INFLUENCE OF APPROVAL PROCESSES ON PERFORMANCE OF CAPITAL PROJECTS IN ENERGY-BASED STATE CORPORATIONS IN KENYA

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ABSTRACT

This study aims at establishing the influence of approval processes on performance of capital projects in energy-based state corporations in Kenya. The research design used in this study was a descriptive survey. Managers and workers at Kenyan state businesses dealing with energy were the focus of this research. Where a sample size of 191 was selected at random from a pool of 368 using a proportional stratified sampling technique. The main data was gathered via the use of self-administered questionnaires. The data was also analyzed with the use of SPSS 21.0, the Statistical Package for the Social Sciences. Descriptive and inferential statistics were also used to examine the data. Quantitative variables were evaluated using descriptive statistics including frequency, percentage, mean score, and standard deviation. The relationship between the dependent and independent variables was assessed via the use of a multiple regression analysis. The data that was analyzed was given in tabular form. The research findings indicate a robust and statistically significant correlation between approval processes and performance of capital projects in energy-based state corporations in Kenya. This is evidenced by the beta coefficient value of 0.681and have p-values less than 0.05. These results suggest that improvements in approval processes have a positive impact on the performance of capital projects in energy-based state corporations in Kenya. Based on the findings of this study, it is advisable for energy-based state corporations in Kenya to enhance the performance and completion rate of their capital projects. This can be achieved by allocating their financial, technical, and human resources towards improving efficiencies in the approval processes.

Key Words: Approval processes, performance of capital projects and Energy-based state corporations

INTRODUCTION

Most African state enterprises adhere to a project life cycle procedure throughout the project's initiation, development, and completion phases. Specific tasks and activities, as well as the people who will be doing them and those who will be responsible for approving and evaluating them, are all mapped out in the life cycle process (Divr and Lechler, 2017). Capital projects are heavily influenced by the stages of project management, which include the following: project initiation and planning, project execution, monitoring, and project control. Time, money, scope, quality, hazards, and resources all play a role, and they are all competing restrictions. Resources in several East Africa’s state corporations are being deployed to ensure development of new products, improvement of the process and designing of new services (PwC, 2017). Both the economic factors

and poor scope management are the major factors that lead to the failure of capital projects especially in the developing countries (KIPPRA, 2018).

Due to the rapid changes in technology and environmental consciousness, the state corporations in Kenya had faced challenges because of elevated expectations to achieve their desired performance in capital projects (KNBS, 2018). Energy based state corporations have been one of the major contributors to the economy through provision of socio-economic infrastructure such as homes, hospitals and schools which have also increase job opportunities to the people of Kenya. However, numerous issues have been encountered in the latter stages of the lifespan of capital projects due to risks that were not well handled in the beginning. Change or lack of consideration of project success factors and the project environment are the primary obstacles to its completion (Muyia, 2018). Research of the elements that affect the success of capital projects in Kenya's energy-based state enterprises is warranted.

During the 1980s, influential organizations such as the World Bank and the International Monetary Fund (IMF) promoted privatization to liberalize economies and encourage private sector involvement. This approach aimed to shift the government's role to that of a facilitator, responsible for creating an enabling environment for the market to function efficiently. Consequently, these institutions emphasized reforms that supported the principles of a free market economy (Muyia, 2018). The implementation of Structural Adjustment Programmes (SAPs) emerged as a reaction to a fundamental change in the global politico-economic framework. The objective of these Structural Adjustment Programs (SAPs) was to restructure state-owned enterprises, with the goal of achieving financial independence and enhancing competitiveness by adopting a privatization approach. The approach in question was delineated in two key documents: the Policy Paper on Public Enterprise Reform and Privatization (1992) and the Policy Framework Paper (1993-96) (Gwaya, Munguti, & Wanyona, 2018).

The Kenyan Government has undertaken measures that requires investors support in terms of formulating and implementing strategies for developing capital projects in state corporations by focusing on research, training, review, and industry support. However, the results have not been forthcoming as project managers and investors have neither the capacity nor the resources to undertake many of the project functions and responsibilities. According to a report published by PricewaterhouseCoopers (2017), the major causes of cost and time risks and overruns in projects undertaken by state corporations in Kenya during the implementation period are variations in scope, schedule, and budget.

Various researchers, including Muyia (2018) concede that state corporations projects have been difficult to achieve among practitioners and researchers, due to the complexity of factors. Empirical literature (Gwaya, Munguti and Wanyona, 2018; Kerzner, 2016 and Divr and Lechler, 2017) suggests that the financial challenges emerge as the top barrier to capital projects adopted

by state corporations. Belassi and Tukel (2016) and Alexandrova (2015) looked at how infrastructural factors influenced state corporations' projects but majorly focused on western countries. This study therefore sought to cover the gap left by the scanty studies done to establish the approval processes and performance of capital projects in energy-based state corporations in Kenya.

Theoretical Framework

By arguing that the corporation exists to serve and coordinate stakeholder interests, Freeman is acknowledged as the first to introduce stakeholder theory in 1984 (Kwan, Pritcett, & Busby, 2016). Powerful and credible stakeholders need special consideration (Vijayan and, 2013). Nevertheless, the prevailing viewpoint among stakeholder analysts is that individuals and entities engaging with a firm possess authentic interests and interact with the intention of obtaining benefits. According to this perspective, there is no initial presumption of superiority for any set of interests or benefits, as asserted by Matesehe (2013). Relationships with stakeholders are discussed in terms of both the process and the result (Gilbert & Rasche, 2012), and stakeholder theory emphasizes the need of serving all stakeholders equally. According to stakeholder theory, it is impossible to prioritize the requirements of shareholders above those of other interested parties. Similarly, it argues that establishing strategies with a wider stakeholder network and interaction would provide better outcomes than relying only on straight profit maximization measures.

An approach to management that considers the needs and wants of all parties involved is essential for a company to thrive over the long term (Moqbel, Amran, & Nejati, 2014). In addition, they argue that stakeholders lack the same incentives as investors to become as knowledgeable about an organization as possible. Investors, as a class, are more financially savvy than other stakeholders and, as a result, are more inclined to track the company's actions that might have an impact on their investments. As a more heterogeneous group, non-investor stakeholders are less likely to track the company's day-to-day operations. This idea is pertinent to the investigation because it sheds light on how the involvement of investors affects the success of capital projects at Kenyan state-owned energy firms.

Empirical Review

The purpose of the approval process is to guarantee a comprehensive understanding of the project's scope at the outset and to document any changes to that scope as they occur in the project's scope management plan (Miller, 2013). The purpose of the approval procedures for capital projects is to ensure that the project's objectives are met in a methodical manner. While every capital project has its own unique approval procedure, they all have the same goal: to get the job done on time and within budget (Verzuh, 2015).

The viability of the approval process in addressing stakeholder demands is crucial and should be reviewed and analyzed by competent individuals. It has become commonplace for developing nations to copy the laws and practices of developed economies when it comes to the approval of new projects. However, emerging and transition nations should ask challenging questions about the models to be adopted before rushing to imitate the project approval procedure of established economies. Whether or if the process of legislation and approval has improved social justice in cities is the most crucial question (Alexandrova, 2015). The answer to this issue is complex when looking at nations with mature economies, where regulatory tools and the procedure for approving projects have been used regularly for decades. However, rules may exacerbate the division of social groupings, give larger public facilities to favoured sectors, and enhance living standards. Approval processes may secure the provision of enough and inexpensive power and so strengthen social cohesion. According to Muyia (2018), the approval process may either help bridge social gaps or drive people farther apart.

All the work that is produced or performed for a capital project's client, customer, or sponsor falls under the category of deliverables. All the capital project management papers are included, as well as all intermediate documents, plans, schedules, budgets, blueprints, etc. Deliverables in a capital project are the outcomes, outputs, or products that must be delivered to deem the project or its phase complete. According to the planning legislation (Njau, 2017), intermediate deliverables, like the goals, must be defined and verifiable. Diverse forms of precedence relationships have remarkably diverse consequences for adaptability and cost when it comes to modifying the building design as work progresses and timetables are revised. Several formal scheduling methods, however, lack the capacity to signal this degree of adaptability. The manager is responsible for making these kinds of choices and establishing productive work schedules. For instance, developing or amending the formal power grid plan is likely to be low on a project manager's list of priorities, while being crucial to the successful management of a complex project (Pinto, 2013). Prerequisites for approval in the energy industry in a number of nations are based on international standards. During the approval process, the primary focus was on ensuring that the projects abide by the capital project codes that emerged out of the European and American industrial revolutions. Hundreds of thousands of people left rural regions for urban centres, compelling governments to stop being indifferent to urban life. Threats to all socioeconomic groups included pandemics, fires, energy outages, and traffic jams (Mativo, 2015). In contrast to regulations over rural electrification projects, the clearance process has the potential to engender social exclusion and disparities via a number of means. There will always be excluding factors in any project's execution or any regulations. Both the United States and the United Kingdom have seen cases of exclusionary use of their development control powers. Accordingly, the degree to which projects are used in an exclusive manner varies from one country to the next (although there is no systematic comparative study documenting this outside a select few nations) (Wanja, 2017).

The failure to remember an essential approval procedure is more subtle. To illustrate, let us say that putting up electricity lines is a prerequisite to building anything else, including buildings and roads. Scheduling conflicts may arise if this order of importance is disregarded. It is possible that making changes during the approval phase may save money and improve the quality of the final capital project (Ochenge, 2018). Aside from inspections by qualified managers or by comparing to similar capital projects, there are unfortunately few means to discover omissions in the approval process. Conducting a physical or digital based simulation of the project process and observing any difficulties during the approval exercise is another feasible but seldom utilized technique for assessing the approval process (Anunda, 2016).

RESEARCH METHODOLOGY

The purpose of this study was accomplished using a descriptive survey research methodology. Project managers and staff members employed by Kenyan state businesses with an energy-based business made up the target group for this research. A sample size of 191 was ascertained form the total number of 378 respondents with a level of 95% certainty and a 0.05 blunder. The stratified proportionate arbitrary inspecting method was used in choosing of the study's respondents. The main data was gathered using well-structured questionnaires. The respondents were given the surveys to complete themselves using a drop-and-pick method. Since the questionnaire will ask the questions in a consistent manner, the replies should be compatible. The core data was collected using a series of structured questions that were included in a letter sent out by both UoN and NACOSTI. A pilot study was undertaken to make sure that the instrument items in the data collecting instrument, the questionnaire, are precise and clear. This pilot study evaluated the instrument's precision and clarity as well as the length of time needed to administer it. The reliability and validity tests were then carried out on the randomly chosen respondents who had participated in the pilot research but were left out of the main study sample. For each of the four distinct goals, we employed the universally valid Likert scale questions to collect our data. Expert input was sought throughout its development to assure the study's content validity. To guarantee that the items in each research variable are adequate and reflective of the study's aims and goals, the instruments were developed and operationalized in accordance with those variables. Additionally, supervisory and practical expertise was consulted to confirm the content authenticity. Each research variable's items were established and operationalized in line with the study's objectives and goals to ensure accuracy and reliability. The material was verified via the use of both theoretical and practical knowledge from supervisors and experts.

For this study, it is adequate if the produced composite unshakable quality co-effective (Cronbach alpha) is 0.7 or above for each of the constructs (Cronbach, 1951). Cronbach's alpha was used to determine the reliability coefficient of the study's survey using the following formula:

$A=k/k-1\times [1-\sum (S^2)/\sum S^2 sum]$

Where:

α= Cronbach's alpha

k = Number of responses

$\sum (S^2)$ = Variance of individual items summed up

$\sum S^2 sum$ = Variance of summed up scores

The alpha level was determined using a one-way analysis of variance. The research revealed an alpha coefficient of 0.876 between the 10 items. Their dependability levels were over the required 0.7, therefore it was trustworthy. The results are detailed below: In this study, ethical issues were highly considered and maintained where the privacy, confidentiality, data protection, voluntary participation, and informed consent by participants in data collection was upheld. Initially, a thorough verification process was conducted to ensure the accuracy of the information collected from the respondents. The whole of the surveys that were returned were thoroughly examined, classified, and tallied to guarantee precision. The survey included a combination of open-ended and closed-ended inquiries.

Results

The first goal was to research how state-owned energy companies in Kenya's energy sector handled project approvals and how it affected the success of capital investments. The approval process in terms identifying the geographical location and cost of the project combined with the project pros and cons are vital to the success of the project as well as to the community. An average score of 3.88 shows that aspects of approval process influenced performance of capital projects in state corporations in Kenya.

Table 1: Approval Process

	Mean	**Std. Deviation**
Stakeholders involved	3.93	.678
Political affiliations	3.69	1.742
Project geographical location	3.88	.639
Impact of the project to the community	4.01	.694
Pros and cons of the project	3.90	1.776
Connecting infrastructure	3.72	.661
Cost of the project	4.05	.621
Total	**27.18**	**6.811**
Average	**3.88**	**0.973**

Cost of the project (mean=4.05), impact of the project to the community (mean=4.01), stakeholders involved (mean=3.93), pros and cons of the project (mean=3.90), project geographical location (mean=3.88), connecting infrastructure (mean=3.72) and political affiliations (mean=3.69) influenced performance of capital projects in state corporations in Kenya to a great extent. This

shows that the costing of the project in relation to its benefits to the community are key aspects of capital project effectiveness. For this to be achieved there is need for all the stakeholders to be brought on board, have consensus, and ensure that the community benefits from the project.

The research showed that the success of capital projects in Kenyan state enterprises was affected by many factors involved in the approval process. A number of factors, including project cost, community effect, stakeholder involvement, project benefits and drawbacks, project location, supporting infrastructure, and political allegiance, impacted the success of capital projects in Kenyan state companies. The research also found a favourable and statistically significant relationship between approval procedures and the success of capital projects at Kenyan state businesses focused on the energy sector.

A multiple regression analysis was performed to analyse the influence of approval processes in scope on performance of capital projects in energy-based state corporations in Kenya. The results were as summarized below.

Table 2: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.825[a]	.681	.672	.6484

Predictors: (Constant), approval processes.

The model summary includes the coefficient of determination, denoted as R square, which provides insight into the extent to which changes in the independent variables account for the variation seen in the dependent variable. The R-squared value, as indicated in Table 2, was 0.681, indicating that 68.1% of the variation in the dependent variable (performance of capital projects) can be attributed to variations in the independent variable (approval processes). Therefore, it can be concluded that a sizeable portion, namely 31.9%, of the variability seen in the performance of capital projects within energy-based state companies in Kenya cannot be accounted for by the parameter included in the model or examined in the present research.

Table 3: ANOVA (Analysis of Variance)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	123.973	1	30.99325	72.12	.0000[a]
	Residual	58.018	138	0.42976		
	Total	181.991	139			

a. Predictors: (Constant), approval processes

b. Dependent Variable: Performance of capital projects

The Analysis of Variance (ANOVA) procedure involves doing computations to assess the degrees of variability present within a regression model, so establishing a foundation for conducting tests to determine the significance of the model. The "F" column presents a statistical measure used to assess the hypothesis that all β values are not equal to zero, as opposed to the null hypothesis that β is equal to zero. Based on the results shown in Table 3, the obtained significance value was 0.0000, indicating statistical significance at a level lower than the predetermined significance threshold of 0.05. This statement suggests that the regression model used in the study demonstrated statistical significance in predicting the impact of approval procedures on the performance of capital projects within energy-based state businesses in Kenya. Moreover, the critical value of F at a significance level of 5% was determined to be 72.12. The F computed value of 72.12 exceeded the F critical threshold of 2.44, providing further evidence that the overall model was deemed to be suitable.

Table 4: Regression coefficients results

	Unstandardized Coefficients		Standardize d Coefficients	T	Sig.
	B	**Std. Error**	**Beta**		
(Constant)	4.608	0.982		4.692	0.000
Approval processes [X_1]	0.681	0.195	0.636	3.492	0.001

Based on the regression results shown in Table 4 above, the regression model became.

$Y = 4.608 + 0.681 X_1 + \varepsilon$

From the regression equation above, taking all the predictor variables (approval processes) constant at zero, performance of capital projects in energy-based state corporations in Kenya would be 4.608. Table 4 also shows that there is a positive and statistically significant relationship between approval processes and performance of capital projects in energy-based state corporations in Kenya, with each unit increase in approval processes resulting in a 0.681 increase in performance of capital projects. The p-value for the predictor variable was less than 0.05. This indicated that improvements in the approval processes significantly predicted performance of capital projects in energy-based state corporations in Kenya.

Conclusion and Recommendation

The study concluded that aspects of approval process influenced performance of capital projects in state corporations in Kenya. Capital project approval processes are set to attain the capital project goals in a planned way. Even though each project has its own unique approval procedure, the end aim is always the same: to finish the capital project on schedule and under budget.

The research suggests that all important stakeholders in procurement be engaged in acquiring the resources, commodities, and services that are required. In addition, the procurement division

should evaluate the expertise and capabilities of potential suppliers and service providers to guarantee on-time service delivery that meets all requirements.

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