of managerial increase when there is interaction between organizational commitment and budget participation.	The study was conducted in firms in Turkey hence can't be generalized to Kenyan public universities
	Gachithi (2010)	Factors influencing budget execution in public organizations in University of Nairobi, Kenya	Descriptive	The findings found that there is inefficacy in the budget preparation processes experiences many challenges. Further, the researcher concluded that budgets are robust tools for planning.	The study was only conducted in one university.
	(Wamae, 2008)	Budget Contentions at National social security fund (NSSF)	Descriptive	The findings revealed that the institution faced shortcomings in budget preparing and the biggest was commitment of various heads of department who did not take budget into consideration leading to ambitious budgets. It also concluded that it served their purpose assisting in communication by management at various department.	Study was done in one organization. Hence cannot be generalized.
Utilization of Stakeholder Analysis	Ayuso *et al.*, (2011)	Does stakeholder engagement remote sustainable	Questionnaires	Engaging with key has a positive impact on a institutions	The study does not show how utilization of

		innovation orientation?		sustainable innovation orientation	stakeholder analysis influences performance
	Mathur *et al*, (2007)	Does stakeholder engagement remote sustainable innovation orientation?	Conceptual paper, literature review	The study reveals the value of mapping and identifying stakeholders for stakeholder engagement to realize sustainability.	The study does not show the influence of stakeholders on performance
	Zacharia and George (2008)	Stakeholder Involvement in project cycle	Qualitative	Participation levels differs at dissimilar phases of the cycle of the project.	The study was purely qualitative.
	Tiffow (2013)	Stakeholder analysis for community sustainable development	Quantitative	Sustainability is a key requirement many stakeholders at all stages	The study was purely qualitative.
	Kuyini (2011)	Ghana Community Rehabilitation program for Disabled Persons.	Survey	The study recommended the development of a framework for action for sustainability of donor funded disability project. This should outline the responsibility and role every stakeholder involved with issues of disability and an adequate funding regime necessary for CBR program sustainability.	The study was conducted in Ghana hence cannot be generalized.
	Mnaranara (2010)	The Importance of community involvement in construction of school in Tanzania.	Qualitative and quantitative	Stakeholder involvement by material gains was key thus leading to ownership by the community hence promoting sustainability.	The study was done using triangulation method for collecting data. This cannot be generalized.
Utilization of Balanced Scorecard	Al-Hosaini and Sofian, (2015)	Balanced Scorecard Framework Review in Higher	Critical literature review of several journals	The tool can be employed to monitor and strategize organizational performance while continuously	The study was done in Malaysia. Deliberations can be made to deal with

		Education Institution (HEIs)		benchmarking with the strategic plan.	different countries and cultures
	Greatbanks and Tapp, (2007) Mc Adam and Bailie, (2002)	Longitudinal alignment between performance measurement and business strategy	Survey, questionnaires	Performance measures resulting from projects of significance to institutions are perceived to be more fruitful.	The findings of the study were too general hence cannot be generalized to public universities
	Ishtiaque, Khan, Akhter and Fatima (2007),	BSC Analysis: Application over a conglomerate companies in Bangladesh	Survey design	The findings noted that financial measures were dominant in the industrial sector. Majority of industries were embracing non-financial methods.	Study was conducted in Bangladesh. This research was piloted in public universities in Kenya.
	Mosarraf and Ahmed, (2008)	Evaluating performance of business with non-financial measures.	Descriptive design	It was established that financial measures commonly employed in the manufacturing sector. Many organizations were applying non-financial measures in BSC.	Study was conducted in Bangladesh. This study was done in Kenyan public universities.
	Khan and Halabi, (2009)	Insights of corporations learning and growth under knowledge management methodology to balanced scorecard: Evidence from conglomerate companies in Bangladesh	Survey research design	The findings noted that financial measures were dominant in the industrial sector. Majority of the industries were implementing non-financial methods in the BSC.	Study was done in Bangladesh. This research was done in public universities in Kenya.
	Khan, Halabi and Masud, (2010)	Experiential study on the fundamental theoretical hypotheses of BSC model	Descriptive design	The findings established that the financial measures were dominant in the industrial sector. Majority of firms were adopting non-financial measures.	The research employed descriptive statistics. The study was conducted in industries. This research was done in

					public universities in Kenya.
	Khan, Halabi and Sartoriud, (2011)	Measuring performance and the balanced scorecard in Bangladeshi firms.	Descriptive survey	It was established that financial measures were dominant in the industrial sector. However, majority of the firms were embracing non-financial measures.	The study was conducted in firms in Bangladesh. This study was piloted in public universities in Kenya.
	Morium, (2002).	Business performance Measurement in banks: Balanced scorecard approach. Parikrama Bank.	Descriptive design	Noted that BSC is an influential tool for lasting strategic planning. However, there is a gap showing the spontaneous BSC linkages can be applied and works among financial institutions.	The study was conducted in banks in Bangladesh. This study was done in public universities in Kenya.
	Amboga, (2009)	Adoption of BSC in strategy implementation at the Kenya wildlife service	Descriptive design	The study established that KWS exclusively relied on financial indicators thus promoting short term performance at the expense long term performance.	The study was conducted at KWS. This study was conducted in public universities.
Performance Contracting	Nganyi *et. al*, (2014)	Performance Contracting effectiveness in delivery of service in Kenyan public universities	Descriptive cross-sectional research design	Performance Contracting in public universities has led to significant enhancement of delivery of service	There is no link between performance contracting and various monitoring and evaluation tools
	Kobia and Mohammed, (2006)	Kenyan Performance Contracting experience	Survey design	Performance Contracting significantly improved performance of government agencies	The finding were too general hence cannot be applied in public universities
	Obong'o, (2009)	Performance Contracting	Cross sectional	Performance contracting has significantly improved service	The study only focused on pilot state corporations hence can't

		Implementation in Kenya		delivery and performance management systems	be generalized to Kenyan public universities
	Muthaura, (2007)	Performance Contracting in Kenya; Reinstating government's faith through Innovative quality public service	Survey design	Performance Contracting significantly improved performance of government agencies	Study was conducted in government therefore, it cannot be comprehensive
	Prajapa, (2010)	Performance Contracts in Kenya: Operationalization of good governance	Simple random sampling, proportionate sampling and questionnaires	Performance was enhanced as staff struggles are focused to institution's goals hence performance improving.	The study was done in the state department of infrastructure
Human Capacity for M&E	Acevedo et al., (2010)	Monitoring and evaluation Challenges: an occasion to adopt M&E structures	Critical literature review	For project success, the actors of a project must show commitment and empathy with the project benefactors. Employees with requisite skills and are realistically paid and are working in conducive environments, projects are likely to succeed.	No studies have been done to determine effects of human capacity for monitoring and evaluation on public universities performance.
	Mibey (2011)	Factors influencing execution of kazi kwa kijana M&E project	Descriptive	Insufficient capacity to conduct M&E leads to workforce burnout. High staff turnover make staffing of skilled M&E workforce challenging. It also limited organizations expertise to support M&E.	There are no studies done to show how building capacity on monitoring and evaluation has influenced performance of public universities. It did not show the influence of human capacity for monitoring and evaluation on Research Projects in public universities

	White, (2013)	Best practices in Monitoring and evaluation of INGOs' development	Survey	NGOs are faced with a myriad of shortfalls while managing or implementing M&E activities.	The study was conducted on International NGOs and cannot be generalized to public institution of higher education. The study did not show the how human capacity for M&E influences performance
	UNDP (2012)	Results-based Management Handbook, UNDP Group	Survey	There was lack of opportunities and capabilities to train employees with the necessary M&E technical skills.	Study was done in UK.
	Sharma (2012)	Perspectives of higher education: Reference to "Differently Able" Learners.	Survey	A study conducted by focusing on higher education in India found out that 52 (44%) of universities indicated not providing trained staff for learners with disability, while 38 (32%) indicated that provision of staff learners with disability was so low due to uncertainty of the institution admission of the type of disability. Only 24 (20%) institutions were providing learners with disability with the staff they needed.	The study was done in India.
	Gekonde, Nyambonga and Nyahoroo (2014)	The effect of strategic human resource and Institutional building capacity of Public Service Delivery enhancement in,	Descriptive survey design	The study confirmed the need for properly for properly trained human resource can improve delivery, he also noted the adequacy of personnel to be key in some sector. Further, they confirmed the importance of	The study was piloted in Nakuru county, Kenya. This study was done in public universities.

		Nakuru County, Kenya.		experience and continue training as key for service deliver.	
	World Bank, (2005)	Monitoring and Evaluation: methodologies, approaches and tools.	Survey	Contrastingly, effective use of M&E structure has contributed to the efficiency of public sector service delivery programmes in nations such as Chile, United States of America, Australia, and United Kingdom, among others. In Chile for instance, a study commissioned by the World Bank in 2004 reported a high level of efficiency of public service, which the consultancy attributed to the capacity for intensive utilization of data generated through the public M&E structure.	Study was conducted in Chile, Australia, US and UK. This study is done in public universities of Kenya.
	Mackay, 2007)	Building M&E Structures for better Government support	Descriptive survey	The study established that the government's evaluations, which were mainly subcontracted from the academia, were utilized by the Ministry of Finance for allocation of resource, decisions making within the budgetary process, and to enforce efficiency improvements and management on sector ministries in the programmes they are accountable. The study also revealed that the Chilean M&E structure had in place a mechanism for reporting the findings of M&E processes to the National Congress, which in turn, is highly appreciative.	Study was conducted in Chile. This study is being piloted in public universities in Kenya.

	Lahey (2005)	Monitoring and Evaluation comparative Analysis in Four Selected Nations: Australia, United Kingdom, Canada, and United States	Comparative research design	Asserts that programme management should have capacity to integrate and use data on M&E partly as a standard business process. However, it may be misleading to assume that non-technical staff, such programme managers, have an appropriate acknowledgement concepts of M&E and availability of suitable 'incentives' within the institution to guarantee that managers actually used M&E data and reporting reliable information in a timely manner.	The study focused on for Nations; United States, Canada, Australia and United Kingdom. This study focused on public universities in Kenya.
	(GoK, 2012a)	Technical and Vocational Education and Training (TVET) Policy. Ministry of Higher Education, Science and Technology.	Descriptive survey	In Kenya, weak or lack of M&E systems is a common feature in both educational institutions and the Ministry of Education. The existing systems are constrained by lack of or inadequacy of appropriate skills for M&E, comprehensive work plans, insufficient funding, lack of personnel with technical competencies in M&E, as well as lack of appreciation, and a positive attitude towards M&E. This state of affairs has negative implications on accountability and support for learners with disability in utilizing physical facilities. According to	The study was conducted in MoE. This study is done in public Universities.
	Mutisya (2012),	Factors Influencing	Descriptive survey	Lack of or weak M&E systems in inclusive educational institutions	The study focused on disabled learners. This

		Inclusion of Special Needs Learners in Primary Schools in Rachuonyo District, Kenya		may affect accountability regarding the quality of support provided to learners with disability.	study focused on both abled and disabled.
	UNICEF (2009)	Child Friendly Schools: Monitoring and Evaluating	Descriptive survey	Weak M&E systems have implications on the maintenance and functionality of physical facilities, which in turn, affects their use	Did not specify which M&E tools used. Not in University setting.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This section defines methodologies employed to conduct the research. These included; research paradigm, research design, target population, sample size and sampling procedure, research instruments, procedures for data collection, techniques of data analysis, ethical considerations and operationalization of variables.

3.2 Research Paradigm

This is defined as a culture research comprising of values, beliefs, and norms that a body of researchers have collectively regarding the conduct and nature of research (Kuhn, 1977). Thus, it implies assumptions and values, structure of scientific and academic ideas (Olsen, Lodwick and Dunlap, 1992). In educational research the term paradigm is used to describe a researcher's 'worldview' (Mackenzie & Knipe, 2006). Similarly, the gurus of qualitative research, Denzin and Lincoln (2000), define paradigms as human constructions, which deal with first principles or ultimate's indicating where the researcher is coming from so as to construct meaning embedded in data. Simply put, it is a methodology to thinking and doing research. There are three main paradigms commonly used and these are; interpretivism, epistemology, and positivism.

This study adopted a pragmatism paradigm. Tashakkori and Teddlie (2003) recognize pragmatism as a paradigms offers a fundamental philosophical structure for mixed methods research. Pragmatist's emphasis is on knowledge creating through points of action to the types of "joint actions" or "projects" that dissimilar groups or people can achieve together (Morgan, 2007). Researchers are allowed to select the methods (or grouping of methods) that best suits responses to the research questions (B. Johnson & Onwuegbuzie, 2004).

The pragmatist thoughts was used in this study because it facilitated determination of causal relationships amongst the application tools for M&E and Research Projects in public universities. The concepts of utilization of M&E tools on Research Projects were broken down and measured in terms of quantitative and quantifiable variables. Under the paradigm, data was collected from

large samples of university employees; hypotheses were tested and conclusions were derived from data to explain the influence of utilization of M&E tools on Research Projects in public universities. Pragmatism paradigm is applicable where researchers choose between one of the three position (axiology, epistemology or ontology) and it is reasoned that a key factor which paradigm to embrace is the research queries (Creswell and Plano Clark, 2011; Saunders *et al.*, 2009). This is mainly applicable where research queries does not propose an interpretive or positivist viewpoint should be adopted in an inquest. This philosophical argument uses of both quantitative and qualitative methods to solve challenge.

Another research paradigm is positivism paradigm. This philosophy states that constructive knowledge is founded on natural occurrences, properties and how they relate to each other. Information is derived from sensory experience, which is later deduced through a series of reason and logic, thereby forming a source of influential knowledge (Cooper and Schindler, 2006).

The constructivist paradigm was appropriate because the study entailed case analysis of two elements (institutions), where information was assembled using a blend of various methods, including key informant interviews (KIIs), and open ended questionnaires. Information was sourced from various groups. In depth information was employed to examine the totality of the association between utilization of M&E tools and Research Projects in public universities. Constructivist/interpretivists paradigm is where researchers mostly employ qualitative methods (Nind and Todd, 2011; Willis, 2007; Thomas, 2003; McQueen, 2002; Silverman, 2000; Glesne and Peshkin, 1992). Interpretivists inclines to favor qualitative methods like ethnography and case studies. As elaborated by Willis, qualitative methods frequently give quality reports which are fully understood (Willis, 2007). In line with Willis's ideas, qualitative approaches are usually sustained by interpretivists, because this paradigm "depicts a world where reality is ever changing socially constructed and complex" (Thomas, 2003).

Another research paradigm is Interpretivism paradigm where researchers believe that truth is socially created. Most research is developed within the Western paradigm and the background of their evolution amongst cultures is significant. The purpose of this paradigm to investigate phenomena of groups of students for educational research (Willis, 2007). This paradigm is more subjective than objective. Its aim to value bias, and "interpretivists evade the impression that

objective research on human behavior is possible" (Willis, 2007). It is understood that interpretivists are 'anti-foundationalists', because "there is no specific accurate track to knowledge, and no automatic technique that leads to logical progress". Champions of this paradigm don't assent to the presence of worldwide research standards, but insist that research guided standards are "outcomes of a particular cluster or culture" (Smith, 1993). Interpretive investigators do not search for answers to their studies in unbending ways but instead approach reality from subjects.

The two main approaches to research are quantitative and qualitative methodologies. A mixed method approach known as inductive/deductive however exists (Creswell, 2009). Choosing a specific approach is usually swayed by certain aspects like; topic, objectives; and research questions. Factors like maintaining subjective interest are publishable in academic journal, and development new thoughts in literature is equally significant (Creswell, 2009). For this study, qualitative and quantitative approaches were employed, based on the philosophical foundations, to examine influence of utilization of M&E tools on the Research Projects in public universities.

3.2.1 Research Design

This research used a descriptive and causal comparative research design which defines current the state of affairs. Orodho (2003) described a research design as a summary, plan or scheme used to generate solutions to research difficulties as well hypotheses testing. It can be viewed as a collection of conditions for gathering and analyzing data with an aim of combining its relevance with the purpose of research. Descriptive design is used when gathering information about individual's habits, sentiments, attitudes and other behaviors (Orodho and Kombo, 2003). This is appropriate as it permits information collection from dependent and independent variables using questionnaires and interviews (Orodho, 2003). Quantitative methodology strives for accuracy by putting emphasis counted items in order to predetermine categories and subjected to statistical analysis. These approaches provide the data required to arrive at set objectives. The quantitative methodology, consists of closed-ended questions to be employed for inferential and descriptive resolutions. The qualitative methodology with open-ended questions is used to acquire comprehensive statistics to be employed to validate inferential and descriptive outcomes (Mwanje, 2001).

3.3 Target Population

A population is described as events or objects or entire group of individuals which have a common characteristics and observe in a specified description (Mugenda and Mugenda, 2003). The intended populace was all academic and non-academic staff working in Technical University of Mombasa and Pwani University. Target population was therefore 1110 comprising of administrative and academic staff fellows from the both universities.

Table 3.1: Target Population

Individuals	TUM	PU	Total
Academic			
Professors	5	10	15
Associate Professors	4	7	11
Senior Lecturers	20	40	60
Lecturers	92	81	173
Tutorial Fellows	140	80	220
Administration			
Heads of Departments	40	21	61
Sections heads	95	51	146
Administrative Asst.	173	63	236
Technicians	105	83	188
Total	**674**	**436**	**1110**

Source: Registrars Pwani University and Technical University of Mombasa 2017

Therefore, total target population was 1110 from which a sample will be drawn.

3.4 Sample Size and Sampling Procedures

A sample size must be adequate to be a representative of the universal populace (Mugenda and Mugenda, 2003). A researcher must choose a sample size which is able to provide sufficient information about the population for ease of analysis (Kothari, 2004).

3.4.1 Sample size

The size of the sample employed for this thesis was guided by Fishers formula (Fisher, Laing and Stroker, 2003). This aided in obtaining a paradigmatic sample from the target population. The

target populace was 1110 drawn from the two universities. It was achieved by the formula given in the equation below.

$$n = \frac{z^2 pq}{d^2} \quad \text{..... (3.1)}$$

$n =$ Anticipated size of sample (if the target population is larger than 10,000).

$z =$ Standard normal deviate at required levels confidence.

$p =$ Proportion of the targeted population approximated features in the study. If it is unknown, then 0% was used.

$q = 1 - 0.32 = 0.68.$

$d =$ Statistical significance level set = 0.05

$z =$ Assuming (95%) confidence interval Z = 1.96

$$n = \frac{1.96^2 0.5 * 0.5}{0.05^2} \quad \text{..... (3.2)}$$

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For a populace lesser than 10,000, modification were prepared by Cochran's correction formula (Cochran, 2011);

$$nf = \frac{n}{1(n/N)} \quad \text{..... (3.3)}$$

Where;

$nf =$ Size of sample if populace is < 10,000

$n =$ Population sample equal to 10,000 or more

$N =$ Population size from drawn sample

$$nf = {}^{384}\!/\!_{1(384/1110)} \quad \text{..... (3.4)}$$

$nf = 285.31$ Therefore $nf = 285$

Therefore, the sample was 285 drawn from the target population of 1110 using fisher's formula of 2003.

3.4.2 Sampling Procedure

The study used a proportionate and simple random sampling. This aided to attaining a representative sample. In random sampling, all sample size in the population gets the same chance to be chosen (Mugenda and Mugenda, 2003). This allowed generalization for a bigger populace with an error margin that can statistically be determined.

Table 3.2: Sampling Procedure

Category of staff	TUM	PU	Total
Academic			
Professors	5	7	12
Associate Professors	7	5	12
Senior Lecturers	5	12	17
Lecturers	32	18	50
Tutorial Fellows	18	15	33
Administration			
Heads of Departments	19	18	36
Sections heads	16	14	30
Administrative Asst.	32	10	42
Technicians	40	12	52
Total	**174**	**111**	**285**

Therefore, the sample used for this study was 285 people from both universities from each category of staff. This method of establishing the size of the sample was used based on the strength of each category and to avoid biasness.

3.5 Research Instruments

The tools adopted for collecting data were an open-ended questionnaire and interview guide. They were employed for data collection from the selected samples from both universities; Pwani University and Technical University of Mombasa. The study employed the use of open-ended questionnaires for data collection from academic and non-academic employees of both universities. The questionnaires encompassed open ended questions. Questionnaires have an advantage of being cost efficient particularly from a large group (Kothari, 2004).

3.5.1 Questionnaires

Questionnaires were organized into nine segments. Section A dwelled on the demographic characteristics of respondents. These were categorized into; age group, gender, category, and highest academic qualifications. The section B was the utilization of logical framework, section C utilization of budgets, section D Application of Stakeholder Involvement, section E utilization of balance scorecard, section F performance contracting, section G human capacity for monitoring and evaluation (M&E), and section H performance of public universities. Questionnaires were employed to assemble data from academic and some administrative staffs. The questionnaires were administered to Associate Professors, Senior Lecturers, and Tutorial fellows, Heads of Departments, Section Heads, Administrative Assistants and Technicians.

3.5.2 Key Informant Interview Guide

This was used to collected data from top management staff (Deputy Vice Chancellors, Finance Officers, Deans, Directors and Administrative and Academic Registrars) of both universities. They have the element of anonymity as some data collected may be confidential. The use of multiple instruments is significant as it enhanced validity of data obtained while also minimizing possibility of experiencing biasness. Such biases often arise from non-verbal cues that may influence participants to give misleading responses by reporting positive aspects even where negative aspects are predominant (Jaeger, 1984). As noted by Touliatos and Compton (1988), evaluating opinions, feelings, perceptions, views and individual attitudes can be done best through in-depth interview guides. The information sourced was used for in-depth and total analysis of the relationship between the aspects, upon which conclusions were induced.

3.5.3 Pilot testing of the Instrument

A sample of 10% of the total sample was rendered satisfactory for descriptive study (Mugenda and Mugenda, 2003). For this reason, 10% of the researcher's population size was 29 respondents, selected from the main campus of the University of Nairobi, who had same characteristics as respondents selected in the actual study. The researcher engaged different respondents from those used in the actual research but with comparable characteristics, to avoid bias in data analysis. The instruments were administered to all the targeted participants, including the Professors, Associate Professors, Senior Lecturers, Lectures, Teaching Assistants, Registrars, Heads of Departments,

Section Heads, Administrative Assistants and technicians. Only 10% of the sample was considered for the study at the chosen university. Mugenda and Mugenda (2003) supported this as they argued that the number of cases in the pre-test should not be very large. Once the questionnaires were returned, necessary adjustments such as re-statement of unclear questions and instructions; omission of irrelevant questions and grammatical errors were effected based on results, comments from respondents and new insights.

3.5.4 Validity of the Instruments

This is defined as the degree of outcomes obtained from analyzed data as a true representation of the phenomenon under study (Mugenda and Mugenda, 1999). An experimental study was piloted to check and advance validity. The researcher utilized content validity and also consider face and construct validity. Expert judgment was used to check content validity. The instruments were therefore scrutinized by expert in research (Huck, 2000). In this study, content and face validity were attained by consulting 3 experts, supervisors, who assisted in ascertaining the content validity by comparing the questions in the questionnaires with the objectives of this research.

Construct validity was used to compare how questions are phrased in terms of clarity, vagueness and instructions to guide the respondents. Therefore, clear instructions were given before the respondents embark on filling the questionnaires.

3.5.5 Reliability of the Instruments

Reliability defined as consistency or stability of scores with time or across raters (Golafshani, 2003). This was verified by employing of the Cronbach Alpha Coefficient for all independent variable with an alpha of 0.7 and beyond; the tool was taken as reliable (Cronbach, 1951). Cooper and Schindler (2006) accepted an alpha of 0.8 while that of an alpha of 0.6 to be poor (Mugenda and Mugenda, 1999). Reliability coefficient of the data collection tools were evaluated by use of the Cronbach's alpha ($\propto$) which was calculated as follows:

$$\alpha = \frac{k}{k-1} X \left[1 - \sum \left(S^2\right) / \sum S^2 sum\right]$$

Where:

α = Cronbach's alpha

K= Number of responses

$\sum S^2 sum$ = Sum of Variance scores

$\sum(S^2)$= Sum of individual variance

When Cronbach's alpha is 0.70 and beyond, the questionnaire were considered reliable (Katou, 2008).

This was done to establish the questionnaire reliability. Cronbach alpha values varies from 0 and 1.0 with a value of above 0.70 being considered to be within acceptability levels. The reliability results are given in Table 3.3.

Table 3.3 Reliability Results

Variable	Number of Items	Co-efficient Alpha	Comment
Utilization of Logical Framework	5	0.759	Accepted
Utilization of Budget	5	0.714	Accepted
Application of Stakeholder Involvement	3	0.745	Accepted
Utilization of Balanced Scorecard	4	0.934	Accepted
Human capacity for m&e	4	0.727	Accepted
Performance contracting	4	0.779	Accepted
Research Projects	4	0.748	Accepted
Overall Reliability	29	0.859	Accepted

The results indicate in table 3.3 shows the alpha coefficient value obtained was greater than 0.7. This shows that main data and pre-testing data were reliable making the instrument employed to source the two sets of data was sufficiently reliable. This is because all the alpha coefficient calculated were greater than 0.7 which is acceptable, hence considered to be reliable.

3.6 Data Collection Procedure

The researcher recruited 4 assistants to help in data collection. Two each from two Universities. The research assistants were trained to enhance their familiarity with the instrument; refresh training on research ethics was also conducted; and share essential data sourcing skills, including how to approach participants, build a rapport, consent them, issue and collect questionnaires. Data collection began after the proposal was approved. The researcher pursued an introduction letter from University of Nairobi before embarking on applying for a research permit to carry out the research from National Commission for Science and Technology (NACOSTI). Consent was got from County Education Directors office and office of County Commissioners from both Mombasa and Kilifi County. Questionnaires were physically collected at TUM by the researcher and his research assistant; for Pwani University, they were collected by the research assistants and sent via courier to Mombasa for analysis. For key informant interviews, the researcher booked appointments with senior management (Deputy Vice Chancellors, Registrars, Deans, Directors and Finance Officers) for a face to face interview. The exercise took four weeks.

3.7 Data Analysis Techniques

This was done by means of both descriptive and inferential statistics. Further, both qualitative and quantitative methodologies were applied to examine, process and interpret data.

3.7.1 Quantitative Data Analysis

Quantitative data dispensation included coding close-ended data, entry, cleaning, transformation, analysis, and interpretation (Obure, 2002). The SPSS programme was employed for analyses to yield percentages, frequency distributions and measures of central tendency. Data collection instruments were first checked and this involved elimination of unacceptable questionnaires. This process involved elimination of incomplete, little variance. Data editing followed to check whether they have ambiguous answers, incomplete, inconsistent or/and illegible (Ngechu, 2004). Thirdly, the data was coded. A codebook for the dissimilar variables was developed with a numbering structure of the questionnaires. Statistical Package for Social Sciences (SPSS version 25) was adopted in this study. The fourth step involved entry of figures within a programmed computer. The fifth phase was cleaning data to check for stability. Instability may come from out of range, great values or faulty logic. The sixth step was carrying out diagnostic tests using the Shapiro-

Wilk Test to decide if data was normally distributed. Durbin Watson technique to check autocorrelation of variables was also employed (Greener, 2008).

Data analysis involved deduction of accrued data to a more practicable size inorder to develop summaries, applying statistical techniquesand checking for patterns (Ngechu, 2004). Nominal data from the socio-demographic information was analyzed by using percentages and frequencies. The arithmetic mean was used to measure central tendency and standard deviation.

Univariate and multivariate regression models were used in this study to test the association amongst variables. Linear regression model contains a predictor and r, while a multivariate linear regression model has a multiple predictors and outcomes. Regression analysis provided statistics tests like the adjusted R2, F-test and t-Tests. At 95% level of confidence indicates a significance 0.05 level of significance. Independent variable has significant influence on the dependent variable if p-value was lower than significance level of (0.05).

3.7.2 Qualitative Data Analysis

Summary tables were used to describe the qualitative data. Responses got from interviews and open ended questionnaires were classified into specific categories and the numbers of each category were tallied. This enabled the researcher convert qualitative data into quantitative data or nominal data (Creswell, (2011). The data was used for reinforcement of quantitative data. Descriptive statistics like percentages and frequencies were used to define data. Statistical Package for Social Sciences (SPSS) Version 25 was adopted.

The models below were used in testing the 9 hypotheses:

Model for objective 1;

H_0: Utilization of logical framework has no influence on Research Projects in public universities

$$Y_i = \beta_0 + \beta_1 X_1 + \varepsilon_i \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots .. (3.1)$$

Whereby;

Y = Research Projects in public Universities

β_0 = Constant

β_1 =Coefficients of determination

X_1 = LFA

ε = Error term

Model for objective 2;

H_0: Utilization of budgets has no influence on performance of public universities

$$Y = \beta_0 + \beta_2 X_2 + \varepsilon_2 \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \text{(3.2)}$$

Whereby;

Y = Research Projects in public Universities

β_0 = Constant

β_2 =Coefficients of determination

X_2 = Budget process

ε = Error term

Model for objective 3;

H_0: Application of Stakeholder Involvement has no influence Research Projects in public universities

$$Y = \beta_0 + \beta_3 X_3 + \varepsilon_3 \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots.. \text{(3.3)}$$

Whereby;

Y = Research Projects in public Universities

β_0 = Constant

β_3 = Coefficients of determination

X_3 = Stakeholder analysis

ε = Error term

Model for objective 4;

H0: Utilization of balances scorecard has no influence on Research Projects in public universities

$$Y = \beta_0 + \beta_4 X_4 + \varepsilon_4 \text{ ………………………………………… (3.4)}$$

Whereby;

Y = Research Projects in public Universities

β_0 = Constant

β_4 = Coefficients of determination

X_4 = Balanced scorecard

ε = Error term

Model for objective 5;

H0: Performance Contracting has no influence on Research Projects in public universities.

$$Y = \beta_0 + \beta_5 X_5 + \varepsilon_5 \text{ ………………………………………… (3.5)}$$

Whereby;

Y = Research Projects in public Universities

β_0 = Constant

β_5 = Coefficients of determination

X_5 = Performance Contracting

ε = Error term

Model for objective 6;

H₀: Human capacity for Monitoring and Evaluation has no influence on Research Projects in public universities.

$$Y = \beta_0 + \beta_6 X_6 + \varepsilon \quad \text{..... (3.6)}$$

Whereby;

Y = Research Projects in public Universities

β_0 = Constant

β_6 = Coefficients of determination

X_6 = Human capacity for Monitoring and Evaluation

ε = Error term

Model for objective 7;

H₀: Performance Contracting has no moderating effect on the influence between Monitoring and Evaluation tools and Research Projects in public universities

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \varepsilon \quad \text{..... (3.7)}$$

Whereby

Y = Research Projects in public Universities

β_0 = Constant

$\beta_1 - \beta_5$ = Coefficients of determination

X_1 = Logical Framework Approach

X_2 = Budgets

X_3 = Stakeholder analysis

X_4 = Balanced scorecard

X_5 = Performance Contracting

ε = Error term

Model for objective 8;

H_0: Human capacity for Monitoring and Evaluation has no moderating effect on the influences between Monitoring and Evaluation tools and performance of public universities

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_6 X_6 + \varepsilon \text{ …….(3.8)}$$

Whereby

Y = Research Projects in public Universities

β_0 = Constant

$\beta_1 - \beta_5$ =Coefficients of determination

X_1 = Logical Framework Approach

X_2 = Budgets

X_3 = Stakeholder analysis

X_4 = Balanced scorecard

X_6 = Monitoring and Evaluation tools

ε = Error term

The multiple regression formula used in the study is shown below;

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \varepsilon$$

Where:

Y = Research Projects in public Universities

β_0 = Constant

β_1 =Coefficients of determination

X_1 = LFA

X_2 = Budgets

X_3 = Stakeholder analysis

X_4 = Balanced scorecard

X_5 = PC

X_6 = Monitoring and Evaluation tools

ε = Error term

3.7.3 Inferential Analysis

	Objectives	Hypotheses	Type of Analysis	Interpretation of Results
1	To establish how utilization of logical framework approach influences Research Projects in public universities	Utilization of LFA significantly influences Research Projects in public Universities	Correlation analysis Linear regression analysis	For $p < 0.05$, H_0 will be rejected; and H_A accepted
2	To determine how utilization of budgets influences Research Projects in public universities	Utilization of budgets significantly influences Research Projects in public Universities	Correlation analysis Linear regression analysis	For $p < 0.05$, H_0 will be rejected; and H_A accepted
3	To establish how Application of Stakeholder Involvement influences Research Projects in public universities	Application of Stakeholder Involvement significantly influences Research Projects in public Universities	Correlation analysis Linear regression analysis	For $p < 0.05$, H_0 will be rejected; and H_A accepted
4	To assess how utilization of balanced scorecard influences Research Projects in public universities	Utilization of balanced scorecard significantly influences the Research Projects in public Universities	Correlation analysis Linear regression analysis	For $p < 0.05$, H_0 will be rejected; and H_A accepted
5	To examine how performance contracting	Performance Contracting significantly influences	Correlation analysis linear	For $p < 0.05$, H_0 will be rejected; and H_A accepted

	influences Research Projects in public universities	Research Projects in public universities	regression analysis	
6	To examine how combined monitoring and evaluation tools influences Research Projects in public universities	Combined monitoring and evaluation tools influence Research Projects in public universities.	Correlation analysis Linear regression analysis	For $p>0.05$, H_0 will be rejected; and H_A accepted
7	To establish how human capacity for monitoring and evaluation influences Research Projects in public universities	Human capacity for monitoring and evaluation significantly influences Research Projects in public universities	Correlation analysis Linear regression analysis	For $p>0.05$, H_0 will be rejected; and H_A accepted
8	To examine the degree to which performance contracting moderates the relationship between monitoring and evaluation tools and Research Projects in public universities	PC significantly moderates the relationship between M&E tools and Research Projects in public universities	Correlation analysis Linear regression analysis	For $p>0.05$, H_0 will be rejected; and H_A accepted
9	To assess how human capacity for M&E moderates the relationship between M&E tools and Research Projects in public universities	Human capacity for M&E significantly moderates the relationship between M&E tools and Research Projects in public Universities	Correlation analysis Linear regression analysis	For $p < 0.05$, H_0 will be rejected; and H_A accepted

3.8 Ethical Consideration

Ethics is defined as norms which controls human behavior and have a substantial impact on human wellbeing (Cooper and Schindler, 2006). An investigator should put ethical issues into deliberation to avoid the loss of credibility. All thoughts borrowed from researchers were acknowledged to avoid plagiarism. Only persons who were keen to partake in this study were interviewed and given questionnaires. Those not keen were not forced to participate in any form.

Respondents were advised against inscribing their names or designations on the questionnaires. Where responses were accredited to certain individuals was upheld with strict confidence. They were enlightened on the purposes of the study and assurances made that the results will only be for purely academic purposes. This ensured confidentiality.

3.9 Operationalization of the Variables

Table 3.5 shows the variables used in the study will be operational and these includes; indicators, measurement of scale, research approaches, data analysis techniques, and tools for analyzing data.

Table 3.5: Operationalization of the Variables

Objectives	Variable(s)	Indicators	Measuring Scale	Research Approach	Data Analysis Techniques	Tools for data Analysis
To establish how utilization of logical frameworks influences Research Projects enhancement in public Universities	Utilization of logical framework approach	• Goals set • Outcomes from research projects • Outputs from research projects • Research projects activities	Nominal Ordinal Interval	Quantitative and Qualitative	• Descriptive statistics • Inferential statistics • Content analysis	• Chi-square • Spearman rank correlation • ANOVA
To determine how utilization of budgets influences Research Projects enhancement in public Universities	Utilization of budget	• Budget reviews • Budget compliance • Budget guidelines • Budget controls	Nominal Ordinal Interval	Quantitative and Qualitative	• Descriptive statistics • Inferential statistics • Content analysis	• Chi-square • Spearman rank correlation • ANOVA
To establish how Application of Stakeholder Involvement influences Research Projects enhancement in	Application of Stakeholder Involvement	• No. of stakeholders involved • Scoping process	Nominal Ordinal Interval	Quantitative and Qualitative	• Descriptive statistics • Inferential statistics • Content analysis	• Chi-square • Spearman rank correlation • ANOVA

public Universities						
To assess how the utilization of balanced scorecard influences research projects enhancement in public Universities	Utilization of balanced scorecard	• Financial perspective • Customer perspective • Financial performance • Learning & growth perspective	Nominal Ordinal Interval	Quantitative and Qualitative	• Descriptive statistics • Inferential statistics • Content analysis	• Chi-square • Spearman rank correlation • ANOVA
To examine the degree Performance Contracting moderates the relationship between monitoring and evaluation tools and research projects enhancement in public Universities	Performance Contracting	• Signed performance contracts • Targets set • Service delivery • No. of trained employees	Nominal Ordinal Interval	Quantitative and Qualitative	• Descriptive statistics • Inferential statistics • Content analysis	• Chi-square • Spearman rank correlation • ANOVA
To assess how human capacity for monitoring and evaluation moderates the relationship between monitoring and evaluation tools and research projects	Human capacity for monitoring and evaluation	• No. of years' experience on monitoring and evaluation • Financing monitoring and evaluation activities • Monitoring and evaluation skills acquired • No. of staff with monitoring and evaluation skills	Nominal Ordinal Interval	Quantitative and Qualitative	• Descriptive statistics • Inferential statistics • Content analysis	• Chi-square • Spearman rank correlation • ANOVA

enhancement in public Universities						
Research projects enhancement in public universities	Research projects	• Research outputs • Research grants • Completion rate	Nominal Ordinal Interval	Quantitative and Qualitative	• Descriptive statistics • Inferential statistics • Content analysis	• Chi-square • Spearman rank correlation • ANOVA

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION, INTERPRETATION AND DISCUSSION

4.1 Introduction

This chapter presents the analyzed and discussed study outcomes based on the study themes drawn from the objectives. These areas included are; Questionnaire return rate, demographic characteristics of the participants, utilization of logical framework and Research Projects in public universities, utilization of budgets and Research Projects in public universities, Application of Stakeholder Involvement and Research Projects in public universities, utilization of balanced scorecard and Research Projects in public universities, Performance Contracting and Research Projects in public universities, Human capacity for M&E and Research Projects in public universities, and Research Projects in public universities.

4.2 Questionnaire Return Rate

This is defined as the ratio of the sum of people interviewed to the total sum of individuals invited to take part in a study. Questionnaire return rate indicates the accuracy and usefulness of survey findings. Low questionnaire returns rises sampling bias risk, predominantly where no reply is unequal amongst numerous groupings of participants, in turn, affects precision in the approximation of population parameters using samples (CDC, 2010; National Research Council, 2013). In this research, 285 questionnaires were disseminated to academic and administrative staff of both universities. 250 questionnaires were returned resulting to 87.72%. As noted by Werner (2004), questionnaire return rates above 80% are acceptable in social surveys. Based on this, the questionnaire return rate was (87.727%) which was excellent. The return rate seemed higher on administrative staff as compared to academic staff particularly due to commitment with lecturing duties. In this study, the principal researcher explained to all members, its importance and the necessity for voluntary participation. The researcher also sought the support of University managers who reminded the participants about the need for cooperation and full support to the study. Table 4.1 highlights a detailed questionnaire return rate.

Table 4.1 Detailed Questionnaire Return Rate

Institution	Category of staff	Issued	Returned	Percentage
Technical University of Mombasa	**Administrative**			
	Heads of Department	18	14	77.78
	Section Heads	16	13	81.25
	Administrative Asst.	32	32	100
	Technicians	40	40	100
	Academic			
	Professors	5	2	40
	Ass. Professors	7	3	42.86
	Senior Lecturers	5	5	100
	Lecturers	32	26	81.25
	Teaching Assistants	18	16	88.89
Pwani University	**Administrative**			
	Heads of Department	18	15	83.33
	Section Heads	14	13	92.86
	Administrative Asst.	10	10	100
	Technicians	13	13	63.23
	Academic			
	Professors	7	4	57.14
	Ass. Professors	5	5	100
	Senior Lecturers	12	11	91.67
	Lecturers	18	15	83.33
	Tutorial Fellows	15	13	86.67
Total		**285**	**250**	**87.72**

4.3 Demographic Characteristics of the Respondents

This segment highlights the demographic features of the respondents constituting the sample. The characteristics considered included age, employment division, gender, length of service and highest academic qualifications achieved. The aim of this section is to establish that the sample composition took care of all interests across each characteristic. Further, they are discussed in succeeding sub themes.

4.3.1 Distribution of Respondents by Age

Participants were probed to state their ages and results are given in Table 4.2

Table 4.2 Distribution of Respondents by Age

Age bracket	Frequency	Percent
30-39	131	52.9
40-49	72	28.6
50-59	29	11.4
60 and above	18	7.1
Total	**250**	**100.0**

Table 4.2 highlights that most participants were in the between ages 30 to 39 years at 131 (52.9%) followed by 40 to 49 years at 72 (28.6%), 50 to 59 at 29 (11.4%) while those aged 60 and above were few at only 18 (7.1%). The age of the respondents may positively and negatively influence Research Projects in public universities. For example, there are some cases where young academicians try to publish early in ages before gaining experience and exposure in their respective areas of study. These academicians deduce that in investigative performance of research it should be noted that some older members of staff were employed at a time when research performance expectations were modest whereas now there is need to publish for purposes of appointment, promotion and tenure. For a student to be graduated with a PhD, he or she must meet the minimum requirements of publishing at least two publications in refereed journals. There exists a significant relationship between age of respondents and Research Projects in public universities in Kenya.

4.3.2 Distribution of Respondents as per Category of Staff

Generally, in institutions of higher learning staffs are always categorized as either academic or administration. Table 4.3 presents the results. This categorization was important as it provided a ratio of the academic to administrative staff in public universities. From the data collected, the administrative staff are more than the academic staff thus. The fewer number of academic staff hinders Research Projects due to low lecturer student ratio.

Table 4.3 Distribution of Respondents as per Category of Staff of Technical University of Mombasa

Institution	Category of staff	Returned	Percentage
Technical University of Mombasa	**Administrative**		
	Heads of Department	14	77.78
	Section Heads	13	81.25
	Administrative Asst.	32	100
	Technicians	40	100
Total		**99**	**63.87**
	Professors	2	40
	Ass. Prof	3	42.86
	Senior Lecturers	5	100
	Lecturers	26	81.25
	Tutorial Fellows	16	88.89
Total		**52**	**34.43**
Grand total		**151**	**60.4**

From table 4.3, it can be seen that 151 (60.4%) were staff from Technical University of Mombasa; 99 (63.87%) administrative while 52 (34.43%) were academic staff. Public universities in Kenya generally have fewer members of academic staff compared to the administrative staff as highlighted by the Commission of Higher Education Quality Audit 2017 report. This has largely impacted on research projects as the academic staff are overburdened with lecturing duties hence put less effort on research projects. This affects research outputs as there are few researchers in public universities hence affecting Research Projects.

Table 4.4 Distribution of Respondents as per Category of Staff of Pwani University

Institution	Category of staff	Returned	Percentage
Pwani University	**Administrative**		
	Heads of Department	15	88.33
	Section Heads	13	92.86
	Administrative Asst.	10	100
	Technicians	13	63.23
Total		**51**	**56.04**
	Professors	4	40
	Ass. Prof	5	57.14
	Senior Lecturers	11	100
	Lecturers	15	83.33
	Tutorial Fellows	13	86.67
Total		**48**	**52.74**
Grand total		**91**	**81.25**

From table 4.4, it can be seen that 91 (81.25%) were staff from Pwani University; 51 (56.04%) administrative while 48 (52.74%) were academic staff. Public universities in Kenya generally have fewer members of academic staff compared to the administrative staff as highlighted by the Commission of Higher Education Quality Audit 2017 report. This has largely impacted on research projects as the academic staff are overburdened with lecturing duties hence put less effort on research projects. This affects research outputs as there are few researchers in public universities hence affecting Research Projects.

4.3.3 Distribution of Respondents by Gender

The Government has been pushing for affirmative action in government's institutions. There is a third rule employment which requires that at least third of the employees should be from one gender. Table 4.5 presents results.

Table 4.5 Distribution of Respondents by Gender

Gender	Frequency	Percent
Male	144	57.7
Female	106	42.3
Total	**250**	**100.0**

The study wanted to establish if gender influences Research Projects in public universities. The findings presented in Table 4.5 show that 144 (57.7%) were male and 106 (42.3%) were female. The results show that the more male than female participated in this study. Performance differences amongst female and male researchers has shown men to be more aggressive by publishing more, and getting more citations as opposed to the female colleagues (Cole and Zuckerman, 1984; Long, 1992; Xie and Shauman, 1998; Nakhaie, 2002; Prpic, 2002; Penas and Willett, 2006; Symonds, *et al*., 2006; Taylor and Fender, 2006; Ledin, *et al.*, 2007; Abramo, D'Angelo and Caprasecca., 2009). However, some studies denote that there exists no differences in gender (Penas and Willett, 2006; Ledin, *et al.*, 2007; Tower, Plummer and Ridgewall, 2007). Studies by (Long, 1992; Powell, *et al.*, 2009; Sandström, 2009 a, b) have established greater reference score for females than males.

4.3.4 Distribution of Respondents by the Length of Service

The length of service of an employee may influence the ability to deliver. Table 4.6 depicts the years of service served by the participants in the sample.

Table 4.6 Distribution of Respondents by the Length of Service

Length of Service	Frequency	Percent
1-5	72	28.6
6-10	131	52.9
11-15	29	11.4
Above 15	18	7.1
Total	**250**	**100.0**

Majority of the staff have served for between 6 to 10 years at 131 (52.9%) followed by those who have served between 1 to 5 years at 72 (28.6%). Very few staffs have served more than 15 years 18 (7.1%). Employees that have served longer years know about the institutions culture of research hence better performance in research projects. This gives them an edge on professional experience as employees who have worked longer years have.

4.3.5 Distribution of the Respondents by Highest Academic Qualifications

In institutions of higher learning, the highest level of academic qualification is very key. One of the government requirements is that to be employed as a lecturer in a university one must possess doctorate degree. Participants were probed to state their academic trainings. The outcomes are shown in Table 4.7.

Table 4.7 Distribution of the Respondents by Highest Academic Qualifications

Highest Academic Qualification	Frequency	Percent
PhD	30	12.5
Masters Degree	90	36.1
Bachelor Degree	63	25.0
Higher Diploma	11	4.2
Diploma	52	20.8
Certificate	4	1.4
Total	**250**	**100.0**

Table 4.7 depicts that most of employees had Master's Degree at 90 (36.1%), Bachelor's Degree had 63 (25%), and Diplomas had 52 (20.8%). Only 30 (12.5%) hold doctorate degrees and a paltry

11 (4.2%) and 4 (1.4%) hold Higher Diploma and Certificate respectively. Education level is key as a higher number of highly educated individual's means that there will be higher research outputs hence positively influencing Research Projects in public universities. The study was done in universities that were fairly new hence the few number of PhD holders. However, the universities were making efforts to train their Masters students to acquire PhDs as it was recommended in the Commission for University Education Quality Audit Report of 2017.

4.4 Basic Test of Statistical Assumptions

The validity of the constructs was tested by use of factor analysis (Principal Component Analysis). In this analysis, only constructs that have significant contribution to the variable are retained. That is, it produces a lesser quantity of factors from a great amount of variables adept of enlightening the pragmatic variance in a larger quantity of variables (Theuri *et al*., 2015). Data fitness for factor analysis is verified mainly using Bartlett's Test of Sphericity and Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy.

These two techniques methods recommended sampling adequacy in order to determine the case to variable ratio for analysis conducted. KMO test index value ranges from 0 to 1. A test index value of 0.5 and above is acceptable. The Bartlett's Test of Sphericity relays to the importance of this research and demonstrates the validity and appropriateness of the gathered findings to the drawback being investigated in this research. When Bartlett's Test of Sphericity p value is lower than the specified level of significance (0.05) then factor analysis can be used. Factor analysis was done on all the variables and results presented under the below section.

4.4.1 Validity

4.4.1.1 Factors of Utilization of Logical Framework Approach

The constructs on utilization of logical framework were subjected to factor analysis and results presented in the tables that follow.

4.4.1.2 KMO and Bartlett's Test

The KMO tests is used to determine the suitability of your data for structure detection. The Kaiser-Meyer-Olkin Measure of Sampling Adequacy is a statistic that indicates the proportion of variance in your variables that might be caused by underlying factors.

Table 4.8 KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.713
Bartlett's Test of Sphericity	Approx. Chi-Square	167.719
	Df	15
	Sig.	0.000

Table 4.8 shows the KMO test with a value of 0.713. High values of close to 1.0 indicate that the factor of analysis is useful with the data collected. Bartlett's test of Sphericity is used to test the correlating hypothesis and for this case, the level of significance is 0.000 indicative that the factor of analysis was useful for this study.

4.4.1.3 Total Variance Explained

Table 4.9 shows the contribution of each construct to the utilization of the logical framework. It can be seen that only two factors contributes the greatest variation. The first factor contributes 51.668% while the second factor contributes 24.836%. In total both factors contributed a combined variation of 76.505 between both of them. Both factors had Eigen values of more than one.

Table 4.9 Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.100	51.668	51.668	3.100	51.668	51.668
2	1.490	24.836	76.505	1.490	24.836	76.505
3	0.527	8.791	85.296			
4	0.352	5.867	91.163			

4.4.1.4 Rotated Component Matrix

Table 4.10 presents the rotated component matrix. The constructs with a loading factor of 0.4 and above are retained. All the factors of logical framework had a loading factor of more than 0.4 hence they were all retained and used in further analysis.

Table 4.10 Rotated Component Matrix[a]

	Component	
	1	2
Setting goals in logical framework influences research projects enhancement in public universities	0.873	
Stakeholder participation in log frame development influences research projects enhancement in public universities.	0.860	.
Setting indicators in logical framework influences of research projects enhancement in public universities.		0.904
Activity setting in logical framework influences of research projects enhancement in public universities.	0.811	

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 3 iterations.

4.4.1.5 Factor Analysis on Utilization of Budget

All the constructs of the utilization of budget were subjected to factor analysis and the results presented in 4.11.

Table 4.11 KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.742
Bartlett's Test of Sphericity	Approx. Chi-Square	368.997
	Df	66
	Sig.	0.000

From table 4.11 it can be seen that the data was adequate for factor analysis since KMO is 0.742 being close to 1.0 and greater than 0.5 hence the data was useful for this study. Bartlett's Test of Sphericity had a p 0.000 level of significance hence useful for this study.

Table 4.12 Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.328	36.065	36.065	4.328	36.065	36.065
2	2.590	21.584	57.649	2.590	21.584	57.649
3	1.513	12.611	70.260	1.513	12.611	70.260
4	0.778	6.483	76.743			
5	0.765	6.375	83.118			

From table 4.12 it can be seen that three factors were identified to be making the greatest contribution accounting for 70.26% of all the variations. All the three factors have Eigen values of more than 1.

Table 4.13 Rotated Component Matrix[a]

	Component		
	1	2	3
Budget reviews influences research projects enhancement in public universities.		0.871	
Compliance with budgets influences research projects enhancement in public universities.	0.811		
Stakeholder involvement in budget setting influences research projects enhancement in public universities		0.868	
Budget guidelines influences research projects enhancement in public universities.		0.719	
Budget controls in place influences research projects enhancement in public universities.	0.837		

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 6 iterations.

Table 4.13 presents the identified construct per each sub variable. All factors that had a loading value of 0.4 and above were retained.

4.4.1.6 Application of Stakeholder Involvement

Table 4.14 presents the KMO and Bartlett's Test of Sphericity. It can be seen the factors on application of stakeholders' investment were ideal for factor analysis.

Table 4.14 KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.687
Bartlett's Test of Sphericity	Approx. Chi-Square	303.567
	Df	28
	Sig.	0.000

From Table 4.14 it can be seen that the data was adequate for factor analysis since KMO is 0.687 being close to 1.0 and greater than 0.5 hence the data was useful for this study. Bartlett's Test of Sphericity had a p 0.000 level of significance hence useful for this study.

Table 4.15 Total Variance Explained

Component	**Initial Eigenvalues**			**Extraction Sums of Squared Loadings**		
	Total	**% of Variance**	**Cumulative %**	**Total**	**% of Variance**	**Cumulative %**
1	3.637	45.460	45.460	3.637	45.460	45.460
2	1.814	22.673	68.134	1.814	22.673	68.134
3	1.067	13.334	81.467	1.067	13.334	81.467

Table 4.15 shows that only three factors had the greatest contribution accounting for 81.467% of all the variations. These factors had Eigen values more than 1.

Table 4.16 Rotated Component Matrix[a]

	Component		
	1	2	3
Stakeholder's involvement influences research projects enhancement in public universities.		0.878	
Scoping of stakeholder's influences research projects enhancement in public universities.	0.891		
No. of stakeholder's involved influences research projects enhancement in public universities.		0.859	

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 3 iterations.

All the factors had a loading of at least 0.4 and hence were retained as shown in table 4.16.

4.4.1.7 Utilization of Balanced Scorecard

Table 4.17 shows that KMO measure of sampling adequacy was 0.811 which is above the 0.5 threshold while the P value of Bartlett's test was 0.000 which is less than 0.05. Therefore, the data was adequate for factor analysis.

Table 4.17 KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.811
Bartlett's Test of Sphericity	Approx. Chi-Square	1348.146
	Df	171
	Sig.	0.000

Table 4.18 Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	9.559	50.313	50.313	9.559	50.313	50.313
2	3.119	16.417	66.730	3.119	16.417	66.730
3	1.442	7.588	74.318	1.442	7.588	74.318
4	0.994	5.232	79.550			

From Table 4.18 three factors were identified to be highest contribution to the variation in the utilization of balanced scorecard. The three factors accounted for 74.318% of all the variation. The three factors had Eigen values of more one.

Table 4.19 Rotated Component Matrix

	Component		
	1	2	3
Effective use of financial resources influences research projects enhancement in public universities.			0.884
Customer focus influences research projects enhancement in public universities.			0.79
Learning and growth influences research projects enhancement in public universities.			0.703
Internal business processes influences research projects enhancement in public universities.	0.702		

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 5 iterations.

From Table 4.19 it can be seen that all the factors had a loading of more than 4.

4.4.1.8 Performance Contracting

Table 4.20 KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.733
Bartlett's Test of Sphericity	Approx. Chi-Square	439.796
	Df	55
	Sig.	0.000

From Table 4.20 it can be seen that the data was adequate for factor analysis since KMO is 0.733 being close to 1.0 and greater than 0.5 hence the data was useful for this study. Bartlett's Test of Sphericity had a p 0.000 level of significance hence adequate for this study.

Table 4.21 Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.794	43.582	43.582	4.794	43.582	43.582
2	2.123	19.301	62.883	2.123	19.301	62.883
3	1.055	9.593	72.476	1.055	9.593	72.476
4	0.799	7.262	79.737			

Table 4.21 shows that there were three factors with the greatest influence accounting for a total of 72.476. They all had Eigen values of more than 1.

Table 4.22 Rotated Component Matrix[a]

	Component		
	1	2	3
Signing of performance contracts influences research projects enhancement in public universities.	0.734		
Setting performance targets influences research projects enhancement in public universities.			0.8
Service delivery influences research projects enhancement in public universities.	0.81		
No. of employees trained in performance contracting influences research projects enhancement in public universities.		0.749	

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 15 iterations.

All the factors were retained since they had a loading values of more than 0.4 as shown in table 4.22.

4.4.1.9 Human capacity for Monitoring and Evaluation

Table 4.23 KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.632
Bartlett's Test of Sphericity	Approx. Chi-Square	214.388
	Df	21
	Sig.	0.000

From table 4.23 it can be seen that the data was adequate for factor analysis since KMO is 0.632 being close to 1.0 and greater than 0.5 hence the data was useful for this study. Bartlett's Test of Sphericity had a p 0.000 level of significance hence useful for this study.

Table 4.24 Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.379	48.279	48.279	3.379	48.279	48.279
2	1.087	15.527	63.806	1.087	15.527	63.806
3	0.979	13.981	77.786			
4	0.812	11.596	89.382			

Two factors had the greatest contribution accounting for 63.806% of all the variation as shown in table 4.24.

Table 4.25 Rotated Component Matrix[a]

	Component	
	1	2
Experience in monitoring and evaluation enhances research projects in public universities.	.	0.603
A budget for monitoring and evaluation enhances research projects in public universities		0.840
Skills in monitoring and evaluation enhances research projects in public universities		0.623
Number of skilled staff in monitoring and evaluation enhances research projects in public universities		0.684

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 3 iterations.

All the factors were retained since their loading values were than 4

4.4.1.10 Research projects in public Universities

The KMO tests is used to determine the suitability of your data for structure detection. The Kaiser-Meyer-Olkin Measure of Sampling Adequacy is a statistic that indicates the proportion of variance in your variables that might be caused by underlying factors.

Table 4.26 KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.754
Bartlett's Test of Sphericity	Approx. Chi-Square	369.050
	Df	45
	Sig.	0.000

Table 4.26 shows the KMO test with a value of 0.754. High values of close to 1.0 indicate that the factor of analysis is useful with the data collected. Bartlett's test of Sphericity is used to test the correlating hypothesis and for this case, the level of significance is 0.000 indicative that the factor of analysis was useful for this study.

Table 4.27 Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.586	45.856	45.856	4.586	45.856	45.856
2	1.723	17.230	63.085	1.723	17.230	63.085
3	1.043	10.426	73.511	1.043	10.426	73.511
4	0.867	8.669	82.181			

Three factors were identified to be having the greatest influence accounting for 73.511 of all the variations.

Table 4.28 Rotated Component Matrix[a]

	Component		
	1	2	3
Research outputs influences research projects enhancement in public universities.			0.894
Students' completion rate influences research projects enhancement in public universities.			0.809
Promotion of academic staff influences research projects enhancement in public universities.	0.805		
Research grants influences research projects enhancement in public universities.	0.86		

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 5 iterations.

All the factors were retained since they had loading values of more than 0.4

4.4.2 Normality

One of the assumptions of linear regression is that the error terms are normally distributed. Several tests exist on checking if the data is normal. In this research, the Kolmogrov Smirnov test was used. In Kolmogrov Smirnov test the null hypothesis that the data came from a normal distribution is tested. This hypothesis is always rejected when the p value is more than 0.05. This rejection implies that the data came from other distribution but not normal. Table 4.29 presents the results of normality tests.

Table 4.29 One-Sample Kolmogorov-Smirnov Test

		Utilization of framework	Utilization of budget	Application of stakeholder	Utilization of balanced scorecard	Performance Contracting	Human capacity for M&E
n		250	250	250	250	250	250
Normal Parameters[a,b]	Mean	3.437	3.817	0.247	3.906	3.761	3.649
	Std. Deviation	0.785	0.747	0.040	0.777	0.747	0.676
Most Extreme Differences	Absolute	0.128	0.097	0.139	0.174	0.143	0.148
	Positive	0.085	0.069	0.120	0.094	0.052	0.108
	Negative	-0.128	-0.097	-0.139	-0.174	-0.143	-0.148
Kolmogorov-Smirnov Z		1.084	0.819	0.817	1.177	1.212	1.258
Asymp. Sig. (2-tailed)		0.191	0.513	0.516	0.125	0.106	0.084

a. Test distribution is Normal.
b. Calculated from data.

Table 4.29 shows that all the independent variables including the moderating variables were normal.

4.4.3 Multicollinearity Test

The assumption of multicollinearity ensures that the independent variables have no exact linear relationship. Several diagnostic tests for multicollinearity exist in the literature. In this research Variance Inflation Factor was used. Variance inflation factor of more than 10 points to the presence of multicollinearity. Table 4.30 presents the outcomes of multicollinearity.

Table 4.30 Multicollinearity results

Variables	Collinearity Statistics	
	Tolerance	VIF
Utilization of Logical Framework	0.794	1.259
Utilization of Budget	0.412	2.426
Application of Stakeholder Involvement	0.459	2.178
Utilization of Balanced Scorecard	0.376	2.660
Performance Contracting	0.353	2.834
Human Capacity for Monitoring & Evaluation	0.624	1.602

From the data presented in table 4.30, the variables had VIF values lie between 1 and 10 and tolerance values of more than 0.1, therefore, it can be concluded that there is no presence of multicollinearity.

4.4.4 Auto Correlation Test

There should be no serial correlation between the error terms for the data to be ideal for linear regression. In this research Durbin Watson was used to check for auto correlation. A value of between 1.75 and 2.25 is always considered to be an indication of lack of auto correlation in the data. Table 4.31 depicts the conclusions of Durbin Watson test.

Table 4.31 Model Summary[b] for Auto Correlation Test

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	0.920[a]	0.847	0.838	0.13066	2.023

a. Predictors: (Constant), human capacity for monitoring and evaluation, utilization of logical framework, Application of Stakeholder Involvement, utilization of balanced scorecard, utilization of budget, performance contracting

b. Dependent Variable: Research Projects Enhancement

Table 4.31 shows there were no problems of auto correlation since the Durbin Watson value is between 1.75 and 2.25.

4.4.5 Multiple Linear Regression model

To achieve objectives one to four, multiple linear regression models was fitted with performance of projects in public university as response variable with logical framework, utilization of budgets, application of stakeholder involvement and utilization of balanced scorecard as explanatory variables.

Table 4.32 gives the model summary which shows that the model had a good explanatory power of 84.7% for all the variation in research projects in public universities is explained by the relationship between the response variable and the explanatory variables. This implies that other factors contribute only 15.3% of all the variations in research projects in public universities.

Table 4.32 Model Summary for Multiple Linear Regression model

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.920[a]	0.847	0.838	0.13066

a. Predictors: (Constant), utilization of logical framework, utilization of budgets, application of stakeholder involvement, utilization of balanced scorecard

4.4.6 ANOVA Summary

To test the null hypothesis that none of the explanatory variables is significant against the alternative that at least one of the explanatory variables is significant, F test is used. A p value of less than 0.05 leads to rejection of the null hypothesis and a conclusion that at least one of the

explanatory variables is significant. Table 4.33 shows that the p value is less than 0.05 which implies that at least one of the explanatory variables is significant. It also shows that the model was of good fit.

Table 4.33 ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	6.323	4	1.581	92.585	0.000[b]
	Residual	4.165	245	0.017		
	Total	10.488	249			

a. Dependent Variable: research projects enhancement
b. Predictors: (Constant), utilization of logical framework, utilization of budgets, application of stakeholder involvement, utilization of balanced scorecard.

4.4.7 Regression Coefficients

Table 4.34 presents the regression coefficients of the explanatory variables. The coefficients represent the changes in the explanatory variable for every unit change in the response variable.

Table 4.34 Regression Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	0.200	0.099		2.015	0.048
	Utilization of logical framework	0.002	0.022	0.005	0.089	0.930
	Utilization of budget	0.282	0.032	0.649	8.782	0.000
	Application of stakeholder involvement	0.106	0.028	0.242	3.745	0.000
	Utilization of balanced scorecard	0.062	0.021	0.097	2.975	0.003

a. Dependent Variable: Research projects enhancement
b. Independent Variables: utilization of logical framework, utilization of budgets, application of stakeholder involvement, utilization of balanced scorecard

4.5 Utilization of Logical Framework and Research Projects Enhancement in Public Universities

The first objectives was to determine how utilization of logical framework influences Research Projects enhancement in public universities. Respondents were asked to state their agreement or disagreement level with the following statements on a likert scale of 1 – 5 where 1=Strongly Disagree; 2= Disagree; Agree; 3= Neutral; 4=Agree; 5=Strongly Agree). The outcomes are shown in Table 4.35.

Table 4.35 Utilization of Logical Framework and Research Projects Enhancement in Public Universities

S/No	Statement	1 %	2 %	3 %	4 %	5 %	M	S.D
1.	Setting goals in the logical framework enhances Research Projects in public universities	7 (2.8%)	21 (8.5%)	56 (22.5%)	109 (43.7%)	57 (22.5%)	3.75	0.996
2.	Stakeholder participation in logical frame development enhances performance research projects in public universities	11 (4.3%)	18 (7.1%)	57 (22.9%)	117 (47.1%)	47 (18.6%)	3.69	1.00
3.	Setting indicators in a logical frame enhances Research Projects in public universities	47 (18.6%)	43 (17.1%)	43 (17.1%)	81 (32.9%)	36 (14.3%)	3.63	0.821
4.	Activity setting in logical frame enhances Research Projects in public universities	11 (4.2%)	32 (12.7%)	60 (23.9%)	112 (45.1%)	35 (14.1%)	3.52	0.528
5.	Output identification in logical frame enhances Research Projects in public universities	36 (14.5%)	44 (17.4%)	76 (30.4%)	76 (30.4%)	18 (7.3%)	3.23	0.256
Composite Mean and Standard deviation							3.564	0.785 56

The first statement, setting goals in the logical framework influences Research Projects enhancement in public universities. Out of 250 participants who took part in the study, 109 (43.7%) agreed, 56 (22.5) strongly agreed, 21 (8.5%) disagreed, 7 (2.8%) strongly disagreed and 56

(22.5%) were neutral. This line item has a mean score of 3.75 and a standard deviation of 0.996 which is greater than composite mean of 3.564 and standard deviation of 0.785. This implies that setting goals in the logical framework influences Research Projects in public universities.

The second statement, stakeholder participation in logical frame development influences performance research projects in public universities. Out of 250 participants who took part in the study, 117 (47.1%) agreed, 57 (22.9) strongly agreed, 47 (18.6%) strongly agreed, 18 (7.1%) disagreed and 11 (4.3%) strongly disagree. This line statement has a mean score of 3.69 and standard deviation of 1.0 being greater than composite mean of 3.564 and a standard deviation of 0.785 implying that the line item influences Research Projects positively in public universities. This is sustained by studies by Shenhar *et al.,* 2001 who noted that a stakeholders approach was successful in projects of multi-dimension and multi-criteria approaches. Project realization dimensions were beneficial to the performing organization, customers, enhanced project efficiency and preparation for the future.

The third statement, setting indicators in a logical frame influences Research Projects in public universities. Out of 250 respondents, 81 (32.9%) agreed, 47 (18.6%) strongly disagreed, 43 (17.1%) neutral, 43 (17.1%) disagreed and 36 (14.3%) strongly agreed. This line statement has a mean score of 3.63 and a standard deviation of 0.821 which is higher than composite mean of 3.564 and standard deviation of 0.785 implying that the line item influences Research Projects in public universities.

The fourth statement, activity setting in logical frame influences Research Projects in public universities. Out of 250 respondents, 112 (45.1%) agreed, 60 (23.9%) neutral, 35 (14.1%) strongly agreed, 32 (12.7%) disagreed and 11 (4.2%) strongly disagreed. This line item had a mean score of 3.52 and a standard deviation of 0.528 being lower than composite mean of 3.564 and standard deviation of 0.785 meaning the line item influences the Research Projects in public universities negatively.

The fifth statement, output identification in logical frame influences Research Projects in public universities. Out of 250 respondents, 76 (30.4%) were neutral with the statement, 76 (30.4%) agreed 44 (17.4%) disagreed, 36 (14.5%) strongly disagreed, and 18 (7.3%) strongly agree. This line item had a mean score of 3.23 and standard deviation of 0.256 being lower than composite

mean of 3.564 and standard deviation of 0.785 implying that this line item influences Research Projects in public universities negatively.

Further, Key Informant Interview (KII) established that participants from both the institutions TUM and PU do not put much emphasis on utilization of logical framework as "*we lacked the skills and expertise to use the logical framework as an M&E tool. We mainly rely on the utilization of the logical framework to monitor progress of development projects and not research projects*".

4.5.1 Correlation of Utilization of Logical Framework on Research Projects Enhancement in Public Universities

This was employed to establish the degree and nature of the interaction between utilization of logical framework and Research Projects.

Table 4.36 Correlations of Utilization of Logical Framework on Research Projects Enhancement in Public Universities

Variables		Utilization of logical framework	Research projects enhancement
Utilization of logical framework	Pearson Correlation	1	
	Sig. (2-tailed)		
	n	250	
Research Projects enhancement in public universities	Pearson Correlation	0.211	1
	Sig. (2-tailed)	0.076	
	n	250	250

There is a weak positive (0.211) relationship amongst utilization of logical framework and Research Projects enhancement in public universities in Kenya. This relationship is however, not statistical significant at 5% or 0.05 level of significance.

4.5.2 Regression of Utilization of Logical Framework on Research Projects Enhancement in Public Universities

In order to know the effect of utilization of logical framework on Research Projects, regression analysis was conducted between the variables. Data collected were converted to continuous data by summation to introduce the score.

Table 4.37 Model Summary on Utilization of Logical Framework on Research Projects Enhancement in Public Universities

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.211[a]	0.044	0.031	0.70670

a. Predictors: (Constant), utilization of logical framework

The relationship between utilization of logical framework and Research Projects enhancement explains only 4.4% of all variations in Research Projects in public universities in Kenya. Other factors not in the model accounts for 95.6% of all the variation. This implies that the utilization of logical framework has little influence on Research Projects in public universities.

Table 4.38 ANOVA[a] on Utilization of Logical Framework on Research Projects Enhancement in Public Universities

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	1.622	1	1.622	3.247	0.076[b]
	Residual	123.752	248	0.499		
	Total	125.374	249			

a. Dependent Variable: Research Projects Enhancement

b. Predictors: (Constant), utilization of logical framework

There exists no significant association between utilization of logical framework and Research Projects in public universities in Kenya at 5% level of significance.

Table 4.39 Coefficients[a] on Utilization of Logical Framework on Research Projects Enhancement in Public Universities

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.998	0.376		7.965	0.000
	Utilization of logical framework	0.192	0.107	0.211	1.802	0.076

a. Dependent Variable: Research Projects Enhancement in public universities in Kenya.

From the data presented above, it can be seen that utilization of logical framework has no statistical influence on Research Projects enhancement in public universities in Kenya at 5% level of significance hence there is no resultant equation. This is because the p value is more than 0.05.

4.5.3 Test of Hypothesis 1

H_0 states that "utilization of logical framework has no significant influence on enhancing research projects in public universities". Results from table 4.37 shows that utilization of logical framework has no significant contribution on Research Projects in public universities. It accounts for 4.4% of all the variables in Research Projects. This is further supported by outcomes in Table 4.38 which shows no significant relationship between utilization of logical framework and Research Projects in public universities. The F test has a value of 3.247 and a p value of 0.076 being higher than 0.05. The null hypothesis is not rejected.

4.6 Utilization of Budget and Research Projects Enhancement in Public Universities

The second objective was to establish how utilization of budgets influences Research Projects in public universities. Therefore, the researcher enquired on the respondents agreement or disagreement levels with the following proclamations on a likert scale of 1 – 5 where 1=Strongly Disagree; 2= Disagree; Agree; 3= Neutral; 4=Agree; 5=Strongly Agree). The results are presented in Table 4.40.

Table 4.40 Utilization of Budget and Research Projects Enhancement in Public Universities

S/No	Statements	1 %	2 %	3 %	4 %	5 %	M	S.D
1.	Budget reviews influence Research Projects in public universities	7 (2.8%)	14 (5.6%)	49 (19.7%)	109 (43.7%)	71 (28.2%)	3.89	0.871
2.	Compliance with budgets influence Research Projects in public universities	11 (4.2%)	17 (6.9%)	31 (12.5%)	118 (47.2%)	73 (29.2%)	3.90	0.937
3.	Stakeholder involvement in budget preparation influences Research Projects in public Universities	17 (6.9%)	7 (2.8%)	31 (12.5%)	110 (44.2%)	85 (33.6%)	3.94	0.899
4.	Budget guidelines influence Research Projects in public universities	7 (2.8%)	18 (7.0%)	25 (9.9%)	136 (54.9%)	64 (25.4%)	3.93	0.846
5.	Budget controls in place influence Research Projects in public universities	11 (4.2%)	21 (8.5%)	18 (7.0%)	108 (43.7%)	92 (36.6%)	4.00	0.948
Composite Mean and Standard deviation							3.93	0.74737

The first statement, budget reviews enhances research projects in public universities. Out of 250 participants; 109 (43.7%) agreed, 71 (28.2%) strongly agreed, 49 (19.7%) neutral, 14 (5.6%) disagreed and 7 (2.8%) strongly disagreed. This line item has a mean score of 3.89 and standard deviation of 0.871. The mean score is lower than composite mean of 3.93 and the standard deviation is higher than the standard deviation of 0.747. This infers that this line item positively influences Research Projects in public universities.

The second statement, compliance with budgets influence Research Projects in public universities. Out of 250 respondents, 118 (47.2%) agreed, 73 (29.2%) strongly agreed, 31 (12.5%) neutral, 17 (6.9%) disagreed while 11 (4.2%) strongly disagreed. This line item had an average mean of 3.9 and standard deviation of 0.937 being lower than composite mean of 3.93 and standard deviation higher at 0.871. This implies that line item positively influences Research Projects in public universities.

The third statement, stakeholder involvement in budget preparation influences Research Projects in public Universities. Out of 250 respondents, 110 (44.2%) agreed, 85 (33.6%) strongly agreed, 31 (12.5%) neutral, 17 (6.9%) strongly disagreed while 7 (2.8%) disagree. This line item had a mean of 3.94 and standard deviation of 0.899 being was greater than composite mean of 3.93 and standard deviation of 0.747. This infers that line item positively influences Research Projects in public universities.

The fourth statement, budget guidelines influence Research Projects in public universities. Out of 250 participants, 136 (54.9%) agreed, 64 (25.4%) strongly agreed, 25 (9.9%) neutral, 18 (7%) disagreed while 7 (2.8%) strongly disagreed. This line item had an average mean of 3.93 and standard deviation of 0.846 which is equal to composite mean of 3.93 and standard deviation of 0.747. This implies that this line item positively influence Research Projects in public universities. This is supported by survey studies by Ambetsa, 2004 on budgeting control practices at Wilson Airport, showed that the shortfalls experienced were lack participation from staff in budget preparation, budget evaluation deficiencies, and a general lack of support from management. Further, it was determined that the airline use and operate budgets to for performance planning and evaluation. Most organizations plan using budgets in a formally and systematically, others

plan informally. The issue that arises here is not if organizations formulate a budget but how to do it efficiently.

The fifth statement, budget controls in place influence Research Projects in public universities. 108 (43.7%) agreed, 92 (36.6%) strongly agreed, 21 (8.5%) disagreed, 18 (7%) neutral while 11 (4.2%) strongly disagreed. This line item had an average mean of 4.0 and standard deviation of 0.948 being greater than composite mean of 3.93 and standard deviation of 0.747 implying that this line item positively influences Research Projects in public universities. This is supported by studies conducted by Adongo and Jagongo, 2013 who noted that budgetary control in Kenya a key part in financial performance of government institutions.

Further, KII ascertain that "*utilization of budgets is key to positively influence Research Projects in public universities. Budget cuts have been blamed for poor Research Projects but universities have come up with innovative ways of getting funds through proposal writing and receiving research grants to enhance Research Projects in public universities".*

4.6.1 Correlation of Utilization of Budgets on Research Projects Enhancement in Public Universities

This was employed to ascertain the degree and nature of the interaction between utilization of budgets and Research Projects. Outcomes are shown in Table 4.41.

Table 4.41 Correlation of Utilization of Budgets on Research Projects Enhancement in Public Universities

Variables		Research Projects Enhancement	Utilization of budget
Research Projects enhancement in public universities	Pearson Correlation	1	
	Sig. (2-tailed)		
	n	250	
Utilization of budget	Pearson Correlation	0.890**	1
	Sig. (2-tailed)	0.000	
	n	250	250

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

There exists a strong positive correlation of (0.89) between utilization of budget and research projects enhancement in public universities in Kenya. This relationship is significant statistically.

4.6.2 Regression of Utilization of Budgets on Research Projects Enhancement in Public Universities

In order to establish the influence of utilization of budgets on Research Projects enhancement, regression analysis was conducted between the variables. Data collected was converted to continuous data by summation to introduce the score.

Table 4.42 Model Summary for Regression of Utilization of Budgets on Research Projects Enhancement in Public Universities

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.890[a]	0.792	0.789	0.14894

a. Predictors: (Constant), utilization of budget

The relationship between utilization of budget and research projects enhancement in public universities in Kenya explains 79.2% of all the variations. Other factors not in the model accounts for 20.9% of all the variation research projects enhancement.

Table 4.43 ANOVA[a] on Utilization of Budgets on Research Projects Enhancement in Public Universities

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	5.914	1	5.914	266.564	0.000[b]
	Residual	5.456	248	0.022		
	Total	11.370	249			

a. Dependent Variable: research projects enhancement in public universities in Kenya
b. Predictors: (Constant), utilization of budget

There exists a significant linear association between utilization of budget and Research Projects in public universities in Kenya.

Table 4.44 Coefficients[a] on Utilization of Budgets on Research Projects Enhancement in Public Universities

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	0.396	0.092		4.301	0.000
	Utilization of budget	0.386	0.024	0.890	16.327	0.000

a. Dependent Variable: research projects enhancement in public universities in Kenya

From the table it can be seen that utilization of budget has a significant statistical influence on Research Projects in public universities in Kenya since it has a p value of lower than 0.05.

The resultant model is given as

$$y_i = 0.396 + 0.386x_1$$

For every change in utilization of budget, research projects enhancement in public universities in Kenya increases by 38.6% keeping other factors constant.

4.6.3 Test of Hypothesis 2

The findings suggest that there was a positive hypothesis test between utilization of budgets on research projects enhancement in public universities. This is supported by the fact the p value test statistic is less than 0.05. As a result, the null hypothesis that states "utilization of budget has no significant influences research projects enhancement in public universities in Kenya" was rejected.

4.7 Application of Stakeholder Involvement and Research Projects Enhancement in Public Universities

The third objective was set out to establish how application of stakeholder involvement influences Research Projects enhancement in public universities. Therefore, participants were queried to state their levels of agreement or divergence with the following statements on a likert scale of 1 – 5 where 1=Strongly Disagree; 2= Disagree; Agree; 3= Neutral; 4=Agree; 5=Strongly Agree). The results are presented in Table 4.45.

Table 4.45 Application of Stakeholder Involvement and Research Projects Enhancement in Public Universities

S/No	Statement	1 %	2 %	3 %	4 %	5 %	M	S.D
1.	Stakeholder contribution influences Research Projects in public universities	11 (4.2%)	7 (2.8%)	28 (11.1%)	135 (54.2%)	69 (27.7%)	3.99	0.942
2.	Scoping of stakeholders influences Research Projects in public universities	7 (2.8%)	22 (8.7%)	62 (24.7%)	120 (47.9%)	39 (15.9%)	3.65	0.824
3.	No. of stakeholder identified influences Research Projects in public universities	7 (2.8%)	14 (5.6%)	67 (25.6%)	118 (48%)	44 (18%)	3.99	1.345
Composite Mean and Standard Deviation							3.88	0.74421

The first statement, stakeholder involvement influences Research Projects in public universities. 135 (54.2%) agreed, 69 (27.7%) strongly agreed, 28 (11.1%) neutral, 11 (2.8%) strongly disagreed, while 7 (2.8%) disagreed. This line item had an average mean of 3.99 and standard deviation of 0.942 being greater than composite mean of 3.88 and standard deviation of 0.744. This implies that line item positively influences Research Projects enhancement in public universities. This is supported by studies done by Mnaranara, 2010 who noted the significance of participation of the community in construction projects of schools in Tanzania. This study commended on the vitality of communal mobilization in joint decision making regarding matters related to their economic and social development.

The second statement, scoping of stakeholders influences research projects enhancement in public universities. Out of 250 participants, 120 (47.8%) agreed, 62 (24.6%) were neutral, 39 (15.9%) strongly agreed, 22 (8.7%) disagreed while 7 (2.8%) strongly disagreed. This line statement had an average mean of 3.65 and standard deviation of 0.824 which was lesser than composite mean of 3.88 but higher than standard deviation of 0.744 implying that this line item positively influences Research Projects in public universities.

The third statement, number of stakeholder identified influences research projects positively. Out of 250 participants, 118 (48%) agreed, 67 (25.6%) neutral, 44 (18%) strongly agreed, 14 (5.6%) disagreed while 7 (2.8%) strongly disagreed. This line item had an average mean of 3.99 and

standard deviation of 1.345 which is greater than composite mean of 3.88 and standard deviation of 0.744 implying that line item positively influences Research Projects in public universities.

Data collected from KII also shows that application of stakeholder involvement significantly influences on Research Projects. However, involvement of stakeholders need to be more inclusive. *"We need to be involved in all the stages as well as proper communication should be put in place for transparency".*

4.7.1 Correlation of Application of Stakeholder Involvement on Research Projects Enhancement

Correlation analysis was done to ascertain the nature and degree of the interaction between Application of Stakeholder Involvement and Research Projects. The outcomes are shown in Table 4.46.

Table 4.46 Correlations of Application of Stakeholder Involvement on Research Projects Enhancement

Variables		Research Projects enhancement	Application of Stakeholder Involvement
Research projects enhancement in public universities	Pearson Correlation	1	
	Sig. (2-tailed)		
	n	250	
Application of Stakeholder Involvement	Pearson Correlation	0.658**	1
	Sig. (2-tailed)	0.000	
	n	250	250

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

There exists a strong positive relationship (0.658) between application of stakeholder involvement and research projects in public universities in Kenya. This relationship is significant statistically.

4.7.2 Regression of Application of Stakeholder Involvement on Research Projects Enhancement in Public Universities

In order to establish the effect of application of stakeholder involvement on research projects enhancement, regression analysis was conducted between the variables. Data collected were converted to continuous data by summation to introduce the score.

Table 4.47 Model Summary on Application of Stakeholder Involvement on Research Projects Enhancement in Public Universities

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.727[a]	0.529	0.522	0.22416

a. Predictors: (Constant), Application of Stakeholder Involvement

The relationship amongst application of stakeholder involvement and research projects enhancement in public universities in Kenya explains 52.9% of all the variations in research projects in public universities in Kenya. Other factors not in the model accounts for 41.1% of all the variation.

Table 4.48 ANOVA[a] on Application of Stakeholder Involvement on Research Projects Enhancement in Public Universities

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	3.949	1	3.949	78.587	0.000[b]
	Residual	12.400	248	0.050		
	Total	16.349	249			

a. Dependent Variable: Research projects enhancement in public universities

b. Predictors: (Constant), Application of Stakeholder Involvement

There exists a significant linear relationship between application of stakeholder involvement and research projects enhancement in public universities in Kenya.

Table 4.49 Coefficients[a] on Application of Stakeholder Involvement on Research Projects Enhancement in Public Universities

Model		Un standardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	0.740	0.130		5.692	0.000
	Application of Stakeholder Involvement	0.317	0.036	0.727	8.865	0.000

a. Dependent Variable: Research projects enhancement in public universities in Kenya

Application of stakeholder involvement has positive influence on research projects enhancement in public universities in Kenya. The regression model between Application of Stakeholder Involvement and Research Projects in public universities in Kenya can be summarized by an equation as

$$y_i = 0.74 + 0.317x_1$$

For every one unit change in Application of Stakeholder Involvement, Research Projects in public universities in Kenya increases by 31.7% keeping all other factors constant. This shows that utilization of stakeholder has a strong positive influence on Research Projects as the t value of 0.00 which is less than 0.05.

4.7.3 Test of Hypothesis 3

The null hypothesis states “application of stakeholder involvement has no significant influence on research projects enhancement in public universities”. The outcomes from Table 4.46 shows that application of stakeholder involvement has significant contribution on research projects in public universities. It accounts for 52.9% of all variations in research projects. This is further sustained by outcomes in Table 4.48 which shows there is a significant relationship between application of stakeholder involvement and research projects in public universities. The F test has a large value of 78.57% and a p value of 0.00 being lower than 0.05. Table 4.49 shows that application of stakeholder involvement significantly influence research projects since the p value and f test values are less than 0.05. The null hypothesis is rejected.

4.8 Utilization of Balanced Scorecard and Research Projects Enhancement in Public Universities

The forth objective was set out to establish how utilization of balanced scorecard influences research projects enhancement in public universities. Therefore, the participants were queried to state their agreement or disagreement levels with the following statements on a likert scale of 1 – 5 where 1=Strongly Disagree; 2= Disagree; Agree; 3= Neutral; 4=Agree; 5=Strongly Agree). The results are presented in Table 4.50.

Table 4.50 Utilization of Balanced Scorecard and Research Projects Enhancement in Public Universities

S/No	Statement	1 %	2 %	3 %	4 %	5 %	M	S.D
1.	Effective use of financial resources influences performance research projects in of public universities	11 (4.2%)	25 (9.9%)	42 (16.9%)	127 (50.7%)	45 (18.3%)	3.69	1.022
2.	Customers focus influences Research Projects in public universities	10 (4.1%)	0 (0.0%)	28 (11.3%)	106 (42.3%)	106 (42.3%)	4.18	0.946
3.	Learning and growth influences Research Projects in public universities	14 (5.6%)	4 (1.4%)	45 (18.1%)	101 (40.3%)	86 (34.6%)	3.97	1.048
4.	Internal business processes influence Research Projects in public universities	4 (1.4%)	21 (8.5%)	35 (14.1%)	102 (40.8%)	88 (35.2%)	4.00	0.986
Composite mean and Standard Deviation							3.96	0.77759

The first statement, effective use of financial resources influences performance research projects in of public universities. Out of 250 participants, 127 (50.7%) agreed, 45 (18.3%) strongly agreed, 42 (16.9%) neutral, 25 (9.9%) disagreed and 11 (4.2%) strongly disagreed. This line item had an average mean of 3.69 and standard deviation of 1.022. The standard deviation is lower than composite mean of 3.96 but higher than the standard deviation at 0.777. This implies that this line item positively influences Research Projects in public universities. This is supported by many empirical studies done by Ishtiaque, Khan, Akhter and Fatima (2007), Mosarraf and Ahmed (2008), Khan and Halabi (2009), Khan, Halabi and Masud (2010) and Khan, Halabi and Sartoriud (2011) stated the BSC in industries like food and allied, pharmaceutical, tannery, cement engineering, textile, ceramics, among other industries. Financial measures was found to be more dominant.

The second statement, customers focus influences Research Projects in public universities. Out of 250 participants, 106 (42.3%) agreed, 106 (42.3%) strongly agreed, 28 (11.3%) neutral, 10 (4.1%) strongly disagree while none disagreed. This line item had an average mean of 4.18 and standard deviation of 0.946 which is greater than composite mean of 3.96 and standard deviation of 0.777 implying that this line item positively influences Research Projects. This is supported by studies

conducted by Neely, 2007 who noted that institutions must frequently pinpoint new course of actions to meet customer perspective and finances. The measures and objectives in this perspective accomplish the short and long term invention operations cycle.

The third statement, learning and growth influences Research Projects in public universities. Out of 250 participants, 101 (40.3%) agreed, 86 (34.7%) strongly agreed, 45 (18.1%) neutral, 14 (5.6%) strongly disagreed and 4 (1.4%) disagreed. This line item had an average mean of 3.97 and standard deviation of 1.048 which is higher than composite mean of 3.96 and standard deviation of 0.777 implying that this line item positively influences Research Projects in public universities.

The fourth statement, internal business processes influence Research Projects in public universities. Out of 250 participants, 102 (40.8%) agreed, 88 (35.2%) strongly agreed, 35 (14.1%) neutral, 21 (8.5%) disagreed while 4 (1.4%) strongly disagreed. This line item had an average mean of 4.0 and standard deviation of 0.986 which is greater than composite mean of 3.96 and standard deviation of 0.777 implying that this line item positively influences Research Projects in public universities.

KII showed that most employees in both universities did not know about balanced scorecard. "*Our institution does not engage in balanced scorecard. We are also not trained or sensitized on that tool."*

4.8.1 Correlation of Utilization of Balanced Scorecard on Research Projects Enhancement in Public Universities

This was done to determine the nature and degree of the interaction between utilization of balanced scorecard and research projects enhancement. The outcomes are highlighted in Table 4.51.

Table 4.51 Correlations of utilization of BSC on Research Projects Enhancement in public universities

Variables		Research projects enhancement	Utilization of balanced scorecard
Research projects enhancement in public universities	Pearson Correlation	1	0.578**
	Sig. (2-tailed)		0.000
	n	250	250
Utilization of Balanced Scorecard	Pearson Correlation	0.702**	1
	Sig. (2-tailed)	0.000	
	n	250	250

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

There exists a strong positive correlation (0.578) between utilization of balanced scorecard and Research Projects in public universities in Kenya. This relationship is significant statistically.

4.8.2 Regression of Utilization of Balanced Scorecard on Research Projects in Public Universities

In order to determine the effect of utilization of balanced scorecard on research projects enhancement, regression analysis was conducted between the variables. Data collected were converted to continuous data by summation to introduce the score. The outcomes were presented in Table 4.52.

Table 4.52 Model Summary of Utilization of BSC on Research Projects Enhancement in public universities

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.702[a]	0.493	0.485	0.23261

a. Predictors: (Constant), utilization of balanced scorecard

The relationship between utilization of balanced scorecard and Research Projects in public universities in Kenya explains 49.3% of all the variations in performance. Other factors not in the model accounts for 50.7% of all the variation. This shows that utilization of balanced scorecard has a stronger explanatory power on Research Projects in public universities. It accounts for 49.3% of all variations of Research Projects.

Table 4.53 ANOVA[a] of Utilization of BSC on Research Projects Enhancement in Public Universities

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3.679	1	3.679	67.990	0.000[b]
	Residual	13.392	248	0.054		
	Total	17.071	249			

a. Dependent Variable: Research projects enhancement in public universities

b. Predictors: (Constant), utilization of balanced scorecard

There is a significant linear relationship between utilization of balanced scorecard and research projects in public universities in Kenya.

Table 4.54 Coefficients[a] Utilization of BSC on Research Projects Enhancement in Public Universities

Model		Un standardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	0.726	0.141		5.135	0.000
	Scorecard	0.293	0.036	0.702	8.246	0.000

a. Dependent Variable: Research projects enhancement in public universities

There is significant positive influence of utilization of balanced scorecard on research projects enhancement in public universities in Kenya. The resultant regression model between the two variables is given as:

$$y_i = 0.726 + 0.293x_1$$

For positive change in utilization of balanced scorecard, research projects enhancement in public universities in Kenya increases by 29.3% holding other factors constant.

4.8.3 Test of Hypothesis 4

The null hypothesis states that "utilization of balanced Scorecard has no significant influences on research projects enhancement in public universities in Kenya". The results from Table 4.52 shows that utilization of balanced scorecard has a significant contribution on Research Projects in public universities. It accounts for 49.3% of all variations in Research Projects. Further, this is supported by outcomes in Table 4.53 highlights a significant relationship between utilization of balanced scorecard and Research Projects in public universities. The F test has a large value of 67.99% and a p value of 0.00 which is less than 0.05. Table 4.54 shows that utilization of balanced scorecard significantly influence on Research Projects since the p value and f test are less than 0.05. The null hypothesis is therefore rejected.

4.9 Performance Contract and Research Projects Enhancement in Public Universities

The fifth objective was set out to establish how Performance Contracting influences research projects enhancement in public universities. Therefore, the participants were asked to state their agreement or disagreement levels with the following statements on a likert scale of 1 – 5 where 1=Strongly Disagree; 2= Disagree; Agree; 3= Neutral; 4=Agree; 5=Strongly Agree). The findings are presented in Table 4.55.

Table 4.55 Performance Contracting and Research Projects Enhancement in Public Universities

S/No	Statement	1 %	2 %	3 %	4 %	5 %	M	S.D
1.	Signing of performance contracts influences Research Projects enhancement in public universities	14 (5.6%)	28 (11.1%)	38 (15.3%)	118 (47.2%)	52 (20.8%)	3.67	1.01
2.	Setting performance targets influences Research Projects enhancement in public universities	7 (2.8%)	14 (5.6%)	18 (7%)	134 (53.6%)	77 (31%)	4.04	0.933
3.	Service delivery influences Research Projects enhancement in public universities	11 (4.2%)	14 (5.6%)	4 (1.4%)	133 (53.4%)	88 (35.4%)	4.10	0.988
4.	Number of employees trained in PC influences Research Projects enhancement in public universities	18 (7%)	18 (7%)	42 (16.9%)	98 (39.4%)	74 (29.7%)	3.77	1.161
Composite Mean and Standard Deviation							3.96	0.71780

The first statement, signing of performance contracts influences research projects enhancement in public universities. Out of 250 participants, 118 (47.2%) agreed, 52 (20.8%), strongly agreed, 38 (15.3%) neutral, 28 (11.1%), while 14 (5.6%) strongly disagreed. This line item had an average mean of 3.67 and a standard deviation of 1.01 being lesser than composite mean but greater than the standard deviation of 0.717. This implies that this line item positively influences Research Projects in public universities. This is supported by descriptive research design study Letangule and Letting (2012) which studied the influence of Performance Contract on performance of organization: Given the influence of performance contracting on the effectiveness and operation of public sectors in Kenya, it is essential that all workers are included in the signing of the performance contract.

The second statement, setting performance targets influences Research Projects in public universities. Out of 250 participants, 134 (53.4%) agreed, 77 (31%) strongly agreed, 18 (5.6%) neutral, 14 (5.6%) disagreed while 7 (2.8%) strongly disagreed. This line item had an average mean of 4.04 and standard deviation of 0.933 being greater than composite mean of 3.96 and

standard deviation of 0.717. This implies that this line item has a positive influence on Research Projects in public universities. This is supported by studies done by Gathai, Ngugi, Waithaka and Kamingi (2012) descriptive research design which targeted staff of Kenya Civil Aviation Authority that had signed Performance Contracts between 2008/09 to 2011/12. The study concluded that targets are negotiated and are in tandem the institutions goals; measures of performance are adopted to, improve, control and evaluate process in order to guarantee that the institutions realizes its objectives; institutions avails required resources essential for implementation of strategy and finally, that implementation strategy revolves either from a winning group process pledges through a collective decision making form, or as an outcome coalitional participation of implementation employees through a strong business culture.

The third statement, service delivery influences Research Projects in public universities. Out of 250 participants, 133 (53.4% agreed, 88 (35.4%) strongly agreed, 14 (5.6%) disagreed, 11 (4.2%) strongly disagreed while 4 (1.4%) were neutral. This line item had an average mean of 4.10 and standard deviation of 0.988 being is greater than composite mean of 3.96 and standard deviation of 0.717. This implies that this line item positively influences on Research Projects in public universities. This is supported by study by Akaranga (2008) which discovered that all government state corporations and ministries in Kenya officially implemented performance contracts showed clear indication of increment in income over expenditure and service delivery in the government ministries and state corporations.

The fourth statement, number of employees trained in PC influences Research Projects in public universities. Out of 250 participants, 98 (39.4%) agreed, 74 (29.7%) strongly agreed, 42 (16.9%) neutral, 18 (7%) strongly disagreed while 18 (7%) disagreed. This line item had an average mean of 3.77 and standard deviation of 1.161. The average mean was lower than composite mean while the standard deviation was greater than 0.717. This implies that this line item positively influences Research Projects in public universities.

Data collected from KII showed that most academic staff do not view performance contracting as an important tool. *"It does not help us achieve promotions at our place of work. There is also little sensitization on its importance. Lack of management commitment has also lowered staff morale*

on its implementation." Administrative staff on the other hand noted that. *"It only focuses on a portion of the work that is done overall in the institutions."*

4.9.1 Correlation on Performance Contracting and Research Projects in Public Universities

This was done to establish the degree and nature of the interaction between performance contracting and Research Projects. The findings are shown in Table 4.56.

Table 4.56 Correlations on Performance Contracting and Research Projects in Public Universities

Variables		Performance contracting	Research projects Enhancement
Performance Contracting	Pearson Correlation	1	0.708**
	Sig. (2-tailed)		0.000
	n	250	250
Research projects enhancement	Pearson Correlation	0.708**	1
	Sig. (2-tailed)	0.000	
	n	250	250

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

The results show a positive statistical influence performance contracting and research projects enhancement in public universities. The correlation coefficient is 0.00 with a p value of 0.05.

4.9.2 Regression on Performance Contracting and Research Projects Enhancement in Public Universities

In order to determine the effect of performance contracting on research projects enhancement, regression analysis was conducted between the variables. Data collected were converted to continuous data by summation to introduce the score.

Table 4.57 Model Summary on Performance Contracting and Research Projects Enhancement in Public Universities

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.708[a]	0.501	0.493	0.23080

a. Predictors: (Constant), performance contracting

The relationship between performance and research projects enhancement in public universities in Kenya explains 50.1% of all the variations in performance. Other factors not in the model accounts for 50.7% of all the variation

Table 4.58 ANOVA[a] on Performance Contracting and Research Projects Enhancement in Public Universities

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	3.738	1	3.738	248.5986	0.000[b]
	Residual	3.729	248	0.015		
	Total	7.466	249			

a. Dependent Variable: Research projects enhancement in public universities
b. Predictors: (Constant), performance contracting

There exists a significant relationship between performance contracting and research projects enhancement in public universities since the p value is >0.05. This is justified by the large size of the F test which is 248.5986 where p value (0.00) is lower than the specified significance level of 0.05.

Table 4.59 Coefficients[a] on Performance Contracting and Research Projects Enhancement in Public Universities

Model		Un standardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	0.714	0.141		5.082	0.000
	contracting	0.307	0.037	0.708	8.376	0.000

a. Dependent Variable: Research projects enhancement in public universities

4.9.3 Test for Hypothesis 5

The null hypothesis states "performance contracting has no significant influence on research projects enhancement in public universities". The results from Table 4.57 shows that performance contracting has significant contribution on Research Projects in public universities. It accounts for 50.1% of all variations in Research Projects. Additionally, this is supported by findings in Table 4.58 which shows there is a significant relationship between performance contracting and Research Projects in public universities. The F test has a large value of 248.5986% and a p value of 0.00 being lower than 0.05. Table 4.59 illustrates performance contracting significantly influences

research projects since the p value and the f test is lower than 0.05. The null hypothesis is therefore rejected.

4.10 Human capacity for Monitoring and Evaluation and Research Projects Enhancement in Public Universities

The sixth objective was set out to establish how human capacity for monitoring and evaluation influences research projects enhancement in public universities. Therefore, the participants were asked to state their level of agreement or disagreement with the following statements on a likert scale of 1 – 5 where 1=Strongly Disagree; 2= Disagree; Agree; 3= Neutral; 4=Agree; 5=Strongly Agree). The results are presented in Table 4.60.

Table 4.60 Human Capacity for Monitoring and Evaluation and Research Projects Enhancement in Public Universities

S/No	Statements	1 %	2 %	3 %	4 %	5 %	M	S.D
1.	Experience in monitoring and evaluation influences research projects enhancement in public universities	7 (2.8%)	14 (5.6%)	42 (16.8%)	136 (54.4%)	51 (20.4%)	3.85	0.914
2.	A budget for monitoring and evaluation influences research projects enhancement in public universities	11 (4.4%)	35 (14%)	64 (25.6%)	106 (42.4%)	34 (13.6%)	3.48	1.040
3.	Skills in monitoring and evaluation influences research projects enhancement in public universities	11 (4.4%)	18 (7.2%)	36 (14.4%)	125 (50%)	60 (24%)	3.83	1.021
4.	Number of skilled employees in monitoring and evaluation influences research projects enhancement in public universities	25 (10.0%)	25 (10.0%)	56 (22.4%)	91 (36.4%)	53 (21.2%)	3.79	0.893
Composite mean & Standard deviation							3.74	0.6764

The first statement, experience in monitoring and evaluation influences research projects enhancement in public universities. Out of 250 participants, 136 (54.4%) agreed, 51 (20.4%) strongly agreed, 42 (16.75%) neutral, 14 (5.6%) disagreed while 7 (2.8%) strongly disagreed. This

line item had an average mean of 3.85 and standard deviation of 0.914 which was greater than composite mean of 3.74 and standard deviation of 0.676. This implies that this line item positively influences Research Projects in public universities. Gekonde, Nyambonga and Nyahoroo (2014) used a descriptive survey design with a populace 308 respondents of different bands who were thought to be aggressively involved in the public services delivery to examined organizational capacity building and strategic human resource on performance enhancement of public service delivery in 9 sub-counties within Nakuru County. The study confirmed the need for properly trained human resource can improve delivery, he also noted the adequacy of personnel to be key in some sector. Gekonde and others further confirmed the importance of experience and continue training as key for service deliver.

The second statement, a budget for monitoring and evaluation influences Research Projects enhancement in public universities. 106 (42.4%) agreed with the statement, 64 (25.6%) neutral, 35 (14.1%) disagreed, 34 (14.1%) strongly agreed while 11 (4.2%) strongly disagreed. This line item had an average mean of 3.48 and standard deviation of 1.04. This was lesser than composite mean of 3.74 but higher than the standard deviation of 0.676. This implies that the line item has positive influence Research Projects in public universities.

The third statement, skills in monitoring and evaluation influences Research Projects in public universities. Out of 250 participants, 125 (50%) agreed, 60 (24%) strongly agreed, 36 (14.4%) neutral, 18 (7.2%) disagreed and 11 (4.4%) strongly disagreed. This line item had an average mean of 3.83 and standard deviation of 1.021 which is greater than composite mean of 3.74 and standard deviation of 0.676. This implies that this line item positively influences Research Projects in public universities. This is sustained by a study conducted by Sharma (2012) focusing on higher education in India found out that 52(44%) of universities indicated not providing trained staff for learners with disability, while 38(32%) indicated that provision of staff learners with disability was so low due to uncertainty of the institution admission of the type of disability. Only 24 (20%) institutions were providing learners with disability with the staff they needed.

The fourth statement, number of skilled employees in monitoring and evaluation influences Research Projects in public universities. Out of 250 participants, 91 (36.4%) agreed, 56 (22.5%) neutral, 53 (21.1%) strongly agreed, 25 (10%) disagree while 25 (10%) strongly disagreed. This

line item had an average mean of 3.79 and a standard deviation of 0.893 which was greater than composite mean of 3.74 and standard deviation of 0.676. This implies that this line item positively influences Research Projects in public universities. Gekonde, Nyambonga and Nyahoroo (2014) used a descriptive survey design with a populace 308 respondents of different bands who were thought to be aggressively involved in the public services delivery to examined organizational capacity building and strategic human resource on performance enhancement of public service delivery in 9 sub-counties within Nakuru County. The study confirmed the need for properly trained human resource can improve delivery, he also noted the adequacy of personnel to be key in some sector. Gekonde and others further confirmed the importance of experience and continue training as key for service deliver.

Data collected from KII also supported this as most employees noted *"we they hardly go for any training on monitoring and evaluation. Whereas, there is no budget allocation for any monitoring and evaluation exercise."*

4.10.1 Correlation of Human Capacity for Monitoring and Evaluation and Research Projects Enhancement

This was conducted to establish the nature and degree of the interaction between human capacity for monitoring and evaluation and research projects enhancement. The findings are shown in Table 4.61.

Table 4.61 Correlations Human Capacity for Monitoring and Evaluation and Research Projects Enhancement in Public Universities

Variables		Research projects enhancement in public universities	Human capacity for M&E
Research projects enhancement in public universities	Pearson Correlation	1	0.531**
	Sig. (2-tailed)		0.000
	n	250	250
Human capacity for M&E	Pearson Correlation	0.531**	1
	Sig. (2-tailed)	0.000	
	n	250	250

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

There is no significant correlation (0.531) between human capacity for M&E on research projects enhancement in public universities.

4.10.2 Regression of Human Capacity for Monitoring and Evaluation and Research Projects Enhancement in Public Universities

In order to establish the effect of human capacity for monitoring and evaluation on Research Projects enhancement, regression analysis was conducted between the variables. Data collected were converted to continuous data by summation to introduce the score. Regression for human capacity for M&E on Research Projects was presented in Table 4.62.

Table 4.62 Model Summary on Human Capacity for Monitoring and Evaluation and Research Projects

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.531[a]	0.282	0.272	0.27675

a. Predictors: (Constant), human capacity for M&E

The relationship between human capacity for M&E and research projects enhancement in public universities in Kenya explains 28.2% of all the variations in performance. Other factors not in the model accounts for 71.8% of all the variation. This shows that human capacity for M&E has a weak explanatory power on Research Projects in public universities. It accounts for 28.2% of all variations of Research Projects.

Table 4.63 ANOVA[a] on Human Capacity for Monitoring and Evaluation and Research Projects Enhancement in Public Universities

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	2.105	1	2.105	97.38	0.000[b]
	Residual	5.361	248	0.021617		
	Total	7.466	249			

a. Dependent Variable: Research projects enhancement in public universities

b. Predictors: (Constant), human capacity for M&E

There is a weak significant linear relationship between human capacity for M&E and research projects enhancement in public universities in Kenya with a small F value of 97.38.

Table 4.64 Coefficients[a] on Human Capacity for Monitoring and Evaluation and Research Projects Enhancement in Public Universities

Model		Un standardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	0.941	0.180		5.220	0.000
	Human capacity for M&E	0.255	0.049	0.531	5.242	0.000

a. Dependent Variable: Research projects enhancement in public universities

There is no significant relationship between human capacity for M&E and research projects enhancement in public universities since the p value is 0.00. This is justified by the large size of the T test which is 5.22.

4.10.3 Test for Hypothesis 6

The null hypothesis states that "human capacity for monitoring and evaluation has no significant influences on research projects enhancement in public universities in Kenya". The results from Table 4.62 shows that human capacity for monitoring and evaluation has significant contribution on Research Projects in public universities. It accounts for 28.2% of all variations in Research Projects. This is further sustained by results in Table 4.63 which shows existence of a significant relationship between human capacity for monitoring and evaluation and Research Projects in public universities. The F test has a large value of 97.38% and a p value of 0.00 which is less than 0.05. Human capacity for monitoring and evaluation significantly influences Research Projects since the p value and f test is less than 0.05. Therefore, the null hypothesis is not rejected.

4.11 Combined Monitoring and Evaluation Tools and Research Projects Enhancement in Public Universities

The seventh objective was out to establish how combined monitoring and evaluation tools influences research projects enhancement in public universities. Therefore, the participants were enquired to state their agreement or disagreement levels with the following declarations on a likert

scale of 1 – 5 where 1=Strongly Disagree; 2= Disagree; Agree; 3= Neutral; 4=Agree; 5=Strongly Agree). The outcomes are presented in Table 4.65.

4.11.1 Correlation of combined Monitoring and Evaluation Tools and Research Projects Enhancement in Public Universities

Correlation is used as a tool to measure the strength of relationship between two continuous variables. Pearson correlation coefficient and Spearman rank correlation coefficients have been widely used. In this study Pearson Correlation coefficient has been employed to regulate the strength of relationships amongst combined monitoring and evaluation tools; utilization of budgets, Application of Stakeholder Involvement, and utilization of balanced scorecard and research projects enhancement in public universities in Kenya. Correlation analysis outcomes are given by Table 4.65.

Table 4.65 Correlation coefficients on combined Monitoring and Evaluation Tools and Research Projects Enhancement in Public Universities

Variable	Tools for Analysis	Utilization of logical framework	Utilization of budget	Application of Stakeholder Involvement	Utilization of balanced scorecard	Research projects enhancement
Utilization of logical framework	Pearson Correlation	1				
	Sig. (2-tailed)					
	n	250				
Utilization of budget	Pearson Correlation	0.415**	1			
	Sig. (2-tailed)	0.000				
	n	250	250			
Application of Stakeholder Involvement	Pearson Correlation	0.178	0.630**	1		
	Sig. (2-tailed)	0.135	0.000			
	n	250	250	250		
Utilization of balanced scorecard	Pearson Correlation	0.296*	0.663**	0.579**	1	
	Sig. (2-tailed)	0.012	0.000	0.000		
	n	250	250	250	250	
Research projects enhancement	Pearson Correlation	0.211	0.890**	0.727**	0.702**	1
	Sig. (2-tailed)	0.076	0.000	0.000	0.000	
	n	250	250	250	250	250

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

Table 4.65 shows existence of a strong significant positive relationship between utilization of budget and research projects enhancement in public universities in Kenya with a p value of 0.00, utilization of balanced scorecard and research projects enhancement in public universities in Kenya with a p value of 0.00 and application of stakeholder involvement and research projects in public universities in Kenya with a p value of 0.00. Their correlation coefficient is also close to 1. The relationship between utilization of logical framework and research projects in public universities in Kenya were weak and insignificant.

4.11.2 Regression of Combined M&E tools and Research Projects Enhancement in Public Universities

In order to establish the effect of combined monitoring and evaluation on research projects enhancement, regression analysis was conducted between the variables. Data collected were converted to continuous data by summation to introduce the score.

Table 4.66 Regression Coefficients[a] on Combined M&E tools and Research Projects Enhancement in Public Universities

Model		Un standardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	0.200	0.099		2.015	0.048
	Utilization of logical framework	0.002	0.022	0.005	0.089	0.930
	Utilization of budget	0.282	0.032	0.649	8.782	0.000
	Application of Stakeholder Involvement	0.106	0.028	0.242	3.745	0.000
	Utilization of balanced Scorecard	0.062	0.021	0.097	2.975	0.003

a. Dependent Variable: Research projects enhancement in public universities

Table 4.66 displays the regression coefficients of the explanatory variables. It can be seen that three variables were significantly statistic (their p values are less than 0.05). These variables are utilization of budget, utilization of stakeholders' involvement and utilization of a balanced scorecard. This implies that the null hypotheses two, three and four are rejected while one is not rejected. The resultant model can be summarized using equation 4.1 as

$$Y_i = 0.2 + 0.282X_2 + 0.106X_3 + 0.062X_4 \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots.. (4.1)$$

Equation 4.1 highlights that for every one unit change in Y, there must be 0.0282, 0.106 and 0.062 changes in X_2 ,X_3 and X_4 respectively holding other factors constant. Where Y_1, X_2 ,X_3 and X_4 represent performance of projects, utilization of budget, utilization of stakeholders' involvement and utilization of a balanced scorecard respectively.

Therefore, it can be concluded that utilization of budget, utilization of stakeholders' involvement and utilization of a balanced scorecard positively influences research projects enhancement in public universities in Kenya.

4.11.3 Test for Hypothesis 7

The null hypothesis states that "combined monitoring and evaluation has no significant influences on research projects enhancement in public universities in Kenya". The findings from Table 4.65 shows that; utilization of logical framework has no significant influence on research projects in public universities, utilization of budget has significant influence on research projects enhancement in public universities, Application of Stakeholder Involvement has significant influence on research projects enhancement in public universities and utilization of balanced scorecard significantly influences on research projects enhancement in public universities. The null hypothesis is therefore rejected.

4.12 Moderating Influence of Performance Contracting on the Relationship between Utilization of M&E tools and Research Projects Enhancement in Public Universities

Moderated regression model was fitted to determine the interaction effect of performance contracting on utilization of monitoring and evaluation tools on the research projects in public universities. The findings are summarized in Table 4.67.

4.12.1 Regression of Moderated Influence of Performance Contracting on the Relationship between Utilization of M&E tools and Research Projects Enhancement Public Universities

In order to determine the moderating effect of performance contracting on the association between utilization of M&E tools and research projects enhancement, regression analysis was piloted

between the variables. Data collected was converted to continuous data by summation to introduce the score.

Table 4.67 Moderated regression Coefficients[a]

Model		Un standardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	0.200	0.099		2.015	0.048
	Utilization of logical framework	0.002	0.022	0.005	0.089	0.930
	Utilization of Budget	0.282	0.032	0.649	8.782	0.000
	Utilization of Stakeholder	0.106	0.028	0.242	3.745	0.000
	Utilization of Scorecard	0.062	0.021	0.097	2.975	0.003
2	(Constant)	0.618	0.148		4.174	0.000
	Utilization of logical framework	0.141	0.133	0.342	1.065	0.291
	Utilization of Budget	0.526	0.111	0.547	4.742	0.000
	Application of stakeholder involvement	0.027	0.003	0.492	8.141	0.000
	Utilization of balanced scorecard	0.022	0.003	0.422	6.773	0.000
	PC*utilization of logical framework	0.033	0.031	0.454	1.063	0.292
	PC* Utilization of budget	0.034	0.011	0.489	2.936	0.005
	PC* Application of stakeholder	0.009	0.032	0.132	0.287	0.775
	PC* Utilization of balanced scorecard	0.024	0.031	0.367	0.791	0.432

a. Dependent Variable: Research projects enhancement in public universities in Kenya.

From Table 4.67 it can be seen that Performance contracting has a moderating influence only on utilization of budget. For the other variables the effect are insignificant; utilization of LFA 0.292; utilization of budget 0.005; application of stakeholder involvement 0.775; and utlilization of balanced scorecard 0.432. Performance contracting has a positive significant moderating effect only on utilization of budget. This is because its t test has a p value of less than 0.05. Performance Contracting has no moderating effect on the other three independent variables since their p value are more than 0.05.

4.12.2 Test of Hypothesis 8

The null hypothesis states that "Performance Contracting has no significant moderating influence on the relationship between utilization of M&E tools and research projects enhancement in public universities in Kenya". The findings from Table 4.67 shows Performance Contracting only significantly moderates utilization of budgets. It has no significant moderating effect on the utilization of logical framework, stakeholder involvement and balanced scorecard on Research Projects in public universities in Kenya.

4.13 Moderating Influence of Human Capacity for M&E on the Relationship between Utilization of M&E tools and Research Projects Enhancement

Moderated regression model was fitted to establish the interaction effect of Human capacity on monitoring and evaluation on the utilization of monitoring and evaluation tools on the research projects enhancement in public universities. The findings are presented in Table 4.68.

4.13.1 Regression of Moderating Influence of Human Capacity for M&E on the Relationship between Utilization of M&E tools and Research Projects Enhancement

In order to determine the moderating effect of human capacity for M&E on the relationship between utilization of M&E tools and research projects enhancement, regression analysis was conducted between the variables. Data collected were converted to continuous data by summation to introduce the score.

Table 4.68 Moderated regression Coefficients[a]

Model		Un standardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	0.200	0.099		2.015	0.048
	Utilization of logical framework	0.002	0.022	0.005	0.089	0.930
	Utilization of Budget	0.282	0.032	0.649	8.782	0.000
	Application of Stakeholder Involvement	0.106	0.028	0.242	3.745	0.000
	Utilization of balanced scorecard	0.062	0.021	0.097	2.975	0.003
2	(Constant)	0.454	0.109		4.178	0.000
	Utilization of logical framework	0.065	0.105	0.157	0.616	0.540
	Utilization of Budget	0.134	0.139	0.309	0.962	0.340
	Application of Stakeholder Involvement	0.020	0.125	0.045	0.159	0.875
	Utilization of balanced scorecard	0.201	0.128	0.482	1.574	0.121
	Human capacity for M&E*utilization of logical framework	0.012	0.027	0.159	0.449	0.655
	Human capacity for M&E *utilization of budget	0.047	0.039	0.626	1.220	0.227
	Human capacity for M&E *Application of Stakeholder Involvement	0.020	0.033	0.259	0.607	0.546
	Human capacity for M&E *utilization of balanced scorecard	0.046	0.035	0.632	1.321	0.191

a. Dependent Variable: Research projects enhancement in Public Universities

From Table 4.68 it can be seen that Human Capacity for Monitoring and Evaluation does not have a moderating relationship between utilization of M&E tools and research projects enhancement in public universities. Human capacity for monitoring and evaluation has no significant moderating effect on the relationship between utilization of monitoring and evaluation tools and Research Projects in public universities: utilization of LFA 0.655; utilization of budgets 0.227; application

of stakeholder involvement 0.546 and utilization of balanced scorecard 0.191. This is because the p value of the four independent variables is above 0.05 which was acceptable.

4.13.2 Test of Hypothesis 9

The null hypothesis states that "human capacity for monitoring and evaluation has no significant moderating influence on the relationship between utilization of M&E tools and research projects enhancement in public universities in Kenya". Findings from Table 4.68 show that all the test statistics of the independent variables have a p value of greater than 0.05. Therefore, the null hypothesis is not rejected.

4.14 Research Projects Enhancement in Public Universities

The eighth objective was set out to establish the level of enhancing research projects in public universities. Therefore, the participants were asked to state their agreement or disagreement levels with the following statements on a likert scale of 1 – 5 where 1=Strongly Disagree; 2= Disagree; Agree; 3= Neutral; 4=Agree; 5=Strongly Agree). The findings are shown in Table 4.69.

Table 4.69 Research Projects Enhancement in Public Universities

S/No	Statements	1 %	2 %	3 %	4 %	5 %	M	SD
1.	Research outputs influences research projects in public universities	11 (4.3%)	43 (17.1%)	39 (15.7%)	93 (37.1%)	64 (25.8%)	3.63	1.169
2.	Students completion rate influences research projects in public universities	7 (2.8%)	21 (8.3%)	52 (20.8%)	115 (45.8%)	55 (22.3%)	3.76	0.986
3.	Research grants influence research projects in public universities	20 (8.3%)	30 (11.8%)	59 (23.6%)	85 (33.8%)	56 (22.5%)	3.51	1.206
Composite Mean and Standard Deviation							3.72	1.07

The first statement, research outputs influences research projects in public universities. Out of 250 participants, 93 (37.1%) agreed, 64 (25.8%) strongly agreed, 43 (17.1%) disagreed, 39 (15.7%) neutral, while 11 (4.3%) strongly disagreed. This line item had an average mean of 3.63 and standard deviation of 1.69 which is lesser than composite mean of 3.72 but higher than the standard deviation of 1.07. This implies that this line item positively influences research projects in public universities. This is supported by Goktepe-Hultein, (2008) who argued that researcher's

motivation towards generating research outputs is key for them to develop exploitative behavior. To boast their motivation; training by university on importance of transferring knowledge is a crucial element as well as setting up a reward program for researchers involved in commercialization.

The second statement, student's completion rate influences research projects in public universities. Out of 250 participants, 115 (45.8%) agreed, 55 (22.2%) strongly agreed, 52 (20.8%) neutral, 21 (8.3%) disagreed while 7 (2.8%) strongly disagreed. This line item has an average mean of 3.76 and standard deviation of 0.986 which is greater than composite mean but lesser than the standard deviation of 1.07. This infers that this line item positively influences Research Projects in public universities. OECD, (2012) argues that enhances the "productivity" of universities through targeted policies to improve service quality, students' retention and success.

The third statement, research grants influence research projects in public universities. Out of 250 participants, 85 (33.8%) agreed with the statement, 59 (23.6%) neutral, 56 (22.5%) strongly agreed, 30 (11.8%) disagreed, while 20 (8.3%) strongly disagreed. This line item has an average mean of 3.51 and standard deviation of 1.206 being lower than composite mean of 3.72 but higher than the standard deviation of 1.07. This implies that this line item positively influences Research Projects in public universities. This is supported by a study conducted in New Zealand Universities to determine the role of Governments towards encouraging development of academic research indicate that lack of funding coupled with lack of foresight into commercialization leads to few academic research moving past the research results (Narayan & Hooper, 2010).This is also supported by OECD, (2014) which argued that investments in R&D form the foundation of new knowledge generation through research which ultimately leads to generation of products and services through applied research.

Data collected from KII also supported this as most employees noted *"performance has been poor due to staff moral caused by delayed promotions, overstaying of students and lack of capacity to attract funds"*

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents a summary of outcomes, conclusions, recommendations, contributions to the body of knowledge and areas for further research.

5.2 Summary of Findings

The aim of this research was to assess how utilization of M&E tools, performance contracting, and human capacity for M&E enhances research projects in public universities in coast region of Kenya. The research was expected to ascertain how utilization of various M&E tools; logical framework, budgets, stakeholder involvement and balanced scorecard as independent variables and performance contracting and human capacity for M&E as moderating variables on Research Projects in public universities in the coast region of Kenya.

5.2.1 Utilization of Logical Framework and Research Projects Enhancement in Public Universities

There is certainly no significant relationship between utilization of logical framework and research projects enhancement in public universities in Kenya at 5% significance level. The study established that utilization of logical framework (m = 3.564; SD = 0.7855; p-value = 0.076 and a weak correlation of 0.211) had no significant influence on performance of research project in public universities. This implies that the null hypothesis one which states “utilization of logical framework approach has no significant influence on research projects in public universities” the null hypothesis is not rejected.

5.2.2 Utilization of Budgets and Research Projects Enhancement in Public Universities

There exists a significant relationship between utilization of budget and research projects enhancement in public universities. A strong positive correlation coefficient of 0.89. The indicators used here, budget reviews, budget compliance, budget guidelines and budget controls. There is positive strong relationship (0.89) between utilization of budget and Research Projects in public

universities in Kenya. Utilization of budget (*m* = 3.93; SD = 0.74737 and a positive strong correlation at 0.89) significantly influenced Research Projects in public universities. This relationship is significantly statistic.

5.2.3 Application of Stakeholder Involvement and Research Projects Enhancement in Public Universities

The findings reveal that 52.9% of all variations in Research Projects enhancement. Further, the F test has a value of 78.57% and a p value of 0.00 being lesser than 0.005. This shows that stakeholder involvement has a significant influence on Research Projects as the p value and f test are less than 0.05. Application of Stakeholder Involvement (*m* = 3.88; SD = 0.74421 and positive strong correlation of 0.658) significantly influenced research projects. The null hypothesis one which states "Application of Stakeholder Involvement approach has no significant influence on Research Projects in public universities" is rejected.

5.2.4 Utilization of Balanced Scorecard and Research Projects Enhancement in Public Universities

The findings found a significant relationship between utilization of balanced scorecard and research projects enhancement in public universities. The relationship was positive with a correlation coefficient of 0.578. The indicators used here were financial perspective, customer perspective, financial performance and learning and growth. The relationship between utilization of balanced scorecard and research projects enhancement in public universities in Kenya explains 49.3% of all the variations in performance. Other factors not in the model accounts for 50.7% of all the variation. BSC, (*m* = 3.96; SD = 0.77759; and strong positive correlation of 0.578) significantly influenced research projects.

5.2.5 Performance Contracting and Research Projects Enhancement in Public Universities

The findings suggest that there was a positive statistical influence performance contracting and research projects enhancement in public universities. The relationship between performance contracting and Research Projects in public universities in Kenya explains 50.1% of all the variations in performance. Other factors not in the model accounts for 50.7% of all the variation. Performance Contracting (*m* = 3.96; SD =0.7178 and correlation of 0.05) significantly

enhancement research projects. There exists a significant relationship between performance contracting and research projects enhancement in public universities since the p value is 0.00 which is less than 0.05. The null hypothesis states "performance contracting has no significant influence on Research Projects in public universities" is rejected.

5.2.6 Human Capacity for Monitoring and Evaluation and Research Projects Enhancement in Public Universities

From the findings, it was determined that human capacity has no moderating effect on all the variables. The indicators used here were experience with M&E, budget for M&E, M&E skills acquired and number of employees trained in M&E skills. Based on this, the alternative hypotheses which states "human capacity for M&E has no significant influences Research Projects in public universities is rejected. Human capacity for M&E (*m* = 3.74; SD = 0.6764 and correlation of 0.05) significantly influences on research projects.

5.2.7 Combined Monitoring and Evaluation Tools and Research Projects Enhancement in Public Universities

From the findings, it was determined that combined M&E tools have a significant influence on research projects enhancement in public universities. Combined M&E (LFA = 0.076, budgets = 0.000, stakeholder involvement = 0.000, BSC = 0.000). The data also established a positive relationship amongst utilization of budget, BSC and stakeholder involvement on Research Projects in public universities. Data analyzed revealed a weak relationship between utilization of LFA and Research Projects. The study also found that PC only had a moderating effect on utilization of budgets (LFA p-value = 0.292, budgets p-value = 0.005, stakeholder involvement p-value = 0.775 and BSC p-value = 0.432). Human capacity for M&E did not have any moderating effect on the independent variables (LFA p-value = 0.655, budgets p-value = 0.227, stakeholder involvement p-value = 0.546 and BSC p-value =0.191) which were above 0.05. There was a positive significant relationship between utilization of budgets, stakeholder involvement and balanced scorecard on Research Projects in public universities. The relationship between utilization of logical framework and Research Projects in public universities in Kenya were weak and insignificant.

5.2.8 Moderating Influence of Performance Contracting on the Relationship between Utilization of Monitoring and Evaluation Tools and Research Projects Enhancement in Public Universities

From the findings, PC only has a moderating influence on the utilization of budgets. It has no moderating influence on any of the other variables. Performance contracting has a moderating influence only on utilization of budget; utilization of LFA 0.292; utilization of budget 0.005; application of stakeholder involvement 0.775; and utilization of balanced scorecard 0.432. For the other variables the effect are insignificant.

5.2.9 Moderating Influence of Human Capacity for M&E on the relationship between Utilization of M&E tools and Research Projects Enhancement in Public Universities

From the findings, human capacity for M&E does not have any moderating influence on utilization of M&E tools and research projects enhancement in public universities. Human Capacity for Monitoring and Evaluation does not have a moderating relationship between utilization of M&E tools and research projects enhancement in public universities. Utilization of LFA 0.655; utilization of budgets 0.227; application of stakeholder involvement 0.546 and utilization of balanced scorecard 0.191.

5.3 Conclusions

Conclusions presented in this section are drawn from the discussions and have been organized according to the objectives of this study.

Objective 1**.** Utilization of logical framework has historically been known to be a resilient tool and common methods used in project management for project planning and monitoring. However, in this study that was not proved. At institution level, members of staff also need to be trained and sensitized on the use of this tool as it will positively influence research projects in public universities. Employees in public universities should be engaged as stakeholders so that they can be able to put their input in the utilization of logical framework.

Objective 2. Budget implementation requires advance action for programs which are progressed within the limits of the end of the means available and budget. Effective implementation of budgets

is frequently evaluated by addressing variances between budgeted items and the actual performance. The Ministry of Education, and the National Treasury should priorities budgeting in order to strengthen the institutions capacity; thereby, improve Research Projects in public universities. Budget cuts and 'virements' have been credited to underfunding of Research Projects. Universities are encouraged to be innovative and look for alternative sources of funding so as to enhance research projects in public universities.

Objective 3. Stakeholder involvement is often done to satisfy key funding bodies, leaving out others thus resulting in an unproductive process. Public universities are encouraged to strengthening stakeholder involvement through consistency in involvement, including frequency of involvement, mode of communication, level of involvement among others so as to ensure continuity and sustainability of Research Projects in public universities for sustainability.

Objective 4. The analysis revealed a significant association between utilization of balanced scorecard and Research Projects in public universities. In this view, public universities should enhance effective utilization of financial resources, customer focus, continuous learning and growth of its employees and enhance internal business processes so as to enhance Research Projects in public universities.

Objective 5. The conclusions of the study reveal that Performance Contracting only has a moderating effect on utilization of budgets as a monitoring and evaluation tool. Institutions need to put more emphasis on the use of Performance Contracting through continuous training and sensitization, providing incentives so as to enhance improvement in service delivery thereby having a positive influence on Research Projects in public universities.

Objective 6. Improving human resource capacity in M&E requires interventions at two levels; viz. national and institutional. The Ministry of Education and Treasury have an important role by allocating more funds for developing the capacity of teaching staff on M&E. At the organizational level, the content of training curriculums should be improved to make them more responsive to the needs of all public universities.

Objective 7. Combined utilization of monitoring and evaluation tools can positively influence Research Projects in public universities. The study shows that only utilization of logical framework

does not significantly influence Research Projects in Kenyan public universities. This is due to the fact that the tool is hardly used due to lack of training on the use of the tool to monitor Research Projects in public universities. Emphasis need to be put on this tool as it is user friendly and easy to use.

Objective 8. Human capacity for monitoring and evaluation is a key element in the effectiveness of all M&E structure. Human capacity for M&E is particularly important in terms of capacity to develop systematic monitoring frameworks and sound work plans, as well as information quality standards, among others. Nationally, the National Treasury and Ministry of Education have an important role by allocating more funds for developing the capacity of teaching staff on M&E; as well as recruiting more personnel who are specialized in M&E. At the institution level, management needs to develop and adopt appropriate policies and M&E tools which will be in use by the institutions.

Objective 9**.** Improving human capacity for PC at the institutional level will also require appropriate policies encouraging participation of academic and administrative staff in PC, including awareness creation, monitoring of its implementation, as well as utilization of PC evaluation findings. Participation in such activities is an important avenue for all staff to gain hands-on experience as well as improving their capacity and responsiveness.

5.4 Recommendations

Public universities should encourage and train its staff on the importance and use various M&E tools; logical framework approach, stakeholder involvement, balanced scorecard and budgets. There should be regular training and funding of M&E to make it sustainable. The Ministry of Education and Commission for University Education (CUE) should come up with policy measures so as institutions can adopt the use of various tools for monitoring and evaluation for effective and efficient monitoring and evaluation of their research projects in public universities.

The Government should come up with incentives to encourage and promote the continuous use of Performance Contracting in public universities. A reward system should be put in place to encourage employees to embrace PC to make it sustainable.

Universities should consider allocating more resources to enhancing their human capacity for monitoring and evaluation. This can be through allocating a budget for M&E, recruit more skilled M&E personnel and continuous capacity building for M&E personnel.

5.5 Areas for Further Research

1. The research was limited to utilization four monitoring and evaluation tools; logical framework, budgets, stakeholder involvement and balanced scorecard. Further studies can be done on other monitoring and evaluation tools to ascertain which is most appropriate for monitoring and evaluation tool.
2. The study focused on public universities only. Further studies should be conducted in other parastatals. This gap should be explored in similar studies in the future.
3. The study focused on two moderating variables, Performance Contracting and human capacity for monitoring and evaluation. The study recognized these factors do not have significant moderating effect on the utilization of Monitoring and evaluation tools therefore, there is a need to do more research on why the universities are not fully utilizing them.

5.6 Contribution to the Body of Knowledge

Utilization of monitoring and evaluation tools, performance contracting, human capacity for monitoring and evaluation on research projects enhancement is an aspect that has featured prominently in discourse and documentations in various aspects. In Kenya, no academic process has ever examined this study particularly on research projects in public universities. Being the first of its kind in Kenya, the study provides an important benchmark for Public universities to consider enhancing their human capacity for M&E as well as enriching existing literature on the context of public universities. And also for public universities to strengthen their M&E capacity.

It has also provided gaps in implementation of performance contracting and human capacity for monitoring and evaluation and emphasizes on the need to conduct regular training on performance contracting and monitoring and evaluation. Further, the targets that have been set need to be cascaded further to lower cadre staff for proper implementation. Appropriate policies for programmatic engagements aimed at strengthening M&E systems in public universities also need to be put in place.

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APPENDICES

Appendix I: Introduction Letter from University

UNIVERSITY OF NAIROBI
OPEN DISTANCE AND E-LEARNING CAMPUS
SCHOOL OF OPEN AND DISTANCE LEARNING
DEPARTMENT OF OPEN AND DISTANCE LEARNING

Your Ref:

Our Ref: UON/CEES/MEC/5/1

Telephone: Mombasa

Off-Moi Avenue
Uni Plaza Building
Mombasa Campus
P.O. Box 83732-80100
MOMBASA, KENYA

28th August, 2018.

TO WHOM IT MAY CONCERN

RE: PERMISSION TO PROCEED TO THE FIELD AND COLLECT DATA

This is to introduce **HAMISI JITTA MWANGUNI,** who is a bonifide student of the University of Nairobi. His Registration Number **L83/98087/2015** and he is in his second year of study pursuing a **DEGREE OF DOCTOR OF PHILOSOPHY IN PROJECT PLANNING AND MANAGEMENT** in the **School of Open and Distance Learning.**

All Post-graduate students are required to prepare and present a research project as part of their course. Hamisi has successfully defend his proposal based on **UTILIZATION OF MONITORING AND EVALUATION TOOLS, PERFORMANCE CONTRACTING, HUMAN CAPACTIY FOR MONTITORING AND EVALUATION AND PERFORMANCE OF SELECTED PUBLIC UNIVERSITIES IN COAST REGION,KENYA** and has been allowed to proceed to the field and collect data. He therefore requires to collect data in order to complete his research project. The information he requires is meant purely for academic purposes and will be not be used for any other purpose.

Hence, on behalf of the university, I am kindly requesting you to extend to him any assistance that may enable to collect the information he requires.

Yours faithfully,

UNIVERSITY OF NAIROBI
28 AUG 2018
Tel: 020 2649890
MOMBASA CAMPUS

JOHNBOSCO M. KISIMBII
REGIONAL CO-ORDINATOR – SODL, MOMBASA CAMPUS

Appendix II: Research Clearance Permit

CONDITIONS

1. **The License is valid for the proposed research, research site specified period.**
2. **Both the Licence and any rights thereunder are non-transferable.**
3. **Upon request of the Commission, the Licensee shall submit a progress report.**
4. **The Licensee shall report to the County Director of Education and County Governor in the area of research before commencement of the research.**
5. **Excavation, filming and collection of specimens are subject to further permissions from relevant Government agencies.**
6. **This Licence does not give authority to transfer research materials.**
7. **The Licensee shall submit two (2) hard copies and upload a soft copy of their final report.**
8. **The Commission reserves the right to modify the conditions of this Licence including its cancellation without prior notice.**

REPUBLIC OF KENYA

National Commission for Science, Technology and Innovation

RESEARCH CLEARANCE PERMIT

Serial No.A 20126

CONDITIONS: see back page

ORIGINAL

AC: 18789

OFFICIAL RECEIPT

Station Nairobi Date 15/8/16

RECEIVED from Hamisi Mwaguni

Shillings Two thousand only cents

on account of Research permit

Vote R43

Head

Item A1A

Cash

Cheque No. Direct Deposit

USD

Kshs 2,000.00

AC No.

Signature of Officer receiving remittance

Appendix III: Research Permit

THIS IS TO CERTIFY THAT:
MR. HAMISI JITTA MWAGUNI
of UNIVERSITY OF NAIROBI, 2707-80100 Mombasa,has been permitted to conduct research in *Kilifi , Mombasa Counties*

on the topic: *UTILIZATION OF MONITORING AND EVALUATION TOOLS, PERFORMANCE CONTRACTING, HUMAN CAPACITY FOR MONITORING AND EVALUATION AND PERFORMANCE OF RESEARCH PROJECTS IN SELECTED PUBLIC UNIVERSITIES IN COAST REGION, KENYA*

for the period ending:
17th August,2019

Permit No : NACOSTI/P/18/40754/24681
Date Of Issue : 18th August,2018
Fee Recieved :Ksh 2000

.....
Applicant's Signature

.....
Director General
National Commission for Science, Technology & Innovation

Appendix IV: NACOSTI Research Authorization

NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION

Telephone:+254-20-2213471,
2241349,3310571,2219420
Fax:+254-20-318245,318249
Email: dg@nacosti.go.ke
Website : www.nacosti.go.ke
When replying please quote

NACOSTI, Upper Kabete
Off Waiyaki Way
P.O. Box 30623-00100
NAIROBI-KENYA

Ref: No. **NACOSTI/P/18/40754/24681**

Date: **18th August, 2018**

Hamisi Jitta Mwaguni
University of Nairobi
P.O. Box 30197-00100
NAIROBI.

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on ***"Utilization of Monitoring and Evaluation tools, performance contracting, human capacity for Monitoring and Evaluation and performance of research projects in selected public universities in Coast Region, Kenya,"*** I am pleased to inform you that you have been authorized to undertake research in **Kilifi and Mombasa Counties** for the period ending **17th August, 2019.**

You are advised to report to **the County Commissioners and the County Directors of Education, Kilifi and Mombasa Counties** before embarking on the research project.

Kindly note that, as an applicant who has been licensed under the Science, Technology and Innovation Act, 2013 to conduct research in Kenya, you shall deposit **a copy** of the final research report to the Commission within **one year** of completion. The soft copy of the same should be submitted through the Online Research Information System.

BONIFACE WANYAMA
FOR: DIRECTOR-GENERAL/CEO

Copy to:

The County Commissioner
Kilifi County.

The County Director of Education
Kilifi County.

Appendix V: List of Public Universities in Kenya and year of charter

1. University of Nairobi (UoN) Established – 1970 Chartered – 2013
2. Moi University (MU) Established – 1984 Chartered – 2013
3. Kenyatta University (KU) Established – 1985 Chartered – 2013
4. Egerton University (EU) Established – 1987 Chartered – 2013
5. Jomo Kenyatta University of Agriculture and Technology (JKUAT) Established – 1994 Chartered – 2013
6. Maseno University (Maseno) Established – 2001 Chartered – 2013
7. Masinde Muliro University of Science and Technology (MMUST) Established – 2007 Chartered – 2013
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. JaramogiOgingaOdinga 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. TaitaTaveta University 2016
27. Murang'a University of Technology 2016
28. University of Embu 2016

29. Machakos University 2016
30. Kirinyaga University 2016
31. Embu University 2016

Appendix VI: Introduction Letter

Hamisi Jitta Mwaguni
School of Continuous and Distance Education,
Department of Open Learning,
University of Nairobi.
P.O. Box30197-0100,
Nairobi

Dear Respondent

I am a postgraduate student from University of Nairobi. I would like to collaborate with you in establish performance improvement in selected public universities in Kenya following the intervention of M&E and performance contracting tools. I sincerely request for your support through filling the questionnaire provided to you. The information you will give will assist highly in the above goal, which would be very vital in improving the situation on performance public university in Kenya. The information provided will be treated with a lot of confidentiality.

Your contribution and sincerity will be highly esteemed

Yours truly,

Hamisi Jitta Mwaguni
ID No. 24666324

Appendix VII: Questionnaire Academic and Non Academic Staff in Public Universities

Please answer the questions below as precisely and truthful as possible. Any information provided will be held with strict confidentiality and anonymity. Responses will be used for academic purposes only. (*Kindly tick/mark your responses against each questions in the spaces provided*).

Section A: Demographic Characteristics

1. Kindly select the appropriate age bracket.

30 – 39 years [ ] 40 – 49 years [ ]

50 – 59 years [ ] 60 and above [ ]

2. State the category of staff you belong.

Academic [ ] Administration [ ]

3. Select your appropriate gender

Male [ ] Female [ ]

4. Select the appropriate years of service to the institution.

1 – 5 [ ]

5 – 10 [ ]

10 – 15 [ ]

Above 15 [ ]

5. What is your highest academic qualifications?

PhD [ ] Masters Degree [ ] Higher Diploma [ ]
Bachelor degree [ ] Diploma [ ] Certificate [ ]
Others (specify) ……

Section B: Utilization of Logical Framework and Research Projects in public universities

What is your level of agreement with the following statements on utilization of Logical Framework influences Research Projects in public Universities? Where 5=Strongly Agree, 4 = Agree, 3= Neutral, 2=Disagree and 1=Strongly Disagree.

Statement	**1**	**2**	**3**	**4**	**5**
Setting goals in a logical framework use influences Research Projects in public universities					
Stakeholder participation in log frame development influences Research Projects in public universities					
Setting indicators in a logical frame influences Research Projects in public universities					
Activity setting in logical frame influences Research Projects in public universities					
Output identification in logical frame influences Research Projects in public universities					
Output identification in a logical framework influences Research Projects in public universities					

Has the use of the LFA influences Research Projects in public universities? If yes, how?

……

……

……

……

Section C: Utilization of Budgets and Research Projects in public universities

What is your level of agreement with the following statements on utilization of budgets influencing Research Projects in public Universities? Where 5=Strongly Agree, 4 = Agree, 3= Neutral, 2=Disagree and 1=Strongly Disagree.

Statement	**1**	**2**	**3**	**4**	**5**
Lack of budgets influences Research Projects in public universities					

Budget reviews influence Research Projects in public universities					
Compliance with budgets influence Research Projects in public universities					
Lack of budget reviews influences Research Projects in public universities					
Stakeholder involvement in budget preparation influences Research Projects in public Universities					
Budget guidelines influence Research Projects in public universities					
Budget controls in place influence Research Projects in public universities					
Utilization of budgets influences Research Projects in public universities					

Has the use of budgets improved Research Projects in public universities? If yes, how?

……

……

……

……

Section D: Application of Stakeholder Involvement and Research Projects in public universities

What is your level of agreement with the following statements on Application of Stakeholder Involvement influences Research Projects in public Universities? Where 5=Strongly Agree, 4 = Agree, 3= Neutral, 2=Disagree and 1=Strongly Disagree.

Statement	1	2	3	4	5
Scoping of stakeholders influences Research Projects in public universities					
No. of stakeholder identified influences Research Projects in public universities					

Has stakeholder involvement influenced Research Projects in public universities? If yes, how?

……

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……

Section E: Utilization of Balanced Scorecard and Research Projects in public universities

What is your level of agreement with the following statements on utilization of Balanced Scorecard influences Research Projects in public universities? Where 5=Strongly Agree, 4 = Agree, 3= Neutral, 2=Disagree and 1=Strongly Disagree.

Statement	1	2	3	4	5
Effective use of financial resources influences performance research projects in of public universities					
Customers focus influences Research Projects in public universities					
Learning and growth influences Research Projects in public universities					
Internal business processes influence Research Projects in public universities					

Has the utilization of balanced scorecard influenced Research Projects in public universities? If yes, how?

……

……

……

……

Section F: Performance Contracting influences Research Projects in public universities

What is your level of agreement with the following statements on Performance Contracting influences Research Projects in public universities? Where 5=Strongly Agree, 4 = Agree, 3= Neutral, 2=Disagree and 1=Strongly Disagree.

Statement	**1**	**2**	**3**	**4**	**5**
Signing of performance contracts influences Research Projects in public universities					
Setting performance targets influences Research Projects in public universities					
Service delivery influences Research Projects in public universities					
Number of employees trained in PC influences Research Projects in public universities					

Has performance contracting improved Research Projects in public universities? If yes, how?

……
……
……
……

Section G: Human capacity for Monitoring and Evaluation and performance of public universities

What is your level of agreement with the following statements on human capacity for monitoring and evaluation influencing Research Projects in public universities? Where 5=Strongly Agree, 4 = Agree, 3= Neutral, 2=Disagree and 1=Strongly Disagree.

Statement	1	2	3	4	5
Experience in monitoring and evaluation influences Research Projects in public universities					
A budget for monitoring and evaluation influences Research Projects in public universities					
Skills in monitoring and evaluation influences Research Projects in public universities					
Number of skilled staff in monitoring and evaluation influences performance of public universities					

Does human capacity of M&E influence Research Projects in public universities? If yes, how?

……

……

……

……

Section H: Performance of public Universities

What is your level of agreement with the following statements on performance of public Universities? Where 5=Strongly Agree, 4 = Agree, 3= Neutral, 2=Disagree and 1=Strongly Disagree.

Statement	1	2	3	4	5
Research outputs influences Research Projects in public universities					
Students completion rate influences Research Projects in public universities					
Promotion of academic staff influence Research Projects in public universities					
Research grants influence Research Projects in public universities					

Has Research Projects in public university improved over the years? If yes, how?

……

……

……

……

Thank You

Appendix VIII: Interview guide for Management of Public Universities

S/N		Tick most appropriate
	Date of interview	
	Name of institution	TUM [ ] PU [ ]
	Category of staff	Academic [ ] Administrative [ ]
	Participants gender	Male [ ] Female [ ]
	Length of service	1– 5 [ ] 6 – 10 [ ] 11 – 15 [ ] Above 15 [ ]
	Which M&E tools does your institution engage in?	Logical framework [ ] Budgets [ ] Stakeholder involvement [ ] Balanced scorecard [ ] All the above [ ]
	Utilization of Logical framework	Does the university set research project goals? Yes [ ] No [ ] Do universities get outcomes from research projects? Yes [ ] No [ ] Do universities have research outputs? Yes [ ] No [ ] Do you engage in research activities? Yes [ ] No [ ]
	Utilization of Budgets	Do you engage in budget reviews? Yes [ ] No [ ] Do you comply with set budget lines? Yes [ ] No [ ] Do you follow budget guidelines? Yes [ ] No [ ] Do you engage in budget controls? Yes [ ] No [ ]
	Application of Stakeholder Involvement	Do you engage in stakeholder scoping? Yes [ ] No [ ] Do you regularly involve stakeholder? Yes [ ] No [ ] How often do you engage stakeholders? .....
	Utilization of balanced scorecard	Financial perspective Yes [ ] No [ ] Customer perspective Yes [[No [ ]

		Internal business processes Yes [ ] No [ ] Learning and growth Yes [ ] No [ ]
	Performance contracting	Do you sign PC? Yes [ ] No [ ] Do you set research project targets? Yes [ ] No [ ] Do you have a service delivery charter? Yes [ ] No [ ] Do you regularly train employees on PC? Yes [ ] No [ ]
	Human capacity for M&E	Do you have staff who are skilled on M&E? Yes [ ] No [ ] Do you have a budget for M&E? Yes [ ] No [ ] How many skilled staff with skills in M&E do you have?…….
	Research Projects	Does your university receive research grants? Yes [ ] No [ ] Do students/staff complete their research projects on time? Yes [ ] No [ ] How many student research projects do you engage in? ….. How many research publications does your institution have? ……
	What can public universities do to enhance Research Projects?	
	How can institutions combine utilization of M&E tools and PC to enhance Research Projects?	
	How can institutions combine utilization of M&E tools and human capacity for M&E to enhance Research Projects?	
	How can institutions enhance their human capacity for M&E?	
	How can institutions enhance the use of PC?	
	What is your general comment on Research Projects in public universities?	

LL