AN INVESTIGATION INTO THE EFFECTIVENESS OF MONITORING AND EVALUATION PRACTICE IN PUBLIC PROJECTS: A SURVEY OF COUNTY GOVERNMENT PROJECTS

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An investigation of the effectiveness of monitoring and evaluation practice in public projects: A survey of county government projects

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2019

DECLARATION

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

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This thesis has been submitted for examination with our approval as university supervisors.

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DEDICATION

I would like to dedicate this entire work to my dear wife Monica. Through your love, patience, motivation, support and understanding made this lifelong dream possible

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LIST OF ABBREVIATIONS AND ACRONYMS

M&E	Monitoring and Evaluation
ICT	Information and Communication Technology
FIDIC	Federation International Des Ingenieurs-Conseils
CDF	Constituency Development Fund
PMBOK	Project Management Body of Knowledge
PPP	Public Private Partnership
WBS	Work Breakdown Structure
CPM	Critical Path Method
CDFC	Constituency Development Fund Committee
SPSS	Statistical Packages for Social Sciences
VIF	Variance Inflation Factor
ANOVA	Analysis of Variance
RII	Relative Importance Index
NIMES	National Integrated Monitoring System
NMPF	National Monitoring Policy Framework

ABSTRACT

The Practice of Monitoring and Evaluation (M&E) has become an increasingly important tool within the global efforts in achieving environmental, economic and social sustainability. Monitoring and evaluation (M&E) help those involved with projects to assess if progress is being achieved in line with expectations or not so that reasonable measures can be taken in good time to ensure the project success. While the knowledge on monitoring and evaluation of projects exists, the administrative components of monitoring and evaluation seem to be lacking in the management of county government funded projects. The purpose of this study was to investigate the adequacy of M&E in county government funded projects in Kenya. The study investigated the influence of policy, level of planning, resources and the process on the adequacy of M&E exercise in the county government funded projects in Kenya. The study adopted a survey research design and the target population were the county government projects coordination department members. Two completed projects were sampled from each of the 47 counties in Kenya. 72 out of 94 questionnaires sent to the field were returned translating to 76% response rate. The data was analyzed using SPSS version 16 which involved descriptive and inferential statistics. The study established that policies ($r = 0.598$, $P < 0.01$), planning ($r = 0.485$, $P < 0.05$), availability of resources ($r = 0.584$, $P < 0.01$) and process ($r = 0.837$, $P < 0.01$) have a significant influence on the adequacy of M&E of county government funded projects in Kenya. The research has recommended a synthesized model framework developed for M&E of public projects in Kenya which is expected to improve the performance of M&E of the county government projects, the creation of functional Monitoring and Evaluation units in every county which should be integrated into the current public works which will purely be in charge of M&E of the projects and finally the introduction of an ICT system to support M&E exercise since the research discovered that the M&E exercise in the counties still employs the use of traditional approaches

Key Words: Monitoring, Evaluation & County Government Projects

CHAPTER ONE

INTRODUCTION

1.0 Background to the Problem

Monitoring and evaluation (M&E) are essential components of results-based management (Rist, Boily & Martin, 2011). Results-based management involves deliberately gathering empirical evidence in order to know the extent to which intended results are being achieved so that modifications to the design and delivery of activities can be made to improve and account for performance in achieving intended outcome (Mayne, 2007).

Monitoring and evaluation (M&E) have become an increasingly important tool within the global efforts in achieving environmental, economic and social sustainability. At national and international scales, the sustainability criteria and indicators for M&E are very crucial in defining, monitoring and reporting on ecological, economic and social trends, tracking progress towards goals and influencing policy and practices (Behn, 2003).

Monitoring and evaluation (M&E) help those involved with projects to assess if progress is being achieved in line with expectations. Monitoring is the on-going collection and analysis of data that informs project managers if progress toward established goals is being achieved.

Evaluation is a comprehensive appraisal that looks at the long-term impacts of a project and exposes what worked, what did not, and what should be done differently in future projects. When planning for M&E, it is vital to consider whether appropriate funds and staff time can be allocated to it, since M&E is an on-going process and requires a significant commitment. Another key consideration is stakeholder participation in design and execution of M&E.

Project controls are aimed at increasing the performance of the project. Kerzner (2013) mentions controlling as a three-step process; measuring progress, evaluating what remains to be done, and Corrective actions to achieve or exceed the objectives. Project Control mechanisms are being implemented in many industries and sectors today. One such industry is the construction industry. Project monitoring has already been found to be an important contributor towards success of construction projects in India by Iyer and Jha (2006).

Construction projects are subjected to large stakeholders and environmental issues making it susceptible to deviations from planned progress and budget. So, much

emphasis will be given to project control during execution phase. In construction projects, this execution phase is usually carried out by contractors, hence, the proliferation of engineering and contracting company's world over, especially in the construction industry.

General terms of contract document by FIDIC (FEDERATION INTERNATIONALE DES INGENIEURS-CONSEILS) indicates that the control aspect of projects is more a responsibility of the contractor, than the client engineer (FIDIC, 2007). Contracting companies view projects as a place to implement control strategies to maximize profits and to meet customer requirement.

In view of this, contracting companies implement vigorous control procedures to achieve both operational and strategic control of projects. Today research and the markets are working together to increase usage of ICT tools in the construction industry and improve processes and productivity.

Fortune and White (2004) mention that 'performance monitoring system' monitors deviations, so that the organization or manager can initiate corrective action where necessary. In addition, Angus (2000) mention that a loose project management can result in a project getting out of control and on the other hand extreme and over reactive control can bring the project to a standstill.

They further mention that controlling a project too tightly makes team members nervous and may lead to be less creative. Linen (2004) research indicates that there is a positive co-relation between control systems and administrative task and negative co-relation with technical task.

Globally, construction is a complex and fragmented sector of the economy that involves a broad range of stakeholders namely; clients/project sponsors, project financiers, consultants, facility users and the Government and has wide range of linkages with other areas of activity (Hillebrandt, 2000; Pietroforte, 1995). Therefore, the effects of changes in the construction on the economy can be said to occur at all levels and in virtually all aspects of life.

For decades, the construction industry has been plagued by cost overruns (Akinci & Fischer, 1998). Unrelenting in its severity, the mere mention of a construction project by media outlets, especially infrastructure projects of considerable size, has become tantamount to costs exceeding budget and completion times reaching further than what was set out initially (Morris, 1990; Raftery, 2003; Siemiatycki, 2009;).

The public's perception can hardly be deemed unwarranted as made evident by the staggering number of projects that go beyond budgetary limits. According to a study by Moms and Hough, a sizable majority (63%) of 1778 construction projects funded by the World Bank exceeded their budgets (Baloi & Price, 2003).

The case is further aggravated when it comes to large infrastructure projects such as rail and road construction in which Flyvbjerg et al. (2013) reports that a large share of such projects exceeds their initial budgets with cost increases of 50–100% being commonplace and increases beyond 100% not unheard of. In stating these figures, Flyvbjerg et al. not only shed light on the severity of the problem, but also its global implications

Both developed and developing countries utilize projects as a way of improving as well as sustaining their economic activities. According to Pinto (2007), the use of project in economic activities is the backbone of any economy. The success of projects is dependent on the management utilized in the projects as well as many other elements in project management.

The application of project management practice in the public sector is identified as an efficient approach in upgrading management capabilities, and thus enabling public sector in efficiently completing projects and attains developmental objectives. Ahmad et al., (2005) observed that the application of project management strategy in the public sector resulted from pressure on the government to abandon bureaucratic management practices in favor of leaner structures.

In 2010, the promulgation of a new constitution in Kenya saw the devolution of government functions to county government with the devolution of political, fiscal and administrative powers. The devolved government divides their different activities into projects whereby principles and practices of project management are utilized for the management of these projects. As such, one of the activities devolved to the county government is the project management function.

Previous studies conducted on decentralized CDF fund illustrate that the management of these projects have not been as effective as expected (Wanjiru, 2008; Kamau, 2007; Kaimenyi, 2005).

The decentralization policy of Kenya was aimed at promoting the participation of citizens as well as the ownership of machinery of government by shifting the process of governance from command to consultations processes, and by transferring power, authority and functions, competence and resources to the county level. Counties have already implemented several projects.

According to the Auditor general's report on the Counties, most of the projects initiated by the counties have either stalled or the product does not reflect the initial set goals of initiating the projects. The Council of Governors through the chairman His Excellency Josephat Nanok however refuted those claims arguing that the National government had failed in its mandate to disburse the funds to the counties in time thereby creating a cash crunch at the counties which in turn have a ripple effect on the county government projects.

There is need to query the Monitoring and Evaluation units at the counties on their roles in project performance at the counties as a way of ensuring that the projects are fully implemented.

The County Government has been facing serious challenges in managing the projects and outing in the conditions required for the success of these projects. Some of the challenges facing the County Government include inadequate personnel with the required project management skills, inadequate financial resources, inefficient project planning and monitoring, and the un-involvement of the various project stakeholders among others.

1.1 Statement of the Problem

A successful project is one that is delivered within the budget, stipulated time on as per the schedule, desirable quality, client satisfaction, stakeholder satisfaction and facility user satisfaction. Most of the projects funded by the county governments do not meet some of the project objectives.

Effective monitoring and evaluation during project implementation are key for the success of a project. While the knowledge on monitoring and evaluation of projects exists, the administrative components of monitoring and evaluation seem to be lacking in the management of county government funded projects.

Moreover, there is insufficient information relating to the practice of monitoring and evaluation on projects funded by the county governments. For instance, there are questions as to whether the projects undertaken by the County Governments in Kenya are effectively monitored and evaluated by the relevant county authorities and therefore there is need to investigate the effectiveness of the Monitoring and Evaluation of projects in the counties.

1.2 Purpose of the Study

The purpose of this study was to investigate the adequacy of monitoring and evaluation strategies in county government funded projects thereby developing a framework for effective monitoring and evaluation of projects funded by the county governments as a milestone towards achieving the project objectives

1.3 Main Objective

The main objective of this study was to investigate the adequacy of Monitoring and Evaluation of County Government funded projects in Kenya.

1.4 Specific Objectives

1. To describe the levels of the adequacy of Monitoring and Evaluation of projects and its explanatory variables
2. To establish the relationship between the adequacy of Monitoring and Evaluation of projects and its explanatory variables
3. To establish the challenges in Monitoring and Evaluation of County Government Projects
4. To develop a framework for effective Monitoring and Evaluation of County Government projects

1.5 Research Hypothesis

H_{A1}: County Government Policies have a significant influence on the Adequacy of Monitoring and Evaluation of their projects

H_{o1}: County Government Policies does not influence the Adequacy of Monitoring and Evaluation of the Projects

H_{A2}: Resource Allocation at the County have a significant influence on the Adequacy of Monitoring and Evaluation of their projects

H_{o2}: Resource allocation have no influence on the Adequacy of Monitoring and Evaluation in County Projects

H_{A3}: M&E procedures and process at the County have a significant influence on the Adequacy of Monitoring and Evaluation of the projects

H_{o3}: The processes and the Procedures for M&E have no significant influence on the Adequacy of M&E in the projects

H_{A4}: Planning at the County have a significant influence on the Adequacy of Monitoring and Evaluation of their projects

H_{o4}: Planning levels have no influence on the adequacy of Monitoring and Evaluation of projects

1.6 Research Justification

The new constitution which was promulgated in 2010 created the devolved systems of governance at the county levels headed by the Governors. This means that the County governments are responsible for the infrastructural developments at the county level.

For instance, construction of schools and Hospitals is now a responsibility of the county governments.

Projects done at the county levels barely meet the various project objectives namely; budget, time, quality, client satisfaction, stakeholder satisfaction, environmental safety, Health safety and user's satisfaction.

The success of a project is dependent on an effective planning, monitoring and evaluation during the project implementation process and it is this reason why there need to be a study to outline a clear roadmap on how to carry out an effective monitoring and evaluation of county government funded projects in Kenya. Moreover, an effective Monitoring and Evaluation of projects funded by the county Governments will enhance the success of the projects thereby impacting on the lives of the citizens directly. For instance, if some of the stalled market structures were effectively monitored during the construction process, the projects would have been complete and the small scale business people could benefit thereby improving the living standards.

1.7 Significance of the Study

It is expected that this study will contribute to the existing knowledge in addressing the future research problems especially in the monitoring and evaluation of construction projects. It is also expected that the study will outline a clear roadmap on how to carry out an effective monitoring and evaluation of county government funded projects that will be of great importance to the project managers and other project stakeholders in the construction sector

1.8 Scope of the Study

The study was carried out in the all the 47 counties in Kenya. The study targeted County Government completed projects within the last three years with a cost not less than Kshs 50 Million. Two completed projects were picked through a census method from the 47 counties in the Republic of Kenya.

The respondents were the County Government technical staff who have participated in the Monitoring and Evaluation of the selected projects. Some of the technical staffs interviewed include; the County Architects, County Engineers, County Project Coordinators and the County Quantity Surveyors

1.8.1 Limitations of The Study

The County Government's confidentiality policy restricted respondents from participating in the interviews since it was against the confidentiality policy to expose the confidential matters of the County operations.

This was however solved by assuring the respondents of utmost confidentiality of the information received from them and that it was only for academic purposes.

The study area was too wide considering all the 47 counties were a subject of the research. The remoteness of some counties such as Mandera, Wajir, Mandera and Garissa Counties posed a great challenge during the data collection exercise.

1.8.2 Study Assumptions

The main assumption of the study was that all the counties have a Monitoring and Evaluation Project department which oversees the projects. The study also assumed that every county has a database for all the projects that have been undertaken since the County Government system of Governance came into effect.

1.9 Definitions of Terms

1. **Project:** A project is a temporary endeavor undertaken to create a unique product, service or result (PMI, 2008).
2. **Project Evaluation:** Evaluation is a comprehensive appraisal that looks at the long-term impacts of a project and exposes what worked, what did not, and what should be done differently in future projects.
3. **Project Monitoring:** Its collection of project performance data with respect to a plan or a practice to produce performance measures, and report and disseminate performance information (McCoy et al, 2005).
4. **Project management:** refers to the application of knowledge skills, tools and techniques to undertake a project successfully in order to add value (PMI, 2014).
5. **Project Performance:** This is the success in meeting pre-defined objectives, targets and goals i.e. simple terms refers to getting the job done or producing the result that you aim at (Harish, 2010) Performance of a project is multifaceted and may include unit cost, delivery speeds and the level of client satisfaction (Ling, 2004).

1.9.2 Discussion

The chapter gave detailed background of the study, the statement of the problem, the purpose and aim of the study, the objectives of the study, the study hypotheses, the significance of the study, research justification, the scope of the study, study assumptions, some of the limitations of the study and also the definitions of the key terms in the study.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The objective of this chapter is to gain considerable insight into earlier literature and comprehend the theories that support this study. It outlines the theoretical review, conceptual framework, and the influence of monitoring practices on project performance, empirical review, and critique of the existing literature to the study, research gap and the summary.

2.1.1 Monitoring and Evaluation Planning

Monitoring and Evaluation is heavily dependent on good planning according to Bakewell et al, (2003). If plans are properly developed at the start of a project or a program, then it becomes much easier to implement the project. The planning process should be based on a thorough understanding of what the project or programme is setting out to accomplish. It is important that M&E is considered at the planning stage and not left to be discussed until after plans have begun to be implemented.

2.2 Monitoring and Evaluation in Project management

PMBOK (2001) explains that monitoring and control of project work is the process of tracking, reviewing, and regulating the progress to meet the performance objectives defined in the project management plan. It further explains that monitoring includes status reporting, progress measurement, and forecasting. Performance reports provide information on the project's performance about scope, schedule, cost, resources, quality, and risk, which can be used as inputs to other processes.

Monitoring and Evaluation of projects can be of great importance to various project stakeholders including the clients and project financiers as it would ensure similar projects are successful (Marangu, 2012).

2.2.1 Aspects of Monitoring and Evaluation

The three major aspects of Monitoring and Evaluation include; strength of the monitoring team, approaches used in monitoring and evaluation and the stages involved in the process of monitoring and evaluation according to PMBOK (2001).

2.2.1.1 Strength of Monitoring and Evaluation Team

Naidoo (2001) noted that if monitoring and evaluation function is in a section which is associated with significant power in terms of decision making, it is more likely to be

taken seriously. He further reiterated that M&E units should be adding value and must for their own perpetuation be able to justify their efforts as a way of achieving the project goals.

That means that the monitoring team needs to be enhanced and strengthened for it to have more power to boost its effectiveness. In addition to the power of the M&E team, other factors such as the frequency of scope monitoring to identify changes, number of personnel monitoring the project schedule, extent of monitoring to detect the cost over runs, (Ling et' al, 2009).

According to Magondu (2013), financial availability is the main resource in any functional organization as far as other resources are concerned. Therefore, to set up a functional M&E department, finances are required. He further noted that staff capacity both in numbers and skills are also very key in any effective implementation and sustainability of monitoring and evaluation department.

Project structural capacity and data systems and information systems are also necessary for monitoring and evaluation exercise (Hassan, 2013). An effective monitoring and evaluation exercise are a major contributor to project success and hence the use of technology to compliment the efforts of the M&E team will strengthen it thereby improving the morale of the team.

Managing stakeholders, teamwork among members and monitoring the progress of the work are some of the key processes used to manage project work (Georgieva & Allan, 2008). A good monitoring team is one that has good stakeholders' representation. Nonetheless, an M&E team which embraces teamwork is a sign of strength and ingredient for better project performance.

2.2.1.2 Monitoring and Evaluation Approaches

Effectiveness of project monitoring and evaluation is dependent on the approach of Monitoring and Evaluation process. Stem et' al (2005) established some of the approaches that may be applied by the project managers include; Basic research; accounting and certification; status assessment; and effectiveness measurement.

Alotaibi (2011) discovered that Saudi Arabia lacked an appropriate construction contractor performance evaluation framework, and the identification and exploration criteria and sub-criteria for a selection framework. Lack of evaluation framework has a negative effect on the project success.

Mladenovic et'al (2013) establishes a two layers approach for the assessment of PPP projects. The first stage was based on evaluation of project ultimate objectives from the

standpoint of each stakeholder; profitability for private sector and level of service for the users.

The balanced scorecard is another approach that can be employed in evaluating the projects. It evaluates the projects based on four perspectives including; financial perspective, customer perspective, internal business process, and Learning and Growth.

Alhyari et' al (2013) found out that balanced scorecard approach fitted very well with monitoring and measuring the performance of e-government in Jordan, and in evaluating their success in IT project investments.

2.2.1.3 Project Lifecycle Stages

PMBOK (2011) describes project life cycle as the project phases and their relationship to each other and to the project and includes an overview of organizational structure that can influence the project and the way the project is managed.

The four stages include; Initiation, Planning, Execution and Closing the project. There is need for constant monitoring and evaluation across all the four stages of the project life cycle, PMBOK (2001).

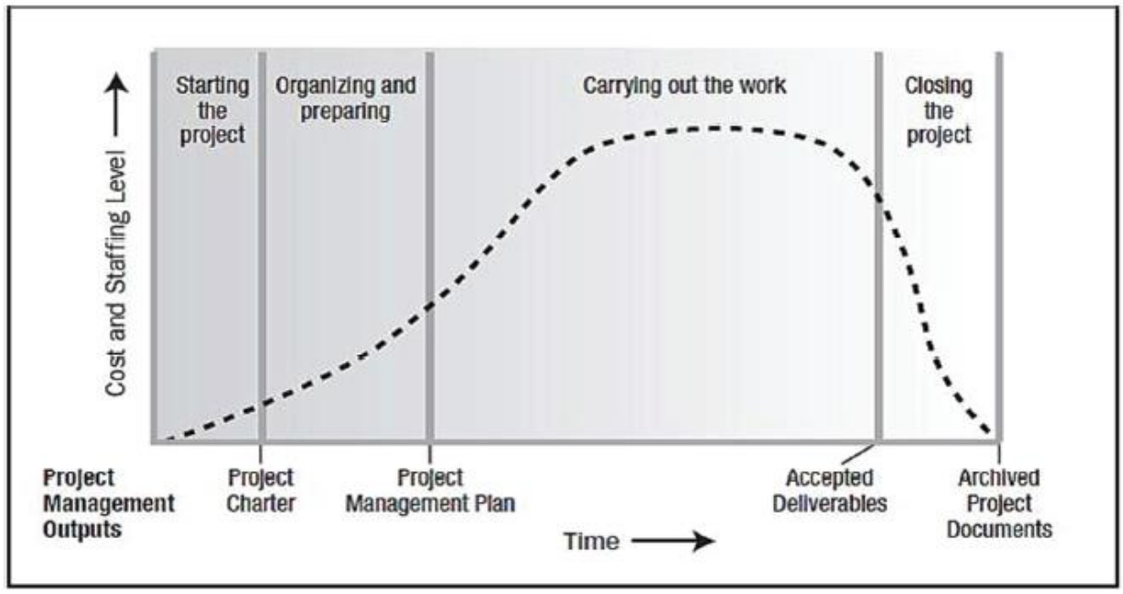


Figure 2.1:Project Life Cycle (Source: PMBOK, 2001: p16)

The table above shows clearly that each stage of the project life cycle requires different efforts from the management. In the same way each stage in the project life cycle requires different level of effort in terms of Monitoring and Evaluation.

Kyriakopoulos (2011) elucidates that it is very important to carry out frequent monitoring and perform focused reviews involving all the stakeholders in keeping the

project on track. Reviewing the progress and controlling the use of resources should be carried out on regular basis. He stresses the need to carry out overall monitoring throughout the project initiation, implementation, staff education, and technical maintenance.

Many project managers make the mistake of not involving members of their project teams in early planning and conceptual meetings, perhaps under the assumption that the team members should only concern themselves with their specific jobs (Pinto & Slevin, 1988). All project teams including M&E team should be involved in all the stages of the project lifecycle in order to achieve better success.

2.3 Roles of Project Team in Monitoring and Evaluation of Project

A project team usually consists of the following; Project Client, Architect, Quantity Surveyor, Contractor, Project manager, Engineers and Project financiers. The success of any project is dependent on the commitment of the various project stakeholders. The roles of each and every project participant are discussed below;

2.3.1 The Project Architect

According to Bamisile (2004), the architect should be visiting site periodically for inspections to ensure that in general, the work being carried out on site is in compliance with architectural designs and specifications.

2.3.2 Project Engineers

Bamisile (2004) noted that during the construction phase, engineers (geotechnical, structural, electrical and mechanical) should visit the site regularly for inspections to ensure that in general, the project follows their engineering drawings, schedules and specification.

A Structural Engineer should be concerned with the monitoring and ensuring that the design (structural) performance criteria are met in the construction methods and materials. Similarly, the mechanical and electrical engineer should monitor the type and ways of installing mechanical and electrical installations so as to ensure that it complies with their designs and specifications.

2.3.3 The Project Quantity Surveyor

A Quantity Surveyor is concerned with the quantities and cost associated in a construction project. As a cost expert, the Quantity Surveyor monitors the cost of every aspects of a construction project. He does this so that the total cost of production does not exceed the estimated cost.

2.3.4 The Project Contractor

The core function of a builder in any construction project is Building Production Management. An integral part of management is monitoring. A builder should be concerned with monitoring and evaluating the construction project. He should be able to apply the different monitoring techniques to achieve the objectives. A builder needs to be fully aware and conversant with the different construction professionals and their corresponding contract documents so that their implementation can be properly monitored.

2.4 Monitoring and Evaluation Areas of a Project

2.4.1 Project Quality

This seeks to assess how the project adheres to the project specifications, deliverables and scope. Right from the onset, a project has set targets or deliverables to be met within certain quality expectations. Therefore, monitoring, evaluating and controlling the quality and scope ensure that corrective measures are instituted early in the project when shortcomings are discovered and that the project contractor does not deliver shoddy or substandard work (Shapiro, 2004). This is achieved by assessing the project against the project design and specifications.

For monitoring of quality to be effective, it must be measured against a standard. The Project Quality Management Plan serves as a standard against which the quality of a construction project can be measured. Quality in a construction project depends on a range of variables and involves much more than the simple parameters such as the visible standard of finishes, structural soundness, or making of components fit within close tolerances.

The monitoring of quality should embrace all the aspects by which a construction project is judged including spatial arrangement, circulation, efficiency, aesthetic(s), flexibility as well as its functional ability as a climate modifier and as a suitable structure. Besides the Project Quality Management Plan, contract and job specifications also provide a criterion by which to assess and assure the quality of a construction project.

2.4.2 Project Cost

According to Westland (2003), Cost monitoring seeks to assess how well the project adheres to the planned budget to avoid or reduce cost overruns. This is done by auditing the expenditures and costs incurred at every phase of the project on capital, service provision and labour.

For control and monitoring purposes, the detailed cost estimate should be converted to a project budget, and the project budget is used subsequently as a guide for management. The detailed cost estimate should provide a baseline for the assessment of financial performance during a construction project.

Expenses during the project should be recorded in specific job cost accounts and this should be compared with the original detailed cost estimates. When the cost is within the detailed cost estimate, the cost and finance of a construction project is thought to be monitored and under control

2.4.3 Project Schedule/Time

Time monitoring seeks to assess how well the project adheres to the planned schedule over a period. There are a variety of ways in which a construction schedule can be presented. The more common types of construction schedule include Gantt chart, activity on the arrow, precedence network and line of balance. Bar charts or Gantt charts are a powerful communication tool and an extremely useful, visual and graphical medium in construction scheduling (Westland, 2003).

Construction typically involves a deadline for work completion, so construction managers must force attention to time. More generally, a delay in construction represents additional costs due to late facility occupancy and other factors. The duration of activities must therefore be monitored and compared to expected durations so that the project is completed within the time required.

2.5 Monitoring Techniques for Construction projects

The method of ensuring that an accurate check is kept upon progress in a construction project is very important, depending as it does upon frequent comparisons between works done and programme. Such comparisons can be made in a simple visual manner, to throw into prominence any divergence between the two by plotting the progress on the construction programme (Bamisile, 2004). According to Olorunoje et al (2004), monitoring tools involves recording techniques such as the use of network diagrams like:

i. Gantt chart

ii. Arrow diagram or critical path analysis

iii. Progress curves

2.5.1 Work Breakdown Structure (WBS)

According to Payne et al (1996), a Work Breakdown Structure provides a rational subdivision of the work in hierarchical form down to the lowest level of discrete work packages from which estimates of resources requirements, duration, linkages and costs can be determined. From the Work Breakdown Structure, a list of activities and precursor activities can be produced for the purposes of network analysis, from which programmes and chart flow.

2.5.2 The Gantt chart

A Gantt chart, also known as a bar chart, graphically describes a project consisting of a well- defined collection of tasks or activities, the completion of which marks its end. An activity is a task or closely related group of tasks whose performance contributes to completion of the overall project.

The Gantt chart is generally organized so that all activities are listed in a column at the left side of the diagram. A horizontal time scale extends to the right of the list, with a line corresponding to each activity on the list. A bar representing the duration of each activity is drawn between its corresponding scheduled start and finish times along its horizontal line (Barrie et al, 2006).

Gantt charts can be modified in order to show planned progress as well as to report progress. According to Barrie et al (2006), in order to report progress, a parallel bar is sometimes placed below the plan bar, and it is initially left open. Then, as the job progresses, it is shaded in direct proportion to the physical work completed on the activity. The Gantt chart is an effective way to monitor the duration and cost associated with a construction project.

2.5.3 The Critical Path Method (CPM)

The Critical Path Method is the systematic representation of a project by means of a diagram called network depicting the sequence and interplay of various components/units that go to form the project.

According to Arora et al (2005), the Critical Path Method is activity based. This does not consider of the uncertainties involved in the estimation of time for the execution of an activity. The times are related to costs. The activities are represented by arrows. These arrows are connected in order of sequence of operations. The nodes which represent events are attached to the beginning and end of each arrow.

The Critical Path Method provides a powerful means of documenting and communicating project plans, schedules and performance to managers. It also identifies the most critical elements in the project schedule and thus, allows management to set priorities and focus attention on them (Barrie et al, 2006).

2.5.4 Progress Curves

Progress curves, also called S curves, graphically plot some measure of cumulative progress on the vertical axis against time on the horizontal axis. Progress can be measured in terms of money expended, quantity surveys of work in place, man-hours expended, or any other measure which makes sense (Barrie et al, 2006); and this can be expressed either in terms of actual units or as a percentage of the estimated total quantity to be measured.

Progress curves can express some aspects of project plans. Once the project is underway, actual progress can be plotted and compared with that which was plotted. It is then possible to make projections based on the slope of the actual progress curve, (Barrie et al, 2006).

2.6 Evaluation in Projects

Gibson and Mitchell (1995) define programme evaluation as a systematic set of data collection and analysis of activities, undertaken to determine the value of a programme in order to aid management, programme planning, staff development, public accountability and promotion. Evaluation activities make it possible to make reasonable judgments about efforts, effectiveness, adequacy, and provide a comparison of programme options. They determine the worth of a program and provide an opportunity to explore other alternative approaches or strategies to reach specific objectives.

Evaluation seeks to provide objective evidence of whether the programme has met the desired objectives. It provides an opportunity for programme planning and decision-making. It is, therefore, important to evaluate programmes since this offers a chance for continued programme improvement. Shertzer and Stone view evaluation as necessary to provide for the effectiveness of achieving programme goals, in relation to specific standards. Concrete data, indicating the benefits and limitations of the programme, can be accumulated through programme evaluation. The effectiveness of any programme can be sustained through continuous evaluation, and practitioners need to carry it out rather than pay lip service to it.

It should, therefore, be noted that the main purpose of evaluation is to improve the implementation of a programme. Evaluation determines what the programme achieves.

It also provides a basis for identifying critical gaps in service delivery, and for planning programme changes.

2.6.1 Formative Evaluation

Formative evaluation takes place in the lead up to the project, as well as during the project in order to improve the project design as it is being implemented (continual improvement). Formative evaluation often lends itself to qualitative methods of inquiry.

This type of evaluation is conducted during the planning and design of the programme. It provides immediate feedback for programme modification and improvement. This type of evaluation is on-going. It helps to determine programme strengths and weaknesses.

2.6.2 Summative Evaluation

Summative evaluation takes place during and following the project implementation, and is associated with more objective, quantitative methods. The distinction between formative and summative evaluation can become blurred. Generally, it is important to know both how an intervention works, as well as if it worked. It is therefore important to capture and assess both qualitative and quantitative data.

This is concerned with the evaluation of an already completed programme. When all that has been planned has been done, summative evaluation can be carried out to determine whether the programme has achieved its goals.

It is the kind of evaluation that summarizes the strengths and weaknesses of a programme. It may help programme leaders to determine whether the programme is worth continuing. It is done when the programme is ready for general use. It provides potential consumers with evidence of the value of a programme. It helps to check the effectiveness of the programme.

	Formative				**Summative**
Type	Proactive	Clarificative	Interactive	Monitoring	Outcome
When to use	Pre-project	Project development	Project implementation	Project implementation	Project implementation and post project
Why use it	To understand or clarify	To make clear the theory of	To improve the project's design	To ensure that the project activities are	To assess whether the project has met

	the need for the project	change that the project is based on	(continual improvement) as it is rolled out	being delivered efficiently and effectively	its goals, whether there were any unintended consequences, what were the learnings, and how to improve

Figure 2.2: Forms of Evaluation Source: Owen & Rodgers (2009)

2.7 Evaluation Procedures

2.7.1 Identification of goals to be assessed

It is important to establish the limits, or variables, for evaluation in the initial stages. This is to say that evaluation can focus on the entire programme or some aspects of it. Such objectives should be clearly stated, concise, specific and measurable. An example of such an objective would be: make students attend a career fair by the end of the first term. This is when the purpose of evaluation is classified, and the issues to be evaluated are identified.

2.7.2 Development of an evaluation plan

After the establishment of evaluation objectives, there is a need to identify the most appropriate way of judging the extent to which a programme has achieved its goals and objectives. There should be specific information on how the data is collected, when it is collected, and by whom. This plan must indicate how the data is organized, and to whom it will be sent. It should provide findings on the future development of the programme. At this stage, the evaluation team is identified, and the techniques to be used are selected and designed.

2.7.3 Application of the evaluation plan

When the evaluation plan has been approved, it can be put into effect. Its validity or success depends on the competence of the evaluator, its timing, and how effectively it has been planned. There is a need for the plan to be affected by someone who understands what it is intended to do. This is when data collection and analysis take place.

2.7.4 Utilization of the findings

Evaluation alone is of little value. It is the application of the findings that makes it worthwhile. Through evaluation, programmes learn their strengths and weaknesses, and the findings offer an opportunity to determine future programme improvements.

Adequate use of evaluation findings should be planned, and programme leaders should ensure that they are implemented and followed up. This establishes the extent to which the findings have been incorporated for purposes of programme improvement.

A failure to use evaluation findings, adversely affects the programme, and contributes to failure. A follow-up will lead to a review, which will determine whether there is a need for revision of the exercise.

2.8 Evaluation Life Cycle

Evaluation should not be considered a stand-alone activity. It should rather be thought of as a set of linked tasks that are undertaken from the start to the end (and beyond) of a project.

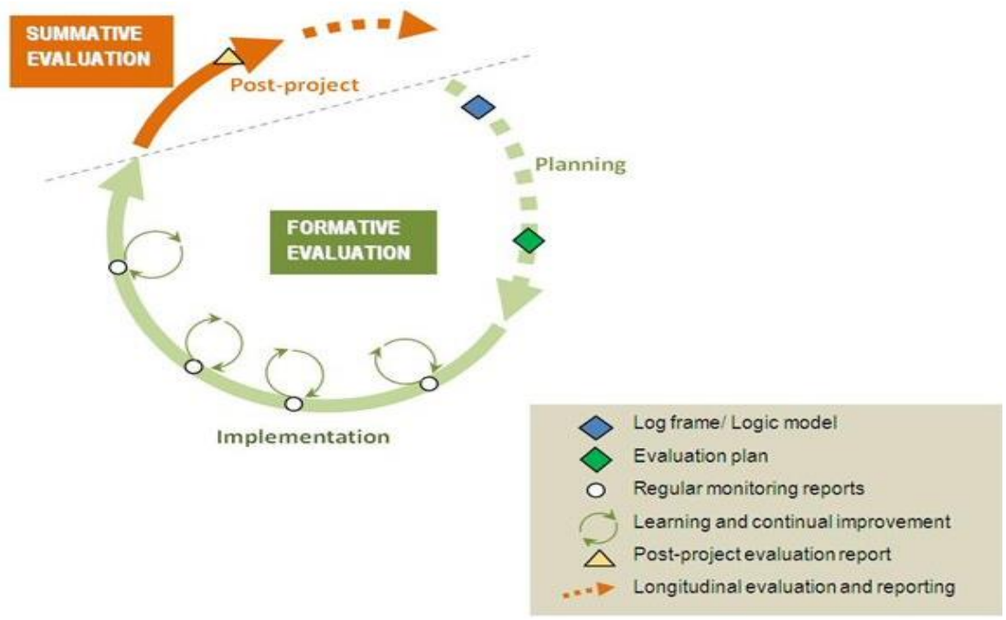


Figure 2.3: Project Evaluation Cycle Adapted from TORQAID Project Management Cycle

2.9 Monitoring and Evaluation Data Cycle

Just as there is a project management and project evaluation cycle, Willetts & Crawford (2007) have put forward a monitoring and evaluation data cycle that broadly outlines steps to identify, collect, analyze and use the data.

The monitoring & evaluation data cycle considers the process as having 6 stages (Willetts & Crawford, 2007: 368-369), as represented in the diagram below.

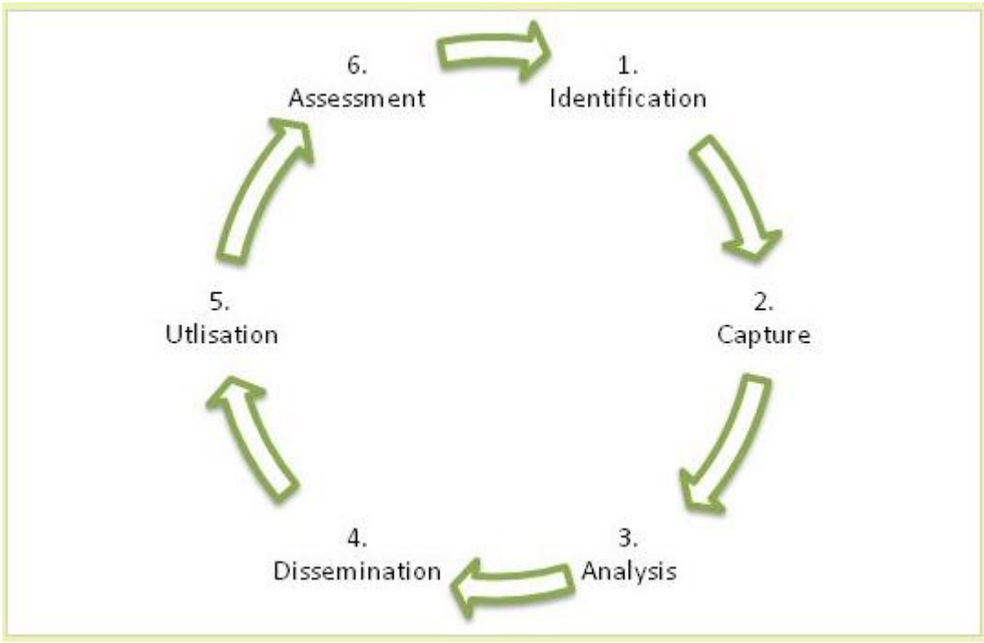


Figure 2.4: Monitoring and Evaluation Data Cycle Source: Willets & Crawford (2007)

The stages in the data cycle are explained below:

1. **Identification** is the selection of the data required to achieve the purpose of M&E. This can be through defining indicators.
2. **Capture** of the identified data. This can involve formal and informal 'methods of enquiry', and various stakeholders.
3. **Analysis** of the raw captured data in order to draw out meaningful features and trends. Unless data are subject to some form of analysis, their capture represents a waste of time and resources.
4. **Dissemination** of the M&E findings (analyzed data) by various mechanisms to stakeholders. It is important to ensure that the information is relevant to the recipient and is received in a timely and accessible format.
5. **Use of the M&E findings by the various stakeholders**. Utilization is embodied in the broad purpose of M&E: to promote learning and accountability. If the use of the data is not known from the outset, it is possible that it may remain unused, which would be a waste of time and resources.
6. **Assessment and reflection** about whether the data identified in the first stage, having been captured and been use, has demonstrably contributed to improved learning and accountability. This is an evaluation of the M&E system and provides a means to make a judgment on what improvements can be made to the evaluation program.

2.9.1 Evaluation Techniques

There are several evaluation techniques or ways of collecting data. It is important for the evaluator to select the best technique to suit the purpose and choose which programme

leaders can be used to check the value of their programmes. These include tests, interviews, observations, and questionnaires, inspection of records, discussions and open box suggestions.

2.9.1.1 Observations

This is a visual technique where the evaluator observes, and records, any findings. Here, the evaluator decides whether he/she will observe as an outsider, or as a participant. This requires full concentration by the observer, who should study an aspect in detail, after consultation with other programme implementors.

The observer serves as a second person for what other implementors are looking for. For this technique to be worthwhile, the observer should report and discuss any findings immediately, so that possible distortions, or failure to remember, do not affect the results. When using this technique, observers need to have sharp eyes and ears to be able to collect adequate data. The observer should carefully guard against bias.

2.9.1.2 Interviews

Interviews are a basic evaluation technique. They can be structured or unstructured. This requires a good ability to listen. A more structured interview would require the preparation of interview questions prior to the interview itself. It is important that data be recorded.

The evaluator may use a tape recorder, in order to transcribe the relevant parts later, or take notes throughout the interview. Some evaluators depend on their memory, but this leads to a great risk of missing out important information. It is important that notes taken are discussed with the person interviewed, to check whether the information was correctly recorded.

2.9.1.3 Questionnaires

This involves a structured series of questions and statements that enable the evaluators to gather information about a programme. The advantage is that it can be sent to clients, to be completed in the absence of the evaluator. Unlike an interview, it also gives the evaluator an opportunity to cover a larger number of people at one time. All evaluation techniques require planning on the part of the evaluator.

It is important for the evaluator to consult with relevant beneficiaries on the evaluation techniques they would like to use, so that conflicts of interest are avoided

2.9.2 Roles of Project Monitoring Units

1. Scrutiny of all new projects proposed to be posed for external aid with reference to "inter alia" to the sustainability after completion of project and recurring cost implications.

2. Carry out strategic option studies regarding financing of the project i.e finding out which type of financing would be most suitable for the project.
3. Improve project quality at entry.
4. Maintain effective co-ordination with the departments implementing the Externally Aided Projects and obtain information on the status of Externally Aided Projects for furnishing to the State Level Consultative Committee/State Level Empowered Committee.
5. Monitor the implementation of the on-going projects, and sort out field problems with concerned line departments, conduct periodical reviews and filed inspection and guide the executing agencies for improving the performance of the project implementation and monitor project expenditure. .
6. Assist in resolution of issues relating to the procurement, land acquisition, resettlement and rehabilitation, staffing, vehicle requirements etc.
7. Guide the project implementing authorities in -

(a) Formulating of annual plan in budgets;
(b) Submission of claims, etc.,

8. Ensure adequate and timely release of funds to projects.

9. Ensure that project covenants are adhered to.

10. Pursue with the Project Authorities for completion of accounts and data of project expenditure on annual basis; reconciliation of expenditure with the Accountant General and also obtain audit certificate for forwarding the same to the external agencies within the prescribed time.

11. Co-ordinate the visits of the missions and participate in all negotiations with the aid giving agencies.

2.9.3 Types of Monitoring

Monitoring is the systematic and routine collection of data during project implementation for the purpose of establishing whether an intervention is moving towards the set objectives or project goals. In this case, data is collected throughout the life cycle of the project. The data collection tools are usually embedded into the project activities in order to ensure that the process is seamless.

2.9.3.1 Process Monitoring/Physical progress Monitoring

In process monitoring, routine data is collected and analyzed in order to establish whether the project tasks and activities are leading towards the intended project results. It authenticates the progress of the project towards the intended results.

This kind of monitoring measures the inputs, activities and outputs. In other words, process monitoring answers the questions “what has been done so far, where, when and how has it been done?” Most of the data collected during project implementation usually serves this kind of monitoring.

2.9.3.2 Technical Monitoring

Technical monitoring involves assessing the strategy that is being used in project implementation to establish whether it is achieving the required results. It involves the technical aspects of the project such as the activities to be conducted.

In a safe water project for example, physical progress monitoring may show that there is little or no uptake of chlorination as a water treatment strategy. Technical monitoring may establish that this could be a result of installing chlorine dispensers at the water source and women are too time constrained that they have no time to line up to get chlorine from the dispensers. This may prompt a change of strategy where the project might opt for household distribution of bottled chlorine.

2.9.3.3 Assumption monitoring

Any project has its working assumptions which must be clearly outlined in the project log frame. These assumptions are those factors which might determine project success or failure, but which the project has no control over.

Assumption monitoring involves measuring these factors which are external to the project. It is important to carry out assumption monitoring as it may help to explain success or failure of a project.

2.9.3.4 Financial Monitoring

Financial monitoring refers to monitoring project/ program expenditure and comparing them with the budgets prepared at the planning stage. The use of funds at the disposal of a program/project is crucial for ensuring there are no excesses or wastages.

Financial monitoring is also important for accountability and reporting purposes, as well as for measuring financial efficiency (the maximization of outputs with minimal inputs).

2.10 Theoretical Framework

The theoretical framework for monitoring and evaluation of projects has been described as a frame of reference which helps human beings in understanding their world and learning how to function within it.

A theory tries to explain and predict a behavior based on observations and conclusions are based on data that is systematically collected, analyzed and interpreted. Theories are based on findings and observations that have stood the test of time and conditions and thus beyond all doubt.

The concept of evaluation occurred in the US in the 1960 and 70s during the administrations of Kennedy and Johnson with heavy support from the federal government under the policies on 'war on Poverty' and the Great Society (Rossie, Lipsey, Freeman, 2004).

The evaluation theory consists of the social; science theory as well as the Program theory. The social theory plays a major part and role in evaluation practice. Such a theory and prior research are instrumental for providing information on the initial need's assessment and program design.

A review of available literature is crucial as it provides knowledge on the effective strategies to use in dealing with the problems at hand. Further, they can provide lessons about what is not effective as such saving program designs and other resources (Donaldson, 2001).

Lipsey (1990) argued that program theory on the other hand contributes to evaluation practice through the identification of key program elements as well as providing information on how these elements relate to each other. Data collection plans are then involved in the framework to ensure information to measure the extent and nature of each aspects and their occurrence. Once the data on the elements is collected, it is analyzed within the framework.

2.10.1 Program Theory

Program theory is a plausible and sensible model on how a program is supposed to work (Bickman, 1987). Lipsey (1993) stated that it is a proposition regarding the transformation on input into output and how to transform a bad situation into a better one through inputs.

It is also illustrated as the process through which program components are presumed to affect outcomes. Rossi (2004) argued that a program theory consists of an organizational plan on how to deploy resources and organize the activities of the program activities to ensure that the intended service system is developed and maintained.

The theory further deals with the service utilizations plan which analyses how the intended target population receives the intended amount of intervention. This is through

the interaction of the service delivery systems. Finally, program theory looks at how the intended intervention for the specified target population represents the desired social benefits.

Rogers as cited by Uitto (2000) illustrates the advantages of using a theory-based framework in monitoring and evaluation. It includes the ability to attribute project outcomes of specific projects or activities as well as identification of anticipated and undesired program consequences. Theory based evaluations as such enables the evaluator to understand why and how the program is working (Weiss, 2003).

2.10.2 Control Theory

Performance management system is a critical component of Human resource management for an organization to achieve its goals and objectives. It is defined as a continuous process of identifying, measuring and developing performance in organizations (Aguinis, 2011).

This is achieved by linking each individual's performance and objectives to the organization 's overall performance. Control theory helps in sustaining the performance management systems within an organization. According to this theory, all the systems should tally with the overall goals and objectives of the organization (Barrows & Neely, 2012).

Control theory focuses on control strategies applicable at various levels of an organization in order to achieve such results as; organization structure, behavioral controls like policies and procedures and the performance measurement mechanisms.

Control theory has the following types systems; behavior control where the employer monitor and evaluate the actions of the employees on a regular basis according to the organization and then reward the employees accordingly. The second system if output control where the performance of an employee is controlled with rewards or sanctions after evaluating it based on the organization structure and standards.

The third system is input control that seek to control the selection and training process of the employee. The system also seeks to ensure the availability of the required competencies in the employee as desired by the organization for growth and development according to Krausert (2009).

The selection however of any of the three systems depend on the structure, procedures, policies and administrative information in any organization according to Shell (1992).

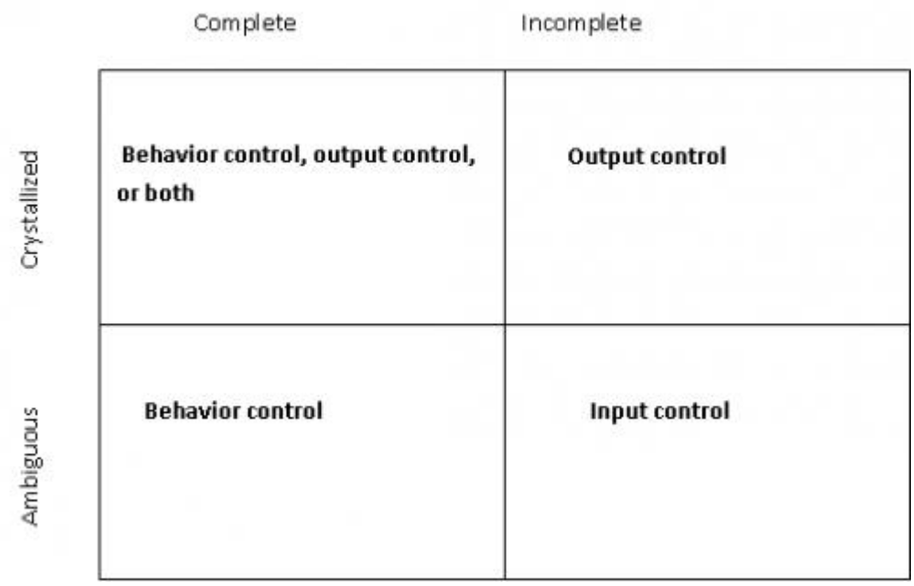


Figure 2.5: Shell Control Theory, Source: (Krausert, 2009)

Control theory is important in managing the performance of an organization by evaluating the output of the system for its consistency with a pre-set parameter.

According to Barrows & Neely (2012), the deviation in the system can be adjusted a system controller popularly known as Cybernetic model which states that if an organization can execute control and performance more effectively and efficiently then it can as well cope up with the challenges of changing external environment.

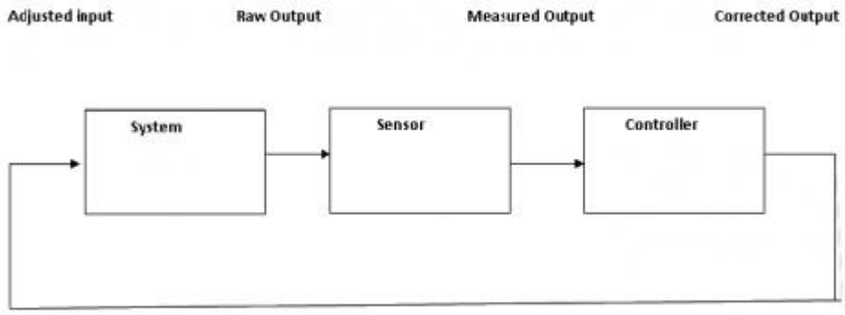


Figure 2.6: Cybernetic Model of Control Theory, Source: (Barrows & Neely, 2012)

Critics of control theory however argue that the3 theory assumes that employees look at their feedback which controls the quality of their output. This could greatly impact negatively on the performance of the employee as it could result in decreased motivation and productivity levels of the employee.

In control theory, the performance of the employee is also controlled by the rewards and recognition which the employee achieves once his performance meets the desired standards of the organization. This theory sounds too mechanical and fails to contemplate that humans are not mechanical objects (Locke, 1991)

2.10.3 Social Change Theory

Social change theory aims at enhancing empowerment through participation of the vulnerable groups thereby promoting prudent planning and coordination, surveillance and capacity building as opposed to top down approach which has been the norm in project implementation process.

The theory is associated with Julius Nyerere and Paulo Freize a Brazilian scholar who argues that, for community mobilization, dialogue and critical thinking by marginalized people will greatly empower them (Paulo, 1973).

Due diligence in a project set up should be adhered to regarding the execution of monitoring and evaluation practices whether in planning and coordination, capacity building, data demand and should be done ethically with a view of mitigating the likelihood of adversity that may accrue if omitted.

2.10.4 Relevance of the Theories to the Study

The first theory which is the program theory talks about how a program is supposed to work. It outlines the process through which a program component is presumed to affect the outcomes of a process. The theory stresses on the need to have an organizational plan and the need to deploy enough resources to support the process. Looking at Construction as a program, the process and the approach of executing the construction program is highly dependent on the effectiveness of the organizational plan which is highly affected by the effectiveness of the human resource component of the program.

The second theory was the Control theory which is mainly concerned with the performance management of a critical component of the human resource management of a program. The theory emphasizes the need for an organizational framework clearly outlining the objectives and the goals of the organization which should also tally with the goals of the human resource component of the organization. The first step towards achieving this is behavior control which can be achieved by training the human resources base tasked with the program so that everyone has the skills for controlling the program. The inputs and the outputs can thereafter be controlled considering there is adequate human resource capacity to handle the program.

The last theory which was the Social change theory aims at enhancing the empowerment of the human resource base of an organization through participation of the vulnerable groups thereby promoting prudent planning and coordination, surveillance and capacity building as opposed to the top down approach which has always been the norm in the project implementation process. The theories have identified policies, planning, resource

allocation and the processes as some of the key critical factors for the effectiveness in Monitoring and Evaluation of projects.

2.10.5 Research Gap

There are several studies that have been performed regarding the execution of public projects. For instance, Karanja (2014) analyzed the influence of management practices on sustainability of projects in Kangema District in Murang'a County. The purpose of the study was to assess the influence of management practices on sustainability of the projects.

The specific objectives were to establish influence of Leadership on sustainability of projects in Kangema District, to establish influence of Training on sustainability of projects in Kangema District, to establish the influence of financial management on sustainability of projects in Kangema District, to assess the influence of Monitoring and evaluation on sustainability of projects in Kangema District.

The study focused on Training, Monitoring &Evaluation, Leadership and financial management aspects in relation to project sustainability. The study revealed that, sound financial management, appropriate training, leadership and effective monitoring and evaluation influence the sustainability of the projects.

Although the study revealed that effective monitoring and evaluation influences the sustainability of projects, the study did not outline how to conduct an effective monitoring and evaluation of the projects.

In 2005, the Ministry of Planning and National Development commissioned work on the design of an appropriate framework for Monitoring and Evaluation (M&E) in the National Development Programme. This was a collective effort by the government, Private Sector and Civil Societies, Republic of Kenya implementation of M&E (2005). This proposed M&E framework has not been fully operational hence the need to develop a comprehensive framework on monitoring and evaluation to guide the process.

The CDF Act,2003 emphasizes on the Monitoring and Evaluation just like DFRD did. The mode of doing it is not well specified. The Act gives technical department, DDO and CDFC authority to monitor the project. The Act further allocates 2% of CDFC fund to be used for monitoring and evaluation exercise but this money is only spent after the CDFC recommendation through minutes CDF Act, (2003 revised 2007). This makes M&E to be somehow difficult and sometimes cosmetic as it is the CDFC to decide which project to be monitored, which one to be evaluated, how much funds to remove and who to do the exercise.

The Act gives room for CDFC to determine themselves instead of getting a different body to manage M&E within the CDFC projects. It also allows the unfaithful CDFC not to institute monitoring and evaluation to some projects they either have interest in or have interest of hiding something.

Conventionally, evaluating party is usually part of monitoring and evaluation missions contracted and dispatched from the donor world. In the case of CDF Act (2003) revised (2007) the CDF identifies projects, implement, then monitors and evaluate or call technical person at their own peril. This is therefore a serious weakness that needs to be addressed. For monitoring and evaluation to be undertaken successfully, indicators must be put in place i.e. Which the outcome of a project can be understood and measured, gauged or standardized, against which change is measured.

From the literatures, it's evident that majority of the researchers have neglected the actual performance of monitoring and evaluation of projects

Moreover, most if not all the studies that have been conducted on monitoring and evaluation has mainly considered the projects funded by the Constituency Development Funds and National government funded projects.

The devolved system of governance is still a very young system considering that the constitution that gave birth to the county system of governance was promulgated in 2010 and therefore there is the need to conduct an in-depth study on the monitoring and evaluation strategies that have been adopted by the county governments in executing their projects. In summary, the study addressed the following gaps; No study had looked at the efficiency of Monitoring and Evaluation in projects funded by the County Governments, The studies reviewed did not put forward a model for predicting the effectiveness of Monitoring and Evaluation in County projects and that no studies reviewed had proposed a framework for enhancing the Effectiveness of M&E in County projects in Kenya.

2.10.6 Conceptual Framework

A conceptual framework is a theorized display recognizing the model under investigation and the connections between the needy variable and the autonomous factors (Mugenda & Mugenda, 2006).

At the point when unmistakably verbalized, a theoretical system has potential convenience as an instrument to platform inquire about and, consequently, to help an examination to make importance of resulting discoveries (Smyth, 2002).

Such a structure ought to be expected as a beginning stage for reflection about the examination and its setting as an instrument intended to help an investigation to create

mindfulness and comprehension of the circumstance under investigation; by comprising of Independent and Dependent factors.

As per Kothari (2003), a variable is an idea, which can go up against characteristics of quantitative values. A response variable is the outcome variable that is being predicted and whose variety is the thing that the examination tries to clarify.

The explanatory factors, otherwise called the indicator or logical factors will be factors that clarify variety in the dependent variable (Alison, 2006). The conceptual framework of this study bases on four independent factors and one dependent variable as spoke to diagrammatically in figure 7 below.

The Study utilized a conceptual framework to answer the study research questions. According to the study, Adequacy of monitoring and evaluation of projects is conceptualized as being subject to the county policies, level of planning, availability of resources and the procedures and processes for monitoring and evaluation at the county.

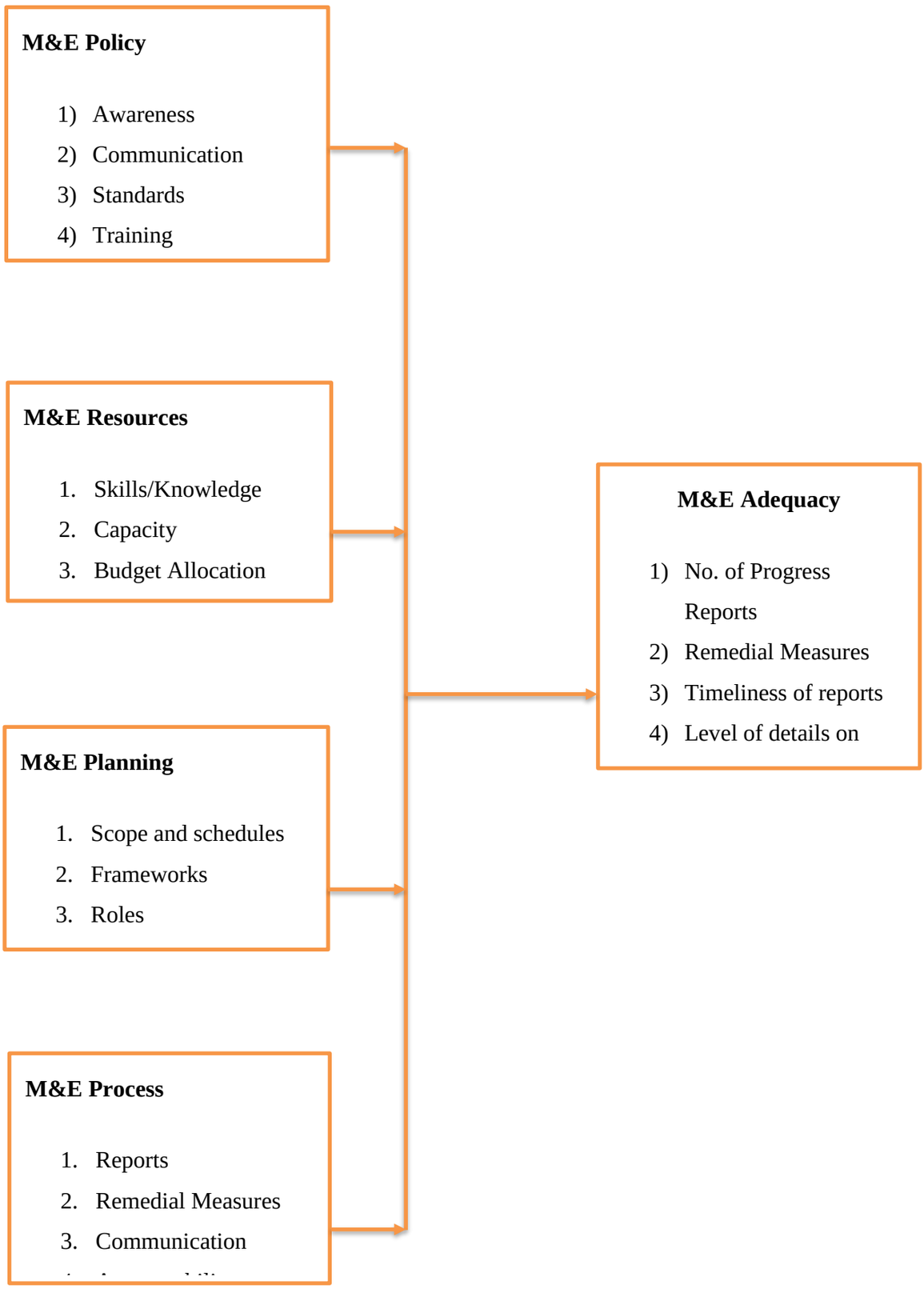


Figure 2.7: Conceptual Framework, Source (Author, 2018)

Independent Variables Dependent variables

2.11 Discussion

The chapter gave an in-depth review of the available literature on monitoring and evaluation, the theoretical frameworks and established a conceptual framework for the study. The chapter has also summarized the literature gaps to be addressed by the study. The chapter has also established the four independent variables and one dependent variable. The four independent variables include; Policies, Planning, Resources and the Processes and procedures for Monitoring and Evaluation while the dependent variable is the adequacy of Monitoring and Evaluation in county Government projects in Kenya.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This Chapter describes a holistic approach of how the proposed research would be conducted by the researcher. It contains Research design, Population/Area of study, sampling techniques, Data Collection techniques/Instruments and Data Analysis for the research. The research process took the form as described in the diagram below;

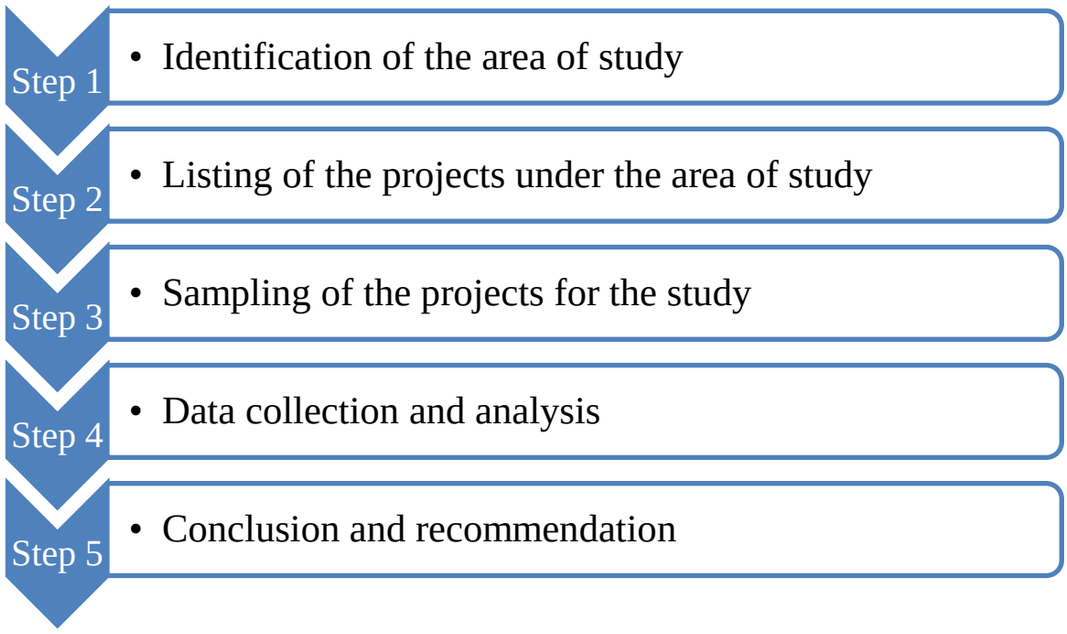


Figure 3.1: Research Methodology Steps, Source: Author, 2018

3.2 Research design

According to Kothari (2004) research design is defined as framework that shows how problems under investigation will be solved. This study was conducted using descriptive research design to demonstrate associations or relationships between the variables.

Descriptive studies are usually the best methods for collecting information that demonstrates relationships and describe the world as it exists. The descriptive survey helped to ascertain the effectiveness of the monitoring and evaluation strategies used in the county government projects on the success of the project.

Bickman and Rog (1998) suggest that descriptive studies can answer questions such as "what is" or "what was." or "why" or "how "or "when. "Both quantitative and qualitative data can be collected using the design. Descriptive research designs are concerned with describing the characteristics of an individual or of a group and ascertain whether variables are associated (Kothari, 2004).

Descriptive research involved gathering data that describe events and then organizes, tabulates, depicts, and describes the data collection (Glass & Hopkins, 1984). It often uses visual aids such as graphs and charts to aid the reader in understanding the data distribution. Because the human mind cannot extract the full import of a large mass of raw data, descriptive statistics are very important in reducing the data to manageable form. The design was also chosen to reduce biasness.

3.3 Study Population

Polit and Hungler (1999) refer to the population as an aggregate or totality of all the objects, subjects or members that conform to a set of specifications. A research population is generally a large collection of individuals or objects that is the focus of a scientific query. A population can also be defined as the complete set of subjects that can be studied: people objects, animals, plants, organizations from which a sample may be obtained (Shao, 1999).

The target population for a survey is the entire set of units for which the survey data are to be used to make inferences. Thus, the target population defines those units for which the findings of the survey are meant to generalize. For the study the target population were the recently completed projects which were funded by the various county governments in Kenya within the last two years.

3.4 Sampling Techniques, Procedure and Sample Size

This study employed the use of stratified random sampling techniques to identify the specific projects with the characteristics under investigation. The list of the projects was obtained from the selected county government projects department. All the 47 counties were taken into consideration during sampling. Two projects were selected randomly from the 42 counties giving a total of 94 Questionnaires.

According to Guilford and Frucher (1973), the sample size will be calculated as follows:

$n=N/ (1+N (e)^{2})$

n= the desired sample size when population is < 10,000

e=Sampling error

N=Size of the population

Confidence level is 95%

Sampling error is therefore 5%

Size of population is the 47 counties in Kenya

n=47/ (1+(47(0.05*0.05))

n=47/ (1+0.1175)

n=47/1.1175; n=42 Counties

Table 1: Selected Counties for the Study

NO.	NAME OF REGION	COUNTIES SELECTED
1	Nairobi Province	Nairobi County
2	Central Province	Kiambu County, Muranga County, Nyeri Province, Nyandarua County, Kirinyaga
3	Eastern Province	Machakos County, Embu County, Makueni County, Kitui County, Meru County
4	Coast Province	Mombasa County, Taveta County, Kwale County, Kilifi County
5	North Eastern Province	Garissa County, Isiolo County, Tana River County
6	Nyanza Province	Kisumu County, Siaya County, Homabay County, Migori County, Kisii County, Nyamira County
7	Western Province	Busia County, Kakamega County, Bungoma County, Vihiga County
8	Rift Valley Province	Narok County, Kajiado County, Nakuru County, Kericho County, Bomet County, Nandi

Source: (Author, 2018)

3.5 Data Collection Procedure and Instruments

Data collection instrument refers to the device used to collect data. Interview schedules and questionnaires were used administer questions for the study.

3.51 Questionnaires

A questionnaire is a research instrument consisting of a series of questions and other prompts for the purpose of gathering information from respondents. Questionnaires have advantages over some other types of surveys in that they are cheap, do not require as much effort from the questioner as verbal or telephone surveys, and often have standardized answers that make it simple to compile data (Gillham,2008).

Questionnaire is the most commonly used method of gathering information because it is less costly way to reach more people, including people at some distance. Depending upon the method of distribution, it can be swiftly done, and data analysis can begin right away. The questionnaire keeps away from interviewer bias, guiding and cues that can impact the legitimacy and reliability of the data collection. It will be used to collect quantitative data for the study.

3.5.2 Interviews

An interview is a one-on-one directed conversation with an individual using a series of questions designed to elicit extended responses. Because this method allows you to probe for greater depth or explanation, simple yes/no questions or fixed-response questions are typically not used. Mugenda and Mugenda (1999) said that a guided interview can be used to interview the respondents.

Some may not understand the questionnaire because of the low level of education. Interviews allow participants to express their thoughts using their own words and organization and thus are particularly valuable for gaining insight. Three fundamental types of research interviews are as follows: structured, semi structured and unstructured (Stewart and Shamdasani, 1990).

3.5.2.1 Structured Interviews

Structured interviews are, essentially, verbally administered questionnaires; in which lists of predetermine questions are asked, with little or no variation and with no scope for follow-up questions to responses that warrant further elaboration. Consequently, they relatively quick and easy to administer and may be of particular use if clarification of certain questions is required or if there are likely to be literacy or numeracy problems with the respondents. However, by their very nature, they only allow for limited participant responses and are, therefore, of little use if ‘depth’ is required.

3.5.2.2 Unstructured Interviews

Unstructured interviews do not reflect any preconceived theories or ideas and are performed with little or no organization. Such an interview may simply start with an opening question such as ‘Can you tell me about your experience of visiting the dentist?’ and will then progress based, primarily, upon the initial response.

Unstructured interviews are usually very time-consuming (often lasting several hours) and can be difficult to manage, and to participate in, as the lack of predetermined interview questions provides little guidance on what to talk about (which many participants find confusing and unhelpful). Their use is, therefore, generally only considered where significant 'depth' is required, or where virtually nothing is known about the subject area (or a different perspective of a known subject area is required).

3.5.2.3 Semi-structured Interviews

Semi-structured interviews consist of several key questions that help define the areas to be explored, but also allows the interviewer or interviewee to diverge in order to pursue an idea or response in more detail (Kvale, 1996). The flexibility of this approach, particularly compared to structured interviews, also allows for the discovery or elaboration of information that is important to participants but may not have previously been thought of as pertinent by the research team (May, 1991).

3.5.3 Data Collection Procedure

Data collection was conducted by a self-administered questionnaire with the help of research assistants. Each subject was given verbal instructions and asked to complete the questionnaires in anonymity for immediate collection.

The respondents were taken through all the questions in the questionnaires before embarking on the filling to boost the clarity of the answers given by the respondents.

3.6 Data Processing Analysis and presentation

Data analysis refers to examining the collected data and making discussions, inferences and conclusions; Kothari (2004). The data collected will be cleaned through data inspection and corrected for any errors identified. After that, data was processed (edited, classified and coded) and entered into the computer for analysis.

Statistical Package for Social Sciences (SPSS) version 16 was used for processing and analysis of the data collected. Data has been presented using descriptive statistics which involves the use of visual aids-tables and charts to aid the reader in understanding the data distribution. Because the human mind cannot extract the full import of a large mass of raw data, descriptive statistics are very important in reducing the data to manageable form.

It provides simple summaries about the sample and the measures. Together with simple graphics analysis, they form the basis of virtually every quantitative analysis of data. The technique that was used is tabular description in which tables of numbers summarize the data. Descriptive statistics provided graphical summaries that show the

spread of the data, and numerical summaries that either measures the central tendency (a 'typical' data value) of a data set or that describe the spread of the data.

3.6.1 Regression Analysis

This is a measure of the ability of independent variables to predict an outcome of a dependent variable where there is a linear relationship between them. This study used regression analysis to establish whether independent variables predicted the dependent variable.

The R square, t-tests and F tests and Analysis of Variances tests were all generated by SPSS to test the significance of the relationship between the variables under the study and establish the extent to which the predictor variables explained the variation in the dependent variable. Multiple regression model was also generated to determine the effect of moderating variables.

$Y= f \{X_1, X_2, X_3, X_4\}$

$Y=\beta_0 +\beta_1X_1+\beta_2X_2+\beta_3X_3+\beta_4X_4+€$

Where;

Y= Adequacy of Monitoring and Evaluation

X1= Monitoring and Evaluation Policies

X2= Monitoring and Evaluation Planning

X3= Monitoring and Evaluation Resources

X4= Monitoring and Evaluation Procedures and Process

€= Error term

3.7 Pilot Testing

This is an important component of the data collection process to check the clarity of the data collection instruments and the clarity of the questions before a serious field study can be done in any research study. A pilot study was conducted on selected respondents in order to ascertain the validity and the reliability of the questionnaires before being administered on the target population.

3.7.1 Validity

Validity is the ability of the instrument to measure what it is designed to measure. It refers to the correctness of credibility of a description, conclusion, explanation, interpretation, or other sorts of account according to Kumar (2005). Validity for this study was established by a logical link between the questions and the objectives

3.7.2 Reliability

This refers to an assessment of the degree of consistency between multiple measurements of a variable (Hair et al, 2010). It is the measure of degree to which a research instrument yields consistent results or data after repeated trials (Mugenda & Mugenda, 2003).

Reliability checks the consistency of the data collected and degree of accuracy in the measurements made using a research instrument. Cronbach's Alpha reliability coefficient, 'a' was used for the internal reliability test

3.8 Operationalization of Variables

Operationalization of variables involves a brief description of how the various variables in the study were measured. The study had four predictor variables namely the M&E policy, level of planning, availability of resources and the procedures and processes for conducting monitoring and evaluation.

Table 3.2: Operationalization of the Variables

S/No	Variable Name	Variable Type	Attributes	Measurement
X1	Monitoring and Evaluation Policy	Independent variable	1) Level of awareness 2) Level of Communication 3) Standards 4) Training and Benchmarking levels 5) Frameworks/Guidelines in use 6) Competency levels on the available guidelines	Ordinal scale with a Likert scale of 0 to 5 where; 0-Totally Disagree 1-Strongly Disagree 2-Disagree 3-Fairly Agree 4-Agree 5-Strongly

				Agree
X2	Monitoring and Evaluation Planning	Independent Variable	1. Scope and schedules 2. Frameworks 3. Roles 4. Responsibilities 5. Tools	Ordinal scale with a Likert scale of 0 to 5 where; 0-Totally Disagree 1-Strongly Disagree 2-Disagree 3-Fairly Agree 4-Agree 5-Strongly Agree
X3	Monitoring and Evaluation Resources	Independent variable	1. Skills/Knowledge 2. Capacity 3. Budget Allocation 4. Commitment 5. Organization Support	Ordinal scale with a Likert scale of 0 to 5 where; 0-Totally Disagree 1-Strongly Disagree 2-Disagree 3-Fairly Agree 4-Agree 5-Strongly Agree
X4	Monitoring and Evaluation Procedures and Processes	Independent variable	1. Reports 2. Remedial Measures 3. Communication 4. Accountability 5. Meetings	Ordinal scale with a Likert scale of 0 to 5 where; 0-Totally Disagree 1-Strongly Disagree

				2-Disagree 3-Fairly Agree 4-Agree 5-Strongly Agree
Y	Adequacy of Monitoring and Evaluation	Dependent variable	1) No. of Progress Reports 2) Remedial Measures 3) Timeliness of reports 4) Level of details on report 5) Frequency of feedback	Ordinal scale with a Likert scale of 0 to 10 where; **0-3** Poorly Done **4-5** Fairly Done **6-7** Good **8-10** Excellent

Source (Author, 2018)

3.9 Discussion

The chapter discussed in detail the resign design approach, the sampling designs, the data collection and analysis. Descriptive and inferential statistics were identified as the main approach of data analysis. The section also established the geographical scope of the research and the operationalization of the variables.

CHAPTER FOUR

DATA ANALYSIS AND RESULTS

4.1 INTRODUCTION

This chapter covers the analysis of data collected from the field during the study. The main objective of the study was to investigate the adequacy of Monitoring and Evaluation in public projects; a survey of County Government Projects in Kenya.

The study investigated the relationship between the County Government policies, planning, resources and processes and the adequacy of Monitoring and Evaluation by the county project management units in Kenya.

4.1 Response Rate & Background Information

4.1.1 Response Rate

Response rate refers to the number of people who answered the survey divided by the number of people in the sample. It is expressed in the form of percentages (AAPOR, 2008). In this study, out of 94 questionnaires and interview that were conducted to respondents, 72 were returned, giving a response rate of 76.6%.

According to Mugenda and Mugenda (2003) a 50% response rate is adequate, and a response rate greater than 70% is very good. Hence the response rate was satisfactory. This response rate can be attributed to the data collection procedures, where the researcher pre-notified the potential participants and applied the drop and pick method to allow the respondents ample time to fill the questionnaires.

Table 4.1: Respondent's Response Rate

Questionnaires Administered	Questionnaires Returned	Percentage Returned
94	72	76.6%

Source (Author, 2018)

4.1.2 Background Information

4.2.2.1 Basic Training Area of the Respondent

The respondents in this study were the County Government technical staff. The percentage of the respondents in descending order are Engineering at 24%, Architecture at 19%, Construction management at 17%, Quantity Surveying at 11%, Human resource at 8% and Accounting at 7%. Majority of the respondents for the study consisted of people who have skills in the construction industry hence a better understanding of the exercise of monitoring and evaluation.

Table 4.2: Basic Training of the Respondents

	Frequency	Percentage	Valid Percentage	Cumulative Percentage
Engineering	17	24%	24%	24%
Architecture	14	19%	19%	43%
Construction management	12	17%	17%	60%
Quantity Surveying	10	14%	14%	74%
Project management	8	11%	11%	85%
Accounting	5	7%	7%	92%
Human Resource	6	8%	8%	100%
Total	72	100%	100%	

Source (Author, 2018)

4.2.2.2 Academic Qualification

The research sought to establish the academic qualifications of the people involved in the process of Monitoring and Evaluation at the County. 57% of the respondents had bachelor's degree, 17% had Diploma, 14% had master's degree, 7% had Certificates while 6% had Doctoral degrees. Only 24% of the respondents lacked the basic university training. This was a good indication that Monitoring, and Evaluation is executed by more competent people at the Counties.

Table 4.3: Academic Qualifications of the Respondents

	Frequency	Percentage	Valid Percentage	Cumulative Percentage
Certificate	5	7%	7%	7%
Diploma	12	17%	17%	24%
Bachelor's Degree	41	57%	57%	81%
Master's degree	10	14%	14%	94%
Doctoral Degree	4	6%	6%	100%
Total	72	100%	100%	

Source: Author, 2018

4.2.2.3 Working Exposure in Monitoring and Evaluation

The research also gauged the working exposure of the respondents in the field of Monitoring and Evaluation process at the Counties. The percentage level of exposure of the respondents in descending order are; 11-15 Years at 40%, 16-20 Years at 21%, Above 20 years of experience at 17%, 6-10 Years at 15% and less than 5 years at 7%.

Majority of the respondents in this study had an average of more than 11 years of exposure in monitoring and evaluation exercise. That was an advantage to the research as the respondents were well versed with the monitoring and evaluation at the counties

hence providing more accurate answers for the study

Table 4.4: Working Exposure of the Respondents in M&E

	Frequency	Percentage	Valid Percentage	Cumulative Percentage
Up to 5 Years	5	7%	7%	7%
6-10 Years	11	15%	15%	22%
11-15 Years	29	40%	40%	63%
16-20 Years	15	21%	21%	83%
Above 20 Years	12	17%	17%	100%
Total	72	100%	100%	

Source: Author, 2018

4.1.3 Reliability Analysis

The data collected was tested for reliability using the Cronbach's Alpha test. To measure the reliability and level of random error of the questionnaires, an internal consistency technique using Cronbach's alpha (α) was applied.

The technique allows negative construct to be detected and positive to be accepted ranging from a scale of 0 to 1.0 (Inuwa, 2014). The minimum acceptable value for Cronbach's alpha is from 0.5 to 0.6 (Zinbarg, 2005). This was done using SPSS 16 to determine how items correlated among themselves.

Table 4.5: Cronbach's Coefficient Alpha Table

Cronbach's Coefficient Alpha	Internal Consistency Remarks
$\alpha < 0.5$	Unacceptable
$0.5 \leq \alpha < 0.6$	Poor
$0.6 \leq \alpha < 0.7$	Acceptable
$0.7 \leq \alpha < 0.9$	Good
$\alpha \geq 0.9$	Excellent

Source (Oloo, 2015)

The Cronbach's Alpha test was conducted using SPSS 16 and the results presented in table 4.6 below. The results showed that all the variables had good Alpha coefficients which ranged from 0.8 to 0.9 as indicated in the table

Table 4.6: Cronbach's Coefficients for data for various variables

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Policy	253.0417	375.843	.628	.908
Planning	255.9167	398.275	.707	.885
Resources	254.3750	339.364	.896	.841
Process	254.6667	413.887	.690	.889
Adequacy of M&E	247.1667	362.761	.860	.852

4.2 DESCRIPTIVE STATISTICS

Descriptive statistics are used to describe the basic features of the data in a study. They provide simple summaries about the sample and the measures. Together with simple graphics analysis, they form the basis of virtually every quantitative analysis of data.

The Mean, Standard Deviation and Variance for all the predictor factors were analyzed using SPSS and tabulated as below. The factor with the highest Mean and the but the least Standard deviation has the greatest effect on the predictor variable.

4.2.1 Measures of Dispersion

The research revealed that the adequacy of monitoring and evaluation had a minimum value of **55%** and a maximum value of **80%** meaning that some counties are doing adequate monitoring and evaluation while others are not. This has also been supported by the fact that Adequacy of monitoring and evaluation had a big range of **25.00** and a big standard deviation at **7.05.**

The policies for monitoring and evaluation at the counties had a minimum value of **54%** and a maximum value of **68%.** The results show that some county governments have very favorable policies in support of monitoring and evaluation while some counties have weak policies as far monitoring and evaluation is concerned. Both the range value=**14** and the standard deviation value=**5.00** supports the explanation.

The level of planning on the other hand had a minimum value of **56%,** maximum value of **65%,** range value of **9.00** and standard deviation value of **2.30.** The results show that

most of the county governments carry out average planning for monitoring and evaluation of projects. However, some counties do carry out proper planning which is a key project management function in projects

The third predictor variable which was resources had a range of **12**, minimum value of **46%,** maximum value of **58%** and a standard deviation of **4.36.** The results show that most of the county governments are not adequately financed by the national government which in turn affects the monitoring and evaluation of projects by the counties

Table 4.7: Measures of Dispersion

	N	Range	Minimum	Maximum	Std. Deviation	Variance
Adequacy of M&E	72	25.00	55.00	80.00	7.05676	49.798
Policy	72	14.00	54.00	68.00	5.00110	25.011
Planning	72	9.00	56.00	65.00	2.36944	5.614
Resources	72	12.00	46.00	58.00	4.36365	19.041
Process	72	23.00	46.00	69.00	7.45155	55.526

Source: (Author, 2018)

4.3.1.1 Policy Factors

The first predictor variable which was policy had 10 factors. The study found out that; While majority of the Counties have well laid guidelines on the intervals and frequencies of carrying out M&E (**Range=3, Minimum=2, Maximum=5**), some counties are still lagging in terms of the guidelines, The Counties have a well-defined policy/framework and standards for carrying out M&E for its projects (**Range=3, Minimum=2, Maximum=5**), M&E Procedures in this County are definite, clear and easily understood by the project (**Range=3, Minimum=2, Maximum=5**), The County has got a champion for M&E exercises (**Range=3, Minimum=1, Maximum=4**),

The County Benchmarks its M&E practices with other established Counties (**Range=3, Minimum=1, Maximum=4**), The M&E team at the County uses tools which are Internationally recognized (**Range=3, Minimum=1, Maximum=4**), The County M&E team uses Project Management software during the M&E exercise in projects (**Range=2, Minimum=2, Maximum=4**), The County Executive Management has a

positive attitude towards the execution of M&E in Projects (**Range=1, Minimum=3, Maximum=4**), M&E tools are well assessed if they are applicable in every project on a case by case basis (**Range=1, Minimum=3, Maximum=4**) and The County is very supportive and has motivational measures for the M&E staffs (**Range=2, Minimum=1, Maximum=3**)

Table 4.8: Measures of Dispersion for Policy Factors

	Minimum	Maximum	Std. Deviation	RII	Rank
The County has well laid guidelines on the intervals and frequencies of carrying out M&E	2	5	.901	0.686	2
The County has a well-defined policy/framework and standards for carrying out M&E for its projects	2	5	.995	0.669	4
The County Executive Management has a positive attitude towards the execution of M&E in Projects	3	4	.399	0.639	5
The County has got a champion for M&E exercises	1	4	1.183	0.519	9
The County M&E team uses Project Management software during the M&E exercise in projects	2	4	.683	0.578	6
M&E Procedures in this County are definite, clear and easily understood by the project	2	5	1.006	0.692	1
The County Benchmarks its M&E practices with other established Counties	1	4	.875	0.531	8
The County is very supportive and has motivational measures for the M&E staffs	1	3	.605	0.547	7
M&E tools are well assessed if they are applicable in every project on a case by case basis	3	4	.484	0.672	3

The M&E team at the County uses tools which are Internationally recognized	1	4	.983	0.472	10
Valid N (listwise)					

Source: (Author, 2018)

4.3.1.2 Planning Factors

Network diagrams and frameworks are used in project scheduling (**Range=3, Minimum=2, Maximum=5**), The County conducts stakeholder's survey on its resources before planning (**Range=3, Minimum=2, Maximum=5**), M&E plans are well applied in the County project coordination activities (**Range=2, Minimum=2, Maximum=4**), The staff roles match their experience and qualifications (**Range=2, Minimum=2, Maximum=4**), The M&E staffs uses project management software for monitoring the plans (**Range=2, Minimum=2, Maximum=4**), Rapid assessment is conducted in M&E plans used in the projects (**Range=2, Minimum=2, Maximum=4**), The M&E staffs are well trained on effective project planning practices in projects (**Range=1, Minimum=3, Maximum=4**), The M&E plans are continually checked for improvement in the subsequent projects (**Range=1, Minimum=3, Maximum=4**), There are regular planning meetings by the M&E team at the county (**Range=1, Minimum=2, Maximum=3**) and Proper benchmarking is done during the planning stage by the M&E team at the County (**Range=1, Minimum=2, Maximum=3**)

Table 4.9: Measures of Dispersion for Planning factors

	Minimum	Maximum	Std. Deviation	RII	Rank
M&E plans are well applied in the County project coordination activities	2	4	.653	0.669	4
The M&E staffs are well trained on effective project planning practices in projects	3	4	.451	0.656	5
Network diagrams and frameworks are used in project scheduling	2	5	1.020	0.775	1
The County conducts stakeholder's survey on its resources before planning	2	5	1.001	0.678	2
The staff roles match their experience and qualifications	2	4	.790	0.581	7

The M&E staffs uses project management software for monitoring the plans	2	4	.797	0.578	8
Rapid assessment is conducted in M&E plans used in the projects	2	4	.605	0.600	6
The M&E plans are continually checked for improvement in the subsequent projects	3	4	.484	0.672	3
There are regular planning meetings by the M&E team at the county	2	3	.500	0.511	10
Proper benchmarking is done during the planning stage by the M&E team at the County	2	3	.484	0.528	9

Source: (Author, 2018)

4.3.1.3 Resource Factors

The County is willing to invest money to boost the performance of M&E functions in the projects (**Range=3, Minimum=2, Maximum=5**), The County Has got skilled personnel who carry out M&E exercise (**Range=2, Minimum=2, Maximum=4),** The M&E staffs are knowledgeable in the day-to day management of M&E system (**Range=2, Minimum=2, Maximum=4),** There is proper utilization of funds allocated for M&E exercise at the County (**Range=2, Minimum=2, Maximum=4),** The allowances for the M&E Staffs are disbursed in good time by the County (**Range=2, Minimum=1, Maximum=3),** The County has employed adequate number of staffs in charge of M&E exercise (**Range=2, Minimum=1, Maximum=3),** There are adequate transport facilities to aid the movement of M&E team to the sites (**Range=1, Minimum=2, Maximum=3),** The County has allocated adequate allowance for the M&E staffs (**Range=1, Minimum=2, Maximum=3),** The County has provided the M&E staffs with appropriate software's for the exercise (**Range=1, Minimum=2, Maximum=3),** The County has committed adequate finances to the M&E functions (**Range=1, Minimum=2, Maximum=3),**

Table 4.10: Measures of Dispersion for Resource Factors

	Minimum	Maximum	Std. Deviation	RII	Rank
The County Has got skilled personnel who carry out M&E exercise	2	4	.765	0.650	2

The M&E staffs are knowledgeable in the day-to day management of M&E system	2	4	.732	0.600	3
There are adequate transport facilities to aid the movement of M&E team to the sites	2	3	.503	0.506	6
The County has allocated adequate allowance for the M&E staffs	2	3	.502	0.508	5
The allowances for the M&E Staffs are disbursed in good time by the County	1	3	.513	0.414	10
The County has employed adequate number of staffs in charge of M&E exercise	1	3	.508	0.419	9
The County has provided the M&E staffs with appropriate software's for the exercise	2	3	.484	0.472	7
The County has committed adequate finances to the M&E functions	2	3	.484	0.470	8
The County is willing to invest money to boost the performance of M&E functions in the projects	2	5	.903	0.694	1
There is proper utilization of funds allocated for M&E exercise at the County	2	4	.573	0.561	4
Valid N (listwise)					

Source: (Author, 2018)

4.3.1.4 Process & Procedures Factors

Progress reports are clear and more detailed (**Range=3, Minimum=2, Maximum=5**), Project progress reports are prepared in time (**Range=2, Minimum=3, Maximum=5**), Project progress reports are submitted and acted upon on time (**Range=2, Minimum=2, Maximum=4)**,

Remedial measures are acted upon accordingly (**Range=2, Minimum=2, Maximum=4)**, There are high levels of accountability in the projects (**Range=2, Minimum=2, Maximum=4)**, The site meetings are scheduled in good time and regularly (**Range=2, Minimum=2, Maximum=4)**, Regular meetings by the M&E staffs at the county (**Range=2, Minimum=2, Maximum=4)**,

Change requests have been well handled and documented at the county by the M&E team (**Range=2, Minimum=2, Maximum=4)**, There is smooth flow of information/Instructions from the top management to the M&E team at the county (**Range=2, Minimum=2, Maximum=4)** and The communication is effective and efficient (**Range=1, Minimum=2, Maximum=3)**

Table 4.11: Measures of Dispersion for Process Factors

	Minimum	Maximum	Std. Deviation	RII	Rank
Project progress reports are prepared in time	3	5	.657	0.728	1
Project progress reports are submitted and acted upon on time	2	4	.755	0.656	3
Remedial measures are acted upon accordingly	2	4	.669	0.511	9
Progress reports are clear and more detailed	2	5	.900	0.683	2
The communication is effective and efficient	2	3	.502	0.508	10
There are high levels of accountability in the projects	2	4	.687	0.617	5
The site meetings are scheduled in good time and regularly	2	4	.741	0.597	6
Regular meetings by the M&E staffs at the county	2	4	.581	0.567	7
Change requests have been well handled and documented at the county by the M&E team	2	4	.725	0.631	4
There is smooth flow of information/Instructions from the top management to the M&E team at the county	2	4	.725	0.561	8

Source: (Author, 2018)

4.3.2 Measures of Central Tendencies

The adequacy of monitoring and evaluation in counties had a mean of 67.5% and a median and mode of 68%. The level of monitoring and evaluation in most counties is generally good although it can be improved.

The policies for monitoring and evaluation in the counties had a mean of 60.05%, a median of 60.00% and a mode of 54%. Most of the counties have not fully formulated the policies for monitoring and evaluation as revealed by the mode of 54%.

The level of planning in the counties as far as monitoring and evaluation is concerned had a mean of 60.10% and a median and mode of 60%. The level of planning in most of the counties is good.

The resources for monitoring and evaluation in the counties had a mean of 52%, a median of 54% and a mode of 58%. The counties have not allocated adequate resources for monitoring and evaluation. However, this can be explained by the delays by the national government in Kenya in disbursing the county funds.

The processes and procedures for conducting monitoring and evaluation in the counties had a mean of 59%, a median of 60% and a mode of 46%. The low mode indicates that majority of the county monitoring and evaluation teams have no clear procedures for conducting the M&E exercise.

Table 4.12: Measures of Central Tendencies for the Variables

		Adequacy of M&E	**Policy**	**Planning**	**Resources**	**Process**
N	Valid	72	72	72	72	72
	Missing	0	0	0	0	0
Mean		67.50	60.05	60.10	52.90	59.35
Median		68.00	60.00	60.00	54.00	60.00
Mode		68.00	54.00	60.00	58.00	46.00

Source: (Author, 2018)

4.3.2.1 Policy Factors

The first predictor variable which was policy had 10 factors. The study found out that; M&E Procedures in this Counties are definite, clear and easily understood by the project participants **(Mean=3.46, Median=4.00, Mode=4.00),** The Counties have well laid guidelines on the intervals and frequencies of carrying out M&E **(Mean=3.43, Median=4.00, Mode=4.00),** M&E tools are well assessed if they are applicable in every project on a case by case basis **(Mean=3.36, Median=3.00, Mode=3.00),** The Counties have well-defined policy/framework and standards for carrying out M&E for its projects **(Mean=3.35, Median=3.00, Mode=3.00)** and the County Executive Management has a positive attitude towards the execution of M&E in Projects **(Mean=3.19, Median=3.00, Mode=3.00).**

However, there were uncertainties as to whether; The County M&E team uses Project Management software during the M&E exercise in projects **(Mean=2.89, Median=3.00, Mode=3.00),** The County is very supportive and has motivational measures for the M&E staffs **(Mean=2.74, Median=3.00, Mode=3.00),** The Counties Benchmarks their M&E practices with other established Counties **(Mean=2.65, Median=3.00, Mode=3.00),** The Counties have a champion for M&E exercises **(Mean=2.60, Median=2.00, Mode=2.00)** and that the M&E team at the County uses tools which are Internationally recognized **(Mean=2.36, Median=2.00, Mode=2.00).**

Table 4.13: Measures of Central Tendency for Policy Factors

	N	Mean	Median	Mode
The County has well laid guidelines on the intervals and frequencies of carrying out M&E	72	3.43	4.00	4.00
The County has a well-defined policy/framework and standards for carrying out M&E for its projects	72	3.35	3.00	3.00
The County Executive Management has a positive attitude towards the execution of M&E in Projects	72	3.19	3.00	3.00
The County has got a champion for M&E exercises	72	2.60	2.00	2.00
The County M&E team uses Project Management software during the M&E exercise in projects	72	2.89	3.00	3.00
M&E Procedures in this County are definite, clear and easily understood by the project	72	3.46	4.00	4.00

The County Benchmarks its M&E practices with other established Counties	72	2.65	3.00	3.00
The County is very supportive and has motivational measures for the M&E staffs	72	2.74	3.00	3.00
M&E tools are well assessed if they are applicable in every project on a case by case basis	72	3.36	3.00	3.00
The M&E team at the County uses tools which are Internationally recognized	72	2.36	2.00	2.00

Source: (Author, 2018)

4.3.2.2 Planning Factors

The study sought to understand the influence of the various planning factors of monitoring and evaluation in the counties. The data was analyzed in spss and presented in table 16 below. The results showed that the counties use network diagrams and frameworks in project scheduling and conducts stakeholder survey on its resources prior to planning of the projects. The monitoring and evaluation staff are fairly trained on effective project planning practices in the projects. Moreover, rapid assessments rarely conducted in M&E plans used in the projects funded by the counties

Table 4.14: Measure of Central Tendency for Planning Factors

	N	Mean	Median	Mode
M&E plans are well applied in the County project coordination activities	72	3.35	3.00	3.00
The M&E staffs are well trained on effective project planning practices in projects	72	3.28	3.00	3.00
Network diagrams and frameworks are used in project scheduling	72	3.88	4.00	4.00
The County conducts stakeholder's survey on its resources before planning	72	3.39	3.00	3.00
The staff roles match their experience and qualifications	72	2.90	3.00	3.00
The M&E staffs uses project management software for monitoring the plans	72	2.89	3.00	2.00
Rapid assessment is conducted in M&E plans used in the	72	3.00	3.00	3.00

projects				
The M&E plans are continually checked for improvement in the subsequent projects	72	3.36	3.00	3.00
There are regular planning meetings by the M&E team at the county	72	2.56	3.00	3.00
Proper benchmarking is done during the planning stage by the M&E team at the County	72	2.64	3.00	3.00

Source: (Author, 2018)

4.3.2.3 Resource Factors

The results presented in table 17 below showed that the counties have fairly skilled personnel conducting M&E exercise in projects and that the counties are willing to invest more resources to boost the M&E exercises.

However, there are inadequate transport facilities for the M&E staff, delays in disbursement of the allowances, inadequate number of staff for M&E and no specific project management software for monitoring and evaluation at the counties.

Table 4.15: Measure of Central Tendency for Resource Factors

	N	Mean	Median	Mode
The County Has got skilled personnel who carry out M&E exercise	72	3.25	3.00	4.00
The M&E staffs are knowledgeable in the day-to day management of M&E system	72	3.00	3.00	3.00
There are adequate transport facilities to aid the movement of M&E team to the sites	72	2.53	3.00	3.00
The County has allocated adequate allowance for the M&E staffs	72	2.54	3.00	3.00
The allowances for the M&E Staffs are disbursed in good time by the County	72	2.07	2.00	2.00
The County has employed adequate number of staffs in charge of M&E exercise	72	2.10	2.00	2.00
The County has provided the M&E staffs with appropriate software's for the exercise	72	2.36	2.00	2.00
The County has committed adequate finances to the	72	2.36	2.00	2.00

M&E functions

The County is willing to invest money to boost the performance of M&E functions in the projects	72	3.47	4.00	4.00
There is proper utilization of funds allocated for M&E exercise at the County	72	2.81	3.00	3.00

Source: (Author, 2018)

4.3.2.4 Process/Procedures Factors

Table 18 below shows the results for the procedures and processes factors for monitoring and evaluation at the counties. The results showed that the progress reports are usually prepared and submitted in time to the M&E committee for remedial actions.

The change requests have also been handled accordingly in most of the counties and that the reports are usually clear and much detailed. The study also revealed that the accountability levels are good and that the change requests have been well handled by the M&E team in most of the counties in Kenya.

However, there was uncertainty as to whether the meetings are held as scheduled, the attendance of the M&E staff to the meetings and the level of flow of the information in the counties especially from the top management to the lower levels.

Table 4.16: Measure of Central Tendency for Process Factors

	N	Mean	Median	Mode
Project progress reports are prepared in time	72	3.64	4.00	3.00
Project progress reports are submitted and acted upon on time	72	3.28	3.00	4.00
Remedial measures are acted upon accordingly	72	2.56	2.00	2.00
Progress reports are clear and more detailed	72	3.42	4.00	4.00
The communication is effective and efficient	72	2.54	3.00	3.00
There are high levels of accountability in the projects	72	3.08	3.00	3.00
The site meetings are scheduled in good time and regularly	72	2.99	3.00	3.00

Regular meetings by the M&E staffs at the county	72	2.83	3.00	3.00
Change requests have been well handled and documented at the county by the M&E team	72	3.15	3.00	3.00
There is smooth flow of information/Instructions from the top management to the M&E team at the county	72	2.81	3.00	3.00
Valid N (listwise)	72			

Source: (Author, 2018)

4.3.3 Measures of Distribution; Skewness and Kurtosis

The terms "skewed" and "askew" are used to refer to something that is out of line or distorted on one side. When referring to the shape of frequency or probability distributions, "skewness" refers to asymmetry of the distribution.

A distribution with an asymmetric tail extending out to the right is referred to as "positively skewed" or "skewed to the right," while a distribution with an asymmetric tail extending out to the left is referred to as "negatively skewed" or "skewed to the left." Skewness can range from minus infinity to positive infinity.

Karl Pearson (1905) defined a distribution's degree of kurtosis as $\eta = \beta_2 - 3$, where $\beta_2 = \frac{\sum(Y-\mu)^4}{n\sigma^4}$, the expected value of the distribution of *Z* scores which have been raised to the 4th power. β_2 is often referred to as "Pearson's kurtosis," and β_2 - 3 (often symbolized with γ_2) as "kurtosis excess" or "Fisher's kurtosis," even though it was Pearson who defined kurtosis as β_2 - 3. It is recommended that both g_1 (skewness estimate) and g_2 (kurtosis estimate) have absolute values less than one.

The data collected was tested for skewness and kurtosis using SPSS and the results tabulated in the table below. The results showed that, the dependent variable which was the adequacy of monitoring and evaluation was negatively skewed with a (g_1=-0.491, g_2=-1.000) and the predictor variables county government Resources and processes were also negatively skewed with (g_1=-0.257, g_2=-1.000) and (g_1=-0.784, g_2=-0.476) respectively.

The other predictor variables namely Policy, and Planning were positively skewed (g_1=0.107, g_2=-1.000) and (g_1=0.228, g_2=-0.384) respectively. Both the skewness and kurtosis values were less than -1 and +1 hence there was no need for checking the outlier's factors in the data before conducting the inferential statistics.

Table 4.17: Measure of Distribution for the Variables

	N	Skewness		Kurtosis	
Variables	Statistic	Statistic	Std. Error	Statistic	Std. Error
Adequacy of M&E	72	-0.491	.283	-1.000	.559
Policy	72	0.107	.283	-1.000	.559
Planning	72	0.228	.283	-0.384	.559
Resources	72	-0.257	.283	-1.000	.559
Process	72	-0.784	.283	-0.476	.559
Valid N (listwise)	72				

Source: (Author, 2018)

4.3.4 Normality Tests

For inferential analysis to be done such as correlation, regression or related linear techniques, the dependent variable should have a normal distribution. In case the dependent variable is not normally distributed, then normality must be sought for before proceeding with any further analysis (Anthony, 2007; Annette,2002; Alan, 2003). Hair et al. (2010), suggested that both the graphical plots and any statistical tests (Shapiro-Wilk or Kolmogorov-Smirnov test) can be used to assess the actual degree of departure from normality. To identify the shape of distribution, Kolmogorov-Smirnov was used (Shapiro and Wilk, 1965) which were calculated for each variable.

Table 4.18: Shapiro-Wilk & Kolmogorov-Smirnov test Results

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Policy	.165	72	.200*	.880	72	.200*
Planning	.259	72	.200*	.900	72	.200*
Resources	.201	72	.000	.863	72	.000
Process	.234	72	.200*	.849	72	.200*

Adequacy of M&E	.191	72	.200*	.904	72	.200*

a. Lilliefors Significance Correction

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

Source: (Author,2018)

4.4 Relationships of the Variables

4.4.1 Correlation Analysis

Pearson correlation coefficient was used in this study to determine the magnitude and the direction of the relationships between the dependent variable and independent variables. The values of the correlation coefficient are between -1 and +1. A value of 0 implies no relationship, +1 correlation coefficient indicates that the two variables are perfectly correlated in a positive linear sense, that is, both variables increase together while a values of -1 correlation coefficient indicates that two variables are perfectly correlated in a negative linear sense, that is, one variable increases as the other decreases (Collis & Roger, 2013; Neuman, 2006; Sekaran, 2008; Kothari, 2012).

Correlation coefficient was first computed for each independent variable and the dependent variable without the moderating variable and all the independent variables and independent variable without the moderating variable. The results of the coefficient of correlation with and without the moderating variable were compared in order to test for the effects of the moderating variable.

The correlation strengths were interpreted using Cohen and Cleveland (2013) decision rules where 0.1 to 0.3 indicated weak correlation, 0.31 to 0.5 indicated moderate correlation strength and greater than 0.5 indicated a strong correlation between the variables. The decision rule has been used by Muchelule et al (2017) in their study of Correlation between Monitoring and Evaluation and Performance of Social Development Projects.

Correlation coefficients were the statistical method utilized to explore the four variables: Policies, Planning, Resources and the Processes and procedures for carrying out monitoring and evaluation at the counties. The correlation between Processes and Adequacy of Monitoring and Evaluation was the most significant, $r = 0.837$, $P < 0.01$ meaning that the predictor variable and the dependent variable both increases in case of a unit increase in the predictor variable.

The correlation between Policy and Adequacy of Monitoring and Evaluation was also significant, $r = 0.598$, $P < 0.01$ meaning that the predictor variable and the dependent variable both increases in case of a unit increase in the predictor variable. The correlation between Resources and Adequacy of Monitoring and Evaluation was r =

0.584, P < 0.01 meaning that the predictor variable and the dependent variable both increases in case of a unit increase in the predictor variable.

The correlation between Processes and adequacy of monitoring and evaluation was the least at r = 0.485, P < 0.05 meaning that the predictor variable and the dependent variable both increases in case of a unit increase in the predictor variable.

Table 4.19: Pearson Correlations for the Variables

		Adequacy of M&E	Policy	Planning	Resources	Process
Adequacy of M&E	Pearson Correlation	1				
	Sig. (2-tailed)					
Policy	Pearson Correlation	.598**	1			
	Sig. (2-tailed)	.000				
Planning	Pearson Correlation	.485*	.380**	1		
	Sig. (2-tailed)	.048	.001			
Resources	Pearson Correlation	.584**	.444**	.581**	1	
	Sig. (2-tailed)	.000	.000	.000		.000
Process	Pearson Correlation	.837**	.714**	.149	.732**	1
	Sig. (2-tailed)	.000	.000	.212	.000	

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

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

Source: (Author,2018)

4.4.2 Multicollinearity Test

Multicollinearity occurs in statistics where two or more predictor variables in a multiple regression model are highly correlated (Bickel, 2007). The Gauss-Markov assumption only requires that there be no perfect multicollinearity and so long as there is no perfect multicollinearity the model is identified.

This means the model can estimate all the coefficients and that the coefficients will remain best linear unbiased estimates and that the standard errors will be correct and efficient (Runkle *et al*., 2013). Variance Inflation Factor (VIF) was used to measure the problem of multicollinearity in the multiple regression model. VIF statistic of a predictor in a model is the reciprocal of tolerance and it indicates how much larger the error variance for the unique effect of a predictor (Baguley, 2012). Cohen and Cleveland (2013) defines Variance Inflation Factor (VIF) as an index of the amount that the variance of each regression coefficient is increased relative to a situation in which all the predictor variables are uncorrelated and suggested a VIFs of 10 or more to be the rule of thumb for concluding VIF to be too large hence not suitable. Runkle *et al*. (2013) argued that if two or more variables have a Variance Inflation Factor (VIF) of 5 or greater than 5, one of them must be removed from the regression analysis as this indicates presence of multicollinearity. This study adopted a VIF value of 3.00 as the threshold.

Table 4.20: VIF Result for Policy Versus other Predictor Variables

Model		Collinearity Statistics	
		Tolerance	VIF
1	Resources	.237	4.225
	Planning	.499	2.006
	Process	.349	2.864

a. Dependent Variable: Policy

Source: (Author,2018)

Table 4.21: VIF Result for Planning Versus other Predictor Variables

Model	Collinearity Statistics

		Tolerance	VIF
1	Resources	.452	2.213
	Process	.381	2.622
	Policy	.323	3.095

a. Dependent Variable: Planning

Source: (Author,2018)

Table 4.22: VIF Result for Resources Versus other Predictor Variables

Model		Collinearity Statistics	
		Tolerance	VIF
1	Process	.473	2.114
	Policy	.414	2.415
	Planning	.825	1.212

a. Dependent Variable: Resources

Source: (Author,2018)

Table 4.23: VIF Result for Process Versus other Predictor Variables

Model		Collinearity Statistics	
		Tolerance	VIF
1	Policy	.780	1.281
	Planning	.644	1.552
	Resources	.604	1.655

a. Dependent Variable: Process

Source: (Author,2018)

4.4.3 Regression Analysis

This is a measure of the ability of independent variables to predict an outcome of a dependent variable where there is a linear relationship between them. This study used regression analysis to establish whether independent variables predicted the dependent variable.

The R square, t-tests and F tests and Analysis of Variances tests were all generated by SPSS to test the significance of the relationship between the variables under the study and establish the extent to which the predictor variables explained the variation in the dependent variable. Multiple regression model was also generated to determine the effect of moderating variables.

$Y= f \{X_1, X_2, X_3, X_4\}$

$Y=\beta_0 +\beta_1X_1+\beta_2X_2+\beta_3X_3+\beta_4X_4+€$

Where;

Y= Adequacy of Monitoring and Evaluation

X1= Policies

X2= Planning

X3= Resources

X4= Process

€= Error term

4.4.4 Model Summary

Coefficient of determination explains the extent to which changes in the dependent variable can be explained by the change in the independent variables or the percentage of variation in the dependent variable (Adequacy of Monitoring and Evaluation) that is explained by the remaining two independent variables (Planning and Processes of Monitoring and Evaluation at the counties). The two remaining independent variables in the study explains up to 84.2% of the effects of the independent variables on the adequacy of monitoring and evaluation at the counties as represented by the R^2 which means that other two variables eliminated in the model (Policy and Resources) plus other factors not studied in this research could explain the remaining 15.8% of the effects of independent variables on the adequacy of monitoring and evaluation of

projects at the counties. Therefore, further research should be conducted to investigate the other factors influencing project performance (15.8%).

Table 4.24: Regression Model Summary

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.842[a]	.708	.700	3.86633

a. Predictors: (Constant), Process, Planning

Source: (Author,2018)

4.4.5 ANOVA MODEL

Study findings in ANOVA table below indicated that the above discussed coefficient of determination was significant as evidence of **F** ratio of 83.761 with p value 0.000<0.05 (level of significance). This means that the model generated is fit for predicting the adequacy of monitoring and evaluation of projects at the counties using the two predictor variables; Planning and Processes adopted for monitoring and evaluation at the counties in Kenya.

Table 4.25: ANOVA Test Result

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2504.205	2	1252.103	83.761	.000[a]
	Residual	1031.448	69	14.949		
	Total	3535.653	71			

a. Predictors: (Constant), Process, Planning

b. Dependent Variable: Adequacy of M&E

Source: (Author,2018)

Table 4.26: Regression Model Test Result

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	5.746	11.816		.486	.628
	Planning	.258	.196	.086	1.315	.193
	Process	.781	.062	.824	12.537	.000

a. Dependent Variable: Adequacy of M&E

Source: (Author,2018)

Y=5.746+0.258PLG+0.781PRS

PLG stands for Planning

PRS stands for Process

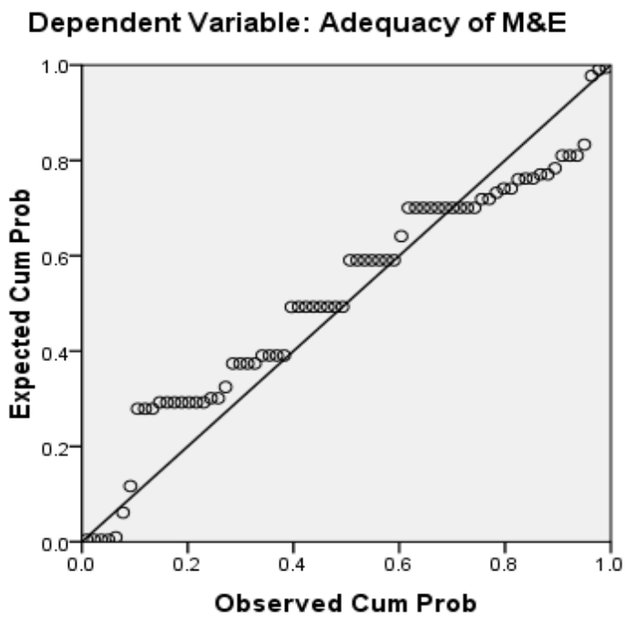


Figure 4.1: Normal P-P Plot of Regression Standardized Residual, Source: (Author,2018)

4.4.6 Hypothesis Testing

The research hypotheses were tested using the p value approach at 95% confidence level based on linear regression analysis output produced by SPSS. The decision rules were

that the null hypothesis should be rejected if the calculated p- value is less than the significant level (0.05); and accepted if the calculated p-value was greater than the significance level of (0.05). The significant variables were tested using F test and p value approaches. The decision rules were to reject the null hypotheses that the effect of independent variable(s) was insignificant if the computed F value exceeds the critical F value or if the P value was less critical value of 0.05.

4.4.6.1 Levene's Test

A homogeneity-of-variance test that is less dependent on the assumption of normality than most tests. For each case, it computes the absolute difference between the value of that case and its cell mean and performs a one-way analysis of variance on those differences.

Table 4.27: Levene's Test Results of Hypothesis

Variables	F-Value	R^2	df1	df2	P-Value
Policy	10.451	0.566	7	64	0.000
Planning	12.519	0.092	6	65	0.000
Resources	8.462	0.640	6	65	0.000
Processes	12.089	0.741	7	64	0.000

Dependent Variable: Adequacy of Monitoring and Evaluation

Source: (Author,2018)

Hypothesis One

H_a: County government policies have a significant influence on the adequacy of monitoring and evaluation of their projects

H_0: The county government policies have no significant influence of the adequacy of monitoring and evaluation of projects

Hypothesis Two

H_a: The level of resource allocation at the county have a significant influence on the Adequacy of Monitoring and Evaluation of their projects

H_0: The level of resource allocation at the counties have no significant influence of the adequacy of monitoring and evaluation of projects

Hypothesis Three

H_a: The procedures and process for monitoring and evaluation at the counties have a significant influence on the adequacy of monitoring and evaluation of the projects

H_0: The procedures and process for monitoring and evaluation at the counties have no significant influence on the adequacy of monitoring and evaluation of the projects

Hypothesis Four

H_a: The level of planning at the county have a significant influence on the adequacy of monitoring and evaluation of their projects

H_0: The level of planning at the county have no significant influence on the adequacy of monitoring and evaluation of their projects

The first hypothesis of the study stated that there is a significant relationship between County government policies and the adequacy of monitoring and evaluation of projects funded by the counties. Findings in the table above showed that County government policies had an F-value of 10.451, R^2=0.566 (p-value=0.000 which is less than α=0.05) thus we accept the hypothesis and conclude that there is a significant relationship between County government policies and the adequacy of monitoring and evaluation of county government funded projects in Kenya. This suggests that there is up to 0.566 unit increase in the adequacy of monitoring and evaluation for each unit improvement in the County government policies.

4.5 Challenges of Monitoring and Evaluation of County Government Projects

The respondents were asked to the various challenges which had been identified in the literature review section of the study in a Likert scale ranging from 0 to 5. Analysis of Mean and RII was done and the results presented in the table below.

The results revealed that majority of the counties have few staff assigned the roles of project monitoring and evaluation (Mean=4.40, RII=0.881 and Rank=1). Delayed disbursements of the allowances for the monitoring and evaluation team by the counties was ranked second among the challenges (Mean=4.31, RII=0.861).

Level of training among the m monitoring and evaluation staff was ranked third (Mean=4.03, RII=0.806) followed by poor communication among the project participants (Mean=3.90, RII=0.781).

Lack of awareness on the monitoring and evaluation systems was ranked fifth (Mean=3.72, RII=0.744) followed by the remoteness of some of the sites thereby complicating the monitoring and evaluation exercises (Mean=3.43, RII=0.686). The study also revealed that some of the staff conducting monitoring and evaluation of the projects are not well versed with the process and procedures (Mean=3.01, RII=0.603).

Political interference was ranked eighth as one of the challenges affecting the practice of monitoring and evaluation of the county projects (Mean=2.86, RII=0.572) followed by lack of clear guidelines on how monitoring and evaluation of projects should be conducted in some of the counties (Mean=2.53, RII=0.506).

Corruption was ranked tenth as a challenge in the practice of monitoring and evaluation of the county projects in Kenya with a mean of 2.01 and RII of 0.403.

Table 4.28: RII Results for the Challenges of M&E in counties

	N	Weight	Mean	RII	Rank
Delayed disbursements of the allowances for the M&E team by the county	72	310	4.31	0.861	2
Poor communication among project members	72	281	3.90	0.781	4
The M&E staffs are not well versed with the process	72	217	3.01	0.603	7
There are few staffs assigned the M&E roles at the county	72	317	4.40	0.881	1
There is too much political interference hence hindering the process	72	206	2.86	0.572	8
There are no clear guidelines on how M&E process should be conducted at the county	72	182	2.53	0.506	9

level					
High corruption levels at the county complicates the process	72	145	2.01	0.403	10
The sites are too remote thereby complicating the M&E process	72	247	3.43	0.686	6
There is little or no training on M&E process	72	290	4.03	0.806	3
There is little or no awareness on M&E systems at the county level	72	268	3.72	0.744	5
Valid N (listwise)	72				

Source: (Author,2018)

4.6 Practice of Monitoring and Evaluation in County Government Projects

The research sought to find out the actual practice of monitoring and evaluation in the recently completed county government projects. The respondents were asked on the frequency of monitoring and evaluation, the approaches they use during monitoring and evaluation, the tools they use, forms of evaluation and evaluation techniques in the various projects. The results were presented in form of bar graphs as shown below.

4.6.1 Frequency of Monitoring and Evaluation of County projects

The study revealed that most of the monitoring carried out in the county government projects is monthly based at 44% followed by weekly monitoring at 32%, Quarterly monitoring at 17% and daily monitoring at 7%.

The frequency of monitoring and evaluation is a factor of the magnitude of the projects. Where the project magnitude was very small, and the duration of the project/project schedule is small, daily monitoring and weekly monitoring are appropriate to track the daily activities for precise feedback by the monitoring and evaluation teams.

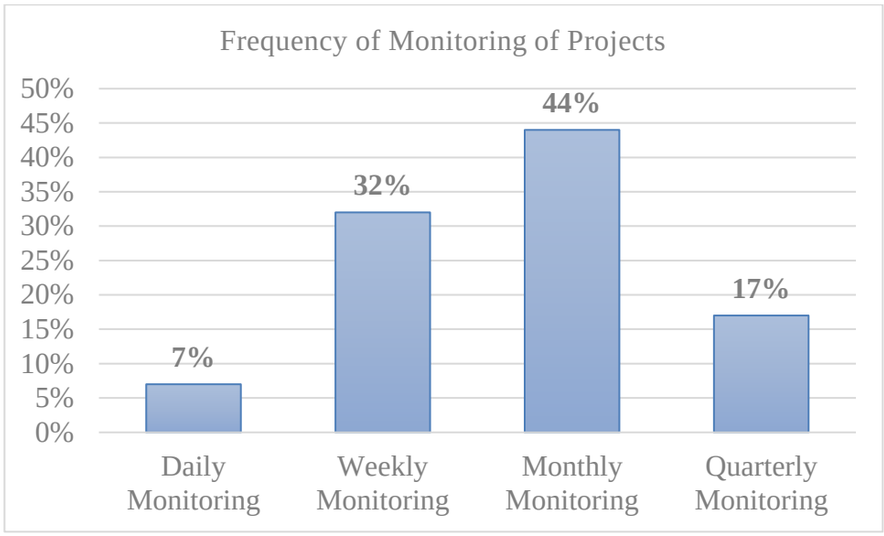


Figure 4.2: Bar Graph showing the Frequency of Monitoring of County Projects

Source: (Author,2018)

4.6.2 Approaches for Monitoring of County projects

The study sought to find out the various monitoring approached in use in the county government projects. The study revealed that status assessment method was the most approach in use at 55% followed by earned value method and effective measurement method both at 15%, basic research method at 10% and finally logical framework approach at only 5%.

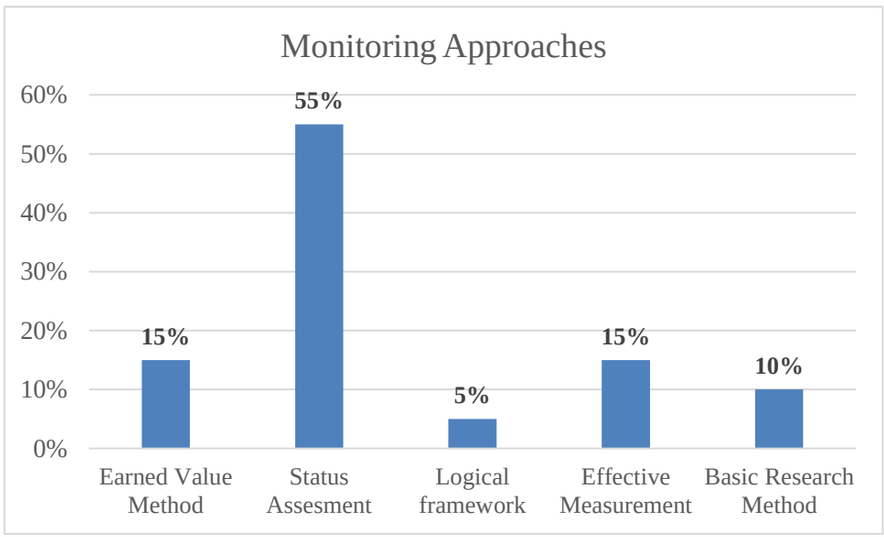


Figure 4.3: Bar Graph Showing Monitoring Approaches in use in County Projects

Source: (Author,2018)

4.6.3 Tools for Monitoring of County projects

The respondents were asked to indicate the preferred monitoring tools they use in the daily monitoring of the county government projects. The results were analyzed and presented in form of bar graph as shown below.

The study showed that the traditional tools such as Excel is the most preferred tool in use in monitoring of the projects at 40% followed by project work books at 25%, Gantt charts at 12%, Pert charts at 10%, Arrow diagrams at 8% and finally the use of progress curves at only 5%.

Inadequate training cited as part of the challenges facing the process of monitoring and evaluation of county government projects can be attributed to the low uptake of the use of modern tools of monitoring and evaluation of the county government projects.

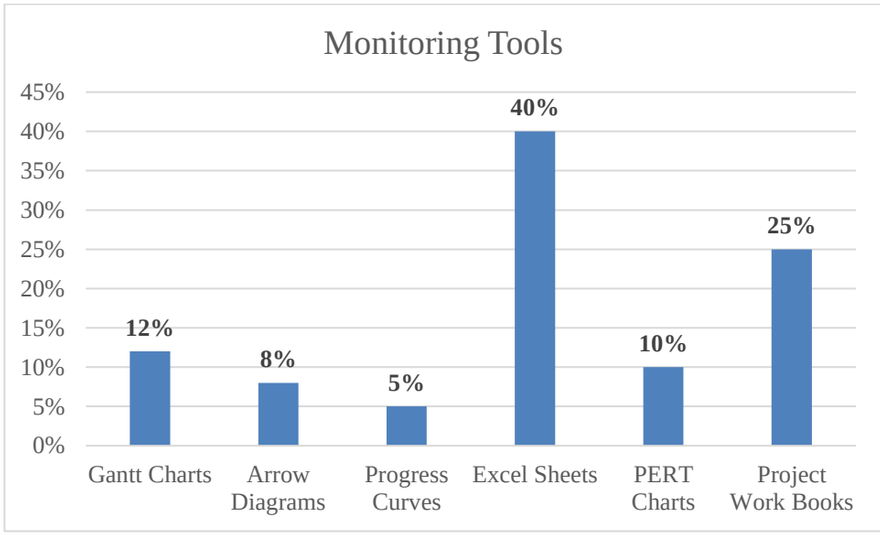


Figure 4.4: Bar Graph Showing Monitoring Tools Applicable in County Projects, Source: (Author,2018)

4.6.4 Forms of Project Evaluation in Counties

The study also sought to establish the various forms of evaluation in practice in county government projects in Kenya. The study revealed that outcome-based technique is the frequently form of evaluation in use at 35% followed by a goal-based evaluation at 25%, participatory evaluation at 22%, formative evaluation at 10% and finally summative evaluation at 8%.

Every project is unique and therefore there is the need to perform a specific form of evaluation at specific stages depending on the nature of the projects. The monitoring and

evaluation staff at the counties seem of be using just one form of evaluation in all their projects which should not be the case.

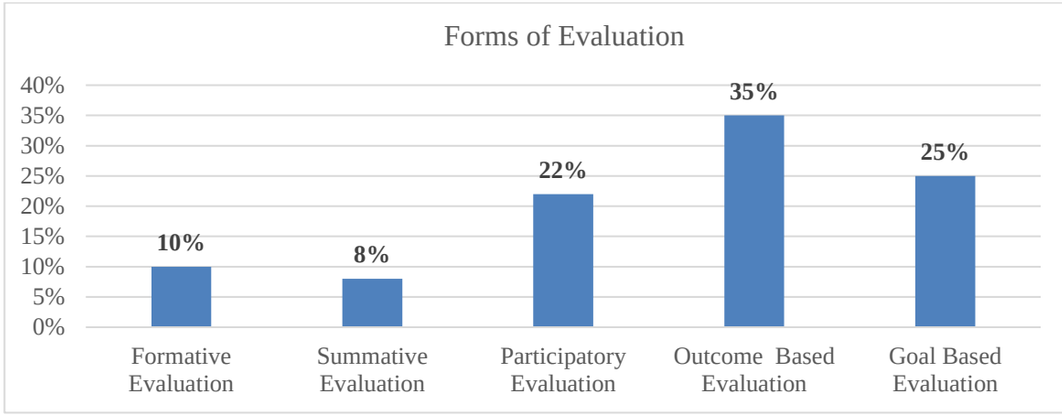


Figure 4.5: Bar Graph Showing the Forms of Evaluation Applicable in County Projects

Source: (Author,2018)

4.6.5 Project Evaluation Techniques in County projects

The respondents were also asked to indicate the evaluation techniques they apply in the county projects. The data was analyzed and presented in form of bar graph as shown below. The observation was the most used technique at 44% followed by use of graphic presentations at 32%, the use of interviews at 14% and finally the use of questionnaires at 10%.

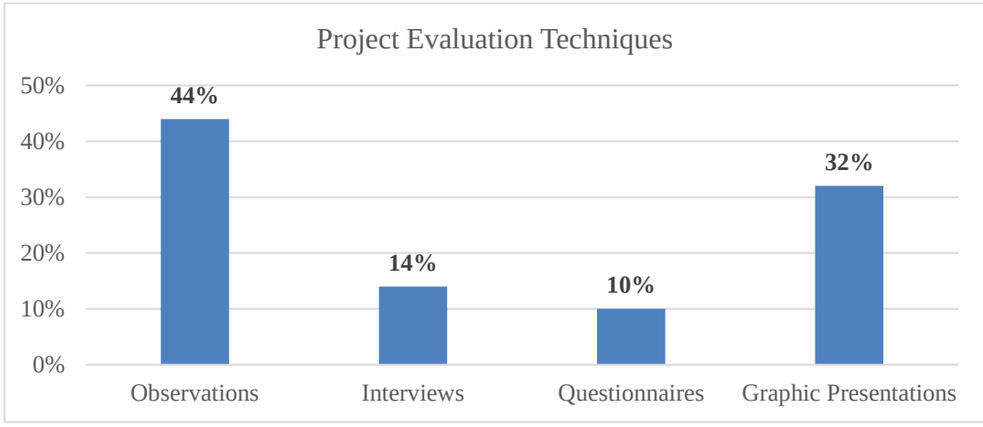


Figure 4.6: Bar Graph Showing Project Evaluation Techniques for in Counties

Source: (Author,2018)

4.7 Expert Views of improving the Practice of Monitoring and Evaluation

The respondents were asked to propose ways of improving the performance of monitoring and evaluation of county government projects. The findings were analyzed thematically, and the results presented in tables and diagrams.

Thematic analysis is the process of identifying patterns or themes with qualitative data. According to Braun & Clarke (2006), thematic analysis is the first qualitative method of data analysis that should be emphasized on. The analysis involved familiarizing with the data, generating the initial codes, searching for the themes, reviewing the themes, defining the themes and finally generating the write-up.

4.7.1 Familiarizing with the data

The first step in qualitative analysis is reading and re-reading the scripts or responses from the respondents. This involved listing of the views/opinions from the respondents directly from the questionnaires. The respondents identified the following factors as a way of improving the performance of monitoring and evaluation of county projects;

1. *"Development and implementation of county M&E guidelines policy*
2. *Establishment of a functional M&E unit centralized in the planning department*
3. *Capacity development to enhance M&E know-how among the M&E staff*
4. *Increase budgetary allocations for M&E staffs*
5. *Provision of vehicles to ease transport*
6. *The officers should be provided with transport*
7. *The officers should be given allowances*
8. *The officers should be given uniforms*
9. *The officers should be trained regularly*
10. *The officers should be promoted to encourage them to do a better M&E exercise*
11. *Seminars should be organized regularly*
12. *Refresher courses should be conducted at least twice a year*
13. *Retreat should be arranged for the M&E staff*

14. *There should be a clear calendar guiding the M&E exercise*
15. *M&E staffs should be trained on the project management software*
16. *Improve the delay of disbursement of funds to the counties*
17. *Proper project plans will boost monitoring and evaluation*
18. *Good benchmarking for M&E operations especially with established countries*
19. *Public participation for purposes of awareness*
20. *Staff recognition to boost the morale of the M&E officers*
21. *Train the officers in project management software's*
22. *Invest in proper information management systems to boost communication between officers and other project participants"*

4.7.2 Generating the initial codes

This stage involved arranging the data in a more meaningful and systematic manner. The data was coded into various themes. Some of the themes established from the expert views include; monitoring and evaluation policy, ICT for monitoring and evaluation and resources for monitoring and evaluation.

4.7.3 Search for the themes

A theme is a pattern that captures something significant or interesting about the research question or the data. It is characterized by its significance. The codes were examined and some of them fitted together in a theme as shown in the table below.

Table 4.29: Themes from Expert Views

Themes	Statements
M&E Policy	Development and implementation of county M&E guidelines policy
	Establishment of a functional M&E unit centralized in the planning department
	Capacity development to enhance M&E know-how among the M&E staff
	There should be a clear calendar guiding the M&E exercise
	Good benchmarking for M&E operations
	Public participation for purposes of awareness
	Seminars should be organized regularly
	Proper project plans will boost monitoring and evaluation
ICT for M&E	M&E staffs should be trained on the project management software
	Train the officers in project management software's
	Invest in proper information management systems to boost communication between officers and other project participants
Resources for M&E	Increase budgetary allocations for M&E staffs
	Provision of vehicles to ease transport
	The officers should be provided with transport
	The officers should be given allowances
	The officers should be given uniforms
	The officers should be trained regularly
	Refresher courses should be conducted at least twice a year
	Improve the delay of disbursement of funds to the

	counties Retreat should be arranged for the M&E staff The officers should be promoted to boost their morale while conducting the M&E exercise

4.7.4 Review of the themes

At this stage, the preliminary themes were reviewed and modified to ensure the coherency and that they were distinct from each other. It was guided by the following questions;

I. Were the themes making sense?
II. Did the data support the themes?
III. Was too much data fitted for any of the themes?
IV. Did the data overlap?
V. Were the themes separate?
VI. Were there themes within the sub themes?
VII. Were there other themes within the data?

Table 4.30: Themes and Sub-Themes

Themes		Statements
M&E Policy	*Policy framework*	• Development and implementation of county M&E guidelines policy • Establishment of a functional M&E unit centralized in the planning department • Capacity development to enhance M&E know-how among the M&E staff • There should be a clear calendar guiding the M&E exercise
	Policy Training	• Good benchmarking for M&E operations • Public participation for purposes of awareness • Seminars should be organized regularly • Proper project plans will boost

		monitoring and evaluation
ICT for M&E	*ICT Tools*	• Invest in proper information management systems to boost communication between officers and other project participants • Counties to procure project management software's to boost the process of monitoring and evaluation
	ICT Training	• M&E staffs should be trained on the project management software • Train the officers in project management software's
Resources for M&E	*Human Resources*	• Increase budgetary allocations for M&E staffs • Provision of vehicles to the M&E staff to ease transport • The officers should be provided with transport • The officers should be trained regularly • The counties to employ more staffs to the M&E departments
	Staff Motivation	• Retreat should be arranged for the M&E staff • The officers should be promoted to boost their morale while conducting the M&E exercise

Source: (Author,2018)

4.7.5 Defining the themes

This was the final step in refining the themes aimed at identifying the essence of each of the themes. It involved a keen study into the interaction of the main themes and the sub themes in the study.

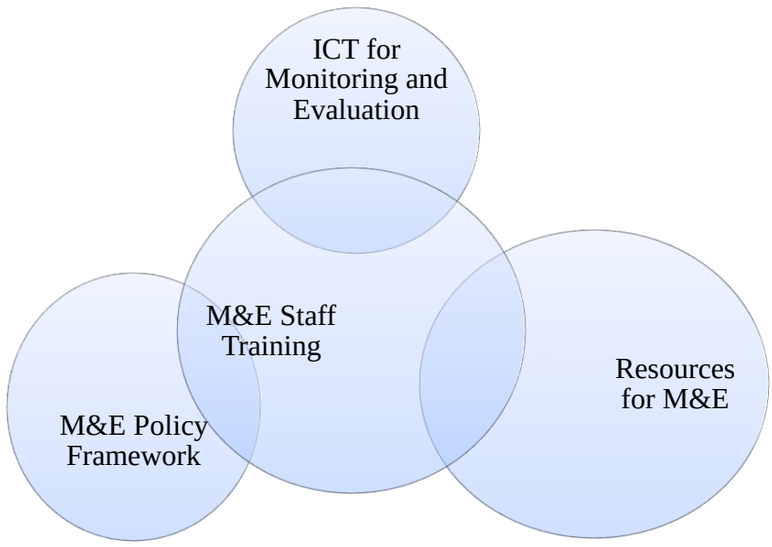


Figure 4.7: Relationship between Themes and Sub-Themes Source: (Author, 2018)

4.8 SYNTHESIZED FRAMEWORK FOR MONITORING & EVALUATION

The last objective of this study was to develop a model framework for carrying out a better monitoring and evaluation of county government projects in Kenya. In achieving this objective, the respondents were asked to explain the actual monitoring and evaluation practice in the completed county government projects.

4.8.1 Insights from the Study

The level of effectiveness of monitoring and evaluation of county government projects ranged from 55% to 80% with a variance of 49.798 which means that some counties are so badly off as far as the process of monitoring and evaluation of projects is concerned

In terms of policies for monitoring and evaluation, the rating for the policies ranged from 54% to 68% and a variance value of 25.011. This shows the magnitude of the gap especially in the guidelines and the procedures by the counties in executing the monitoring and evaluation exercises

The level of planning on the other hand ranged from 56% to 65% with a standard variance value of 5.614. The level of planning as far as monitoring and evaluation is concerned in majority of the counties is uniform although not very good and therefore needs an improvement

Resource allocation for monitoring and evaluation is not quite impressive with the levels ranging from 46% to 58% with a standard variance of 19.091. This could be explained by the delays in the disbursements of the county government funds by the National Government

The level of process and procedures for conducting monitoring and evaluation exercises for the county government projects ranges from 46% to 69% with a standard variance of 55.526. The big variance shows the level of disparity between the various county governments in Kenya

The study also revealed the various challenges facing the practice of monitoring and evaluation such as inadequate number of staff assigned monitoring and evaluation roles, lack of clear guidelines for the exercise delayed disbursements of the funds, Inadequate training of the staff, poor communication among project participants and lack of awareness on the process of monitoring and evaluation

The thematic analysis results of the expert views revealed that clear guidelines/frameworks, proper funding, employing adequate number of monitoring and evaluation staff, proper benchmarking and adequate training of the staff tasked with monitoring and evaluation by the county governments could boost the performance of monitoring and evaluation of projects

4.8.2 Rationale/Design for the Framework

The framework has three phases namely; Action plan phase, Application phase and lastly Feedback phase

4.8.2.1 Action plan phase

This phase addresses some of the loopholes existing in the monitoring and evaluation teams of the county governments in Kenya. This phase considers benchmarking for the best global monitoring and evaluation practices and the tools and techniques application in the Kenyan scenario.

This phase is basically a capacity development phase for monitoring and evaluation. The counties hire adequate monitoring and evaluation staff, training the staff on the various tools and techniques of monitoring and evaluation and carrying out proper benchmarking.

4.8.2.2 Application Phase

This is the implementation phase of the proposed framework. The various approaches and techniques for monitoring and evaluation are applied in the various projects stages and proper tracking done by the well-trained monitoring and evaluation staff.

A project can be monitored at a specific stage and a monitoring report prepared to be used in the next stage of the project. For instance, evaluation can be done immediately

after the completion of the substructure works for the construction of a building and the financial report used in the next stage of the project

4.8.2.3 Feedback Phase

This is the last stage of the framework that involves consolidating the reports from the various monitoring and evaluation reports for projects in the county and lessons learnt documented for use in the projects in the next financial years. At this stage, an annual national monitoring and evaluation conference for all the counties is held to showcase the results of the exercise

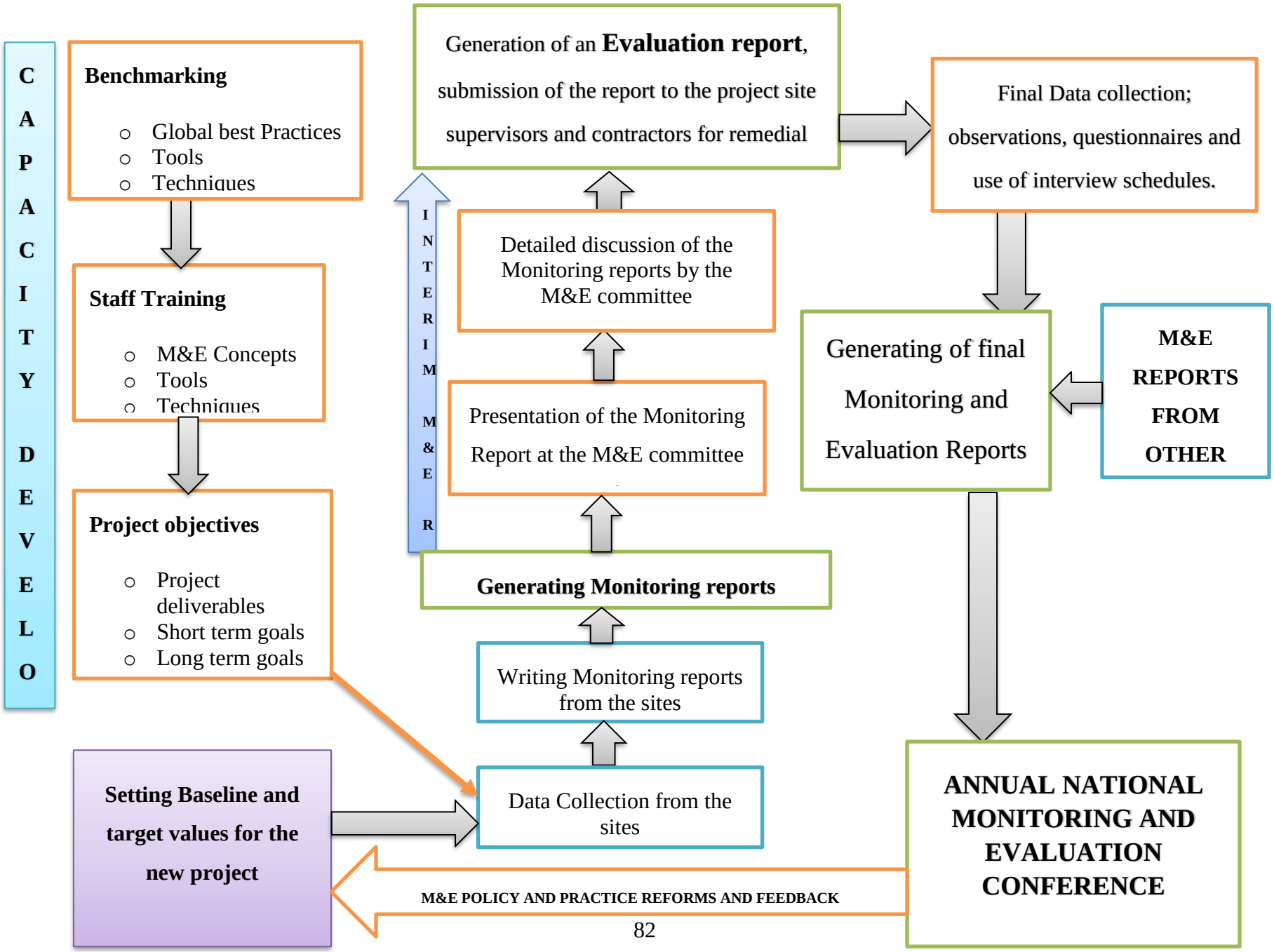
Table 4.31: Checklist for M&E of County Projects

	Indicators	**Definition** *How is it calculated?*	**Baseline** W*hat's the current value?*	**Target** *What's the projected value?*	**Data Source** *Where to get the data*	**Frequency** *How often is the data required?*	**Responsible** *Who is tasked with the work?*	**Reporting** *Where will it be reported?*
Goal	Progress reports received from the M&E field staff for the relevant projects	Number of reports projected divided by the actual reports received			Site Meetings	Weekly	The M&E field officers	M&E units weekly project meetings
	Timeliness of the progress reports from the projects	Number of progress reports prepared divided by the actual reports received by the M&E unit			Site meetings	Weekly	The M&E field officers	M&E units weekly project meetings
	Response times to the remedial actions/measures pertaining the projects	Number of progress reports received by the M&E unit divided by the number of reports acted upon within the			M&E units	After every critical project stage	M&E units	Weekly/Monthly project site meetings

	stipulated time			
The levels of clarity of the reports for the projects	The number of times the reports are referred for corrections before being acted upon	M&E field staffs	Weekly	The M&E field officers
Level of communication by the project members	How fast the project participants receive the instructions from the M&E unit	M&E units, staffs and the site supervisors	After every critical project stage	M&E units, Site supervisors
Frequency of the feedback in the projects	The number of feedbacks against the projected feedback from the M&E unit	Site supervisors and the contractors	After every critical project stage	The site supervisors and contractors
Outcomes				
Outputs				

Source: (Author,2018)

Figure 4.8: Synthesized Framework for M&E of County Government Funded Projects, Source: (Author,2018)



4.9 Discussion of the Findings

The results of the analysis have revealed that Planning had a positive and significant effect on the adequacy of monitoring and evaluation of county government funded projects in Kenya. The existing literature (Naoum, Fong & Walker, 2004; Ling & Chan, 2002; Thomas, Macken, Chung & Kim, 2002; Naoum 1991) had indicated that monitoring planning is a key tool that stakeholders use to ensure the success of projects.

The results are also supported by Faniran, Love and Smith (2000) who describe monitoring planning as the systematic arrangement of project resources in such a way that it leads to achievement of project objectives. Considering monitoring and evaluation as a project, the success of monitoring and evaluation of projects is highly attributable to the levels of planning at the by the monitoring and evaluation team

There is a positive and significant relationship between the level of county government resources for monitoring and evaluation and the adequacy of monitoring and evaluation of its projects. Congregate to the results, from the results by World Bank, (2012) it revealed that monitoring human resource management is key in maintaining and retaining a stable monitoring staff which contributes to project success.

Further support to the study findings is by Sahlin-Andersson and Söderholm (2002) who echoed that the flow of information is vital for the success of such project or organization. In a similar vein, ineffective, poor or lack of communication can lead to a series of problems within project performance (Momballou, 2006).

The results of the analysis have also revealed that the county government policies have a significant influence on the effectiveness of monitoring and evaluation of county government funded projects in Kenya. Favorable policies will eventually lead to a more effective process and therefore the county government must check on its policies and benchmark with the other counties to ensure the success of its projects

Finally, the study has also established that the processes and the procedures of executing monitoring and evaluation in the county government projects also has a significant influence on the effectiveness of monitoring and evaluation of the projects.

CHAPTER FIVE

SUMMARY CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The study sought to investigate the effectiveness of monitoring and evaluation practice on county government projects in Kenya. This chapter provides a summary of the findings of the study based on the objectives of the study, presents the conclusions from the findings and gives recommendations to the beneficiaries of the study and areas of further research in order to fill the gaps identified in the study.

5.2 Summary of the Findings

The main objective of this study was to investigate the adequacy of monitoring and evaluation practice in public projects in Kenya with a special emphasis on county government funded projects. The study targeted recently completed county government construction projects.

The specific objectives of the study were; to describe the relationship between the predictor variables and the dependent variable, to establish the relationship between the predictor variables and the independent variable, to establish the challenges facing the practice of monitoring and evaluation of county government funded projects and to develop a model framework for effective monitoring and evaluation of county government projects in Kenya.

The predictor variables in the study included; the policies, level of planning, the resources and the processes and procedures for monitoring and evaluation of the projects at the counties while the dependent variable was the adequacy or level of effectiveness of monitoring and evaluation practice.

5.2.1 Adequacy of Monitoring and Evaluation

The level of effectiveness of monitoring and evaluation of county government projects ranges from 55% to 80% with a mean of 67% and a standard variance of 49.798 which means that some counties are so badly off as far as the process of monitoring and evaluation of projects is concerned. This could be explained with the gaps ranging from inadequate number of staff tasked with the execution of monitoring and evaluation exercise at the counties and inadequate training and benchmarking as part of capacity development for boosting M&E functions

5.2.2 The Policies

The county government policies for monitoring and evaluation levels ranges from 54% to 68% with a mean of 60.05% and a variance value of 25.011. This shows the magnitude of the gap especially in the guidelines and the procedures by the counties in executing the monitoring and evaluation exercises. The findings also revealed that some counties have well defined guidelines for conducting monitoring and evaluation while some counties are still lagging as far as M&E is concerned. However, there is a serious gap especially on the use of the internationally recognized project management software for monitoring and evaluation

5.2.3 Level of Planning

The level of planning of the counties for monitoring and evaluation functions ranged from 56% to 65% with a mean of 60.10 and a standard variance value of 5.614. The level of planning as far as monitoring and evaluation is concerned in majority of the counties is uniform although not very good and therefore needs an improvement. The M&E team rarely use Network diagrams and some staff tasked with the exercise do not have the requisite qualifications for monitoring and evaluation

5.2.4 Resources for M&E

Resource allocation for monitoring and evaluation is not quite impressive with the levels ranging from 46% to 58% with a mean of 52.90% and a standard variance of 19.091. This could be explained by the delays in the disbursements of the county government funds by the National Government, few staff in the M&E project department, inadequate training of M&E staff and benchmarking.

5.2.5 Procedures and Processes for M&E

The level of process and procedures for conducting monitoring and evaluation exercises for the county government projects ranges from 46% to 69% with a mean of 59.35% and a standard variance of 55.526. The big variance shows the level of disparity between the various county governments in Kenya. Most of the M&E departments in various counties are slow to adopt the globally recognized project management tools and efficient ICT tools for communication

5.2.6 Challenges of M&E of county government projects

The study also revealed the various challenges facing the practice of monitoring and evaluation such as inadequate number of staff assigned monitoring and evaluation roles, lack of clear guidelines for the exercise delayed disbursements of the funds, Inadequate training of the staff, poor communication among project participants and lack of awareness on the process of monitoring and evaluation

5.2.7 Synthesized Framework for M&E of County Government Projects

The final objective of the study was to develop a comprehensive framework for effective monitoring and evaluation of county government projects in Kenya. The findings from the first three objectives were used to develop a synthesize framework for adoption. The framework has three major phases namely; Action plan phase, Application phase and the Feedback phase.

The first phase has three stages namely; Benchmarking stage where the employees are trained on global best practices for monitoring and evaluation including the best tools and techniques, application of various monitoring and evaluation concepts in the industry and finally setting the project objectives and goals before the commencement of the project.

The second phase which is the application phase involves setting the baseline and targets for the project, data collection from the project site, production of monitoring reports, presentation of the reports at the M&E committee level, preparation of evaluation reports and finally compiling all the reports for all the projects in the county,

The third and last phase of the framework which is the feedback phase involves presentation of the findings in an annual M&E conference for benchmarking with the other counties. The lessons learnt are documented at this stage and are used in the preceding projects

5.2.8 Contribution of Study to Body of Knowledge

The study has achieved a framework for enhancing the effectiveness of Monitoring and Evaluation of County Government funded projects in Kenya. The study has also established a model for predicting the efficacy of Monitoring and Evaluation process in County Government funded projects in Kenya. The framework and the Model will inform the Officers tasked with Monitoring and Evaluation of projects at the counties thereby improving the overall performance of the projects in Kenya.

5.3 Conclusions

The study concluded that; Monitoring and Evaluation done in the county government projects is fairly good in most of the counties in Kenya however this can be improved if the county government monitoring and evaluation policies are improved, the level of planning, resources and process of monitoring and evaluation is improved since the

research revealed that the four predictor variables explains 88.3% of the overall performance of monitoring and evaluation of projects funded by the county governments in Kenya.

5.4 Recommendations

The research established that the predictor variable; Policy, Planning, Resources and Processes have a significant influence on the effectiveness of Monitoring and Evaluation of the projects funded by the county government in Kenya. The research therefore recommends the following;

i. The synthesized model framework developed for Monitoring and Evaluation of public projects in Kenya to be tested. The framework is expected to improve the performance of monitoring and evaluation of the county government projects

ii. Currently, the county government projects in Kenya are handled by the public works. Most of the counties do not have well equipped Monitoring and Evaluation units considering the counties were created just the other day after the promulgation of the new constitution in 2010 in Kenya. The research recommends the creation of functional Monitoring and Evaluation units in every county which should be integrated into the current public works. The department will be purely in charge of Monitoring and Evaluation of the projects

iii. An ICT system to support Monitoring and Evaluation exercise should be acquired by the counties in Kenya since the research discovered that the Monitoring and Evaluation exercise in the counties still employs the use of traditional approaches

iv. The study established a serious delay in disbursements of the funds to the county governments by the National Government in Kenya and therefore it is recommended that the counties allocate the funds for the projects during planning stage to reduce the stalling of the projects

5.5 Recommendation for Further Study

The research indicated that the predictor variables; policy, planning, resources and processes account for 70.8% influence on the dependent variable; adequacy of Monitoring and Evaluation of county government funded projects in Kenya.

The research recommends further study on the other factors that contributes to the remaining 29.2% of the dependent variable. The study also recommends further study on a functional framework for county government policies to be adopted by the county government monitoring and evaluation units in Kenya

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APPENDICES

Appendix i: Research Permission Letter

JOMO KENYATTA UNIVERSITY OF AGRICULTURE AND TECHNOLOGY

SCHOOL OF ARCHITECTURE AND BUILDING SCIENCES (SABS)

JKUAT – MAIN CAMPUS

FREDRICK OKUTA,

P.O BOX 62,000-00200,

NAIROBI

+254-728-582-581

fokuta@jkuat.ac.ke

Dear Sir/Madam,

RE: INVITATION TO PARTICIPATE IN A RESEARCH STUDY

I kindly invite you to participate in my research study entitled: **An Investigation of the Adequacy of Monitoring and Evaluation of Public projects: A Survey of County Government funded projects in Kenya.** I am undertaking this study as a partial fulfillment of the requirement for master's degree in Construction Project Management at the School of Architecture and Building Sciences (SABS) in Jomo Kenyatta University of Agriculture and Technology (JKUAT). I thereby request you to kindly fill in the attached questionnaire. The purpose of this questionnaire is purely academic, and the information gathered through it will be kept confidential. I will really appreciate your assistance in my educational endeavors, which you will achieve by completing the questionnaire as honestly and promptly as practicable. Thanking you in advance.

Yours Faithfully,

FREDRICK OKUTA,

Registration Number: AB343-0692/2016

Department of Construction Management (SABS)

Appendix ii: Questionnaire

QUESTIONNAIRE FOR THE LEADER OF COUNTY PROJECT COORDINATION UNIT

SECTION A: GENERAL INFORMATION

Please provide the following information about yourself and the firm. Kindly put a tick (√) in the box next to the selected response.

1) **What is your basic training as a Construction Expert?**

   [ ] Engineering

   [ ] Architecture

   [ ] Construction Management

   [ ] Quantity Surveying

   [ ] Project management

   [ ] Accounting

   [ ] Human Resource

   [ ] Other……(Specify)

2) **What is your highest level of Education?**

   [ ] Certificate

   [ ] Diploma

   [ ] Undergraduate Degree

   [ ] Master's Degree

   [ ] Doctoral Degree

3) **Are you aware of Monitoring and Evaluation of Projects?**

   [ ] Yes [ ] No

   (***If Yes Proceed to the next question)***

4) **Working exposure in this Field of M&E?**

[ ] No Exposure at all

[ ] Up to 5 years

[ ] 6 - 10 years

[ ] 11 - 15 years

[ ] 16 - 20 years

[ ] More than 20

SECTION B:

MONITORING AND EVALUATION POLICY IN THE COUNTY

Kindly tick your most appropriate response for each of the statements in the table below on a scale of 0-5 as outlined below

		Totally Disagree	**Strongly Disagree**	**Disagree**	**Fairly Agree**	**Agree**	**Strongly Agree**
S/No	**Statement**	**0**	**1**	**2**	**3**	**4**	**5**
1	The County has a well laid guidelines on the intervals and the frequencies of carrying out						

	Monitoring and Evaluation						
2	The county has a well-defined policy/framework and standards for carrying out Monitoring and Evaluation exercise for its projects						
3	The County Executive management has a positive attitude towards the execution of monitoring and evaluation of projects						
4	The County has got a champion for the Monitoring and Evaluation						

	exercises						
5.	The organization uses project management software for Monitoring and Evaluation of the projects						
6.	Monitoring and Evaluation procedures in this county are definite, clear and easily understood in the project						
7.	The County Benchmarks its Monitoring and Evaluation practices with the other counties						

8.	The county is supportive and has motivational measures for the M&E exercise						
9.	M&E tools are well assessed if they are applicable in every project on a case by case basis						
10.	The County uses M&E tools which are internationally recognized						

SECTION C:

MONITORING AND EVALUATION PLANNING AT THE COUNTY

Kindly tick your most appropriate response for each of the statements in the table below on a scale of 0-5 as outlined below

		Totally Disagree	Strongly	Disagree	Fairly Agree	Agree	Strongly Agree
S/No	**Statement**	**0**	**1**	**2**	**3**	**4**	**5**
1	Monitoring plans are well applied in the County project coordination activities						
2	The M&E employees are well trained on effective project planning practices in the county's projects						

3	Network diagrams and frameworks are used in project scheduling						
4	The county conducts stakeholder's analysis surveys on its resources before planning						
5	The staff roles match their experience and qualifications in the M&E team						
6.	The county uses project management software for monitoring the						

	plans						
7.	Rapid assessment is conducted in monitoring and evaluation plans used in the projects						
8.	The monitoring and evaluation plans are continually checked for improvement in subsequent projects						
9.	There are regular planning meetings by the M&E team						

	at the County						
10.	Proper benchmarking is done during the planning stage by the M&E team at the County						

SECTION D:

MONITORING AND EVALUATION RESOURCES IN THE COUNTY

Kindly tick your most appropriate response for each of the statements in the table below on a scale of 0-5 as outlined below

		Totally Disagree	**Strongly Disagree**	**Disagree**	**Fairly Agree**	**Agree**	**Strongly Agree**
S/No	**Statement**	**0**	**1**	**2**	**3**	**4**	**5**
1	The County has got skilled personnel who carry out M&E exercise on the projects						
2	The M&E officers are knowledgeable in the day-to day management of the M&E system						

3	There are adequate transport facilities to aid the movement of M&E team in the projects						
4	The county gives adequate allowance for the M&E staff as a motivation						
5	The county disburses the financial facilitations in time to the M&E staff						
6.	The county has adequate number of staffs carrying out the monitoring						

	and evaluation exercise of the projects						
7.	The county has provided the M&E staffs with international recognized software for project monitoring and evaluation						
8.	The county has committed good money to the implementation of M&E work plan for the projects						
9.	The county is willing to invest money to improve the						

	M&E management						
10.	There is proper utilization of resources allocated for Monitoring and Evaluation at the County						

SECTION E:

MONITORING & EVALUATION PROCESS AT THE COUNTY

Kindly tick your most appropriate response for each of the statements in the table below on a scale of 0-5 as outlined below

		Totally Disagree	**Strongly Disagree**	**Disagree**	**Fairly Agree**	**Agree**	**Strongly Agree**
S/No	**Statement**	**0**	**1**	**2**	**3**	**4**	**5**
1	Project progress reports are prepared in time						
2	Project progress reports are submitted and acted upon on time						
3	Remedial measures are acted upon accordingly						
4	The progress reports are clear and						

	detailed						
5	The communication is effective and efficient						
6.	Accountability levels in the projects are good						
7.	The site meetings are scheduled in good time and regularly by the M&E team						
8.	The M&E team holds regular meetings to discuss the project implementation reports						
9.	Change requests have been well handled and documented at the County by the M&E						

	team						
10.	There is smooth flow of information/instructions from the top management to the M&E team at the County						

SECTION F: MONITORING & EVALUATION WORK DONE ON THE LARGEST RECENTLY COMPLETED COUNTY FUNDED PROJECT

1. **Project Information**

a	Project Type	
b	Budgeted project cost	
c	Actual project cost	
c	Planned Construction duration	
d	Actual Construction duration	

2. **Kindly tick one of the following choices given for the Questions below;**

a. How often did you carry out Monitoring exercise in this project?

[ ] Daily

[ ] Weekly

[ ] Monthly

[ ] Quarterly

[ ] Other (specify)

b. What approach did you use in Monitoring of this project?

[ ] Earned Value

[ ] Status Assessment

[ ] Logical framework models

[ ] Effective measurement

[ ] Basic research

[ ] Other (specify)

c. Which of the following Monitoring tools did you use in this project?

[ ] Gantt Charts

[ ] Arrow Diagrams

[ ] Progress Curves

[ ] Excel

[ ] PERT Charts

[ ] Project Work Books

[ ] Other (specify)

d. Which form of evaluation did you use in this project?

[ ] Formative evaluation

[ ] Summative evaluation

[ ] Participatory evaluation

[ ] Outcome based evaluation

[ ] Goal based evaluation

[ ] Other (specify)

e. Which of the following project evaluation technique(s) did you use in this project?

[ ] Observations

[ ] Interviews

[ ] Questionnaires

[ ] Graphic presentations

f. Kindly rate the Adequacy of M&E in this project in a scale of 1-10

Assessment Category	**Poorly Done**				**Fairly Done**		**Good**		**Excellently Done**		
Scale	**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
Your Assessment											

SECTION G:

CHALLENGES IN MONITORING & EVALUATION OF COUNTY PROJECTS

Kindly tick your most appropriate response for each of the statements in the table below on a scale of 0-5 as outlined below

		Totally Disagree	**Strongly Disagree**	**Disagree**	**Fairly Agree**	**Agree**	**Strongly Agree**
S/No	**Statement**	**0**	**1**	**2**	**3**	**4**	**5**
1	Delayed disbursements of the allowances for the M&E team by the County						
2	There is poor communication among project participants						
3	The staff tasked with monitoring and evaluation of projects are not well versed with the process						
4	There are few staff assigned the role of						

	monitoring and evaluation of projects by the county						
5	There is too much political interference in the projects hence hindering the M&E exercises						
6.	There are no clear guidelines on how the process should be conducted at the county level						
7.	High levels of corruption make the implementation of M&E results almost impossible						
8.	The sites are too remote making the process of M&E too complicated						

9.	There is little or no proper training on M&E process						
10.	There is no proper awareness on M&E process at the County						

SECTION H:

EXPERT VIEWS FOR ENHANCING M&E IN COUNTY PROJECTS

Please suggest the measures that should be put in place to boost the performance of the Monitoring and Evaluation function in the projects funded by your County Government?

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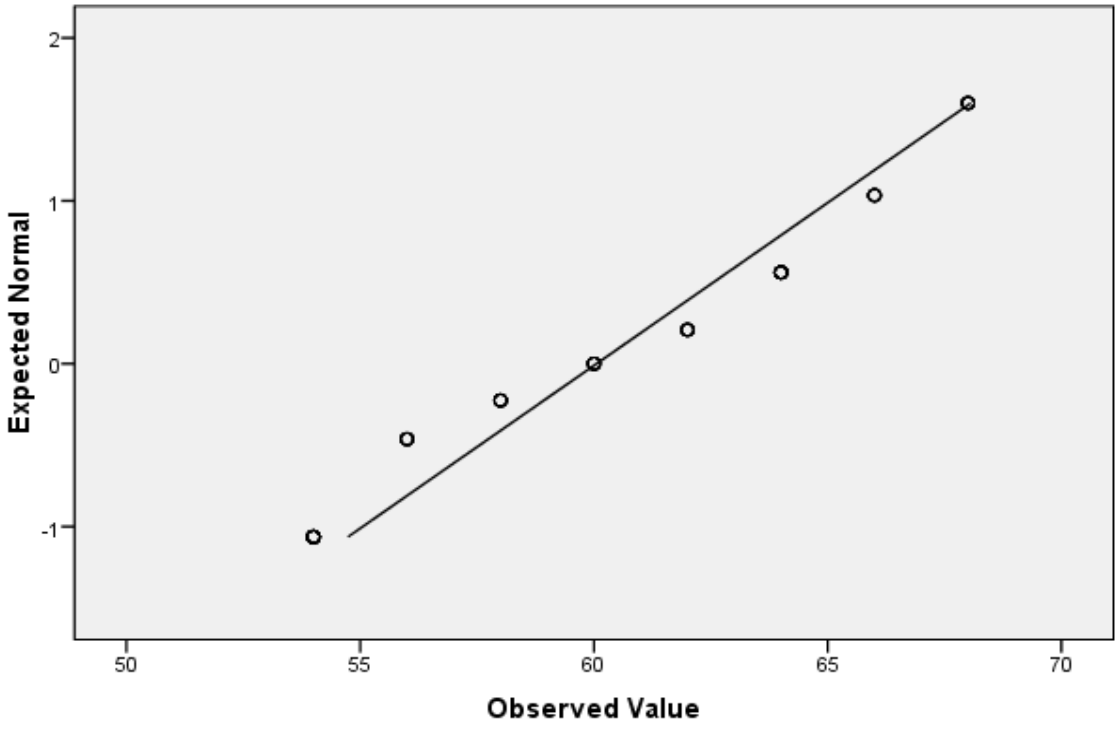
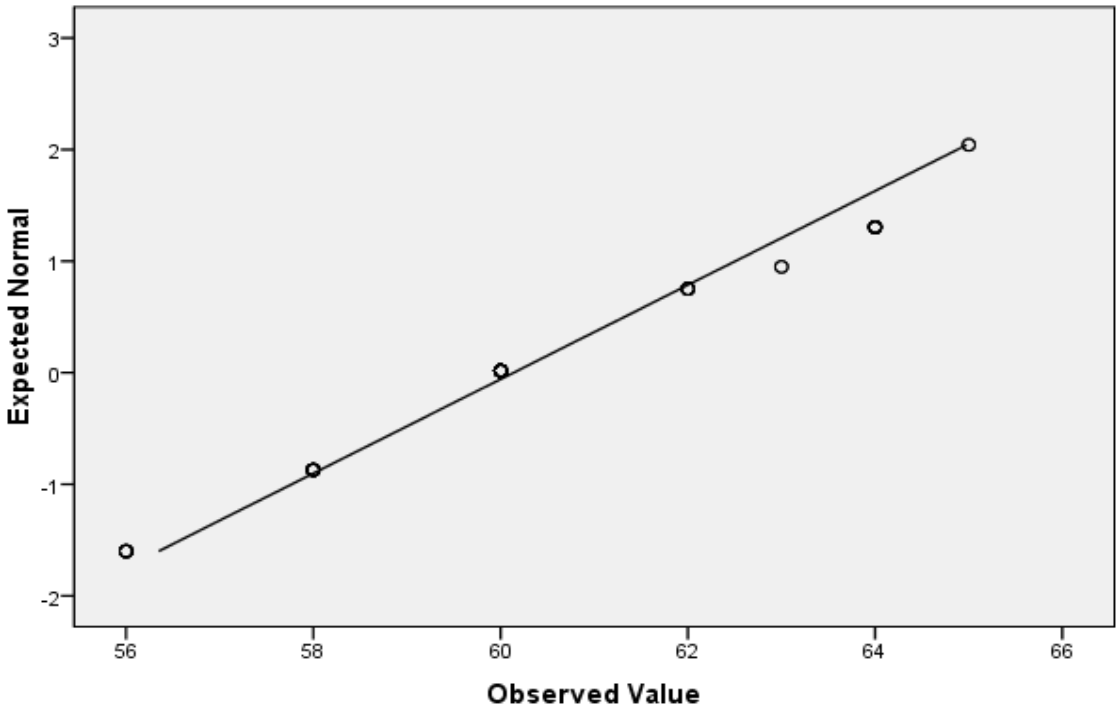
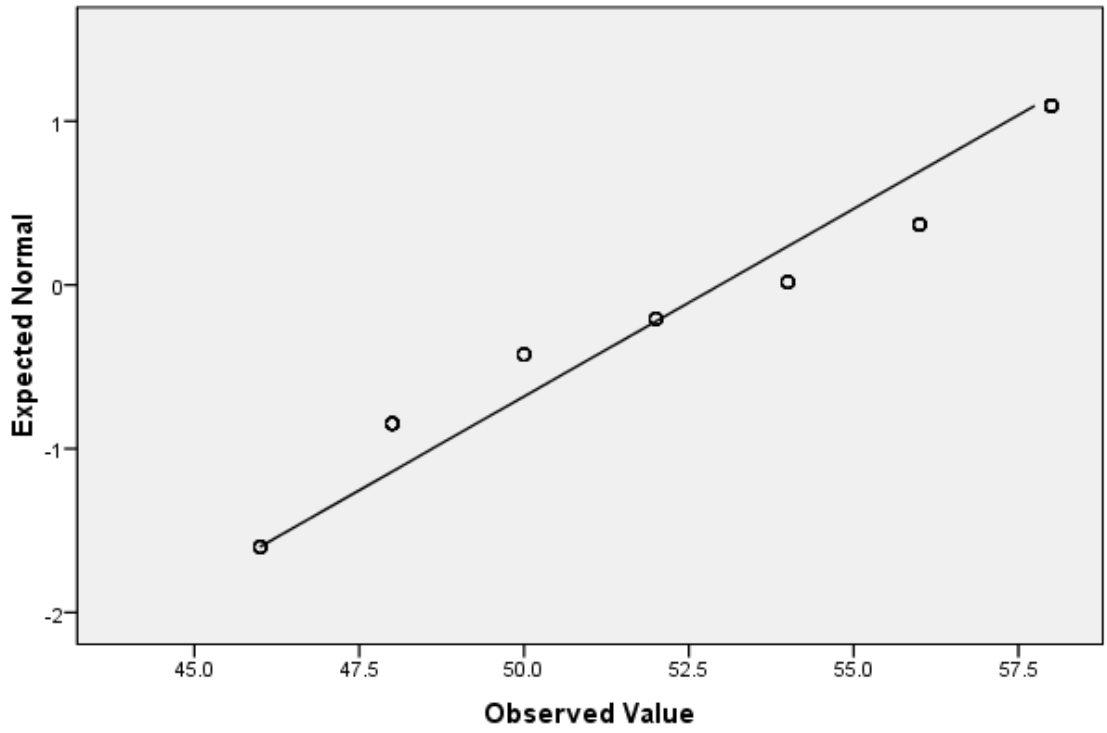
THANK YOU FOR YOUR TIME.

Appendix iii: Q-Q Plots for the Variables

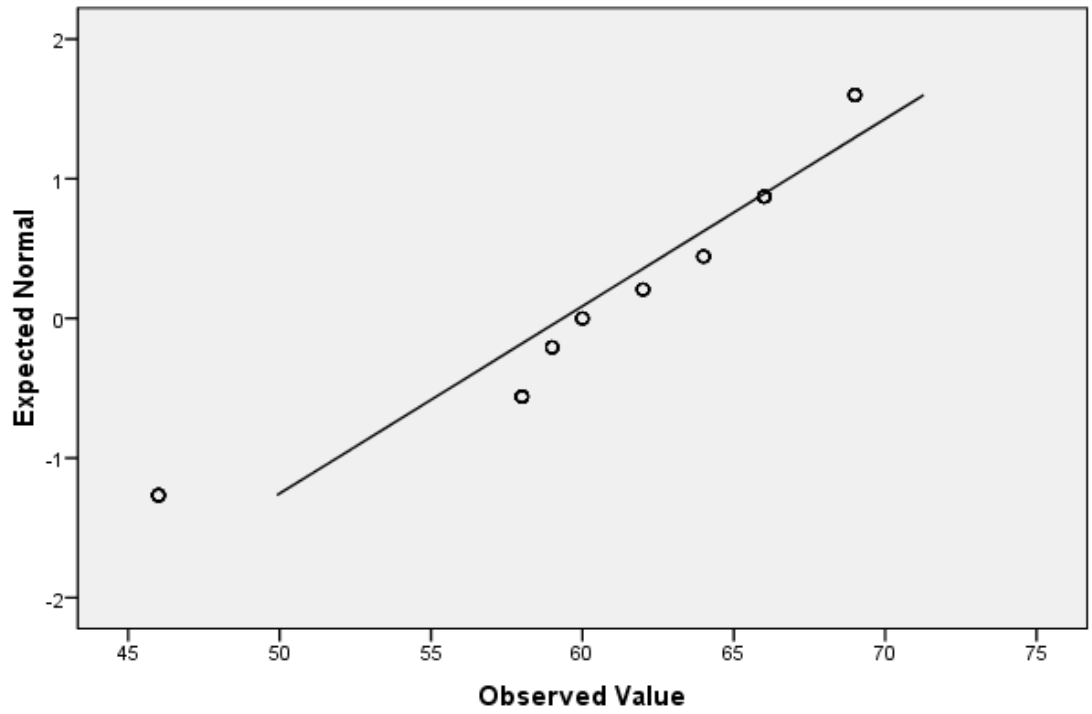




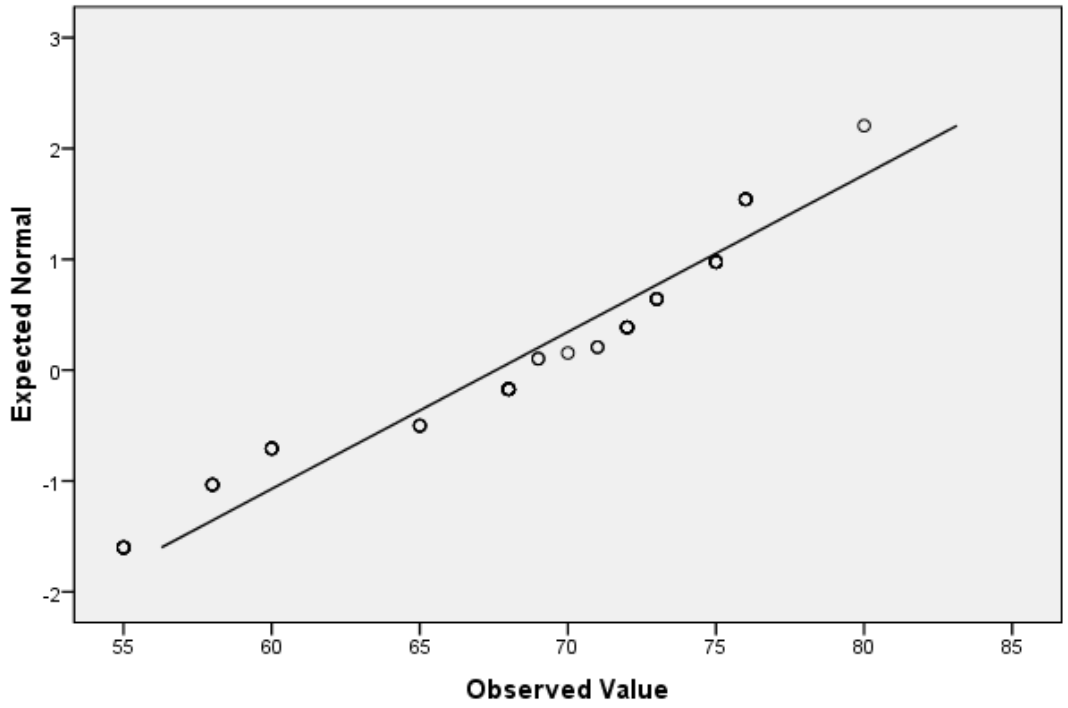
Q-Q Plot for Planning



Q-Q Plot for Resources



Q-Q Plot for the Process and Procedures



Q-Q Plot for the Adequacy of Monitoring and Evaluation

Appendix iv: Research Program

ITEM	**ACTIVITIES**	DUR.	**TIME**
1.00	**Review of Proposal**		
1.10	Review of Chapter One	2wks	√
1.20	Review of Chapter Two	2wks	√
1.30	Review of Chapter Three	3wks	√
2.00	**Data Collection Instruments**		
2.10	Preparation of Questionnaires	2wks	√
2.20	Preparation of Interview Schedules	2wks	√
2.30	Preparation of Checklists	2wks	√
3.00	**Pilot Study Stage**		
3.10	Distribution of Questionnaires	2wks	√
3.20	Conducting of Interviews	2wks	√
3.30	Collection of Questionnaires	1wk	√
3.40	Data Analysis/Data testing	1wk	√
4.00	**Field Study**		
4.10	Distribution of Questionnaires	1wk	

4.20	Conducting of Interviews	1wk															
4.30	Collection of Questionnaires	1wk															
4.40	Data Analysis	2wks															
5.00	**Preparation of Final Report**																
5.10	Chapter Four	1wk															
5.20	Chapter Five	1wk															
5.30	Thesis Submission	1wk															

Appendix v:Research Budget

ITEM	DECRIPTION	UNIT	QTY	RATE	AMOUNT
	FIELD WORK EXPENSES				
	RESEARCH ASSISTANTS				
1.00	Wage for the Research Assistants	No	4	1,000.00	4,000.00
1.10	Lunch allowance for the Research Assistants	No	4	500.00	2,000.00
1.20	Transport Allowance for the Research Assistants	No	4	500.00	2,000.00
1.30	Accommodation for the research Assistants	No	4	500.00	2,000.00
	LEAD RESEARCH ASSISTANT				
2.10	Lunch allowance for the Lead Research Assistant	No	1	1,000.00	1,000.00
2.20	Accommodation for the Lead Research Assistant	No	1	1,000.00	1,000.00
	TRANSPORTATION				
3.00	Car hiring	No	1	3,000.00	3,000.00
3.10	Fuel	Item	1		3,000.00

				3,000.00	
	DAILY EXPENSES				**18,000.00**
	TOTAL EXPENSES FOR 2 WEEKS/10 DAYS				**180,000.00**
	CONTINGENCY/FACILITATION FEE				15,000.00
	TOTAL FIELD WORK BUDGET				**195,000.00**
	Printing, Publication and Binding of Final draft				50,000.00
	Contingency Amount				10,000.00
	TOTAL RESEARCH BUDGET				**255,000.00**