Project Contract Management and Performance of Water Project in Baringo County, Kenya.

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Purpose: This study sought to explore on projects contract management and performance of water contract in Baringo County, Kenya. The specific objectives of the study were: To determine the effect of project planning, community participation, project implementation and project evaluation on performance of contracts in Baringo County, Kenya.

Keywords: project planning, community participation, project implementation and project evaluation on performance of contracts

1.1. Introduction

Today, as in the past, experienced project managers are all too familiar with many cases of projects that are considered failures. Without entering into a detailed discussion and listing failed projects, it can be said that, from a professional point of view, it is important to understand the success and failure of projects (Zwikael & Smyrk, 2012). It is no secret that project managers continue to be evaluated, in their practice, according to the outcomes of the projects they manage, and that their careers and the success of their organizations depend on performance in these projects. From a scientific perspective, project success undoubtedly remains a central concern, and much has been written and said about this specific issue. It should therefore not come as a surprise that PMI devoted its entire 1986 symposium, held in Montréal, to this subject (Zwikael & Smyrk, 2015). More than just a passing novelty, project management offers organizations the means to be efficient, effective, and competitive in a shifting, complex, and unpredictable environment. Surging interest in the field has led to the founding of professional organizations such as the Project Management Institute (PMI) and the International Project Management Association (IPMA). We also now have scientific journals dedicated to the field of project management, including the Project Management Journal (PMJ) and the International Journal of Project Management (IJPM), and they have become well-established references (Rahrovani, Chan & Pinsonneault, 2014).

1.1.1 Contingency Theory

Warren (2005) improved contingency theory from Max Weber's bureaucracy and Fredrick Taylor's scientific management theory. About this contingency theory, there is no universally applicable set of management values to manage organizations under all circumstances. This theory opposes the theory of Fredrick Taylor's scientific management, who came up with the standard principles of management and alluded that for a firm to advance in terms of its objectives and goals, it must apply the principles of management regardless of the type, the size, and environment it operates. Warren (2005) indicated that organizations are separately diverse, face different situations, and need different ways of managing. Therefore, contingency theory postulates that it is a class of behavioral theory that claims there is no best way to organize a corporation, lead a company, or make decisions. Kinnie, Hutchinson, Rayton, and Swart (2017) indicated that contingency theory is about the need to achieve a fit between what the enterprise is and wants to become and what it does; how it is structured, and the processes, procedures, and principles it puts into effect. Hence, organizations are supposed to establish diverse strategies in order to realize their objectives and goals. This is because a single strategy may not be suitable due to the environmental influences in the market. Rue and Byars (2014) allude that contingency theory is an extension of humanistic theories, whereas classical theories assumed a universal view in managing enterprises; whatever worked for one enterprise could work for another. However, this was an extension of Taylor and Max Weber's ideas.

2.1.2 The Principal Agent Theory

This theory is concerned with relations between the agent (person who acts on behalf of the principal) and the principal. An agent can act on behalf of their client. Various agent and principal problems may arise, including conflicting objectives, differences in risk aversion, outcome uncertainty, behaviour based on self-interest, and bounded rationality. Therefore, the contract between the principal and the agent governs the relationship between the two parties since it clearly outlines the duties and responsibilities of each party. The principal-agent theory aims to design a contract that can deter potential agency problems (Herbert et al., 2007). The "most efficient contract" includes the right behavioural and outcome-based incentives to motivate the agent to act in the principal's interests.
This theory is based on the idea that procurement officers are the agents of public procuring entities on behalf of accounting officers. Thus, they should diligently discharge their duties and responsibilities when procuring goods, services, and works. They should also manage suppliers’ quality and quantity with public entities’ local purchase orders. On the other hand, the accounting officer, regarded as the principal, should adequately remunerate procurement officers and should never delegate all duties because they should account for it. On the other hand, the agent should not earn secret profits and should not have a conflicting interest with the principal he/she serves. In case of conflict, he/she must declare (Xingxing, 2016).

### 2.1.3 Social Cognitive Theory

According to this theory, behavior is shaped by a dynamic interplay between personal factors, environmental factors, and behavior itself. Personal factors such as knowledge, attitudes, and self-efficacy can influence behavior change. If the individuals involved in contracts in Baringo County lack knowledge about the importance of Water projects management, or have negative attitudes toward the projects, they may be less likely to embrace the changes that come with the implementation of the projects (Herbert et al., 2007). However, if they have high levels of self-efficacy, or confidence in their ability to perform their duties despite the changes, they may be more likely to adapt to the changes and improve their performance. Environmental factors such as organizational culture and leadership can also influence behavior change. If the organizational culture in Baringo County supports the implementation of Water projects management and values contracts performance, individuals may be more likely to embrace the changes and improve their performance. Additionally, if leadership in Baringo County communicates the importance of Water projects management and supports the contracts team through the changes, individuals may be more motivated to adapt and improve (Cox, 1993).

### 2.1.4 The CBPR Model

One theory that supports community participation is the Community-Based Participatory Research (CBPR) model. This model is a collaborative approach to research that involves community members, researchers, and other stakeholders in all aspects of the research process, including problem identification, data collection, analysis, and dissemination of findings. The CBPR model is grounded in the belief that community members have unique knowledge and expertise that can contribute to the development of effective interventions and policies (Herbert et al., 2007). The CBPR model recognizes that community engagement and participation are essential for achieving sustainable change in communities. The model emphasizes building trust, establishing partnerships, and empowering community members throughout the planning and implementation process. By engaging community members in decision-making and planning, the CBPR model ensures that interventions are culturally relevant and responsive to the needs and priorities of the community. The CBPR model is often used in the context of public health interventions, where community engagement is critical to achieving behavior change and improving health outcomes. However, the model can be applied to any context where community participation are important for achieving sustainable change. Therefore, the CBPR model is a theory that supports community participation by emphasizing collaboration, partnership, and empowerment. By involving community members in all aspects of the planning and implementation process, the CBPR model ensures that interventions are culturally relevant, responsive to community needs, and sustainable (Galvin et al., 2014).

### 2.1 Project Planning

Project planning is considered by many researchers as one of the components of project delivery process and use project performance as the basis of evaluating its effectiveness. Project planning is identified as one of the key tools that stakeholders use to ensure that projects are successful (Naoum 2017). In separate studies Faniran, Love and Smith (2000) described project planning as the systematic arrangement of project resources in the best way so as to achieve project objectives.

According to Kimani and Michael (2015), project success is measured in terms of the achievement of project objectives. Naoum et al. (2014) state that project planning is the process of determining appropriate strategies for the achievement of predefined project objectives and it classified into preconstruction and construction planning. Preconstruction planning is also referred to as pre-contract planning which is the planning done during the conception, design and contracts stages of a project. Construction planning on the other hand refers to contract planning which describes the planning done during the construction of a project (Faniran et al., 2018).

Project planning has are three levels, these are; end-user level of planning which focuses on the functional characteristics of the project and the end-product, the second level is the technical level that focuses on the technical specifications of the project deliverables that are needed to support the functional requirements, and the third level is the project planning level which focuses on planning the activities and processes that need to be carried out to ensure that the technical work proceed effectively (Dvir, Raz &Shenhari, 2015). These three levels of planning can also be referred to as project conception planning, project design planning and contract planning. From the review above, it can be understood that different forms of planning are carried out in each of the five stages namely: conception, design, contracts, construction and closeout (Dvir et al., 2017).

It is further pointed out by Kamotho (2014) that in project planning, project objectives are the focal point of every effort and activity and they are important in planning because project plans are derived from them. Project objectives in project planning are first defined; then the strategies to achieve them are formulated and presented as project plans and these are used in evaluating the achievement of the objectives (Dvir et al., 2017). Project planning can therefore be regarded as the process of defining project objectives (Dvir et al., 2017).
2.1.1 Community Participation
Community participation can have a positive impact on the performance of contracts processes. By involving local communities in the planning and management of projects, stakeholders can ensure that projects are more responsive to local needs and priorities, which can lead to better performance outcomes. In a study conducted by Nyaga, Ondari-Okemwa and Waiganjo (2017), the authors found that involving local communities in the planning and management of water projects management can help to increase the sustainability of the projects, which can lead to better performance outcomes (Ongeri & Osoro, 2021). Community participation can help to increase the transparency and accountability of contracts processes. By involving local communities in the planning and management of projects, stakeholders can ensure that project decisions are made in an open and transparent manner. This can help to build trust and confidence among stakeholders and can lead to better performance outcomes. Reddy and Mavimbela (2016) found that involving local communities in the planning and implementation of health projects can help to increase community ownership and participation, which can lead to better performance outcomes (Ongeri & Osoro, 2021). By involving local communities in the planning and management of projects, stakeholders can ensure that projects are designed and implemented in a way that is sustainable over the long-term. This can help to ensure that projects continue to deliver benefits to local communities and can lead to better performance outcomes. De Bruijn and Ten Heuvelhof (2017), opined that community participation can help to increase the transparency and accountability of contracts processes, which can lead to better performance outcomes.

2.1.2 Community Participation
Community participation can lead to improved communication among stakeholders involved in contracts processes. By adopting better communication practices, such as active listening and clear communication, stakeholders can ensure that project requirements and expectations are clearly understood. This can help to prevent misunderstandings and disputes, leading to better performance outcomes (Chan, 2015). Community participation can help to build trust among stakeholders involved in contracts processes. By demonstrating integrity, reliability, and transparency, stakeholders can establish a sense of trust that can improve collaboration and lead to better performance outcomes. By adopting a proactive approach to identifying and mitigating risks, stakeholders can ensure that potential problems are addressed early on, leading to better performance outcomes (Ongeri & Osoro, 2021). The impact of water projects management on the performance of contracts in Baringo County, Kenya is likely to be complex and multifaceted. On one hand, the implementation of water projects management may lead to increased demand for contracts services and resources, which could place a strain on existing systems and processes. On the other hand, water projects management may also create opportunities for the development of new and innovative contracts practices and approaches. There may also be opportunities for community participation in the context of water projects management and contracts in Baringo County, Kenya. For example, stakeholders may need to develop new skills and knowledge in order to effectively manage contracts related to water projects management. Additionally, there may be opportunities to foster a culture of collaboration and innovation that can lead to improved performance in contracts.

2.1.3 Project Monitoring
Effective project monitoring is essential for ensuring that resources are used efficiently and that goals and objectives are achieved. In the context of contracts, good project monitoring can help to ensure that contracts are managed in a transparent, accountable and effective manner (Kimani & Michael, 2015). Operations, on the other hand, refer to the processes and activities involved in the day-to-day management of an organization or project. Effective operations management is essential for ensuring that resources are used efficiently and that goals and objectives are achieved in a timely and effective manner. In the context of contracts, good operations management can help to ensure that contracts are managed in a timely and efficient manner (Ongeri & Osoro, 2021). The impact of project monitoring and operations on the performance of contracts is likely to be significant (Ongeri & Osoro, 2021). Effective project monitoring can help to ensure that contracts are managed in a transparent and accountable manner, which can improve stakeholder confidence and trust. Effective operations management can help to ensure that contracts are managed efficiently and effectively, which can lead to improved performance and cost savings. In order to improve the performance of contracts, it is important to focus on both project monitoring and operations. This may involve developing policies and procedures that promote transparency and accountability in contracts, as well as investing in the development of the necessary skills and resources to effectively manage contracts. It may also involve adopting new technologies and approaches to contracts that can help to improve efficiency and effectiveness (Muhwezi et al., 2014).

2.1.4 Performance of Contracts
Contracts for water projects are becoming mainstream in all types of organizations (Pellegrinelli & Murray-Webster, 2011). For the past sixty years, organizations have increasingly been using projects and programs to achieve their strategic objectives (Morris & Jamieson, 2004), while dealing with increasing complexity, uncertainty, and ambiguity affecting organizations and the socio-economic environment within which they operate (Kimani & Michael, 2015). Through projects, resources and competencies are mobilized to bring about strategic change, and thereby create competitive advantage and other sources of value. The Government
has used Performance Contracting since 2003 as a key accountability framework in its endeavour to improve service delivery in the public service. Performance Contracting is part of the broader public sector reforms aimed at improving efficiency and effectiveness in the management of the public service (Ongeri & Osoro, 2021).

The United Nations Convention on contracts for the international sale of goods is a summary of the most important law systems, in the field of international merchandising, i.e. mostly between the Romanist (Roman-Germanic) system and the Anglo-Saxon one (of common law), which ensured the success and the relatively wide success and adherence to the Convention. Key tool in levelling the international trade law, the Vienna Convention adopts modern solutions, compatible with the current requirements of the international trade relations. At international level, the Convention became effective on January 1, 1988, and over 85 States have ratified it currently, turning it into one of the most successful uniform international laws. The Convention has four parts: the scope and general provisions, Forming the agreement (Sale of Goods and Final provisions. According to the provisions of the art. 92, upon becoming a member of the Convention, any State may declare not the it is not bind by Second or Third Part of the Convention. The goal of the Vienna Convention was to set a complex of uniform material legal norms enforceable to the international sales agreements and aimed for the use of the signatory states without appealing to own national regulations on the matter. Performance is what results from a team reaching the objectives of the outsourced project. In outsourcing as with any other project context, project performance can be measured as the extent to which a project is completed in time, within budget, and demonstrates a quality that satisfies customer requirements (Kimani & Michael, 2015). The subject of project success is at the heart of project management. Project Management Institute (2013) has stated that the project manager is responsible and accountable for setting realistic and achievable boundaries for the project and to accomplish the project within the approved baselines. Many factors impact the degree of success in outsourced projects (Ahmadi & Golabchi, 2013).

However, since outsourced projects always have a specific performance outcome, this study adhered to KWSC. (2015) concept of performance being the degree to which a team meets its goals, and how well its output fulfils project objectives. The study was interested in perceptions of the general work performance of outsourced project teams in medium manufacturing enterprises. Various surveys report a surprisingly high rate of outsourcing failures. For example, a 2003 report published by research and consulting company Gartner reported that one-half of all outsourcing deals are labelled “failures” by decision-making executives because the results do not meet expectations (Kimani & Michael, 2015). A survey by PA Consulting Group (2003) found that sixty-six percent of the benefits anticipated by enterprises from project outsourcing were only partially realized. However, these assertions need to be validated locally in medium manufacturing enterprises in Nairobi County (Choge & Muturi, 2014).

3.1 Research Design

A research design is a blueprint that guides the process of research from the formulation of the research questions and hypotheses to reporting the research findings (Kothari, 2011). A research design provides a framework for the collection and analysis of data (Bryman & Bell, 2011). The study adopted a descriptive survey research design since the study intends to gather quantitative data that describes the nature and characteristics of effect of implementation of water projects management on performance of contracts in Baringo County, Kenya. This study considered this design appropriate since it facilitates gathering of reliable data while describing the true characteristics of implementation of water projects management on performance of contracts in Baringo County, Kenya.

3.1.1 Content Validity Test

Content validity assesses whether a test is representative of all aspects of the construct. To produce valid results, the content of a test, survey or measurement method must cover all relevant parts of the subject it aims to measure. To achieve construct validity, you have to ensure that your indicators and measurements are carefully developed based on relevant existing knowledge. The questionnaire must include only relevant questions that measure known indicators of depression. To ensure construct validity your test should be based on known indicators of introversion (operationalization). On the other hand, content validity assesses how well the test represents all aspects of the construct. If some aspects are missing or irrelevant parts are included, the test has low content validity. This study Construct content analysis was prove ready by my supervisor and other senior researcher in this paradigm and they gave approval. Since the rating were over 0.5 it’s acceptable.

Table 1.1 Content Validity Test

<table>
<thead>
<tr>
<th>Variable</th>
<th>Experts/ Supervisor</th>
<th>N of Items</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project planning</td>
<td>.544</td>
<td>5</td>
<td>Acceptable</td>
</tr>
<tr>
<td>Community participation</td>
<td>.532</td>
<td>5</td>
<td>Acceptable</td>
</tr>
<tr>
<td>Project Implementation</td>
<td>.531</td>
<td>5</td>
<td>Acceptable</td>
</tr>
</tbody>
</table>
Construct validity refers to the degree to which inferences can legitimately be made from the operationalization’s in your study to the theoretical constructs on which those operationalization’s were based (Mugenda & Mugenda, 2008). Construct validity is about how well a test measures the concept it was designed to evaluate. It’s one of four types of measurement validity, which includes construct validity, face validity, and criterion validity.

3.1.2 Project Planning

Respondents were requested to give their opinion on the variable Project planning. From table 1.2 below, the respondents unanimously agreement that Project planning ensured performance of water contracts and periodic review in Baringo County in Kenya viable with agreement of a mean was 3.742, and Standard Deviation of 1.0602; Through tender documentation in Baringo County the respondents gave neutral response with a mean of 3.533 and Standard Deviation of.9202; tender committees assessment has contribution to the quality and innovation of the project planning with strongly agree a Mean of 3.903, and Standard Deviation of .9007; assessment of tender duration in Project planning it is important to put in place and maintain procurement the respondents gave a strongly agree with a Mean of 4.061, and Standard Deviation of .9851; The management of Baringo County in Kenya implements performance of water contracts awarded the respondents disagreed with a Mean of 3.541 and SD=1.3020); and Project planning enhances performance of water contracts at Baringo County in Kenya, they agreed with a Mean of 3.566, Standard Deviation of .8017.

This finding agrees with the findings of Nyile et al. (2022) who observed that clear description of Project planning, enhance effective performance of water contracts in eastern region, Kenya.

Table 1.2 : Project Planning

<table>
<thead>
<tr>
<th>Statement</th>
<th>Mean</th>
<th>Std. Dev.</th>
</tr>
</thead>
<tbody>
<tr>
<td>My In Kenya ensures tender documentation</td>
<td>3.3742</td>
<td>1.0602</td>
</tr>
<tr>
<td>Sharing through Real time basis</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Through tender documentation in Baringo County Kenya has</td>
<td>3.533</td>
<td>.9202</td>
</tr>
<tr>
<td>been able to make decisions on timeliness</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Responsiveness of tenders has contribution to performance of eastern region, Kenya</td>
<td>3.903</td>
<td>.9007</td>
</tr>
<tr>
<td>By Quick, frequent &amp; accurate community participation</td>
<td>4.061</td>
<td>.9851</td>
</tr>
<tr>
<td>It is important to put in place Project planning</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The management of supplier evaluation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tender duration in project planning</td>
<td>3.541</td>
<td>1.3020</td>
</tr>
<tr>
<td>Project planning enhances performance of eastern region, Kenya.</td>
<td>3.566</td>
<td>.8017</td>
</tr>
</tbody>
</table>

3.1.3 Community Participation

From table 1.3 below, respondents agreed that: The Baringo County in Kenya considers Strategic alliances on community participation with a mean of 3.551 and Standard Deviation of.8312; A community participation is likely to circulated based on tender period on performance of water contracts in Baringo County in Kenya agreed with a Mean of 4.033 and Standard Deviation of.9806; Early technology application involvement on performance of water contracts in Baringo County in Kenya the respondents were neutral with a Mean of 4.041 and Standard Deviation of.7302; Through tender target groups towards performance of water
contracts in Baringo County in Kenya; the respondents strongly disagreed with a Mean of 4.111 and Standard Deviation of .7117; proper community participation and County access to bids in the earliest possible has improved performance of water contracts in Baringo County in Kenya, the agreed with a Mean of 4.094 and Standard Deviation of .8005; Online advertisement has enhances performance of water contracts in Baringo County in Kenya, the respondents gave a strongly agree with a Mean of 4.252 and Standard Deviation of .8165. These findings was in agreement with the findings of Ongeri and Osoro (2021) that the goal of Tender proactive planning is to ensure performance of water contracts in Baringo County in Kenya. Effective community participation minimizes or eliminates problems and potential claims and disputes. This result agrees with the finding of Ominde et al. It is essential for community participation to understand the provisions of the supplier evaluation, have the ability to perform to all practices involved, and maintain control over the performance of water contracts in Baringo County, Kenya.

Table 1.3: Community Participation

<table>
<thead>
<tr>
<th>Statement</th>
<th>Mean</th>
<th>Std. Dev.</th>
</tr>
</thead>
<tbody>
<tr>
<td>My In Kenya considers Strategic alliances on performance of water contracts in Baringo County in Kenya</td>
<td>3.551</td>
<td>.8312</td>
</tr>
<tr>
<td>Early supplier involvement enables performance of Baringo County in Kenya</td>
<td>4.033</td>
<td>.9806</td>
</tr>
<tr>
<td>Joint coordination of production activities enhances Performance of water contracts in eastern region in Kenya</td>
<td>4.041</td>
<td>.7302</td>
</tr>
<tr>
<td>Financial stableness enhances performance of Baringo County in Kenya</td>
<td>4.111</td>
<td>.7117</td>
</tr>
<tr>
<td>Sound finance enhances procurement performance of Baringo County in Kenya</td>
<td>4.094</td>
<td>.7005</td>
</tr>
<tr>
<td>Stability of supplier can boast procurement performance of water contracts eastern region in Kenya</td>
<td>4.252</td>
<td>.9165</td>
</tr>
</tbody>
</table>

3.1.4 Regression Analysis

To establish the degree of the effect of supply chain for a regression analysis was conducted, with the assumption that: variables are normally distributed to avoid distortion of associations and significance tests, which was achieved as outliers were not identified; a linear relationship between the independent variables and dependent variable for accuracy of estimation, which was achieved as the standardized coefficients were used in interpretation. The multiple regression model was as follows:

\[ Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \epsilon \]

Performance of water contracts in eastern region = \(\beta_0 + \beta_1\) (Project planning) + \(\beta_2\) (community participation) + \(\beta_3\) (project implementation) + \(\beta_4\) (project monitoring) + error term. Regression analysis produced the efficient of determination and analysis of variance (ANOVA). Analysis of variance was done to show whether there is a significant mean difference between dependent and independent variables. The ANOVA was conducted at 95% confidence level.
3.1.5 Model of Goodness Fit

Regression analysis was used to establish the strengths of relationship between the performance of water contracts in Baringo County in Kenya (dependent variable) and the predicting variables: Project planning, community participation, Project implementation, and Project monitoring (Independent variables). The results showed a correlation value (R) of 0.765 which depicts that there is a good linear dependence between the independent and dependent variables. This finding is in line with the findings of Ongeri and Osoro (2021). They observed that this also to depict the significance of the regression analysis done at 95% confidence level. This implies that the regression model is significant and can thus be used to evaluate the association between the dependent and independent variables. This finding is in line with the findings of Ittmann (2015), who observed that analysis of variance statistics examines the differences between group means and their associated procedures.

<table>
<thead>
<tr>
<th>Table 1.4: Model of Goodness Fit</th>
</tr>
</thead>
<tbody>
<tr>
<td>R</td>
</tr>
<tr>
<td>0.765</td>
</tr>
</tbody>
</table>

With an R-squared of 0.896, the model shows that Project planning, community participation, Project implementation, and Project monitoring contribute up to 89.6% on performance of water contracts in Baringo County in while 11.4% this variation is explained by other indicators which are not inclusive in this study or model. A measure of goodness of fit synopses the discrepancy between observed values and the values anticipated under the model in question. This result is in line with the findings of Ominde et al. (2022).

Conclusion

The study concludes that there is a positive relationship between Project monitoring and performance of water contracts in eastern region, Kenya. The findings conclude that any in Kenya should drive to embrace the best performance of water contracts in Baringo County after improving supplier evaluation in Kenya. When public-private partnerships is embraced through community participation, Project implementation, and Project monitoring then the implementation of performance of water contracts in eastern region, Kenya.

REFERENCES


