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INFLUENCE OF PROJECT MANAGEMENT PROCESSES ON PERFORMANCE OF KENYA POWER LAST MILE CONNECTIVITY PROJECTS IN NAKURU COUNTY, KENYA

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Abstract

Electricity connection projects have faced diverse performance challenges across the world. Amongst the challenges were lack of increase of number of customers satisfied with the electricity services, and unsatisfactory numbers of meters that had been installed. Kenya last mile electricity connection project has continued to face diverse performance challenges. The last mile project has also been hit by procurement challenges which derail its implementation. This study seeks to examine the manner in which project management processes influences Performance of Kenya power last mile connectivity project in Nakuru County. The objectives of this study were to examine the influence of project initiation, project execution, project planning and project control processes on the success of last mile project performance. The study is based on the Open Systems Theory. The study was based on the descriptive research design and the target population consists of five departmental heads of the Design Department, Customer Service Department, technical teams, finance and supply chain departments and 148 Kenya Power staff. The study found out that there is statistically significant influence of project initiation, planning, execution and project control aspects on Performance of Kenya power last mile connectivity projects in Nakuru County, Kenya. The following multiple regression model was arrived at; Y = 0.179 + 0.250X1+ 0.208X2 + 0.213X3 + 0.238X4 + 0. 0.10249, where; X1 = Project Initiation Process, X2 = Project Planning, X3= Project Execution and X4= Project Control. The regression model had an R Square value of 0.802, which indicates that 80.2% of the variation in performance of Kenya power last mile connectivity projects in Nakuru County can be explained by project initiation, project planning, project execution and the project control. The model has a statistically significant predictive capability as shown by F(4, 120) = 121.295, p-value less than 0.05.In addressing Performance aspects of Kenya Power Last Mile Connectivity projects, the study recommendation Kenya power to first consider project initiation aspects, followed by project control, execution and lastly project planning aspects.

Keywords: Project Control, Project Execution, Project Planning, Project Initiation

I.Introduction

Understanding of project management process is guided by understanding the concept of a project. A project has been perceived as a set of interrelated activities or tasks that are undertaken within a specified period, resources and costs inorder to achieve a specific objective, product, service or results. A project is often characterized by scope, resources, time, quality, and risk aspects. The scope of the project identifies what is to be covered by the project in terms of the potential benefits of the project, and geographical scope amongst other considerations (Nyabera, 2015). The resources component of the project details the resources that was utilized during the project implementation including people, technology, and financial resources amongst others. The time aspects details a specific timeline for the project undertaking including the start of the project and end of the project (Nyabera, 2015). Project management process is composed of four aspects that is project initiation, project planning, project execution and project control amongst other aspects.

According to Justin, Mbabazize, & Zenon (2016) project initiation involves the creation of guidelines to assist in project management through identification of key components of projects and determination of necessary steps to achieve set project objectives. Amongst the aspects determined at the project initiation level include timelines for project execution,

definition of the problem to be solved, and proposed solution of the problem (Nyabera, 2015). Other aspects include identification of internal and external stakeholders including their engagement and consideration of their opinions.

Project planning involves the organization of diverse components of the project with a view of making the project management process a success(Mukhwana, 2013). Amongst the aspects that need organization include diverse tasks or activities that need to be undertaken in the project, the work load distribution amongst the human resources available, procurement aspects and the timelines of diverse activities (Nyabera, 2015). Project planning must also illustrate the dependencies within diverse tasks and activities with a view of indentifying a critical path that must be followed to achieve project objectives as soon as practically possible. Project planning assists with the actualization of the project management aspects.
Project implementation involves the actual actualization or achievement of the project planning and initiation processes inorder to achieve the desired project deliverables. This phase involves the allocation of resources on the ground to achieve the project objectives, the coordination of diverse functions on the ground, and addressing arising aspects within that coordination. Finally, the project control aspects include aspects of collecting information about the project with a view of enabling the management in gaining an understanding and making decisions in relations to time and costs aspects of the project amongst other factors (Mukhwana, 2013). Project control has also been examined as all the actions that are undertaken by project managers in the uncertain project implementation stages to ensure that the project is on course in relations to its mandates and objectives, timelines and cost implications. Project control includesaspects such as communication, corrective actions taken and stakeholder managements amongst other aspects (Nyabera, 2015).

Performance of the electricity connection and expansion has been a challenge across the world. In Kyrgyz republic, there are noted performance challenges with electricity supply accountability and reliability project that is funded by World Bank to the tune of US$25 million commencing from 2014 (World Bank., 2018a). The project aimed to improve performance and reliability of electricity supply to Bishkek, Chui and Talas regions. The project was being undertaken by the state owned electricity company; Severelectro JSC. However, the World Bank in its ratings of the project's performance on 26th of December, 2017 rated it as moderately satisfactory and moderately unsatisfactory in relations to progress towards achievement of Project Development Objective (PDO) and Overall Implementation Progress respectively (World Bank., 2018a). Amongst Performance challenges that were noted and that led to Performance rating of the project as moderately unsatisfactorily were electricity losses per year at 22% against a target of 18%.

Performance of electricity connectivity projects were also noted in Philippines. The World Bank funded a rural electrification project to the tune of 16.7 United States Dollars with the project commencing in 2003 and ending in 2012 (World Bank., 2012). The purpose of the rural electrification project was expansion of electricity access to the rural communities within the country. At the completion of the project in 2012, several factors were used by the World Bank to rank Performance of the project. These factors included achievement of Project Development Objective (PDO), overall implementation progress, and overall completion outcomes. These factors were rated moderately unsatisfactory for both Project Development Objective (PDO), and overall implementation progress and moderately satisfactory for overall completion outcomes (World Bank., 2012).

In Uganda, the electricity connectivity projects have also faced challenges similar to those in other parts of the world. In 2017, Ferdsult Engineering Services Limited (FESL) which was a private company contracted to connect electricity in the rural areas discontinued electricity supply to seven districts in western Uganda (Wesonga, 2017). Amongst Performance challenges that FESL found was inability of the electricity connection being cost effective. The company was unable to pass its operating costs to its customers. The company failure to connect people within the rural set was attributed to its high connection fees (Wesonga, 2017).

Kenya has undertaken several electricity connectivity projects in the past few years which have been chiefly funded by the World Bank and Africa development bank. These projects have enjoyed diverse performance ratings during periodic performance reviews (World Bank., 2018b). For example, Kenya Electricity Modernization Project that is World Bank funded commenced in March 31 2015 and is scheduled to end in June 30, 2020. The project that is funded to the tune of 562 US dollars aims at increasing access to electricity, improving reliability of electricity service and strengthening Kenya power financial situation. The latest rating of the project dated first of February, 2018 indicated that the project was satisfactory towards achievement of PDO and progress towards completion of the project (World Bank., 2018b).

II. Statement of the Problem

The electricity connection projects have faced diverse performance challenges across the world. In Kyrgyz Republic, the electricity supply accountability and reliability project valued at US$25 million was rated as moderately satisfactory and moderately unsatisfactory in relations to progress towards achievement of Project Development Objective (PDO) and Overall Implementation Progress respectively (World Bank., 2018a). Amongst the challenges were lack of increase of number of customers satisfied with the electricity services, and unsatisfactory numbers of meters that had been installed. In Philippines, the rural electrification project to the tune of 16.7 United States Dollars was rated as moderately unsatisfactory for both Project Development Objective (PDO), and overall implementation progress and moderately satisfactory for overall completion outcomes (World Bank., 2012). In Uganda, Ferdsult Engineering Services Limited (FESL) discontinued the supply of electricity to rural western Uganda due to inability to pass its operating costs to its customers. The company failure to connect people within the rural set was attributed to its high connection fees (Wesonga, 2017).

Kenya Power is undertaking the last mile project with an aim of extending power supply connectivity to over 1.2 million customers. These customers are spread over the country and within the vicinity of existing 45,000 distrubution transformers. The targeted customers need to be within 600 meters of the transformer. The project objectives include over 300,000 new electricity connections, construction of low voltage distribution lines, and improvement of Kenya power expertise capacity in electricity supply management aspects. The financiers of the last mile project are African Develeopment Bank and the Government of Kenya to the tune of 13.5 billion shillings.The project is being undertaken in three phases that is phase 1 being the extension of electricty supply to customers within 600 meters of transformers, phase two being the installation of half a million new transformers and phase three being the extension of electricity supply within these installed transformers. The second and third phase of the project are estimated to reach over two and a half million kenyans.

Kenya last mile electricity connection project has continued to face diverse performance challenges. Kenya power in March of 2017 indicated there was a challenge in ability of customers to load tokens in their meters. This affected upto 940, 668 customers. The last mile project has also been hit by procurement challenges which derail its implementation In 2018, CCC international contested the awarding of a tender of building and installation of electricty to seven counties to Bajaj Electricals and Wayne Homes. The seven counties were Nandi, Kakamega, Bungoma, Nakuru, Samburu, Laikipia and Nyeri. The economic viability of the last mile project has been raised. This is due to the fact that some of the connections have been done on semi permanent houses and the customers being connected without having fully paid the requsite Ksh 15,000 which they pay in installments . This has the capacity of increasing the monthly payments. This study seeks to examine the manner in which project management processes influences Performance of Kenya power last mile connectivity project in Nakuru county.

III.Research Objectives

This study was guided by the following research objectives;

1. To examine influence of project initiation on performance of Kenya power last mile connectivity projects in Nakuru County, Kenya.
2. To establish the influence of project planning on performance of Kenya power last mile connectivity projects in Nakuru County, Kenya.
3. To examine the influence of project execution on performance of Kenya power last mile connectivity projects in Nakuru County, Kenya.
4. To examine the influence of project control on performance of Kenya power last mile connectivity projects in Nakuru County, Kenya.

IV.Research Hypotheses

The study was carried out to answer the following research questions;

1. **H_{01}:** There is no statistically significant relationship between project initiation and performance of Kenya power last mile connectivity projects in Nakuru County, Kenya.
2. **H_{02}:** There is no statistically significant relationship between project planning and performance of Kenya power last mile connectivity projects in Nakuru County, Kenya.
3. **H_{03}:** There is no significant relationship between project execution and performance of Kenya power last mile connectivity projects in Nakuru County, Kenya.
4. **H_{04}:** There is no significant relationship between project control and performance of Kenya power last mile connectivity projects in Nakuru County, Kenya.

V.Literature Review

Project Initiation Process and Project Performance

In Finland, Aapaoja (2014) undertook a metadata analysis to examine the role of project initation in project performance aspects. The study noted that in Finland, the purpose of project initiation process included evaluation of the project's feasibility and suitability from diverse project stakeholders.

In a study based in Zambia, Mkuni (2016) sought to examine the role of project initation in the completion of road construction projects in the country. The study conceptualized the project initiation process as the process of defining project objectives, scope, intended purpose and expected deliverables. Mkuni (2016) indicated that project initation aspects that influenced project performance included stakeholders involved in project initiation aspects.

In this context, the study found that 60% of the road construction projects were initatied by the politicians. The study noted that the politicians initiated projects owing to their political influence of key decision makers within the government. Mkuni (2016) indicated the huge influence of the politicians in project initation in Zambia led to undermining the viability of some projects as advice from experienced technocrats was sometimes not considered. Other project initation factors that influenced project implementation success included 40% of respondents indicating that undertaken projects were not in accordance to the development strategic plans raising possibilities of projects not being a priority for the target beneficiaries.

In Rwanda, Justin, Mbabazize, & Zenon (2016b) examined the role of project initiation on project success within Rwandan health services. The study conceptualized project initation as the creation of sound guidelines for project management and determination of steps to follow in implementation of those projects. In this context, amongst the aspects that are identified include timelines and persons in charge of diverse steps in project management aspects. Using a sample size of 86 respondents, the study found a weak but positive correlational relationship between project intiation and project success at a correlation of 0.449.

In a study based in Kenya focusing on project initiation process on project performance, Kahindi, (2014) conceptualized project initiation as the laying of foundation for everything that falls in place systematically as per the structure of the project. The study sought to examine the factors influencing project initation in respect to the bible translation projects at the coast region. To achive its objectives, the study utilized a mixed methodology with both qualitative and quantitative data collection methodologies. A sample size of 360 respondents composed of church leaders, area chiefs and bible translation staff were utilized for the study. Using frequency distribution, the study found that financial resources, stakeholder participation, and technical expertise were critical aspects of project initiation phase.

The role of project initation on project performance was further examined by Nkatha (2014) in a study focusing on completion of construction projects in Korogocho slums. The study adopted a descriptive survey research design and a target population of 380 respondents derived from Korogocho dwellers. The study by Nkatha (2014) used structured questionnaires for the purposes of data collection aspects. The study found that the project initiation phase influenced project implementation through stakeholders attendance of project initiation meetings and participation in the project initiation phase. In this context, Nkatha (2014) found that upto 76% of the respondents participated in the project initiation phase. The author further indicated that74% of the respondents were knowledgable on the project details and the objectives of the project.

Using schools in Nyeri County, Maina (2009) study sought to examine the role of project initation on success of academic improvement projects in the county.Similar to Kahindi (2014), the study conceptualized project initation phase to involve definition of the project scope aspects. Using frequency distribution means of analysis, the study found that only 11% of the stakeholders were involved in the project initiation phase. Using correlational analysis, the study found a positive correlational coefficient of 0.801 between project initiation and project performance success that was significant at 0.01 level of significance.

Project planning and Project Performance

Focusing on Canada, Serrador (2013) undertook a literature review of the role of project planning on the project performance in the country. The study conceptualized the role of

project planning on project performance in terms of the time and resources spent on project planning aspects. The study utilized a metadata analysis methodology in which a total of 280 papers and books were examined and reviewed. In conceptualization of the project planning, Serrador (2013) is the set of processes performance to establish the total scope of effort, define and refine the objectives, and develop the course of action required to attain those objectives. The study noted that how much to plan in an extremely dynamic environment have an influence on project performance. The study notes that there should be a balance between too much planning and too little planning aspects.

In the United States of America, Escamilla (2011) examined the role of project management planning on project performance with a focus on the renovation of historical buildings in Texas. The study utilized a sample size of 75 project management teams from the renovation of diverse historical buildings in Texas. Amongst the planning aspects that were examined included planning for budgets, performance, satisfaction, and time management aspects. The study results indicated that budget planning was the item that was first ranked in respect to its impact on project performance with 20% strongly agreeing and 40% agreeing with the metric. The planning aspects for performance had 30% of the respondents strongly agreeing with 40% agreeing with the importance of the metric towards project performance. In respect to time, project planning was indicated by 50% as a critical component leading to project performance.

Marren (2016) in a study focusing on health projects in Gedo Region, Somalia sought to examine amongst other aspects the role of project planning on project performance. Using a sample size of 50 respondents derived from world vision staff undertaking the health projects in Somalia, the study sought to find diverse ways in which project planning influences project performance. In response to the question as to whether, project planning enables effective project implementation determination 96% of the respondents indicated affirmative to the question. This indicated that a majority of the respondents felt that the project planning aspects were critical in the project implementation phase. Using a five point likert scale (5 – Great Extent, 4 – Moderate Extent, 3 - Neutral, 2 – Low Extent, 1 – No Extent), the study sought to find the extent to which the project planning aspects influenced project implementation aspects. In this context, the study found that diverse extents of project planning aspects influenced project performance at Gedo region in Somalia. These aspects included speed in deployment of project resources (mean of 2.22), ease of project staffing (mean of 4.51), adequacy of scheduling (mean of 2.19), and impact on project stakeholders understanding of project timelines (mean of 3.22). Using correlational analysis, the study revealed that project planning has a correlational coefficient of 0.625 with project implementation aspects which was significant at 0.01 level of significance.

The project planning has an impact on the project performance. According to Sefhemo, (2016) in a study focusing on project implementation in public sector in Botswana, the project planning phases involves the detailed planning of diverse aspects of project implementation phase. These components include aspects such as resources, financial aspects, quality control, risk management, communication, and procurement aspects. In the metadata analysis paper, Sefhemo, (2016) noted that project planning phase helps in project performance through defining how major tasks in the project implementation aspects was undertaken, the resources that are required , project control mechanisms, identification of possible risks in project implementation, and technical expertise required for the project to be undertaken.

In a study focusing on building contractors project implementation, Nyaga (2016) examined the project planning aspects influence on project performance within the building industry. A descriptive research design was adopted by the study and a mixed methodology adopted by the study. Using a five point likert scale to measure the extent of usage of diverse planning softwares, Nyaga (2016) study revealed low usage of planning software. In this context, the study found that amongst the softwares utilized for planning purposes included Microsoft project (mean of 2.47), Enterprise Resource Project (mean of 1.48), Primavera (mean of 1.48), Power Project (Mean of 1.47), and PMSystems (1.17). This demonstrates poor usage of ICT resources for the purposes of planning aspects within the construction process.

The role of project planning on project performance was further examined by Njuguna, (2012) in a study focusing on Kazi Kwa Vijana projects in Kenya. The study conceptualized project planning to include diverse aspects such as selection of planning team, creation of work breakdown structure, and identification of set of activities needed complete given project milestones. Other activities included estimation of resources requirements for the project activities, estimation of time and cost expenditure, schedule development, and budget consideration amongst others (Njuguna, 2012). Using a sample size of 93 respondents derived from Youth groups in Githunguri, the study found diverse ways in which project planning influenced project performance. The study found that 44% of the respondents strongly agreed that project planning led to improved project performance. A further 32% of the respondents indicated that lack of work breakdown structure during project planning phase led to project failure.

In the construction industry, Ogero (2014) examines the role of project planning on project performance aspects. The study utilized a target population of 98 construction firms and a structured questionnaire for the purposes of data collection aspects. The study examined the project planning management tools utilized within the industry. Using a five point likert scale, the study found that amongst the project planning tools utilized included work breakdown structure (mean of 3.409), resources estimation (mean of 3.426), overall schedule (mean of 3.000), and Gantt schedule (mean of 3.573).

Project execution and Project Performance

In Bangadesh, Ullah (2014) undertook a study that examined the role of project execution on Performance of construction projects in the country. The study administered structured questionnaires to 24 respondents derived that consisted of engineers in the public work construction industry. The study results revealed that procurement aspects within the project execution was found to influence project performance aspects. The lengthy the process of procurement aspects the longer project performance took.

In the United Kingdom, Reddan (2015) examined the role of project execution on project performance aspects. The study administered questionnaires to 48 respondents composed of project managers. The study revealed the programs utilized for the purposes of project executiones included flow charts, checksheets, and control charts. The study results further revealed quality management plan as being important in project implementation with upto 80% indicating that it is important.

In a study focusing on the project execution within healthcare projects in Ogaden, Somalia, Marren (2016) examined the factors influencing the project execution aspects. The study utilized a descriptive survey research design and a target population of 55 respondents

composed of world vision employees working in Ogaden area of Somalia. A structured questionnaire was utilized for the purposes of data collection aspects. The study utilizing a five point likert scale (5 – Great Extent, 4 – Moderate Extent, 3 - Neutral, 2 – Low Extent, 1 – No Extent) found that diverse aspects influenced project execution aspects to a moderate and great extent aspects. Amongst these aspects include timely provision of funds for project implementation (mean of 2.43), staff project relations (mean of 2.17), systemic and efficient implementation efforts (mean of 3.81), timely project control feedbacks (mean of 2.11), and corrective measures being undertaken (mean of 4.46). In the context of project implementation aspects, Marren (2016) indicated that the aspects that were considered critical indicators for project implementation aspects included project product delivery (mean of 3.02), budget delivery (mean of 4.57), time delivery (mean of 3.42), and project product quality (mean of 4.44).

In a study focusing on Non Governmental Organizations in Nairobi, Too (2015) examined the project implementation factors within the NGO projects. Using a five point likert scale, the study revealed diverse project implementation considerations within the NGO projects in Nairobi. These aspects included completion of projects within stipulated timelines (mean of 2.91), projects costs being within budgeted amounts (mean of 2.73), quality of implemented projects (mean of 2.68), and satisfaction of the targetted beneficiaries of the project (mean of 2.68). This indicated that the respondents are moderately satisfied with the project implementation aspects. The study utilized a sample size of 121 respondents derived from the NGO staff within Nairobi and utilized structured questionnaires for data collection purposes.

Using government initiated community projects, Obiero (2017) undertook a study that sought to examine the manner in which project implementation aspects influenced community projects.To achieve its objectives, Obiero (2017) used a descriptive research design and a sample size of 100 respondents composed of diverse government officials involved in government initiated community projects. Using a five point likert scale, the study zeroed in on the role of financial management aspects on project implementation aspects. Amongst the aspects that were examined inculded timely payments of contractor's payments (mean of 3.319), timely payment of site workers(mean of 2.68), timely payments of suppliers (mean of 3.13), and timely disbursement of funds (mean of 3.27). These factors were found important inorder to prevent delays in implementation of projects and the smooth project work flow aspects. Using correlational analysis, the study found that there was a positive correlation of 0.691 between financial management aspects and project implementation aspects. Obiero (2017) further noted that other aspects that influenced project implementation aspects included project stakeholder coordination aspects during project execution aspects (mean of 2.52), and change management aspects within project implementation (mean of 3.56).

The role of project execution on Performance of a project was further examined by Muchiri (2014).He examined the role of project execution aspects on project performance of CDF projects in Kirinyaga county. With a view of achieving its objectives, the study utilized a descriptive research design and a sample size of 100 respondents composed CDF projects beneficiries. Using a five point likert scale measurement, the study found diverse ways in which the project execution impacts on project performance. These aspects include meeting deadlines during project implementation (mean of 4.86), coordination of people and resources during projecty implementation (mean of 4.82), and activities coordination during project implementation (mean of 4.00). This indicated that the respondents agreed with the project execution aspects being influential on the project performance aspects. Using

correlational analysis, the study also found a positive and significant relationship between project implementation aspects and project performance as measured using timely completion of projects. The achieved correlation coefficient was 0.523 which was significant at 0.01.

Project control and Project Performance

In Myanmar, Salleh, Kajewski, & Yang (2009) in a study focusing on the construction of dams examined the manner in which project control impacted on the project performance. The study administed questionnaires to 96 respondents composed of project managers from NGOs, government and private projects. The study results indicated that a majority of 57% of the respondents strongly agreed that systematic control over project execution impacted on project performance. A further majority of 61% of the respondents strongly agreed that monitoring and controling of project work influenced its success.On the other hand, 30% and 65% of the respondents indicated that they agreed and strongly agreed that quality control measurement influenced project performance.

Project control has been noted by diverse scholars to be an integral component of project performance aspect in Canada. Montaser (2013) undertook a study to examine the ways in which project control can be undertaken. The study noted that project control starts with the project schedule creation after a detailed Work Breakdown Structure has been conceptualized. Montaser (2013) noted that amongst the aspects involved in project control include tracking of time used in project implementation through use of schedules. Other aspects that are tracked included expenditures and scope acommplishments against the set performance targets. The study was a metadata analysis of the other reasearchers' work and was thus limited in the generalizability of its findings.

In sudan, Alex (2014) undertook a study that examined the role of project control with a focus on projects within Caritas Torir county. The study utilized a sample size of 146 respondents drawn from a population of 1464 residents of the Caritas Torir county who had benefited from diverse projects. In respect to the tools utilized in undertaking project controls, the study revealed that 8% of the respondents utilized performance indicators, 13% utilized cost benefit and cost effectiveness analysis, and 50% utilized a log frame analysis aspects while a further 17% utilized impact evaluation report.

In Ghana, Tamimu (2017) undertook a study that examined the role of project control on the water and sanitation projects in the country. The author used a mixed methodology in the study in which both the qualitative and quantatitative data was collected. The study noted that the project owners relied on the reports from decentralized departments for the purposes of project controls on the ground. The collaboration between diverse stakeholders is also critical in the project control aspects within water and sanitation programs in Ghana.

Focusing on successful electricity installation, Kiarie (2017) examined the role of control and monitoring on the successful electricty installation within Nakuru region. The study utilized structured questionnaires to derive information from 100 respondents.Amongst the monitoring and evaluation processes that were found to influence successful electricity installation included monitoring of electricity installation process to ensure adherence to set timelines, scope of the exercise, set budgets, and customer sartisfaction levels.

In Kenya, Makale (2013) examined project control within the context of contact center projects in commercial banks. The study identified aspects of project control to include

information gathering about the project, communication aspects on any noted disparities during project implementation, analysis of casues of divergence from project objectives and project work flow examination.Using a sample size of 111 respondents drawn from construction firmheads, assistant construction firm heads, and operation firms in construction firms, Gitonga (2014) examined the role of project control on project implementation within construction firms in Mombasa, Kenya. The study conceptualized project control as the element that keeps the project on-track, on-time and within budget which starts at the project initation phase and ends at the post implementation examination phase.

Project control influence on project performance was also examined by Kamurua (2013) in a study focusing on projects within Ministry of Immigration, Kenya. The study using qualitatitive data methodologies and interview method of data collection found diverse ways in which project control influenced performance. The respondents drawn from diverse departments such as Accounting and Finance, Administration, Procurement, Human resource Information Communication Technology and Statistics that had been interviewed gave ways in which project control influenced performance. In this context, Kamurua (2013) indicated that the respondents noted that project's control enabled increase in efficiency of project management staff, increase in accountability of funds expenditure, and improvement in achievement of project objectives. The author noted that these aspects are achieved through the project control aspects assisting in helping the project managers to keep track of performance against set objectives and placing mechanisms for checking on project deviation from set objectives.

Using a likert scale based questionnaire, Lawrence (2013) examined the role of project control on the project implementation of irrigation projects in Meru Central District. The study found that the respondents tended to agree diverse project control aspects were undertaken due to the relatively high means that they scored in a five point likert scale. Lawrence (2013) study found that respondents on average tended to agree on physical verification being undertake as form of project control (mean of 4.53), regular project visits (mean of 4.50), regular group discussions (mean of 4.88), and review of achievements against set objectives (mean of 4.78). These results indicated that these components influenced irrigation project performance to a great extent within Meru central district. To achieve its objectives the study had utilized a sample size of 294 respondents derived from a target population composed of irrigation project members.

In a study focusing on Constituency Development Funded (CDF) projects, Nyakagwa (2016) examined the role of project control on the project implementations performance. The study was based on descriptive research methodology and a target of 200 CDF funded projects within schools. The study found that the project control tools utilized as indicated by respondents included performance indicators (14%), logical framework (22%), formal survey (28%), rapid appraisal (12%), and cost benefit analysis (24%). Amongst the aspects that were controlled included project information (16%), project progress (48%), project budget (24%), and project quality (12%).

VI.Research Methodology

As defined by Orodho & Kombo (2002), research design is the strategy a researcher uses to compile ideas and procedures in achieving the set objectives of a research. Mugenda & Mugenda (2013) defines research design as the blueprint that contains guidelines and procedures to use in data collection, analysis and reporting of findings. This study adopted

correlational research design to be utilized for the quantitative data to be collected through the questionnaire. This study used a target population 236 respondents composed from staff from design and construction, finance, supply chain, marketing, technical services and customer service. A sample size of 148 respondents was derived using Yaro Yamane formula.The researcher gathered primary data from KPLC staff using closed-ended questionnaires also known as structured questionnaires. A structured questionnaire is a research tool that provides a list of all possible alternative responses to questions therein(Kothari, 2004).

VII.Research Findings and Discussions

This study carried out a multiple regression analysis to establish the influence of project initiation, project planning, project execution and the project control on Performance of Kenya Power Last Mile Connectivity projects. Table 1 shows the model summary and overall fit statistics for the multiple linear regression.

Table 1: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.895[a]	0.802	0.795	0.10249

a. Predictors: (Constant), Initiation, Planning, Execution, Control

The table shows column for R, R Square, Adjusted R Square and standard Error of the Estimate. R is the correlation between the predicted values and the observed values of the dependent variable, which indicates the quality of the regression model in predicting the dependent variable in a model. R Square is the square of the correlation between the predicted values and the observed values of dependent variable and indicates the percentage of variation explained by the independent (predictor) variables. It shows the goodness-of-fit of the regression model. The adjusted R indicates the expected improvement of model by chance in case additional predictors are included in the regression model. The standard error of the estimate is the standard deviation between the predicted values and the observed values of dependent variable in the model and is used to indicate the accuracy of prediction of the regression model (Saunder, Lews, & Thornhill, 2009).

As shown in Table 1, R= 0.895 which shows there was strong correlation between the observed values and predicted values of project performance in this model and therefore the model is of good quality. R^2 value of 0.802indicates that 80.2% of the variation in Performance of Kenya Power Last Mile Connectivity projects can be explained by how project initiation process, project planning, project execution is done. Therefore there is high goodness-of-fit data into the regression model. There was low standard error of the estimate of 0.122684 and therefore the regression model is accurate in its prediction. The study further used F-test to test the significance of the regression model as shown in Table 2.

Table 2: Analysis of Variance

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	5.096	4	1.274	121.295	0.000[b]
Residual	1.260	120	0.011		
Total	6.357	124			

a. Dependent Variable: Project performance

b. Predictors: (Constant), Initiation, Planning, Execution, Control

The F-test of overall significance indicates the model capacity to statistically and significantly predict the dependent variable better than a model that contains no independent variables. If the P-value value is less than the significance level chosen for this study (this study used 0.05 significance level), then it would imply that the model has significant predictive capacity(Upagade & Shende, 2012).From the ANOVAresults,F (4, 120) = 121.295, p. < 0.05. This implies that the model has statistically significant predictive capability. Therefore the regression model is significant and provides goodness of fit to the data. Table 3 shows the regression coefficients of the variables used in the study.

Table 3: Regression Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	0.179	0.094		1.897	.060
Initiation	0.250	0.022	0.472	11.257	.000
Planning	0.208	0.023	0.365	8.877	.000
Execution	0.213	0.029	0.309	7.320	.000
Control	0.238	0.021	0.484	11.524	.000

a. Dependent Variable: Project Performance

The unstandardized beta for this regression model according to Table 3 was 0.250for project initiation, 0.208 for project planning, 0.213 for project execution and 0.238 for project control. The unstandardized beta coefficients show the level of influence of the independent variable on the dependent variable (Upagade & Shende, 2012). This implies that for every one-unit increase in project initiation aspects, Performance of Kenya Power Last Mile Connectivity projects increases by 0.250 units. It also means that for every one-unit increase in project planning aspects, Performance of Kenya Power Last Mile Connectivity projects increases by 0.208 units. Additionally, for every one-unit increase in project execution aspects, Performance of Kenya Power Last Mile Connectivity projects increases by 0.213 units. Lastly, for every one-unit increase in project control aspects, Performance of Kenya Power Last Mile Connectivity projects increases by 0.238 units. From the above findings, project initiation has the greatest influence on performance of Kenya Power Last Mile Connectivity projects, followed by project control, execution and lastly project planning, however their influence are relatively the same.

Table 3 also shows the t-statistics and its associated p-values. T-statistics shows the significance of each predictor in the multiple regression in predicting the dependent variable in the model. If the p-value falls below 0.05, which is the chosen significant level in this study, the corresponding variable significantly predicts the dependent variable in the regression model. The t-statistics and its associated p-values were used to test the study hypothesis as follows;

H_{01}: There is no statistically significant relationship between project initiation and performance of Kenya power last mile connectivity projects in Nakuru County, Kenya. In regard to the first hypothesis of the study, it was found out that there is statistically significant relationship ($t=11.257$, $p<0.05$) between project initiation and performance of Kenya power last mile connectivity projects in Nakuru County. Therefore, based on the findings of this study, the null hypothesis of the study was rejected. This implies that project

initiation is a significant predictor of performance of Kenya power last mile connectivity projects in Nakuru County.

H_{02}: There is no statistically significant relationship between project planning and performance of Kenya power last mile connectivity projects in Nakuru County, Kenya. In view of this second hypothesis, it was found out that there is statistically significant relationship ($t=8.877$, $p<0.05$) between project planning and performance of Kenya power last mile connectivity projects in Nakuru County. Therefore, the null hypothesis of the study was rejected. This implies that project planning is a significant predictor of performance of Kenya power last mile connectivity projects in Nakuru County.

H_{03}: There is no statistically significant relationship between project execution and performance of Kenya power last mile connectivity projects in Nakuru County, Kenya. The study found out that there is statistically significant relationship ($t=7.320$, $p<0.05$) between project execution and performance of Kenya power last mile connectivity projects in Nakuru County. Therefore, the null hypothesis of the study was rejected. This implies that project execution is a significant predictor of performance of Kenya power last mile connectivity projects in Nakuru County.

H_{04}: There is no statistically significant relationship between project control and performance of Kenya power last mile connectivity projects in Nakuru County, Kenya. The study found out that there is statistically significant relationship ($t=7.320$, $p<0.05$) between project control and performance of Kenya power last mile connectivity projects in Nakuru County. This null hypothesis of the study was therefore rejected and hence project control is a significant predictor of performance of Kenya power last mile connectivity projects in Nakuru County.

In conclusion, the study established that project initiation process, project planning, project execution and the project control are significant predictors of Performance of Kenya Power Last Mile Connectivity projects. Therefore, the following multiple regression model was arrived at; $Y = 0.179 + 0.250X_1 + 0.208X_2 + 0.213X_3 + 0.238X_4 + 0.\ 0.10249$, where; X_1 =Project Initiation Process, X_2= Project Planning, X_3= Project Execution andX_4= Project Control.

VIII.Conclusion of the Study

In regard to the influence of project initiation on performance of Kenya power last mile connectivity projects in Nakuru County, the study concludes there is statistically significant influence of project initiation aspects on Performance of Kenya power last mile connectivity projects in Nakuru County, Kenya. Focusing on the influence of project planning on Performance of Kenya power last mile connectivity projects in Nakuru County, it is concluded that there is statistically significant influence of project planning aspects on Performance of Kenya power last mile connectivity projects in Nakuru County, Kenya.

In respect to the influence of project execution on performance of Kenya power last mile connectivity projects in Nakuru County, the study concludes that there is statistically significant influence of project execution aspects on Performance of Kenya power last mile connectivity projects in Nakuru County, Kenya. On the influence of project control on performance of Kenya power last mile connectivity projects in Nakuru County, the study

concludes that there is statistically significant influence of project control on Performance of Kenya power last mile connectivity projects in Nakuru County, Kenya.

IX.Recommendations of the Study

This study recommends Kenya Power to identify all project stakeholders before commencing of Kenya Power Last Mile Connectivity projects. This recommendation is based on relatively low mean obtained on this metric. This will ensure efficiency in the other stages of project implementation. This study also recommends that all procurement undertakings to be done prior to execution of Kenya Power Last Mile Connectivity projects

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