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PROJECT PLANNING AND IMPLEMENTATION OF COUNTY FUNDED ROAD PROJECTS IN UASIN GISHU COUNTY, KENYA

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ABSTRACT

Government projects are vital to the citizens, who are the beneficiaries. Funded programs seek to address socio-economic development challenges facing the marginalized population. Therefore, such projects' failure bring with it a profound negative socio-economic impact to the project beneficiaries. The general objective of this study is to establish the relationship between project planning and successful implementation of county funded road projects in Uasin Gishu County. The study was guided by Resource-Based View Theory. The positivist philosophy was used to drive the study. The research used a descriptive survey. The study was conducted in Uasin Gishu County. According to Uasin Gishu County report (2023) there is a total of 250 employees in the management levels under the ministry of roads and public works. The unit of analysis was therefore County Funded Road Projects in Uasin Gishu County while the unit of observation was 250 management employees. The research employed Taro Yamane's (1967) sample size calculation, assuming a 5% error term. The research picked 153 people from a target sample of 250 employees. Employees that work on road construction in Uasin-Gishu County make up the majority of this group. Thematic analysis was used to analyze qualitative data whereas descriptive and inferential statistics (Pearson correlation coefficient, multiple regression analysis, and stepwise regression analysis) were used in analyzing quantitative data with the help of the SPSS statistical software. The study used a 95% confidence level. Based on the findings, the study concluded that project planning positively and significantly influences successful implementation of county funded road projects in Uasin Gishu County. This this therefore recommends that the Uasin Gishu County should consider allocating resources and efforts towards strengthening project planning methodologies. This could involve providing training programs for project planners, adopting advanced planning tools and technologies, and fostering collaboration between relevant stakeholders.

Key Words: Project Planning, Implementation of County Funded Road Projects

Background of the Study

Köhler *et al*. (2012) define project management techniques as the science of planning, developing, and managing activities to assist the project team in overcoming problems across the project lifecycle processes. According to Barriere (2003), project management methods have evolved into a management tool for achieving optimum project implementation performance. Organizations have adopted it to overcome a variety of difficulties posed by globalization and developments in business operations (Fewings & Henjewele, 2019).

Designing process, purchasing, planning and monitoring, corporate governance, people engagement, budget management, delivery processes and certification, the new verification, user training, and post-project monitoring are all examples of project management methods (Abuya, 2015; Carvalho, 2015; and Zhang & Fan, 2014). Organizations that use optimal project management methods reap several benefits, including knowledge transfer, good communication, cost and time, improved process quality, improved market position, an international perspective to labor, and better project monitoring and control (Ilies, Crisan & Muresan, 2010).

Projects provide a significant contribution to economic and social development (Bond-Barnard, Fletcher, & Steyn, 2018). The major objective of project management is to effectively complete a project on schedule, on budget, and on quality while managing the unique project environment (Floricel, Michela, & Piperca, 2016). Project management methods, according to Kebeya (2015), have become a universal instrument for maximum performance for every firm seeking professionalism. Project management techniques, according to Tinoco, Sato, and Hasan (2016), are the skills and science of planning, creating, and managing activities across the project lifecycle processes.

According to Kamunya and Chege (2021), project performance can be estimated and assessed through the use of various indicators of performance applicable to many aspects. This includes cost, time, quality, customer satisfaction and changes, business execution, well-being, and security. Cost, time, and quality were recommended by Williamson, Fearon, and Kelly (2014) as parameters against which venture execution may be judged. According to Cserhati and Szabo (2014), the primary indices of project performance are cost, time, user happiness, and quality. According to Carvalho (2015), project success should be measured not only by the attainment of quantitative benefits, but also by the project managers' capacity to maintain performance gains such as profitability, labor productivity, and lessons learned.

PMI (2017) emphasizes the necessity of the project manager monitoring and directing the project throughout the whole project cycle. Cukwuemeka (2011) further emphasizes the importance of the project manager in ensuring that all project operations are carried out in accordance with the project's cost, schedule, and scope. The degree to which planned objectives are met, as well as whether the project fulfills the purpose intended to satisfy within the specified time, cost, and quality requirements, determines the project's success (Zhang & Fan, 2014). Effective project planning control will be required by applying project management systems (Carvalho & Rabechini Junior, 2015).

Successful project implementation entails quickly switching over a key arrangement and doing what needs to be done to keep the emphasis on critical objectives and aims. According to Brown and Hyer (2010), compelling project execution and projects may be handled depending on time planning, cost and financial plans, and the nature of the task performed. These three factors are also project implementation's Key Performance Indicators (KPIs). It's crucial to remember that, regardless of the project's concept, implementation requires some investment, usually more than anticipated, and that a variety of external imperatives may arise, all of which should be addressed before beginning the implementation phase (Aarseth et al., 2017).

The work design must be developed before the implementation process can begin, and the arrangement must be understood by all project collaborators (Bond-Barnard et al., 2018). All of the specialized and non-specialized requirements should be clearly defined. The project's financial, specialized, and institutional frameworks should be prepared, taking into account both internal and external factors (Floricel et al., 2016). The working group should identify their strengths and weaknesses (inward powers), opportunities, and threats (outer powers). The traits and opportunities should be exploited and used to ensure the project's successful completion (Kamunya & Chege, 2021). The flaws and risks are project risks that might stymie project execution; as a result, all steps should be put in place to mitigate them (Köhler *et al*., 2012).

Statement of the Problem

Government projects are vital to the citizens, who are the beneficiaries. Funded programs seek to address socio-economic development challenges facing the marginalized population. Therefore, such projects' failure bring with it a profound negative socio-economic impact to the project beneficiaries (World Bank, 2021). Pretorius, Steyn, and Jordaan (2012) state that fewer projects globally are being completed within budget or meeting original goals and business. Results show current state of project outcomes as projects completed within original budget constitute 55%, projects completed on time 51%, failed project's budget lost 32% (PMI, 2019). According to a report by the Kenya Institute for Public Policy Research and Analysis (KIPPRA), approximately 60% of county-funded road projects in Kenya experience significant delays, with many extending beyond the projected completion timelines.

Through a five-year strategic plan cycle, the County Government of Uasin Gishu has been executing projects centered on capital project execution. According to the World Bank's (2020) research, Uasin Gishu County has failed to implement significant development projects in 47 percent of cases. Wrong project priority, a lack of financial resources, political influence, corruption, low levels of technology, inadequate infrastructure, a lack of community engagement, and insufficient managerial support were all mentioned. Furthermore, according to a report by the Auditor General (ROK, 2021), a considerable number of public projects funded at high prices by the county administration of Uasin Gishu County did not achieve the planned aims (Kebeya, 2019). A study by the National Construction Authority (NCA) indicates that around 45% of road projects in Uasin Gishu County exceed their initial budgets by at least 20%. This is attributed to poor planning, resource mismanagement, and unforeseen issues during project execution. The Kenya Roads Board (KRB) has highlighted that about 30% of the roads constructed under county-funded projects in Uasin Gishu County have quality concerns, including premature deterioration and structural failures. This is often due to inadequate supervision and substandard materials (Aduma, & Kimutai, 2019).

According to the Uasin Gishu County Road Office (2022), seventeen road improvements were conducted in the County between 2010 and 2018, although none of them met expectations. The significant frequency of failed road projects shows that there are unidentified underlying project management practices that are likely to impact project execution. It was discovered that many initiatives failed despite meeting the triple criterion, prompting scholars to delve further into the subject of success (Velayudhan & Thomas, 2016). This gap creates the need to undertake a study to examine the role of project planning on implementing county-funded road projects in Uasin Gishu County in Kenya.

Specific Objective

i. To establish the relationship between project planning and successful implementation of county funded road projects in Uasin Gishu County, Kenya

Theoretical Framework

Resource-Based View Theory

In 1984, Wernerfelt was a proponent of the hypothesis. A company's numerous production processes need resources, which come in the form of money, experienced people, patents, competent management, equipment, and financing. A company, according to Barney (1991), is a collection of physical capital, human capital, and organizational resources. The resource-based view's basic assumption is that organizational resources and competencies may differ dramatically from one business to the next, and that these differences can be durable. The theory focuses on the concept of company traits that are difficult to duplicate as sources of business returns and ways to create better performance and competitive advantage (Colbert, 2004).

Because it integrates strategic and organizational insights on a firm's competitive advantage, the Resource-based View of Organizations has earned a reputation as a critical theory. The RBV's use in project management entails identifying PM resources and competencies that form the firm's competitive advantage (Almarri & Gardiner, 2014). The Resource-based Theory (RBT) is a frequently utilized strategic management theory in project management. It investigates how resources might be used to gain a competitive edge (Killen et al., 2012). Managing strategically, according to resource-based theory, entails creating and using a firm's distinctive resources and competencies, as well as continuously preserving and enhancing such resources (Taher, 2012).

The inability to account adequately for the management process is one of the resource-based theory's flaws and a major source of criticism. According to Simon, Hitt, and Ireland (2007), resource models developed subsequently depict this process as including resource portfolios, establishing capabilities, and exploiting existing capabilities for value to consumers, all in the pursuit of a competitive edge. As the environment becomes more unpredictable and competitive, managers of organizational institutions are faced with more and larger duties (Taher, 2012). There are now no fixed salaries, and additional competitors, such as consulting companies, have joined the project management market, increasing competition (Colbert, 2004).

Institutions must be managed like commercial organizations, which necessitates the development of superior mental models by top management teams. Managerial competencies are required in the contemporary environment to form and recognize opportunities, take them, and reshape actual and intangible assets (Taher, 2012). The management strategy includes maximizing and growing the organization's distinctive resources and competencies, as well as strengthening and sustaining them (Bharadwaj, 2000). According to the notion, organizations pursue strategies that are not being pursued by other competitive organizations for the sake of advantage and convenience. This implies that the strategies must be uncommon, difficult to imitate, or difficult to replace (Jugdev & Mathur, 2013).

According to the notion, a business may generate and grow skills over a long period of time in comparison to its competitors, therefore establishing a performance brand (Terziovski, 2010). It also forecasts that strategic resources and competencies will allow firms to function well (Almarri & Gardiner, 2014). The success with which the aforementioned initiatives are performed is used to assess their performance. According to Crawford's (2010) research, project managers do not always have the necessary skills or undertake all of the actions necessary to promote and implement the changes they lead as part of their projects. The presence of cost variables and resources is acknowledged in resource-based theory. As a result, it guides effective planning to ensure optimal resource usage and allocation in order to meet project goals.

This idea is significant to the research because it demonstrates how businesses manage waste according to their resources and skills. The RBV theory aids businesses in determining how resources, particularly project management (PM) skills that have been adapted to a given organizational setting and developed over time, may produce competitive advantage. Resources may improve a company's ability to correctly manage projects and, as a result, contribute to project performance by assisting the business in appropriating value. Furthermore, resources might be employed to create entry barriers and improve industrial performance.

Conceptual Framework

The conceptual framework shows the anticipated relationship between project planning and successful project implementation (dependent variable) in Uasin Gishu County, Kenya.

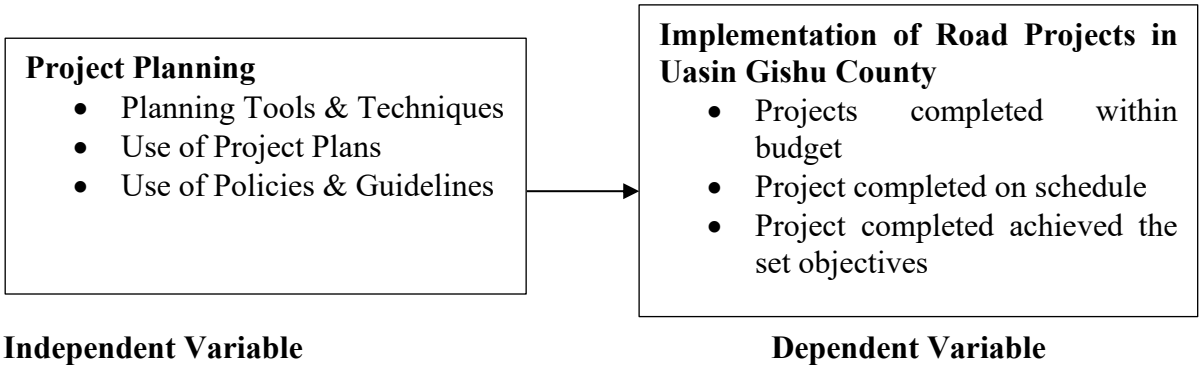

Figure 1: Conceptual Framework

Project Planning

Project planning leverages a variety of tools and techniques to facilitate organized execution and efficient resource management. Gantt charts, for instance, are pivotal in visually representing project timelines, tasks, dependencies, and milestones. They enable project managers to allocate resources effectively, track progress, and adjust schedules as needed. PERT charts, on the other hand, focus on analyzing task dependencies and critical paths, helping teams identify the most efficient sequence of activities to ensure timely project completion. Resource allocation matrices complement these charts by outlining how resources—whether human, financial, or material—are allocated across different project phases. By balancing resource availability with project demands, these matrices prevent overallocation or underutilization, optimizing resource utilization throughout the project lifecycle. Moreover, risk assessment and management techniques such as risk registers and SWOT analysis anticipate potential risks and develop strategies to mitigate them. This proactive approach minimizes disruptions, enhances decision-making, and safeguards project outcomes against unforeseen challenges (Aarseth et al., 2019).

Project plans serve as comprehensive roadmaps that outline project objectives, scope, deliverables, timelines, and resource requirements. A scope statement establishes project boundaries and goals, ensuring alignment with stakeholder expectations. The work breakdown structure (WBS) further decomposes the project into manageable tasks, facilitating task assignment, resource allocation, and scheduling. A resource management plan details how resources will be allocated, managed, and monitored, ensuring efficient resource utilization throughout the project lifecycle. Communication plans establish protocols for stakeholder communication, reporting structures, and frequency of updates, promoting transparency and effective collaboration. Policies and guidelines play a crucial role in project planning by providing frameworks for decision-making, standardizing procedures, and ensuring adherence

to organizational standards and best practices. Governance policies define roles, responsibilities, and authority levels within the project team and among stakeholders, fostering accountability and clarity in decision-making processes. Compliance guidelines ensure adherence to legal, regulatory, and ethical standards relevant to the project's industry or operational context, mitigating legal risks and enhancing organizational reputation. Risk management policies establish guidelines for identifying, assessing, and responding to risks, promoting a proactive approach to risk management and enhancing project resilience. Quality assurance policies set benchmarks for product or service quality, outlining procedures for quality control, testing, and validation to meet customer expectations and industry standards.

Empirical Review

Project Planning

Planning is a way of monitoring, guiding, communicating, and working among stakeholders (Catanio, Armstrong & Tucker, 2019). The development of goals and objectives that describe the work to be done, the project's timetable, and the resources needed to achieve the project's objectives is known as project planning (Aduma & Kimutai, 2018). The technique, strategies, and programs to attain those goals are determined through project planning (Aarseth et al., 2019).

The goal of project planning is to create a detailed guideline for the project that informs the project team about the work packages that must be completed and when they must be completed, as well as to keep track of the project's overall progress and to establish a record of the project for future use (Carvalho & Rabechini Junior, 2019). Project planning ensures that all project stakeholders have a thorough understanding of all activities and components, as well as the project's schedule, quality, and cost restrictions (Zailani, Ariffin, Iranmanesh, Moeinzadeh, & Iranmanesh, 2016). Furthermore, the goal of project planning is to ensure that the plan is feasible and that the process of converting "should be done work packages" into activities that can be accomplished is included (Kinyua et al., 2020).

The project planning process begins with the conception phase and continues until the project is completed (Demir, Bryde, Fearon, & Ochieng, 2012). Project time planning, according to PMI (2013), is the process of managing the project's timely completion. Indeed, time planning is a method of keeping track of and controlling the amount of time spent on each task (PMI, 2013). According to Wideman (2010), time planning in a project is the function that is responsible for allocating appropriate time to the overall conduct of the project through the stages of its natural lifecycle (concept, development, execution, and completion) using the processes of time planning, time estimating, time scheduling, and schedule control.

The project planning phase is generally the most difficult for a project manager since they must make accurate guesses regarding the number of people, resources, and equipment required to finish the project. They may also need to schedule their communications and procurement efforts, as well as hire third-party vendors (Mwanza, Namusonge & Makokha, 2020). Irfan et al. (2021) identified many projects in different countries that were over-budgeted and delayed due to lack of proper planning, such as Boston’s Big Dig Project (275% cost overrun), and Denver’s International Airport project (200% over budget). Similarly, Bangkok's USD 2 billion Skytrain project failed to meet its objectives, and the project business faced financial difficulties as a result of passenger estimate errors made during the design stage.

Due to insufficient planning, flawed design, incompetent project workers, poor monitoring and control procedures, limited money, and delayed payments, Ayodele and Alabi (2014) determined that Nigeria is the world's junkyard of problematic and abandoned projects. According to their survey, the average timetable overrun in India's construction sector is 55 percent as a result of poor planning, scope creep, and a lack of dedication and ability.

In a research on agricultural project planning and analysis in Belgium, Anandajayasekeram (2014) defined project planning as procedures that occur throughout the identification and preparation phases of the project life cycle, during which the broad context of project operation is established. The planning stage is where specific issue areas are identified and clear goals for achieving the desired changes are established; where alternatives are generated and decisions are made; and where suitable actions are planned for execution. The Logical Framework Technique, which is a tool for planning, monitoring, and assessing projects, is also a good approach to relate projects to the larger context of regional development programs and national objectives, according to the results of Anandajayasekerem's (2014) research.

LFA is primarily used to explain cause-and-effect linkages, as well as the logical link between project inputs and objectives, project activities and outputs, larger purposes, and the final aims that a project may serve (Mir & Pinnington, 2014). As a result, LFA is a methodical planning process based on logical reasoning. To use LFA, you'll need a lot of experience and expertise. Project planning, according to Taylor (2006), provides the foundation for project management, execution, monitoring, and assessment. It is necessary to learn to deal with ambiguity, subjective views and values, as well as flexibility, openness, and communication, in order to participate in and manage the planning process.

RESEARCH METHODOLOGY

Research Philosophy

A research philosophy is a set of beliefs about how to collect, interpret, and apply evidence on a phenomenon. The positivist philosophy was used to drive the study. Positivism holds that only factual information gathered via observation, including measurement, is reliable.

Research Design

The research used a descriptive survey to establish conclusions about how project planning influence the delivery of county-funded road improvements in Uasin Gishu County. According to Ordho (2003), descriptive surveys may be used in preliminary and explanatory investigations to gather information, summarize, present, and evaluate data for clarity.

Target Population

Target Population refers to the entire group of individuals or entities that a researcher is interested in studying and drawing conclusions from (Mugenda & Mugenda, 2019). The study was conducted in Uasin Gishu County. According to Uasin Gishu County report (2023) there is a total of 250 employees in the management levels under the ministry of roads and public works. The unit of analysis was therefore be County Funded Road Projects in Uasin Gishu County while the unit of observation was 250 management employees

Sampling Frame

The sampling strategy outlines the collection processes as well as the sample size for the research. A sample frame, according to Kothari (2010), is a list of all the population units from which the sample is drawn. According to Mugenda & Mugenda (2012), any sample size between 10% and 30% is a good representation of the target population. The research picked 153 people from a target sample of 250 employees. Employees that work on road construction in Uasin-Gishu County make up the majority of this group.

Sample Size and Sampling Technique

To establish the representativeness of the sample for generalization, sampling methodologies and sample size are critical (Kombo & Tromp, 2006). The respondents were selected using a basic random sample approach and a stratified selection strategy to ensure that all situations

are properly represented. The research employed Taro Yamane's (1967) sample size calculation, assuming a 5% error term.

$$n = \frac{N}{1 + N(e)^2}$$

$$n = \frac{250}{1 + 250(0.05)^2}$$

$$n = \frac{250}{1 + 0.625}$$

$$n = 153$$

The sample size is 153 respondents, representing 61.2% of the target population.

According to Sekaran and Bougie (2011), sampling may yield better overall accuracy than surveying the complete population. According to Ruirie (2012), stratified random sampling enables a researcher to get a sample population that best reflects the total population under study. Uasin Gishu's County Government is organized into many departments. The research examined the strata formed by the departments.

Data Collection Instruments

Data was collected via questionnaires. It was created using pieces that are geared toward meeting the study's goals. The questionnaire included both closed and open-ended questions, making it appropriate for gathering responses in qualitative research. The closed questions were a series of preset questions that the respondents must answer in a certain order using a predetermined set of solutions. Respondents were not restricted by open-ended questions. There were four parts to the questionnaire. The first portion asks respondents to provide background information about themselves and their companies, while the next three sections detail the study's variables.

Data Collection Procedure

The information was gathered using questionnaires that included both quantitative and qualitative data. Because semi-structured questions are simple to assess, they were included in the questionnaire. Using the give and take approach, the surveys were self-administered. Jomo Kenyatta University of Agriculture and Technology provided an introduction letter, as well as a research permission from the National Council of Science and Technology. In some departments, the questionnaires were delivered in person, while in others, trained research assistants were employed under supervision. The 153 surveys, together with a forwarding letter and an introduction letter from the University, was sent to the respondents. Personal follow-up was done to ensure that the respondents complete the surveys fully. Later, using research assistants, the questions were selected from the respondents.

Data Analysis and Presentation

The information acquired was gathered and organized to make manipulation and analysis easier. With the help of the Statistical Package of Social Sciences version 21, the data was modified, tagged, and categorised (SPSS). A descriptive statistics approach was used to summarize the data, allowing the research to explain the distribution using index values. The data evaluated was presented using frequency distribution styles of presentation and percentages. To determine the influence of the independent factors on the dependent variable, data was evaluated using multiple linear regression models. At the Uasin-Gishu County Government, a regression model was used to assess the impact of project planning and

execution of county government-funded road improvements. The following is the general form of multiple regression:

$Y=\beta_0+\beta_1 X_1+\varepsilon$

Where;

Y = is the dependent variable which is the implementation of road projects in Uasin Gishu County

β_0 is the regression coefficient/constant/Y-intercept,

β_1 is the regression coefficient to be estimated,

X_0 is the project planning

ε is an error term generally distributed about a mean of 0 and for purpose of computation, the α is assumed to be 0.

RESEARCH FINDINGS AND DISCUSSION

Descriptive Analysis

Project Planning and Implementation of County Funded Road Projects

The first objective of the study was to establish the relationship between project planning and successful implementation of county funded road projects in Uasin Gishu County. This section presents descriptive findings on the relationship between project planning and successful implementation of county funded road projects in Uasin Gishu County. On Liker scale questions, respondents were asked to indicate how far they agree or disagree with the statement by ranking their answer in the scale of 1-5. Table 1 presents summary of the findings.

The respondents agreed that the project plan defines the beneficiaries clearly and indicates the role of every stakeholder in project implementation (scope) (M= 3.992, SD= 0.375). In addition, the respondents agreed that road projects completed in Uasin Gishu County are implemented with personnel that has the capacity to design, supervise, monitor & evaluate road projects without professional negligence (M= 3.992, SD= 0.375). Further, the respondents agreed that the project plan shows how the risks will be dealt with if they occur (M= 3.899, SD= 0.377). The respondents agreed that carrying out a needs assessment is important in ensuring project goals are achieved (M= 3.873, SD= 0.362). These findings are supported by the study of Aarseth et al., (2019) who established that The goal of project planning is to create a detailed guideline for the project that informs the project team about the work packages that must be completed and when they must be completed, as well as to keep track of the project's overall progress and to establish a record of the project for future use (Carvalho & Rabechini Junior, 2015). Project planning ensures that all project stakeholders have a thorough understanding of all activities and components, as well as the project's schedule, quality, and cost restrictions (Zailani, Ariffin, Iranmanesh, Moeinzadeh, & Iranmanesh, 2016).

From the results, the respondents agreed that active planning for stakeholders through consideration of communication channels help to build and control stakeholder relationships (M= 3.866, SD= 0.338). In addition, the respondents agreed that the project budget should provide a clear and adequate provision for various project activities (M= 3.787, SD= 0.345). The respondents also agreed that preparing work schedule well has ensure effective project implementation (M= 3.748, SD= 0.361). The results conform with those of Wideman (2018) who revealed that the project planning phase is generally the most difficult for a project manager since they must make accurate guesses regarding the number of people, resources,

and equipment required to finish the project. They may also need to schedule their communications and procurement efforts, as well as hire third-party vendors

Table 1: Descriptive Statistics for Project Planning

Statements	Mean	Std. Dev.
The project plan defines the beneficiaries clearly and indicates the role of every stakeholder in project implementation (scope).	3.992	0.375
Road projects completed in Uasin Gishu County are implemented with personnel that has the capacity to design, supervise, monitor & evaluate road projects without professional negligence	3.958	0.346
The project plan shows how the risks will be dealt with if they occur	3.899	0.377
Carrying out a needs assessment is important in ensuring project goals are achieved	3.873	0.362
Active planning for stakeholders through consideration of communication channels help to build and control stakeholder relationships	3.866	0.338
The project budget should provide a clear and adequate provision for various project activities	3.787	0.345
Preparing work schedule well has ensure effective project implementation	3.748	0.361
Aggregate Score	**3.847**	**0.356**

Test for Hypothesis One

The first specific objective of the study was to establish the relationship between project planning and successful implementation of county funded road projects in Uasin Gishu County. The associated null hypothesis was that Project planning has no significant role on successful implementation of county funded road projects in Uasin Gishu County. A univariate analysis was conducted in which project planning was regressed on successful implementation of county funded road projects in Uasin Gishu County.

The R-Squared depicted the variation in the dependent variable that can be explained by the independent variables. The greater the value of R-squared the greater the effect of independent variable. The R Squared can range from 0.000 to 1.000, with 1.000 showing a perfect fit that indicates that each point is on the line. As indicated in Table 2, the R-squared for the relationship between project planning and successful implementation of county funded road projects in Uasin Gishu County was 0.241; this is an indication that at 95% confidence interval, 24.1% of variation in successful implementation of county funded road projects in Uasin Gishu County can be attributed to changes in project planning. Therefore, project planning can be used to explain 24.1% of changes in successful implementation of county funded road projects in Uasin Gishu County but there are other factors that can be attributed to 75.9% change in successful implementation of county funded road projects in Uasin Gishu County.

Table 2: Model Summary for project planning

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.491[a]	.241	.239	.69655

a. Predictors: (Constant), project planning

The analysis of variance was used to determine whether the regression model is a good fit for the data. It also gave the F-test statistic; the linear regression's F-test has the null hypothesis that there is no linear relationship between the two variables. From the analysis of variance (ANOVA) findings in Table 3, the study found out that that Prob>$F_{1,144}$= 0.000 was less than the selected 0.05 level of significance. This suggests that the model as constituted was fit to

predict successful implementation of county funded road projects in Uasin Gishu County. Further, the F-calculated, from the table (268.25) was greater than the F-critical, from f-distribution tables (3.907) supporting the findings that project planning can be used to predict successful implementation of county funded road projects in Uasin Gishu County.

Table 3: ANOVA for Project planning

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	45.87	1	45.87	268.25	.000[b]
	Residual	24.735	144	0.171		
	Total	70.605	145			

a. Dependent Variable: Project implementation
b. Predictors: (Constant), Project planning

From the results in Table 4, the following regression model was fitted.

$$Y = 2.069 + 0.433\ X_1$$

(X_1 is Project planning)

The coefficient results showed that the constant had a coefficient of 2.069 suggesting that if project planning was held constant at zero, successful implementation of county funded road projects in Uasin Gishu County would be 2.069 units. In addition, results showed that project planning coefficient was 0.433 indicating that a unit increase in project planning would result in a 0.433 improvement in successful implementation of county funded road projects in Uasin Gishu County. It was also noted that the P-value for project planning coefficient was 0.000 which is less than the set 0.05 significance level indicating that project planning was significant. Based on these results, the study rejected the null hypothesis and accepted the alternative that project planning has positive significant influence successful implementation of county funded road projects in Uasin Gishu County.

Table 4: Beta Coefficients for Project planning

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.069	.174		11.881	.000
	Project planning	.433	.045	.491	9.723	.000

a. Dependent Variable: Project implementation

CONCLUSION AND RECOMMENDATIONS

Conclusions

Project Planning

The first null hypothesis test was 'Project planning has no significant role on successful implementation of county funded road projects in Uasin Gishu County. The study found that project planning is statistically significant in explaining successful implementation of county funded road projects in Uasin Gishu County'. The influence was found to be positive. This means that unit improvement in project planning would lead to an increase in successful implementation of county funded road projects in Uasin Gishu County. Based on the findings,

the study concluded that project planning positively and significantly influences successful implementation of county funded road projects in Uasin Gishu County.

Recommendations

Project Planning

Uasin Gishu County should consider allocating resources and efforts towards strengthening project planning methodologies. This could involve providing training programs for project planners, adopting advanced planning tools and technologies, and fostering collaboration between relevant stakeholders. Emphasizing the importance of comprehensive planning, risk assessment, and effective resource allocation can contribute to more streamlined and successful execution of county-funded road projects.

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