

INFLUENCE OF PROJECT INITIATION ON PROJECT PERFORMANCE AMONG INFRASTRUCTURE PROJECTS IN MERU COUNTY, KENYA

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Abstract: Available data shows poor performance of infrastructure projects globally, regionally and locally. Meru County scores poorly in terms of infrastructure development with a very poor record of project performance. Therefore, this study sought to investigate the influence of project initiation on project performance among infrastructure projects in Meru County, Kenya. The research design used in this study was a descriptive cross-sectional design with a quantitative approach. In this study, infrastructural projects in Meru County were the units of observation while project management committee members were the units of analysis. While simple random sampling was used to choose respondents, stratified random sampling was utilized to sample the projects. 140 respondents were selected as a sample from 28 infrastructure projects in Meru County. In order to gather the data for this study, a structured questionnaire was used. A pretest was carried out in Embu County to gauge the viability of the questionnaire used in this study. With the use of SPSS, descriptive statistics, correlation analysis, and regression analysis were used to analyze the data. Tables were used to display the study's findings. Project initiation and project performance both revealed a high positive and significant link, according to correlation analysis. The study concluded that good project initiation results in greater project performance. The study recommended that every project should have a project plan. This will aid in the documentation of planning assumptions and choices, as well as the facilitation of communication among project stakeholders.

Keywords: Project Initiation, Project Performance, Project Management Process.

1. INTRODUCTION

The definition of infrastructure includes the fundamental facilities, such roads, schools, telephone lines, wastewater treatment plants and energy generation that support a government or a community (Locatelli, Invernizzi & Brookes, 2017). It refers to physical constructions which are constructed to provide modern human society with specific comforts (Manggat, Zain & Jamaluddin, 2018). Examples of the infrastructure are roads, trains, airports, dams, offshore oil platforms for petroleum boiling. Infrastructure can be divided into two: hard and soft. According to Morkovkin, Shmanev, and Shmaneva (2017), as a tangible entity supporting information technology, hard infrastructure is critical to both economic growth and a high standard of living. Hard infrastructure includes the physical structures and installations that are important for a country's development.

One of the most important and most visible examples of hard infrastructure is roads. Much of government's expenditure goes to roads. Other examples of hard infrastructure include electricity and communication equipment including telephone lines and communication masts. Soft infrastructure on the other hand includes all education, health, finance, law and order, and government systems (Huétink, van der Vooren & Alkemade, 2010). Soft infrastructure, like government, medical, education, financial and legal systems, is an integral part of the economy and quality of life. A good example of soft

infrastructure includes the health system comprising hospitals and agencies as well as the financial systems including banks. A characteristic of soft infrastructure is the service nature of their products and requirement of human skills (Zhang & Chen, 2013).

The provision of basic infrastructure and communication systems such as road and highway construction, transportation, bridges and ports are what is referred to as infrastructure development (Manggat et al., 2018). Infrastructure development is considered an effective tool to promote economic growth and welfare level within a state or country. Lelei et al. (2020) indicates that the level of quality and reliability of a country's infrastructure is vital to support the sustainable economic growth, productivity, and development of the modern economy. This is achieved through front-to-back connections between the financial system including banks and capital markets, physical infrastructure such as roads, energy, telecommunications, water and waste management, and social infrastructure such as schools, housing and medical facilities. According to Emuze and Smallwood (2012) to enhance client satisfaction project managers are interested on developing good infrastructure projects that meet the needs of the public while keeping the cost down and delivered in good time.

Projects infrastructure upgrades may be financed publicly, privately or via partnerships between public and private entities (Lu et al., 2019). The choice of specific infrastructure performance measures is crucial to the evaluation process. Publicly funded projects are critical because they meet the needs of the citizenry to do business which translates to greater GDP and economic development. In addition, public projects are subject to scrutiny by the public and are often the yard stick used by the members of the public to measure the performance of a particular government. However, public funded projects are notorious for poor performance (Dalsgaard, 2010). The problem of costs overruns is a striking aspect of global infrastructure projects and the building industry in Kenya is no exception. There is therefore a need to study the complexities which lead to these overruns to identify gaps which if implemented can enhance project performance in the public sector.

Project performance is a term used to refer to a project that is begun and finished in time within budget and within scope (Cha & Kim, 2018). The scope, time and resource are three main dimensions that define project performance. A highly performing project will therefore achieve its main purpose and objectives using these three parameters. Project management means the creation, implementation and management of projects that contribute the achievement of the goals of the organisation be it a public or private body (Seymour & Hussein, 2014). Performance measurement is a vital aspect in performance optimization. Optimum performance achieves several, often contradictory, objectives in changing situations on a sustainable basis. "A combination of connected activities which is crucial for effective execution of the project outcomes," defines a project performance domain (Morris, 2011). Measuring performance increases project management and efficiency.' By concentrating on the results, it can define its success early, implement projects that have a greater influence on the specialty crops market and measure and show results more simply (Demirkesen & Ozorhon, 2017).

Project management utilises specialized knowledge, abilities, tools and procedures to provide others with value (Kagaari, Munene & Ntayi, 2010). It is also characterized as a collection of demonstrated methodologies for project proposal, planning, implementation, management and evaluation mixed with the art of managing employees. It involves the planning and management of the resources of a corporation in order to complete a particular activity, event or assignment. Project management practices are the core project concerns that need to be preserved to enable teams to perform efficiently and effectively (Ocharo & Kimuitai, 2018). They need to be careful day by day and work during the project life. Professional project management procedures have thus become an important discipline in current building processes worldwide. Practitioners and researchers view his technique and application as a precedent for the satisfactory provision of deliverables in the construction and infrastructure sectors (Kissi et al., 2013).

Project initiation, the first stage of the project life cycle involves the conceptualization and design of a project (Mutwiri, Were & Odhiambo, 2018). The principle objective of the commencement stage is to decrease how much vulnerability to a suitable level to go with a last choice regardless of whether to support the venture (Islam, Bhuiyan & Hoque, 2011). This phase frequently starts with a business case that describes the goals, purpose and results of the proposed enterprise. The start phase identifies the company problem and the opportunity, defines a solution, forms a project and appoints a project team to develop and offer solutions to the client. The project charter supporting the strategy for Phase 2 includes key deliverables (Afolabi, 2018). The charter specifies the deliverables, in addition to defining the initiative's economic worth. The project charter describes the project's objective and needs. Project scope is to identify project objectives, achievements, budget, and timetable. The choice to begin is crucial and the commencement phase was recognized as dominating in deciding the success or failure of any project endeavor (Matu *et al.*, 2020)

STATEMENT OF THE PROBLEM

Project performance in any project is a major aspect and several policies are normally used to achieve better project performance (Meredith et al., 2017). Investing in infrastructure has a strong multiplier impact. They improve accessibility and commerce, increase mobility, provide more jobs and promote overall economic productivity. Infrastructure projects can drive economic growth and productivity and therefore project performance in infrastructure development is vital (Locatelli et al., 2017). Highly performing infrastructure projects can boost housing development, enhance transport network capacity by or adding to present capacity and support high-quality public services, promote the efficiency and predictability of movement of people and commodities across the country as well as the use of energy and digital networks (Manggat et al., 2017).

Infrastructure projects however, both in cost and schedule performance have historically been linked to poor delivery. Kissi and Ansah (2013) observed that the adaptation of efficient construction project management techniques to many developing nations remains a major issue while professional project management is a growing field. Meru County is one of the areas where infrastructural projects have very low completion and success rate. According to the ICPAK report Meru County was one of just 5 counties with less than 15% growth in infrastructure. Studies conducted by various authors in Meru County such as Kathure (2013), Kimathi (2016), Mutegi (2015) and Nyabera (2015) Showed poor performance of various infrastructural projects in the county such as roads, markets and water project respectively.

Majority of available studies had a narrow focus mainly studying one project at a time. There is a need for a cross sectional view of projects in this area to deepen our understanding of what ails projects in this county. In addition, many of available studies have focused on projects commissioned by the national government, CDF and private projects. However, projects commissioned by county governments significantly differ from those initiated by other agencies in terms of scope, funding and management and therefore a study focusing on county government projects is necessary. A study was therefore necessary.

2. LITERATURE REVIEW

Theoretical Literature Review

The origins of systems theory can be traced to the work of Van Bertalanffy (1950). Von Bertalanffy viewed life of plants and animals as having common dynamics and complexities and therefore sought to develop a theory that was general in nature in that respect. Later Katz and Khan (1966) introduced the theory to management. Systems Theory is an interdisciplinary investigation of frameworks as they identify with each other inside a bigger, more complicated framework. It is an approach to manage affiliations which looks at the undertaking to a natural element with dependent parts, each with its own specific limit and interrelated liabilities. The core tenet of systems theory is that the sum of a system's elements is more significant than the sum of its parts' dimensions, regardless of the field to which it is applied (Walker, 2015).

Systems thinking is an approach to manage consolidation that relies upon the conviction that the part divides of a structure will act differently when isolated from the system's present situation or various bits of the system (Peters, 2014). In contrast to positivist and reductionist thinking, frameworks thinking aims to view frameworks holistically. It follows two fundamental premises, which remember taking a gander at reality for terms of wholes and recognizing that the climate is a fundamental piece of the framework, as it associates with the framework. Frameworks thinking devices have a wide assortment of utilizations. A few instruments are expected as method for working with gatherings of individuals to have a typical comprehension about an issue to provoke further request and activity.

Projects are complex and dynamic in nature. Karayaz, Keating and Henrie (2011) state that because projects have become complex, there has emerged a need to foster methods to deal with that intricacy. Systems thinking is therefore useful in project management. Task the board and frameworks thinking surely cross-over. Nonetheless, Sankaran, Haslett and Sheffield (2010), Despite the fact that they offer tremendous benefits in outlining and handling problems that arise according to diverse viewpoints and connections, project managers don't seem to use simple frameworks thinking devices. As a result of everything being connected both internally and externally, including people, organizations, and conditions, undertakings are also complex. Likewise, routinely systems are themselves part of more confounded structures concerning the present circumstance errands can be fundamental for initiatives that may be important for portfolios that be run by performing affiliations in turn (Walker, 2015).

A system theory disadvantage indicates that all of the factors have an equal influence and control over the company environment. According to Mutong'wa and Khaemba (2014), it is obvious that this is not the case since certain factors have a higher influence and degree of control than other variables. According to Sheffield et al. (2012), there are practical problems in applying systems theory to an organization. The problem arises in determining the boundaries of the system and identifying the interrelationships of the various subsystems. The way administrators handle their work is not clearly defined by system theory. Despite these weaknesses, social systems theory is important to project management and helps project managers reach a better understanding of determinants of project performance.

Empirical Literature Review

Majority of studies show that project initiation is poorly conducted usually skipping key steps and lacking critical support documents and this ultimately affects its performance. For instance, a study by Afolabi (2018) investigated project initiation factors, including social, just as dynamic viewpoints, and how they may be addressed to improve the chance of progress. The eminent hypothesis of IS project inception showed that the components addressed by the subjects should be distinguished during commencement however carried out all through the undertaking lifecycle to guarantee project achievement. The reason for Matu et al. (2020) study was to analyze the impact of partner investment in project commencement on fruition of metropolitan street transport framework projects in Kenya. The investigation set up that there was a positive impact of support in project inception on fulfillment of metropolitan street transport framework projects.

An investigation by Islam et al. (2011) the processes and activities surrounding project initiation in project management in Bangladesh were studied. The researchers contemplated various periods of undertaking inception measure to quantify their consequences for project achievement: project taken dependent on issue and opportunity, direct of achievability study, choice assumed the premise of attainability study, possibility study done by particular firm, having project sanction, project office and the venture audit. As to every factor other than the venture taken dependent on issue and attainability study done by specific firm there is a positive connection. That each factor contributes fundamentally to the accomplishment of a task. Nonetheless, the outcome for project taken dependent on issue shows a negative connection. This is because of the way that in our country we consider project the board practice works best as far as happenstance and most organizations will in general utilize project the executives viably in the event of benefiting of chance. Venture the executives practice, however utilized for issue, doesn't bring accomplishment because of the idea of issue itself and the absence important to utilize project the board adequately.

In another study, Mullaly (2013) investigated how singular entertainers take part in and support the most common way of settling on successful undertaking commencement choices. The outcomes showed that choice viability is an aftereffect of the adequacy of interaction and rule frameworks inside an association, and the organization of individual entertainers supporting the inception cycle. Office addresses the expectation, capacity and ability to act – and the comparing level of mindfulness – inside the standard climate of the association. Organization mirrors the readiness of entertainers to work inside, around or notwithstanding the prevailing principle framework. Office can attempt to help the impacts of interaction adequacy or rule viability, and office can likewise abrogate and make up for authoritative insufficiencies. Office can enhance rule adequacy where needed to help successful choices in verifiably engaged conditions, and can likewise be compelled in unequivocally engaged conditions that have a solid interaction capacity set up.

Elsewhere, Tabot et al. (2020) study was embraced to inspect what participatory undertaking initiation means for maintainable backwoods the executives in Saboti timberland in Trans-Nzoia County, Kenya. The council individuals are a portrayal of neighborhood variety, and the commitment of all partners is regarded together. The administration perceived the authentic interests and privileges of different partners, and standard investigations are directed with counsel during improvement of planning. The investigation inferred that participatory venture inception had critical impact on reasonable timberland the board. Local area interest during the initiation stage was vital and critical.

3. RESEARCH METHODOLOGY

The research design used in this study was a descriptive cross-sectional design with a quantitative approach. In this study, infrastructural projects in Meru County were the units of observation while project management committee members were the units of analysis. While simple random sampling was used to choose respondents, stratified random sampling was utilized to sample the projects. 140 respondents were selected as a sample from 28 infrastructure projects in Meru County. In order to gather the data for this study, a structured questionnaire was used. A pretest was carried out in Embu County to gauge the viability of the questionnaire used in this study. With the use of SPSS, descriptive statistics, correlation analysis, and regression analysis were used to analyze the data. Tables were used to display the study's findings.

4. FINDINGS

The findings of descriptive analysis on project initiation are given in Table 1.

Table 1: Project Initiation

Statement	SA	A	U	D	SD	M	StdD
Project feasibility studies were done	44.7	33.3	4.5	9.8	7.6	1.93	1.305
Objectives determined	35.6	38.6	7.6	7.6	10.6	2.14	1.211
Project scope determined	50.0	30.3	1.5	10.6	7.6	1.67	1.109
Financial resources allocated	37.9	28.0	6.8	15.9	11.4	2.67	1.413
Stakeholders identified	59.8	24.2	9.1	3.0	3.8	1.79	1.333
Meetings held	62.9	19.7	4.5	6.8	6.1	1.66	1.506
Risks Identified	30.3	16.7	3.0	29.5	20.5	3.61	1.971
Project charter developed	17.4	19.7	7.6	35.6	19.7	3.54	1.818
Average						2.38	1.458

According to the results in Table 1, 44.7 percent of respondents strongly agreed, whereas 33.3 percent agreed that project feasibility studies were conducted, this recorded a mean of 1.93 and a SD of 1.305. Similarly, 35.6 percent of respondents strongly agreed, and 28.6 percent agreed that the project's objectives were met during its start phase, a mean of 2.14 and a SD of 1.211 was recorded. As seen in Table 4.6, half of respondents (50 percent) strongly agreed, and 30.3 percent agreed that the scope of the project was decided at the commencement phase. According to the results, 37.9 percent of respondents strongly agreed and 28% agreed that appropriate financial resources were set aside during the project's start phase, a mean of 2.67 and a std deviation 1.413 was recorded. Slightly more than half of respondents (59.8 percent) strongly agreed that stakeholders were identified prior to the project's start. Additionally, the majority (62.9 percent) of respondents reported that regular meetings with structured agendas were planned prior to the project's start. According to the results, 30.3 percent of respondents strongly agreed that the project team recognized all potential hazards that may jeopardize its success, whereas 29.5 percent disagreed. Additionally, the results indicate that 35.6 percent of respondents disagreed, and 19.7 percent strongly disagreed that a project charter was established. The average mean of 2.38 and SD of 1.458 shows a agreement with project initiation items. This suggests that the vast majority project initiation activities were carried out. This finding is therefore in disagreement with findings of multiple studies such as Islam et al. (2011), Mullaly (2013), Afolabi (2018) and Mutwiri et al. (2018) which show that project initiation is poorly conducted usually skipping key steps and lacking critical support documents and this ultimately affects its performance.

Results of Inferential Statistics Analysis

Table 2: Correlation Analysis

		Process initiation	Project performance
Project initiation	Pearson Correlation Sig. (2-tailed) N	1 132	
Project performance	Pearson Correlation Sig. (2-tailed) N	.614 .000 132	1 132

Table 2 findings reveal that among infrastructure projects in Meru County, there was a high positive and significant association between project initiation and project performance ($r=0.614$, $p=0.000$). This is in line with the findings of Islam et al. (2011), who found that, with the exception of projects chosen based on an opportunity and feasibility study conducted by a specialized firm, the majority of factors involved in the project initiation process have a significant positive correlation with project success. It also backs up the findings of Simiyu et al. (2018) that the project start process has a significant and positive impact on how successful construction projects are.

Table 3: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	F	Sig.
1	.951 ^a	.904	.900	.340	237.810	.000

According to the results, 90.4% of project performance among infrastructure projects in Meru County could be attributed to project initiation. Therefore, project management processes are vital for achievement of project performance. This result agrees with PMI (2013) assertion that Successes and satisfaction for stakeholders are the outcome of continuous and organized performance brought about by project management.

Table 4: Analysis of Variance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	137.190	1	137.190	1224.911	.000 ^b
	Residual	14.538	130	.112		
	Total	151.727	131			

Results in Table 4 indicates that the model is significant (p=0.000) in predicting the association between performance and the predictors. These results also imply that at least one of the independent variables is significant. This result lends support to results of earlier studies which also found an association between PMPs and project performance (Ahadzie and Amoa-Mensah, 2010; Kissi and Ansah, 201; Ojeniyi and Razalli. 2015; Badewi et al., 2016; Njiru, 2018)

Table 5: Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients		95.0% Confidence Interval for B		
		B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound
1	(Constant)	0.042	0.138		0.302	0.764	0.030	0.049
	Project initiation	0.524	0.059	0.390	8.919	0.000	0.318	0.602

Using the unstandardized coefficients in Table 5, the new model is:

$$\text{Project performance} = 0.042 + 0.524 \text{ project initiation}$$

The goal of the study was to evaluate how project beginning affected project performance. Project beginning was significant, according to Table 4.16's findings (=0.524, p=0.000). This is consistent with the findings of Islam et al. (2011), who discovered that the majority of factors involved in the project initiation process have a significant positive correlation with project success, with the exception of projects chosen based on an opportunity and feasibility study completed by a specialized firm. Additionally, it supports the findings of Simiyu et al. (2018.) that the success of building projects is significantly and favorably influenced by the project beginning procedure.

5. CONCLUSIONS

Project initiation significantly influences project performance among infrastructure projects in Meru County. Specifically, good project initiation results in greater project performance. Majority of projects in the study identified stakeholders before commencement of the project, determined the scope during the initiation phase and organized frequent meetings. However not all potential risks that posed a threat to its success were identified and project charters were not developed.

6. RECOMMENDATIONS

Every project should have a project plan. This will aid in the documentation of planning assumptions and choices, as well as the facilitation of communication among project stakeholders. It will also serve to establish approved scope, cost, and schedule baselines. This will enable better planning and more involvement from stakeholders throughout the project.

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