

The Influence of Project Life Cycle Management on Projects Performance of Prequalified Civil Works Contractors in Baringo County

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ABSTRACT: The state of affairs of projects in Baringo County impairs the ongoing concern due to debts and unfinished or stalled projects which the county treasury is carrying forward to subsequent financial years. These inconsistencies and anomalies remain a major challenge to the county's integrated development plan. This study sought to determine the influence of project life cycle management on project performance of prequalified civil works contractors in Baringo County. Specifically, the study sought to determine the influence of project initiation, project execution and project monitoring on project performance of the prequalified contractors in Baringo County. Descriptive research design was adopted and the study target population was the 53 prequalified civil works contractors from which census was conducted. Self-administered questionnaires were used in the study as data collecting instruments. Qualitative and quantitative data was analyzed using SPSS. The study findings revealed that initiation, execution, and monitoring have a positive significant influence on project performance. The study concluded that prequalified civil work contractors should improve on approach to project initiation, project execution and project monitoring. The study recommended improvement on scope statement, project planning process, communication, contract signing and payment, deliverables assessment, change control, progress report, and timely feedback and checklist.

KEY TERMS: *Project execution, project initiation, project monitoring, project performance and project life cycle*

I. INTRODUCTION

Project organizations often struggle with challenges of project delays, exceed budget and stakeholders dissatisfaction in the processes of managing projects. With growing user requirements, environmental responsibility, limited funds and high international competition, contractors must be able to enhance their performance today continuously (Samson & Lema, 2011). The working environment in which civil works companies operate continues to evolve rapidly throughout the world. While project management literature offers some suggestions for improving project life cycle management methodologies, institutions need support and guidance on which crucial project management improvement proposals to focus their attention (Thomas & Mullaly, 2018). Factors that affect project overall performance are project complexity, lack of manpower skills, shortcomings in organizational layout and skills, weak supervision and sometimes site management, inadequate leadership, lack of equipment and equipment breakdown, and many others, cause delays in the United Arab Emirates (Faradic & El-Saying, 2010). Research into Nokia projects in Africa (Sheiki, 2014) revealed a positive correlation between proper Earned Value Management (EVM) and project success.

Records at the Treasury of the Baringo County Government show a total of two hundred and fifty-five roll over or ongoing projects valued at Kshs 943,507,490. Additional review of the expenditure invoices, budget files and status reports of the construction projects by the Auditor General revealed the following anomalies; the roll over projects appears to be on an rising trajectory as Kshs ' balance / value increased. 50,798,082 from the past financial period and if this pattern continues, one billion shillings will be affected by the roll-over or ongoing projects which might not be sustainable given that the county government relies on disbursements from the national government. (Auditor General, 2018). Mwangi (2006) noted that 85% of the KPLC projects were late and incomplete; concluding that stakeholders, especially customers were dissatisfied. Telkom Kenya's parent company, France Telecom (FT) found out that customer satisfaction and efficiency of operation as key for future growth as outlined in their 2015-2020 strategic plans (France Telecom, 2015). This led to this study to determine the impact of project life cycle management on project performance in Baringo County by pre-qualified civil work contractors.

Statement of the Problem

The reality of today's project environment is that it is continually changing. The rapid changes in the development project, calls for innovative approach to project management (Behn, 2014). According to the Kenya auditor general's report (2018) some of the projects had stalled midway even after funds had been allocated to them; others were complete but have never been put to use while others were abandoned by contractors for lack of payment. The report further states the affairs of projects in Baringo County impairs the ongoing concern due to debts and unfinished or stalled projects which the county treasury is carrying forward to subsequent financial years (Auditor General Report, 2018). According to the report the county did not explain when these projects will be completed or indicate how they will be revived. These inconsistencies and anomalies remain a major challenge for the county's integrated development plan. This informed the concern for this study to determine the influence of project life cycle management on project performance of prequalified civil works contractors in Baringo County.

General Objective

The general objective of the study was to determine the influence of project life cycle management on projects performance of prequalified civil works contractors in Baringo County Government.

Specific Objectives

- i. To determine the influence of project initiation on project performance of prequalified civil works contractors in Baringo County.
- ii. To establish the influence of project execution on project performance of prequalified civil works contractors in Baringo County.
- iii. To find out the influence of project monitoring on project performance of prequalified civil works contractors in Baringo County.

Research Hypotheses

H₀₁:Project initiation has no significance influence on project performance of prequalified civil works contractors in Baringo County.

H₀₂:Project execution has no significant influence on project performance of prequalified civil works contractors in Baringo County.

H₀₃: Project monitoring has no significant influence on project performance of prequalified civil works contractors in Baringo County.

II. LITERATURE REVIEW

Open Systems Theory

Karl Ludwig Von Bertalanffy conceptualized the theory of open systems for use in the biological sciences in 1928. Ross Ashby further developed the theory in 1956. The theory of systems analyzes the interconnections within a system between different parts and how these interconnections can be optimized to improve the system's functioning. Kwame, (2013) further implies that the basis of the system theory is the interconnection between the system components and the system function and or sub-systems inside the system are influenced by various system components. The system does not operate in seclusion, but exists in an environment that influences its operation. Diverse stakeholders are involved in these environmental aspects. The theory of systems supposes that all large organizations consist of numerous subsystems, which each receives input from those other subsystems and transforms them into outputs for other subsystems to use. The theory of systems applies to this study in the context that project performance can be considered as a system influenced by various components such as project initiation, project execution and project monitoring. These components are also affected by various environmental aspects that lead to expenditure on time and costs as well as possible variance from the set timeframes, standards and quality elements. This theory is used to test the one and two hypothesis.

The life Cycle Approach

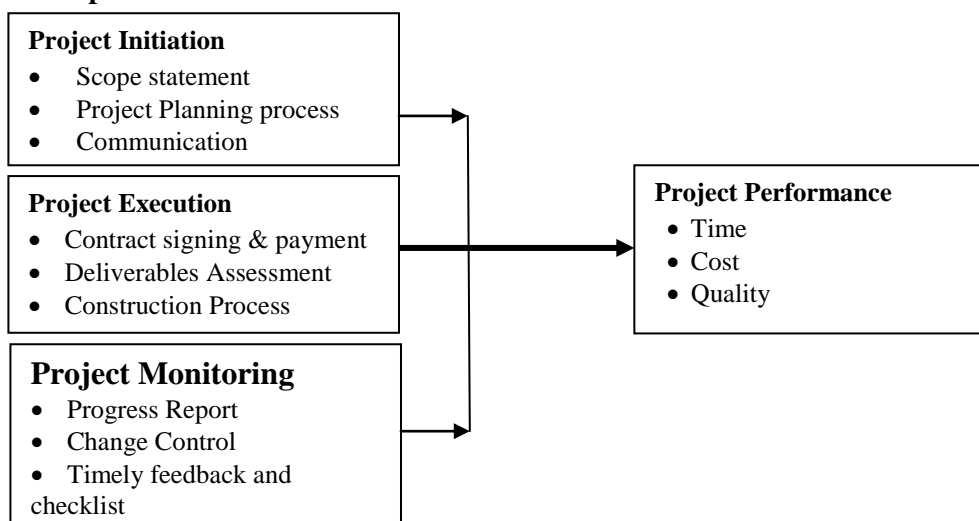
Birth, growth, maturity, decline and death biological life cycles are the basis of business life cycles. The sentient biological life cycle is considered to be applicable to a wide range of corporate entities. With it originating in the 1950s (Dean 1950s) in product pricing, the life cycle was assumed to be a widely recognized concept within a decade (Levitt 1965). Life-cycle approaches have been developing and expanding since then (Cao and Zhao 2011). The phrase 'life cycle' is now used in numerous areas and in different contexts and for organizations, products, software development, information technology and processes there are life cycles. The perspective of the life cycle gives a useful framework from which to design an entity's holistic view, since the approach allows for a systematic evaluation of all its aspects. Every life cycle consists of stages. A stage in the life of the entity is

defined as a major period that can be distinguished from what happened before and after it. The perspective acknowledges and emphasizes that at each stage of its life, various factors affect the entity. A life cycle can be used to gain knowledge and control, to plan operations and to predict / forecast (Kotler and Keller 2012). This approach is applicable to this study as it explains the significance of each stage of the project's life cycle.

Theory of Constraints

Constraint theory started as a manufacturing scheduling aid developed by Eliyahu Goldratt (1970), calling it 'optimized production time table' and was rapidly developed into a software package commonly referred to as optimized production technology. A decade later, Goldratt and others realized that what was wanted was to convince people to change ways, instead of tailoring the package to simply automate their old policies and procedures. The theory aims to initiate and execute breakthrough advancements by concentrating on a constraint that prohibits a higher level of performance. According to Yeganegi and Safaeian (2012), the theory of constraints paradigm basically states that each company must have at least one limitation. Goldratt and Cox defined constraint as any component or key factor that restricts the system from doing of what it was designed to achieve—that is achieving its objective (Yeganegi & Safaeian, 2012).

Conceptual Framework



Independent Variables

Dependent Variable

Figure 1: Conceptual Framework

III. RESEARCH METHODOLOGY

Research Design

Research design is defined as strategies put in place to combine different components of a research with an aim of meeting the research objectives (Mugenda & Mugenda, 2003). Research design is also defined as the blue print or guidelines that outline the procedures to be undertaken in data collection, analysis and reporting Adan, (2015). This study utilized the descriptive research design. The descriptive research helps probe specific aspects of study variables by collecting the information of a set of parameters known beforehand that was desirable to collect data about (Churchill & Iacobucci, 2005).

Target Population

A population is a well-defined set of people, services, elements, and events, group of things or households that are being investigated (Mugenda & Mugenda, 2003). This study targeted fifty three prequalified civil works contractors in Baringo County.

Sampling Frame

Sampling frame or "sample frame" has been defined as the actual set of units from which a sample has been drawn. For this study, the sample was drawn from the organization structures of the prequalified civil works contractors in Baringo County. The major focus for this study was the project managers of the prequalified civil works contractors.

Sampling Technique

According to Noy (2016), statistical sampling techniques are strategies applied by researcher during the statistical sampling process. The study used census technique due to the size of the population. According to Lohr (2014) a census is an investigation of each unit in a population.

Data Collection Instrument

The data collection instrument is the device used to collect research data from a sample group. The study relied on primary data that was collected using semi structured questionnaire that will be administered by drop and pick methods.

IV. RESEARCH FINDINGS AND DISCUSSIONS

Descriptive Analysis

The study sought to examine the influence of project life cycle management on projects performance of prequalified civil works contractors in Baringo County Government. The main project life cycle management models studied included project initiation, project execution, and project monitoring while the dependent variable was projects performance of prequalified civil works contractors in Baringo County Government.

Influence of project initiation on project performance of prequalified civil works contractors in Baringo County.

This section is in line with the first study objective which sought to determine the influence of project initiation on project performance of prequalified civil works contractors in Baringo County. Table 1.0 shows the statistical results in details.

Table 1.0: Descriptive Statistics on Project Initiation

	N	Minimum	Maximum	Mean	Std. Deviation
The project scope is clearly stated and easy to understand	42	1	5	3.7619	1.00752
Planning process accommodated diverse inputs from stakeholders	42	2	5	3.5952	.88509
The project progress report is communicated regularly to stakeholders	42	1	5	3.7619	1.12205
Project plan are detailed and easy to understand.	42	2	5	4.1667	.76243
Project plan clearly indicates the sequence of activities	42	1	5	3.6667	1.07446
Community members were involved in project needs analysis	42	1	5	3.5952	1.10563

From Table 1.0, the findings of the study established that the participants strongly agreed that the project scope is clearly stated and easy to understand, with a mean of 3.7619 with standard deviation of 1.00752. This concurs with Njau (2017) who found out that project scope performance influence project performance at Kenya National Youth Service. Scope management techniques enable project managers and supervisors to allocate just the right amount of work necessary to successfully complete a project; concerned primarily with controlling what is and what is not part of the project's scope. Also in agreement is Wawasi (2017) who showed that project scoping is a key factor in determining the performance of any project. The project scope consists of enough detail to clarify the purpose of the project, the expected benefits and any constraints (such as time, budget, and technology). It is necessary at the start of the project whether or not you have a detailed requirements document.

However, as with any element of a project it is not set in stone and there must be provision for changing the scope, but only in a controlled manner. (Swanson, 2016)

The findings established that planning process accommodated diverse inputs from stakeholders, with a mean 3.5952 within a standard deviation of 0.88509. According to Friedman (2016), project planning is setting up a predefined course of action in an anticipated environment. Furthermore, the researcher believes that the planning process must be systematic, flexible, disciplined and able to accommodate input from a variety of applications. When iterated, the planning process is most effective and happens throughout the project's life. Indeed, substantial planning is required for each phase of the project processes. Subsidiary plans are integrated in the overall project plan for each stage. The final comprehensive plan defines the execution, monitoring and control of the project and closure of the project.

It was also established that project progress report is communicated regularly to stakeholders with a mean of 3.7619 within a standard deviation of 1.12205. According to Migwi (2017) stated that communication in projects by relevant bodies is essential and of greatest benefit because of the improved insight they provide concerning project completion status. Even the best-laid project can go awry if not properly monitored. Through proper communication, delays can be readily identified, periodic reports that are made is also very helpful. His study pointed towards the value that community engagement can bring to project sustainability. Right from project planning and design to implementation and evaluation and monitoring, the community can play a bigger role. The project key players and the community at large should be aware that any commissioned project is like a debt that needs to be re-paid through proper management to ensure attainment of stated objectives.

It was also established that project plan is detailed and easy to understand with a mean of 4.1667 within a standard deviation of 0.76243. A clear and well-defined project plan can decrease the project's risks, failure, and cost. Initiation and planning of projects is a critical phase of project management. It begins with a collaborative project stakeholder meeting to clearly understand project success goals, achievements and criteria (Kamau & Mohamed, 2015). The desired results and benefits are clearly outlined, measured and agreed at this stage. Detailed tasks to be carried out to meet the triple constraints as well as expected objectives and benefits are drawn into the project plan (Herscovitz, 2016).

Further the respondents concurred with a mean of 3.6667 within standard deviation of 1.07446 that project plan clearly indicates the sequence of activities. Detailed tasks to be carried out to meet the triple constraints as well as expected objectives and benefits are drawn into the project plan (Herscovitz, 2016). The ensuing plan offers details on how to deliver the desired outcomes and benefits; key stakeholder management; determines the resources required and their accessibility. The plan also gives details of the risks involved and the risk mitigation plan; the procedures and metrics for monitoring and controlling. Finally, the closure process is determined and the closure mechanism and checklist must be approved by all parties. It comprises of the practices and documentation that mark the formal conclusion of a project

It was also established that community members were involved in project needs analysis with a mean of 3.5952 within a standard deviation 1.10563. This concurred with the study Munyori and karanaja (2018) by the influence of stakeholder participation on Enterprise Resource Planning projects performance. It found that it had a positive and significant effect on enterprise resource planning projects on the performance of retail supermarkets in Kenya This findings especially that of involvement of community members are consistent with those findings of (Jugdev, & Muller, 2015) whose study reported that when members of the community are engaged in identifying their needs, they can have a mutual understanding of a problem and treat it with the importance it needs and commit themselves to solving it. Instances where they are taken for granted at this stage will be difficult to legitimize even if they have been assisted by the outside world to identify needs. This leads to the possibility of disruptions during the implementation phase.

Influence of Project Execution on Project Performance of Prequalified Civil Works Contractors in Baringo County

This section is in line with the second study objective which sought to establish the influence of project execution on project performance of prequalified civil works contractors in Baringo County. Table 1.1 shows the statistical results in details

Table 1.1: Descriptive Statistics on Project Execution

	N	Minimum	Maximum	Mean	Std. Deviation
The contract signing and payment of contractors was made on time	42	1	5	3.6429	1.03173
Progress reports and change request is documented within the time given	42	2	5	4.0000	.82639
There is enough time to implement variation orders	42	1	5	3.9762	1.02382
The project plan is shared to members of the project team and guides activities of the project	42	2	5	4.3095	.71527
Project sequence of activities is followed during the project	42	2	5	4.1429	.81365
Project milestone is regularly assessed	42	2	5	3.9286	.86653

From the findings as in Table 1.1, it was established Baringo county government made the contract signing and payment of contractors on time with a mean of 3.6429 within a standard deviation 1.03173 that. A study by Hassan (2017) focused on factors affecting the performance of road construction projects in Kenya, majority have focused on projects undertaken by local contractors. Findings showed that procurement process of projects were relevant in the timely development objectives and goals of Kenya. It was noted that sustainability was not well defined meaning that it did not meet the expectations of the respondents. Contractual delay is noted to be a manifestation of failure by contractual parties involved to perform their obligations under the contract. Such obligations include timely payment of workers for accomplished construction works as well as timely mobilization of necessary equipment or machinery and manpower, amongst others. A study by Okeyo, Rambo and Odundo (2015) showed that half of the participants identified delayed payment of the contractor for completed works as one of the factors that may contribute to delay in the project's completion. Participants attributed delayed payments to late disbursement of funds by the financier and the employer's inefficient financial management system

Also it was established that progress reports and change request are documented within the time given shown by a mean of 4.0 within a standard deviation of 0.826. A number of factors affect the project direction during implementation (Kagiri, 2015), outlined the key characteristics of this phase of development. First, project inputs at this stage also included the plan, the requests for change, the environmental aspects of business and the policies and assets of organization. Second, the tools and techniques available during execution affect the project's progress. These include information systems for project management, meetings of stakeholders and project teams, communication channels and activities for monitoring and control. Deliverables are evaluated and measured during execution; requests for change are affected and documented; project documents are updated to reflect requests for progress and change.

It was also established that here is inadequate time to implement variation orders with a mean of 3.9762 within a standard deviation 1.02382. A study by Westland (2016) stated that plans are executed exactly as written in a perfect world. In truth, with such accuracy, no plan is ever normally executed this way. Plans are documents that can not envisage all possible events. The project team must regularly monitor its performance in relation to the benchmark project plan on an ongoing basis during execution. The project team and stakeholders can assess the progress of the project by measuring and evaluating the actual implementation of project activities against the baseline plan. Heravi and Seresht (2018) in South Korea sought to investigate the delay risk factors of the non-critical activities are identified and a new methodology is proposed for prioritizing the non-critical activities to improve the planning process of the construction projects. Prioritization of the non-critical activities enhances the project manager's vision toward the risks incorporated with using the float time of each individual activity due to the fact that multiple criteria need to be considered for prioritizing the non-critical activities.

It was also established that the project plan is shared to members of the project team and guides activities of the project shown by a mean of 4.3095 within a 0.71527. The implementation of the project plan is merely a case of performing tasks and activities resulting in the deliverables of the project being produced. It is necessary to complete the tasks and activities quickly and effectively. The project plan for all project team members provides as a road map and a central frame of reference (McConville, 2009). Therefore, the project plan is the basis for successful project delivery. Due to project management requirements for tight end-date-drive schedules it is imperative that resource scheduling takes center stage to ensure high project performance. A study by Obegi and Kimutai (2017) found out that resource scheduling and project performance of international not-for-profit organizations in Nairobi County, Kenya

It was established that project sequence of activities is followed during the project as shown by a mean of 4.1429 within a standard deviation of 0.81365. The execution phase entails carrying out project tasks (Kagiri, 2015), so it is the process of ultimately leading and conducting work as described in the management plan and making authorized changes to achieve the set goals. This stage is typified by constant project performance, requests for change, tracking and control, risk, quality, communication and management of stakeholders (Karani, 2010). A study by Said (2017) showed that to effective management of time improved performance at Kenya Post Bank, Nairobi.

It was established that project milestone are regularly assessed shown by a mean of 3.9286 within a standard deviation 0.86653. A study Arumuga (2012) submitted that today's global, fast-track projects require procurement, construction and engineering contractors to effectively manage and execute projects involving the simultaneous involvement of numerous design centers around the world, while maintaining a handle on project schedule and costs. They also require helping preserve their "best practice" design information for re-use on other future projects, increase productivity, and preserve their knowledge of the company. The outcomes of the engineering execution plan clearly demonstrated the efficiency of using multiple design facilities to maximize the engineering execution method.

Influence of Project Monitoring on Project Performance of Prequalified Civil Works Contractors in Baringo County

This section is in line with the third study objective which sought to establish the influence of project monitoring on project performance of prequalified civil works contractors in Baringo County. Table 1.2 shows the statistical results in details.

Table1.2: Descriptive Statistics on Project Monitoring

	N	Minimum	Maximum	Mean	Std. Deviation
The firm keeps project performance and Audit reports	42	2	5	4.0476	.85404
Project progress is continuously monitored against project plan	42	1	5	4.0476	1.01097
A project valuation checklist is maintained by contractor	42	2	5	3.9048	.93207
Reports and documentation were prepared within the time given	42	1	5	3.9048	1.10010
Monitoring progress of works is done solely by consultant's routine visits	42	2	5	4.0000	.85540
Site meetings is conducted only in response to peculiar problems at site	42	2	5	3.9048	.98301
Monitoring progress is carried out irrespective of regularity in payment to contractor	42	2	5	3.8571	.92582
Monitoring techniques and tools were accurate in measuring the project progress	42	2	5	4.0000	.91064

Table 1.2 established prequalified contractors keeps project performance and Audit reports with a mean of 4.0476 within a standard deviation of 1.068. Project monitoring is the systematic and regular collection and analysis of data over a period of time to identify and measure changes. Monitoring involves the collection of data prior to and during project implementation (Musinya, 2011). The primary purpose of monitoring is to document the implementation process, facilitate decision making, and provide feedback for plan review and lessons learnt. It tracks the project progress towards achieving the stated objectives within project constraints; identifies deviations; evaluates alternative courses of action and takes remedial actions (Norrie, 2016). Monitoring and control cycle consists of: making a plan; implementing the plan; monitoring and recording the actual output; reporting the actual output, the planned parameters and the variations and finally; taking corrective action on the variations (Okereke, 2017). A study by Muchelule (2018) on the influence of monitoring practices on project performance of Kenya State Corporations found out that monitoring techniques and its adoption contributes to project performance significantly as well as monitoring planning and tools contributes to organization performance.

It was established that the project progress is continuously monitored against project plan indicated with a mean of 4.0476 within a standard deviation 1.01097 that. According Masila, (2016) that project monitoring and control have increasingly become key functions of project management as projects grow bigger and more complex. It is the process of tracking, analyzing and reporting progress with respect to objectives. This task helps stakeholders to understand the current state of the project, activities undertaken, and the budget, schedule and scope forecasts (Masila, 2016). This also concurred with Wawasi (2017) who sought to find out factors influencing the performance of Kenya Industrial Estates Limited Micro, Small and Medium Enterprises (MSME's) projects in Nairobi City County, Kenya and revealed out that 33% of the respondent showed that project monitoring on monthly basis had the highest score, then quarterly basis monitoring scored 26%, annual basis at 14%, weekly basis at 10% and lastly daily basis at 6%.

It was established that a project evaluation checklist is maintained by contractor with a mean of 3.9048 within a standard deviation 0.93207. Stufflebeam's (2002) stated that evaluation Plans checklist is a guide for planning and conducting an evaluation. Placement in the evaluation planning and management category, it identifies several factors that should be considered in terms of the evaluation's conceptualization, sociopolitical factors, contractual arrangements, technical design, management plan, moral/ethical imperatives, and utility provisions. A study by Kahugura (2017) on the influence of project management practices on the performance of mobile money transfer in Kenya established that there is a significant correlation between monitoring and evaluation, risk management, project leadership skills, stakeholders' participation and performance at Orange Money

It was established and the reports and documentation were prepared within the time given with a mean of 3.9048 within a standard deviation 1.10010. Project monitoring is the systematic and regular collection and analysis of data over a period of time to identify and measure changes. Monitoring involves the collection of data prior to and during project implementation (Musinya, 2011). The primary purpose of monitoring is to document the implementation process, facilitate decision making, and provide feedback for plan review and lessons learnt. Project control is project management function that comprises of monitoring, evaluating and comparing actual versus planned results. It tracks the project progress towards achieving the stated objectives within project constraints; identifies deviations; evaluates alternative courses of action and takes remedial actions (Norrie, 2016)

It was also established that the monitoring progress of works is not done solely by consultant's routine visits with a mean of 4.0000 and standard deviation 0.85540. This task is carried out throughout the life of the project by taking measurements that help the project team understand progress. This stage has an impact on the business objectives and acceptance of the eventual project outcome in terms of quality. By applying the Deming cycle or the plan-do-check-act cycle philosophy Achieng, (2018) to this project stage, the project team ensures project specifications and constraints are adhered to as closely as possible. Indeed, this philosophy is affirmed by the theory of constraints as applied by organizations and project managers, who work towards continually improving their ability to meet project commitments of budget, time and quality through the nature of project planning, project scheduling, project visibility and control, resource behavior and multiple project synchronization (Killen, Mulvey, & Hitti, 2012).

It was also established that site meetings is conducted only in response to peculiar problems at site with a mean of 3.9048 within a standard deviation of 0.98301. Participatory monitoring is one of the techniques used in the monitoring of performance. The World Bank (2012) defines participatory monitoring as the technique that involves stakeholders such as the project beneficiaries, staff, and government and community in the design and

implementation of the project monitoring as opposed to the conventional technique. Ideally, all the stakeholders in the participatory monitoring are involved in identifying the project, the objectives and goals, and identification of the indicators that were used in monitoring. The stakeholders may be involved in collection and analysis of the data. The role of the managers of the project is to facilitate the monitoring process.

It was also established that the civil works prequalified contractors carry out monitoring progress is irrespective of regularity in payment to contractor with a mean of 3.8571 and standard deviation of 0.92582. Internal controls are processes designed and implemented by those charged with governance, management, and other personnel to provide reasonable assurance about the achievement of an entity's objectives with regard to reliability of the financial reporting, effectiveness and efficiency of operations and compliance with applicable laws and regulations (Norrie, 2016). Internal control systems play an important role in every organization as it assist in realization of their financial performance goals. A study by Kinyua et al (2015) studied the effect of internal control systems on financial performance of companies quoted in the Nairobi Securities Exchange (NSE) and concluded that there was significant association between internal control environment and financial performance recommends that internal control environment should be enhanced to further improve the financial performance of companies quoted in Nairobi Securities Exchange

It was also established that monitoring techniques and tools were accurate in measuring the project progress with a mean of 4.0000 within a standard deviation of 0.91064. These findings are consistent with (Swanson, 2016) who stated that well prepared plans include subsections that explain scope management, requirements, schedule, cost, quality, risk, resources, improvement of processes, and stakeholders. Mladenovic et al (2013) also established a two layers technique for the assessment of Private-Public Partnership projects. The first stage is based on a monitoring of ultimate project objectives from the standpoint of each stakeholder, i.e. profitability for the private sector, effectiveness and value for money for the public sector, and level of service for users. The balanced scorecard is another technique that evaluates projects by four perspectives which are the financial perspective, customer perspective, internal business process, and learning & growth. Other techniques include stochastic methods, Fuzzy logic model, and miscellaneous methods. Of all the methods, the Earned Value Analysis (EVA) has remarkable advantages in accuracy, flexibility, and adaptability for project complexity. This may have contributed to Malaysian government deciding to implement EVA to enhance the level of project management for the whole country (Abdul-Rahman, Wang, & Muhammad, 2011).

Influence of Project Performance on Project Performance of Prequalified Civil Works Contractors in Baringo County

This section entails an analysis of the dependent variable (Project Performance). It examined the perceptions held on the project performance of prequalified civil works contractors in Baringo county Kenya. Table 1.3 shows the descriptive statistics and results in details.

Table 1.3: Descriptive Statistics on Project Performance

	N	Minimum	Maximum	Mean	Std. Deviation
The activities are completed as per the delivery timeline	42	1	5	3.5952	1.10563
The cost of project is as per the budget allocated	42	1	5	3.6429	1.03173
The number of project deliverables has improved in the recent financial period	42	2	5	4.0000	.82639
The quality of the work is as per the specification	42	1	5	3.9762	1.02382
There has been minimum disputes during the project life cycle	42	2	5	4.3095	.71527
Prolonged delays on the project completion time make a project obsolete	42	2	5	4.0952	.82075

As outlined in Table 1.3, it was established that the activities are completed as per the delivery timeline participants concurred with a mean of 3.5952 within a standard deviation of 1.10563. The criteria with a greater subjective element, such as organizational effects and stakeholder's perceived satisfaction, are related to project success, whereas technical aspects relating to the triple constraint (time, scope, and quality) are measurement criteria related to project management success (Freeman & Beale, 2014). Project quality refers to the extent to which the project meets the specifications or the requirements defined by the client. This dimension of project performance also focuses on the impact of the project on the intended beneficiaries (Omolo, 2015). Project quality is a critical determinant of project performance. For a project to be considered to be of high performance, it must meet the purpose for which it was created. It must satisfy the client's expectations and requirements.

It was also established that the cost of project is as per the budget allocated as shown by with a mean of 3.6429 within a standard deviation 1.03173. A defining characteristic of projects is that they consume resources in order to deliver the expected outcomes (IRENA, 2017). Project management principles emphasize the need to estimate project costs before the project begins in order to enable stakeholders to determine the viability of the project regarding whether its objectives will be met or not. A project is considered viable when estimated cost does not exceed expected benefits.

It was also established that the number of project deliverables has reduced in the recent financial period with a mean of 4.0000 within a standard deviation 0.82639. As indicated by Manakin (2010), quality confirmed through an arranged and deliberate survey procedure of a foundation or program to decide if worthy principles of a project are being met, kept up and upgraded. Basically, quality confirmation frameworks plan to give proper proof to ascertain claims made about quality thus empower project managers to have certainty about value and the level of result accomplished. This concurred with the study by Olali and Simba (2017) to establish the project based factors influencing the supply of safe water in Kenya with Mombasa and concluded that the water projects in Mombasa County had increased quality management techniques. This was evidenced by the increase of safe water supplied to the Mombasa residents, by the water projects. The sustained improved quality controls under quality management in project deliverables contributed to more supply of safe water in Mombasa County

In addition, it was established that the quality of the work is as per the specification with a mean of 3.9762 within a standard deviation of 1.02382. Quality management is the extent to which the final deliverable conforms to the customer requirements or fitness of use (Cleland et al 2006). They further explain that, it is a process by which quality is assured and controlled using quality assurance and quality control techniques. They proceed and suggest that it is the process of ensuring that all activities for design, plan and implementation are effective and efficient. They also note that, quality management is a continuous process from the start to the end and it involves project monitoring along the way. It conflicted with the study by Odhiambo and Kaibui (2016) who investigated the role of stakeholders in implementation of air safety projects in the aviation industry at JKIA and concluded that the level of implementation of air safety projects had not acquired the expected level of performance in terms project quality, scope and delivery within schedule.

It was also established that there has been minimum disputes during the project life cycle with a mean of 4.3095 within a standard deviation of 0.71527. Kumaraswamy and Yogeswaran, (2014) stated in the construction industry, since differences in perceptions among the participants of the projects, conflicts are inevitable. If conflicts are not well managed, they are quickly turned into disputes. Disputes are one of the main factors which prevent the successfully completion of the construction project. Thus, it is important to be aware of the causes of disputes in order to complete the construction project in the desired time, budget and quality.

Finally, it was established that prolonged delays on the project completion time make a project obsolete with a mean of 4.0952 and standard deviation of 0.82075. This results were in line with the study by Kikwasi (2012) revealed that the main causes of delays and disruptions in Tanzania are: design changes, delays in payment to contractors, information delays, funding problems, poor project management, compensation issues and disagreement on the valuation of work done. On the other hand, time and cost overrun, negative social impact, idling resources and disputes were found to be the main effects of delays and disruptions. In addition the study by Nakhumicha and Macharia (2017) to establish the factors influencing completion of CDF funded development projects in secondary schools in Imenti North Sub County, Kenya that concluded that funds for completion of projects from CDF in secondary schools were insufficient and unreliable. Completion of the projects is also compromised by the poor relations between various stakeholders due to personal interests and allowing negative politics to interfere with equitable distribution of available resources among school.

Correlations Analysis

The Pearson product-moment correlation coefficient was used to obtain a measure of the strength of association between two variables (Independent and Dependent). The Pearson correlation coefficient, r , can take a range of values from +1 to -1. A value of 0 indicates that there exists no association between the independent and the dependent variables while a value greater than 0 indicates a positive association meaning that an increase in the value of one variable leads to the increase in the other. A value less than 0 indicate a negative association meaning that a decrease in the value of one variable would lead to a decrease in the value of the other.

Correlation Analysis for Project Initiation and Project Performance of Prequalified Civil Works Contractors in Baringo County

This section outlines the results of correlation analysis between Project Initiation and Project Performance of Prequalified Civil Works Contractors (Table 1.4). The findings were interpreted and discussed accordingly.

Table 1.4: Correlations between Project Initiation and Project Performance

		Initiation	Performance
Initiation	Pearson Correlation	1	.655**
	Sig. (2-tailed)		.000
	N	42	42

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

The correlation analysis results in Table 1.4 revealed that there was a positive and a strong significant association between project initiation and project performance of as supported by ($r=0.655$, $p=0.000$). This implied that both project initiation and project performance change in the same direction. . A study was conducted by Musyoki and Kilika (2017) supported this by showing there was a statistically significant positive correlation between the project initiation and project performance.

Correlation Analysis for Project Execution and Project Performance of Prequalified Civil Works Contractors in Baringo County

This section outlines the results of correlation analysis between Project Execution and Project Performance of Prequalified Civil Works Contractors (Table 1.5). The findings were interpreted and discussed accordingly.

Table1.5: Correlations between Project Execution and Project Performance

		Execution	Performance
Execution	Pearson Correlation	1	.863**
	Sig. (2-tailed)		.000
	N	42	42

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

The correlation analysis results in Table 1.5 revealed that there was a positive and a strong significant relationship between Project Execution and Project Performance of Prequalified Civil Works Contractors as supported by ($r=0.863$, $p=0.000$). This implied that both Project Execution and Project Performance change in the same direction. A study by Said (2017) on how to manage time in order to improve performance, assessed time management in improving organizational performance in the banking industry in Kenya that revealed that time management had a great role to play in organizational performance at Kenya Post Bank.

Correlation Analysis for Project Monitoring and Project Performance of Prequalified Civil Works Contractors in Baringo County

This section outlines the results of correlation analysis between Project Monitoring and Project Performance of Prequalified Civil Works Contractors (Table 1.6). The findings were interpreted and discussed accordingly.

Table1.6: Correlations between Project Monitoring and Project Performance

		Monitoring	Performance
Monitoring	Pearson Correlation	1	.391*
	Sig. (2-tailed)		.010
	N	42	42

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

The correlation analysis results in Table 1.6 revealed that there was a positive and a significant relationship between Project Monitoring and Project Performance of Prequalified Civil Works Contractors as supported by ($r=0.391$, $p=0.010$). This implied that both Project Monitoring and Project Performance change in the same direction. A study by Muchelule (2018) to investigate the influence of monitoring practices on project performance of Kenya State Corporations found out that monitoring techniques and its adoption contributes to project performance significantly as well as monitoring planning and tools contributes to organization performance. These findings are also consistent with those by Kahugura (2017) whom conducted a study on the influence of project management practices on the performance of mobile money transfer in Kenya and established that there was a significant correlation between monitoring and evaluation, risk management, project leadership skills, stakeholders' participation and performance of Orange Money.

Regression Analysis

The multiple linear regressions were undertaken for the purpose of examining the influence of project life cycle management on projects performance. The model summary on Table 1.7 indicated a multiple linear correlation coefficient R of 0.935 which indicated that the independent variables (Project Initiation, Project Execution and Project Monitoring) had a positive correlation with the dependent variable. The coefficient of determination (R Square) of 0.875 indicated that the independent variable constituted 87.5% of the variance in the dependent variable. These results therefore explained 87.5% while the 12.5% is explained by other variables outside the scope of this study.

Table 1.7: Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.935 ^a	.875	.865	.1826

a. Predictors: (Constant), Monitoring, Execution, Initiation

b. Dependent Variable: Performance

In order to examine on whether the data was good fit for regression model, the ANOVA was undertaken and the data being good fit for data was tested at 5% level of significance. Since from the Table 1.8 the observed p value was 0.000 which was less than 0.05 (5%), it therefore implied that the regression model was good fit for data. This implies that the probability of the regression model giving wrong prediction effect on the dependent variable is 0% which is less than the set level of significance of 5%. Therefore, the regression model was adopted.

Table 1.8: ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	8.841	3	2.947	89.303	.000 ^b
	Residual	1.267	38	.033		
	Total	10.108	41			

a. Dependent Variable: Performance

b. Predictors: (Constant), Monitoring, Execution, Initiation

To examine the influence of the independent variables on the dependent variables, multiple regression analysis was as shown in Table 1.9. The optimal model was;

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

$$Y = 0.068 + 0.289 X_1 + 0.870 X_2 - 0.174 X_3 + 0.324$$

Where; Y represents Project Performance of Prequalified Contractors in Baringo County

X₁ represents Project Initiation

X₂ represents Project Execution

X₃ represents Project Monitoring

e represents Error Term

The regression coefficient of 0.289 for the project initiation implied that a unit increase in project initiation with the other variables left constant would lead to a 0.289 increase in project performance. The regression coefficient of 0.870 for project execution implied that a unit increase in project execution would lead to a 0.870 increase in project performance with the other independent variables kept constant. The regression coefficient of -0.174 for the project monitoring implied that a unit increase in project monitoring with the other variables left constant would lead to a 0.174 decrease in project performance with the other independent variables kept constant.

Table 1.9: Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.068	.324		.209	.835
	Initiation	.289	.046	.419	6.277	.000
	Execution	.870	.076	.759	11.501	.000
	Monitoring	-.174	.086	-.139	-2.037	.049

a. Dependent Variable: Performance

Hypothesis Testing

The first hypothesis was tested under the null hypothesis;

H₀₁: Project initiation has no significance influence on project performance of prequalified civil works contractors in Baringo County.

The hypothesis was tested by determining the relationship between project initiation and project performance using multiple regressions whose results are shown on Table 1.9. The test was done at a significant level 0.05. The test results show that there exists a statistically significant correlation between project initiation and project performance ($\beta = 0.289$, $\rho = 0.000 < 0.05$). The result leads to the rejection of the null hypothesis, hence a conclusion that there exists a significant influence of project initiation on project performance of prequalified civil works contractors in Baringo County.

H₀₂: Project execution has no significant influence on project performance of prequalified civil works contractors in Baringo County.

The hypothesis was tested by determining the relationship between project execution and project performance using multiple regressions whose results are shown on Table 1.9. The test was done at a significant level 0.05. The test results show that there exists a statistically significant correlation between project execution and project performance ($\beta = 0.870$, $\rho = 0.000 < 0.05$). The result leads to the rejection of the null hypothesis, hence a conclusion that there exists a significant influence of project execution on project performance of prequalified civil works contractors in Baringo County.

H₀₃: Project monitoring has no significant influence on project performance of prequalified civil works contractors in Baringo County.

The hypothesis was tested by determining the relationship between project monitoring and project performance using multiple regressions whose results are shown on Table 1.9. The test was done at a significant level 0.05. The test results show that there exists a statistically significant correlation between project monitoring and project performance ($\beta = -0.174$, $\rho = 0.049 < 0.05$). The result leads to the rejection of the null hypothesis, hence a conclusion that there exists a significant influence of project monitoring on project performance of prequalified civil works contractors in Baringo County.

V. SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary of the Study Findings

The first objective was to determine the influence of project initiation on project performance of prequalified civil works contractors in Baringo County. Descriptive results revealed that the project scope is clearly stated and easy to understand. The respondents further concurred that planning process accommodated diverse inputs from stakeholders. However, with regards to progress report, the respondents largely agreed that the project progress report is communicated regularly to stakeholders. The study revealed that project plan is detailed and easy to understand. The respondents concurred that the project plan clearly indicates the sequence of activities. It was also established that community members were involved in project needs analysis. To establish the effect of project initiation on project performance of prequalified civil works contractors in Baringo County, correlation analysis showed that there was found a positive and a strong significant association between project initiation and project performance. The hypothesis results indicated that there exists a statistically significant correlation between project initiation and project performance

The second objective was to find out the influence of project monitoring on project performance of prequalified civil works contractors in Baringo County. Descriptive results revealed that progress reports and change request are documented within the time given, that there is inadequate time to implement variation orders, the project plan was shared to members of the project team and guides activities of the project, project sequence of activities

is followed during the project and that project milestones are regularly assessed. Correlation analysis showed that there was a positive and a strong significant relationship between project execution and project performance of prequalified civil works contractors. The hypothesis results indicated that there exists a statistically significant correlation between project execution and project performance

The third and final objective was to find out the influence of project monitoring on project performance of prequalified civil works contractors in Baringo County. Descriptive results revealed that the firm keeps project performance and Audit reports, project progress is continuously monitored against project plan, project evaluation checklist is maintained by contractor, that monitoring of progress of works is not done solely by consultant's routine visits, reports and documentation were prepared within the time given, site meetings are not conducted only in response to peculiar problems at site, monitoring progress is carried out irrespective of regularity in payment to contractor and that monitoring techniques and tools were accurate in measuring the project progress. Correlation analysis showed that there was a positive and a strong significant relationship between project monitoring and project performance of prequalified civil works contractors. The hypothesis results indicated that there exists a statistically significant correlation between project monitoring and project performance

Conclusions of the Study

The study concluded that prequalified civil works contractors embraced project initiation and its influence project performance. As shown by the correlation and regression analysis which portrayed a positive correlation between project initiation and project performance. Besides the hypotheses test supported the same as the results indicated that there exists a statistically significant correlation between project initiation and project performance. The study concluded that prequalified civil works contractors embrace project execution and its influence project performance. As shown by the correlation and regression analysis which portrayed a positive correlation between project execution and project performance. Besides the hypotheses test supported the same as the results indicated that there exists a statistically significant correlation between project execution and project performance. The study concluded that prequalified civil works contractors embrace project monitoring and its influence project performance. As shown by the correlation and regression analysis which portrayed a positive correlation between project monitoring and project performance. Besides the hypotheses test supported the same as the results indicated that there exists a statistically significant correlation between project monitoring and project performance.

Recommendations of the Study

The study recommends that prequalified contractors need to employ project execution techniques to improve the project performance of county governments and consider clearly stating the project scope. Also the county governments should consider accommodating diverse inputs from stakeholders and the prequalified civil works contractors should communicate progress reports regularly to stakeholders. The county governments should provide detailed project plans and easy to understand. The study recommends that prequalified contractors need to maintain progress reports and change requests within the time given. Besides the study recommends that the prequalified civil works contractors should share the project plan to members of the project team, guides activities of the project and follow the project sequence of activities during and the project ensure that monitoring techniques and tools are accurate in measuring the project progress. County governments should regularly assess the project milestone and should continuously monitor project progress against the project plan. The study recommends that prequalified contractors should always keep project performance reports, maintain project valuation checklists, and prepare reports and documentation within the time given. The county governments should ensure that the site meetings are not conducted only in response to peculiar problems at site. The study recommends that monitoring progress be carried out irrespective of regularity in payment to contractor.

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