

TECHNICAL CAPACITY ON IMPLEMENTATION OF CONSTRUCTION PROJECTS IN KAJIADO COUNTY, KENYA

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Abstract: The purpose of the study was to establish the extent to which technical capacity influences implementation of construction projects. The study utilized descriptive survey research design. The total number of the respondents was 443 employees involved in different construction projects within the County. Data was obtained from these respondents using questionnaires and analysed using descriptive analyses. Coefficient of correlation R was 0.913 an indication of strong positive correlation between the study variable. The study concludes that the variable positively influenced implementation due to the following; employees engaged in several construction projects possessed appropriate academic qualifications and work experience. The study recommends that Ministry of Public works, Roads, Housing and Energy of the Kajiado County Government ought to improve their technical capacity for increased project implementation. Employees hired ought to be well qualified to deal with implementation of projects.

Keywords: Project Implementation, Technical Capacity.

1. INTRODUCTION

The project management practices are the elementary issues vital for the successful implementation of the projects and should be effectively carried so that project team members understands what is required when implementing the projects. These practices are carried out on a daily basis in every life cycle of the project (Rowlinson, 2009). Technical capacity refers to the organization's capability in having the employees who are skilled, proper equipment and facilities that lead to the delivery of project activities and management of their operations. Technical capacity involves program design and evaluation, technology skills and marketing skills (Sastre-Merino & Rios-Carmenado, 2012). According to Bozeman, Dietz and Gaughan (2013) projects usually requires allocation of resources such a labour, capital and material and are characterized by time of completion, money and whether the project satisfies customer requirements.

Globally, implementation of road infrastructure projects commences with the sourcing of funds due to the capital-intensive nature of the projects. In most cases, funding comes from international organizations or the governments within which the road is to be constructed. Prior to implementation of the road projects, a standard guide for executing the projects is set out by the stakeholders. Different continental regions have varying approaches from which standards used for construction are pre-determined. For instance, the European Norms are widely used in setting out standards for design of highways and bridges, Indian Standards form a benchmark for construction in India, and American Standards are used in the United States (Schoon, 2000). International practice on implementation of infrastructure projects require that different road elements be designed based on the specific standards as a basis of uniformity and guide to practicing engineers. The standards used in a prevailing region formed the special conditions used to develop contracts and agreement with contractors executing the road projects (Great Britain Department of Transport, 2004).

2. STATEMENT OF THE PROBLEM

Studies undertaken in the construction sector shows that construction faces numerous challenges (Kaliba, Muya & Mumba, 2009; Mak & Picken, 2000) which some are current and other has been there in the past. A number of such challenges are directly and indirectly associated to the operations in construction. Some of the challenges are not related

to construction however must be solved and maintained by the project manager in order to realize the success of the project. Therefore, it is important that the project manager fully comprehends the requirements of the project, do proper planning and take proper corrective measures. Information sharing, either on a one to one basis or in small workgroups allows individuals to share knowledge and test ideas in a supportive project activity. Despite the amount of time and energy consumed by meetings they are relatively under-researched (Dainty et al, 2006; Emmit & Gorse, 2007). Although there are a number of books written mainly by practitioners with the aim of providing guidance, (Hartley, 2007) in his study concluded that despite their familiarity we do not know what goes on within this forum.

Previous researches have shown that construction project shows a distinctive series of tasks which must be carried out to have a unique product (Kerzner, 2013; Aksorn, & Hadikusumo, 2008). Successful project implementation is determined by having a project completed within the set schedule, budget and of quality standards. However, many construction projects in the County have not been implemented with these set standards. Therefore, this study sought to examine the factors influencing project implementation of road construction in Kajiado County.

3. LITERATURE REVIEW

Buba and Tanko (2017) study examined the influence of project leadership on quality performance of construction projects and revealed that project manager's capability in directing his/her team motivates the project team members and better relationships thus better implementation of projects. Brill, Bishop and Walker (2015) carried out a study on project manager skills and project performance and established that projects managers have a vital role in influencing project implementation and therefore should put more emphasis on enhancing skills to be better prepared in achieving the objectives of the projects. Wambua (2013) study investigated how human resource factors affect project performance in Kenya and the study findings indicated a positive significance relationship between the human resource management practices and performance of projects.

4. RESEARCH METHODOLOGY

The study utilized descriptive survey research design. The total number of the respondents was 443 employees involved in different construction projects within the County. Data was obtained from these respondents using questionnaires and analysed using descriptive analyses.

5. FINDINGS

The purpose of the study was to establish the relationship between technical capacity and implementation of construction projects in Kajiado County, Kenya. The findings are shown in Table 1.

Table 1: Technical Capacity and Project Implementation

	Mean	Std. Dev
Employees engaged in several construction projects possess appropriate academic qualifications	4.21	.698
Employees engaged in several construction projects possess appropriate work experience	3.76	1.00
Our organization employees are well qualified personnel to deal with implementation of projects	3.81	.895
Our organization deploys adequate number of staff to every construction project it undertakes	2.92	.729
Our Company has adequate equipment to handle the diverse construction projects it gets involved in	3.20	.689
Our Company has technical capacity to deliver materials to all locations including remote areas	3.63	.589
Our staff are technically competent in negotiating with key stakeholders	3.93	1.12
Our Company has kept pace with developments in technology	3.93	.598
The equipment used in construction by our company are of latest technology	3.84	.759
Our Company conducts regular skills assessment to establish the competency among its employees	3.26	1.12
Our Company has displayed technical proficiency in the manner it has handled previous assignments	3.45	.485

Table 1 pointed out that majority of the respondents were in agreement to a great extent that employees engaged in several construction projects possessed appropriate academic qualifications as indicated by a mean of 4.21 with standard deviation of 0.698. Employees engaged in several construction projects possessed appropriate work experience as supported by a mean of 3.76 with standard deviation of 1.00. Employees are well qualified personnel to deal with implementation of projects as shown by a mean of 3.81 with standard deviation of 0.895. This is supported by Ogunlana and Lan (2004) who observe that adoption of new technology and its proper utilization enables an organization attain a competitive advantage in the construction industry

Respondents were in disagreement that their organization deployed adequate number of staff to every construction project it undertakes by a mean of 2.92 with standard deviation of 0.729. The company had technical capacity to deliver materials to all locations including remote areas by a mean of 3.63 with standard deviation of 0.589. The staff were technically competent in negotiating with key stakeholders as indicated by a mean of 1.12. The company kept pace with developments in technology as indicated by a mean of 3.93 with standard deviation of 1.12. This is in agreement with Melkonian and Picq (2010) who stated that staff must have competent skills necessary for project implementation.

The established that the company had adequate equipment to handle the diverse construction projects it got involved in by a mean of 3.20 with standard deviation of 0.689. Respondents were in agreement that the equipment used in construction by their company were of latest technology as indicated by a mean of 3.84 with standard deviation of 0.759. Company conducted regular skills assessment to establish the competency among its employees by a mean of 3.26 with standard deviation of 1.12. Their Company had displayed technical proficiency in the manner it had handled previous assignments by a mean of 3.45 with standard deviation of 0.485.

6. CONCLUSIONS AND RECOMMENDATIONS

The study concludes that the variable positively influenced implementation due to the following; employees engaged in several construction projects possessed appropriate academic qualifications and work experience. Employees that dealt with project implementation were qualified. Adequate number of staff were deployed to every construction project the company undertook. The company had adequate equipment to handle the diverse construction projects it got involved in and kept pace with adoption of technology. The company conducted regular skills assessment to establish the competency among its employees and had displayed technical proficiency in the manner it had handled previous assignments.

The study recommends that Ministry of Public works, Roads, Housing and Energy of the Kajiado County Government ought to improve their technical capacity for increased project implementation. Employees hired ought to be well qualified to deal with implementation of projects. Adequate number of staff are to be deployed to every construction project the company undertakes. The company ought to conduct regular skills assessment to establish the competency among its employees and had display technical proficiency in the manner it handled previous assignments.

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