

# Task Planning and Performance of Ongoing National Government Constituency Development Funded Infrastructural Projects in Nyandarua County, Kenya

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**Abstract:** The purpose of this study was to establish the influence of task planning on performance of ongoing National Government Constituency Development Funded infrastructural projects in Nyandarua County, Kenya. The study was anchored on dynamics capability theory. The study employed a descriptive research design. The target population were 100 elements comprising 36 project committee members and 64 project beneficiaries in the 64 CDF projects in the county. Since the target population was fairly small, the study undertook a census study. Closed ended questionnaires were used in collecting data. The collected data was then analyzed using both descriptive and inferential statistics with the aid of the Statistical Package for Social Sciences. The study established a strong positive correlation between task planning ( $r=.571^{**}$ ,  $p=.000$ ) and project performance. The study also established that the R-square of 0.326 implied that task planning explained 32.6% of variation in project performance. The study concluded that task planning has significant influence on project performance in CDF projects. The study recommends the need to increase in quality and quantity of technology integration in the planning process so as to enhance the quality of planning outputs. The study recommends a review of the NG-CDF Act to make it de-politicized, enhance oversight, review project identification process and promote efficient resource utilization thereby enhancing project management practice.

**Keywords:** Task Planning, Project Performance

## I. INTRODUCTION

### 1.1 Background of the Study

Projects lie at the heart of most economic activities and it thus follows that any improvements that can be made to the practice of managing of projects will have a significant effect on these economic activities (Magagan & Ngugi, 2021). Project management is accomplished through the application and integration of the project management processes of initiating, planning, executing, monitoring and controlling, and closing (Gaur, 2022). Project management has evolved over time, becoming the principal mean of dealing with change in modern organizations. Worldwide, planning is seen as a very important part of a project as it relates to its performance and success. Project planning is a continuous process throughout the delivery of a project (Wu, Yang & Zhou, 2019). Project planning involves an arrangement of stages, duties, and tasks in a systematic way in order to actualize the project success (Gaur, 2022). It also involves the implementation of skills, practices, and comprehension of tools to the activities of a project to outlive the expectations and needs of the stakeholders in a project and thus ensure sustainability (Irfan *et al.*, 2021). According to Wu *et al.*, (2019), project planning defines project activities that will be performed; the products that will be produced, and describes how these activities will be accomplished and managed. It therefore defines each major task, estimates the time, resources and cost required, and provides a framework for review and control. Project planning entails scheduling of the various activities comprising the project activities and how they interrelate (Tuyishime & Nyambane, 2021). The activities comprise the legal or regulatory requirements, procurement processes that include seeking for development projects and funding institution

approvals, activities of the funding institutions leading to credit award and the actual site works. Planning aims at optimizing time, cost and procurement of human capacity for development projects within the legal, regulatory and policy framework existing for each specific project and thus lead to enhanced project performance (Muute & Rosemary, 2019).

According to Tuyishime and Nyambane (2021), a task in project management is a specific piece of work that contributes to the overall success of the project. It is a unit of work that has a well-defined purpose, a specific outcome, and a deadline for completion. A task can range in size and complexity, and it can take anywhere from a few minutes to several months to complete. Furthermore, each task has its own unique set of requirements, resources, and timelines, and they must be carefully managed to ensure that the project is completed on time and within budget. Tasks are the building blocks of a project, and they are the key to achieving project success. A well-defined task has a clear objective, is measurable, and can be completed by a specific person or team (Kabiti & Kikwatha, 2022). Effective planning of tasks involves breaking down the project into smaller, manageable tasks and then organizing and executing those tasks in a structured and efficient manner. Similarly, as opined by Tuyishime and Nyambane (2021), task sequencing deals with figuring out the best order to do things efficiently. The goal of task sequencing is to make sure that time and resources are used most effectively. This means finding the order of tasks that will take the least amount of time or cost the least amount of money, while also making sure that all of the constraints and dependencies between tasks are taken into consideration. Tasks and activities are essential as they provide a clear understanding of the work that needs to be done to achieve the project's objectives. They help to identify the resources required for each task and estimate the time and cost required to complete the project. Activities also help to track progress and identify any issues that may arise during the project's execution. Defining tasks and activities in project management is a crucial step in ensuring the success of a project (Mwangi & Muchelule, 2022). By breaking down a project into smaller, manageable tasks, project managers can allocate resources effectively and monitor progress in a more organized manner.

## 1.2 Statement of the Problem

Ideally, NG-CDF projects aim to devolve resources to the community level with the aim of spurring economic development, which would translate to overall national economic growth and poverty reduction. However, the national project completion rate of NG-CDF projects stands at 67% indicating existence of knowledge gaps. Various auditor general reports (GoK, 2023) have indicated that there was an increased case of stalled projects funded by NG-CDF committees. These reports have continuously raised the red flag over blatant misuse of billions of shillings allocated to the CDF. Similarly, a report by the Kenya Tax Payers Association for 2022/2023 indicated that 40% of the CDF could not be accounted for, 20% of the projects had not been successfully completed and only 5% had been completed successfully. In these reports (GoK, 2023), constituencies in Nyandarua County are cited as having project completion rate of 47% against a national average of 67% completion rate. This translates to a 53% non-performance of NG-CDF projects in Nyandarua County, Kenya. Further, several constituencies in the county have faced audit queries and increasing stalled projects. Since the NG-CDF Act clearly outlines management and implementation guidelines for all NG-CDF funded projects, it would be expected that project performance would approximately average at an equal score. However, constituencies in the county present themselves self as a unique case study owing to the numerous delays in project completion reported by the Auditor General Report 2022/23 (GoK, 2023). These delays could be attributed to ineffective task planning deployed by these project teams. While various studies (Mwanza *et al.*, 2020; Chepng'eno & Kimutai, 2021; Nanjero & Wairiuko, 2020) have suggested that planning practice impacts performance of projects, none has focused on task planning. Furthermore, these studies have not investigated NG-CDF projects and thus given the importance of these projects in enhancing grassroots development, more empirical studies need to be undertaken in order to establish the influence of task planning on performance of NG-CDF infrastructural projects in Nyandarua County, Kenya. This study therefore aims to fill this knowledge gap.

## II. EMPIRICAL REVIEW

### 2.1 Theoretical Review

The study was anchored on the Dynamic capability theory which was proposed by Teece, Pisano and Shuen in 1997. The theory argues that the firm's ability to integrate, build upon and reconfigure organizational resources and functional competencies to deal with the environment which is constantly evolving (Mandal, 2017). The theory further indicates that the firm's behavioral orientation constantly to integrate, reconfigure, renew and recreate its resources and capabilities; upgrade and reconstruct its core

capabilities in order to attain and sustain competitive advantages. According to the theory the firm's potential to systematically solve problems, formed by its propensity to sense opportunities and threats, to make timely and market-oriented decisions and to change its resource base (Mandal, 2017). Since planning of project tasks occurs in a dynamic environment, the process of planning therefore should encompass all related environmental dynamics that may impact the project life cycle and mechanisms of mitigating such impacts. In a dynamic environment, the theory becomes relevant especially to the political, environmental and technological context that CDF projects operate in. The theory can thus be used to explain planning of project tasks since CDF projects faces numerous challenges including political patronage, budget interference, management issues among others (Brusset & Teller, 2017). This theory will be of importance to this study in anchoring how project teams are able to generate sufficient capabilities in terms of personnel and availing sufficient funding to manage project environment challenges. Further, this theory helps conceptualize how the organization deals with external issues such as political patronage, compliance, innovation, technology and market demands in the planning of project tasks in order to ensure enhanced project performance. Furthermore, the theory suggests that planning of tasks would be enhanced if all environmental challenges are understood by all stakeholders and mechanisms for managing these challenges are jointly identified.

## **2.2 Empirical Review**

Empirical studies have planning of tasks with mixed findings. For example, Tuyishime and Nyambane (2021) sought to assess the contribution of planning to the project performance in public institutions. Their study employed a causal research design and targeted 106 respondents using structured questionnaires. The study findings indicated that setting objectives, targets and key performance indicators, coordination of activities and mobilization of resources all had significant positive influence on project performance. However, their study was undertaken in a Rwandan context based on public institutions and did not take the approach suggested in the present study. Similarly, Kabiti and Kikwatha (2022) sought to evaluate the influence of project planning procedures on the effectiveness of road construction projects in Meru County, Kenya. Their study employed descriptive research design and targeted 133 respondents using both questionnaires and interview schedules. Their findings indicated that there was a significant effect of project resource, schedule, communication and scope planning on the performance of KeRRA road construction projects. They further found that project activities were arranged in order of what needs to be undertaken first for a smooth project undertaking and the specific activities were all defined. However, their study did not focus on CDF projects and variables as proposed in the present study. Finally, Mwangi and Muchelule (2022) sought to establish the role of scope management in the successful implementation of health infrastructural program in Nairobi County, Kenya. Their study employed a descriptive survey design targeting 120 respondents using questionnaires. Their study findings indicated that project scope planning, scope budgeting, scope scheduling and scope control had significant effects on the implementation of infrastructural health projects. Furthermore, their results revealed that scope management has a positive and significant influence on the successful implementation of infrastructural health program. However, their study focused on health infrastructural projects and did not address CDF projects as conceptualized in the present study.

### **III. RESEARCH METHODOLOGY**

The study adopted a descriptive survey research design. The choice of this design was based on the fact that there was no attempt to alter the phenomena rather, data will be collected from respondents based on their observations and perceptions concerning the subject of interest to the study. The target population were all the 36 project committee members and project beneficiaries in the 64 NG-CDF projects spread across the 5 constituencies in Nyandarua County, Kenya. The target population of 100 elements consists of 36 project committee members and 64 project beneficiaries. Since the target population of 100 was fairly small, the study targeted the entire population. A census design was therefore used in targeting the respondents. Questionnaires were used to collect primary data from the respondents. The questionnaire consisted of closed-ended questions designed to elicit information from respondents. Before embarking on data collection, the researcher sought clearance from the university and obtained a research permit from the National Council for Science, Technology and Innovation (NACOSTI). The researcher then sought clearance from the various CDF project managers to collect data. The researcher then administered the questionnaires while assuring them that their responses from the respondents were to be kept confidential. The data collection instrument was piloted with 10 respondents (10% of sample size) who are in similar positions in NG-CDF projects in Laikipia County, Kenya. The data collected was analyzed using both descriptive and

inferential statistics with the aid of the Statistical Package for Social Sciences (SPSS) software (version 23). Tables were then used to present the findings. The assumptions of linearity, homoscedasticity, normality and multicollinearity were tested before conducting regression analysis.

#### IV. RESEARCH FINDINGS AND DISCUSSIONS

##### 4.1 Demographic Information

The researcher issued 100 questionnaires to the respondents across the 5 constituencies in Nyandarua County, Kenya. From the 100 questionnaires issued, 81 were returned. However, amongst the returned questionnaires, 3 were incorrectly filled and thus were not used for further analysis. Therefore, 78 correctly filled questionnaires were returned representing a response rate of 78%. According to Bryman (2016), getting a response rates greater than 70% is desirable and thus the response rate of over 78% was deemed sufficient for further analysis.

##### 4.2 Task Planning and Project Performance

The respondents were asked various statement on task planning and project performance and their responses to these statements are shown in Table 1. The responses were based on a 5-point Likert scale in which 1, 2, 3, 4 and 5 represented strongly disagree, disagree, neutral, agree, and strongly agree respectively.

**Table 1: Task Planning and Project Performance**

Statements	SD (%)	D (%)	N (%)	A (%)	SA (%)	Mean	StdDev
Our project team jointly with our stakeholders develop and implement sequencing of task	0	1.3	38.5	47.4	12.8	3.72	.701
We ensure that all stakeholders are fully aware and understand sequencing of all project tasks	1.3	3.8	21.8	62.8	10.3	3.77	.737
We also jointly with all stakeholders allocate and monitor all project tasks	1.3	7.7	24.4	48.7	17.9	3.74	.889
Joint task allocation enables smooth execution of all project tasks	0	2.6	15.4	56.4	25.6	4.05	.719
In planning tasks, we jointly identify and monitor all project tasks	0	3.8	37.2	43.6	15.4	3.71	.775
Task monitoring reports helps us to plan for future project obstacles	1.3	3.8	35.9	39.7	19.2	3.72	.866

**Source: Author (2024)**

From the findings in Table 1, majority of the respondents agreed that their project team jointly with stakeholders developed and implemented sequencing of tasks [Mean=3.72, SD=.701] and that they ensured that all stakeholders were fully aware and understood sequencing of all project tasks [Mean=3.77, SD=.737]. The findings on the joint development and implementation of sequencing of tasks implied that there was general agreement on how all project tasks would be identified and implemented. Further, the findings on the awareness and understanding of the task sequencing process by all stakeholders also implied that whenever sequencing challenges arose, stakeholders would be in a position to jointly undertake problem solving. The findings tallied with those of Tuyishime and Nyambane (2021) who argued that task sequencing deals with figuring out the best order to do things efficiently with the goal of making sure that time and resources are used most effectively. They further opined that this means finding the order of tasks that will take the least amount of time or cost the least amount of money, while also making sure that all of the constraints and dependencies between tasks are taken into consideration

Similarly, from the findings in Table 1, majority of the respondents agreed they jointly with all stakeholders allocated and monitored all project tasks [Mean=3.74, SD=.889] and that joint task allocation enabled smooth execution of all project tasks [Mean=4.05, SD=.719]. The findings on joint allocation and monitoring of all project tasks implied that there was active involvement of all stakeholders in the identification, allocation and monitoring of project tasks to ensure smooth project planning and implementation. Furthermore, the findings indicated that project teams through joint allocation and joint monitoring of task positioned their teams to smoothly execute project tasks. The findings tally those of Kabiti



and Kikwatha (2022) who indicated that there was a significant effect of project resource, schedule, communication and scope planning on the performance of road construction projects and that project activities were arranged in order of what needs to be undertaken first for a smooth project undertaking and the specific activities were all defined.

Furthermore, from the findings in Table 1, majority of the respondents agreed that in planning tasks, they jointly identified and monitored all project tasks [Mean=3.71, SD=.775] and that task monitoring reports helped their project teams to plan for future project obstacles [Mean=3.72, SD=.866]. The findings on joint identification and monitoring of all project tasks by all stakeholders implied that there was a deliberate effort by project teams to enhance the planning of tasks and thereby enhance the effective monitoring of the identified tasks. Furthermore, the use of task monitoring reports to enable planning for future project obstacles implied that project teams used task planning as an ongoing learning process which enhances their project planning skills. The findings agree with those Mwangi and Muchelule (2022) who indicated that project scope planning, scope budgeting, scope scheduling and scope control had significant effects on the implementation of infrastructural health projects and that continuously monitoring project tasks and project scope would have a positive and significant influence on the successful implementation of infrastructural health program.

### 4.3 Project Performance

The respondents were asked various statements on project performance and their responses to these statements are shown in Table 2. The responses were based on a 5-point Likert scale in which 1, 2, 3, 4 and 5 represented strongly disagree, disagree, neutral, agree, and strongly agree respectively.

**Table 2: Project Performance**

Statements	SD (%)	D (%)	N (%)	A (%)	SA (%)	Mean	StdDev
Our project phases start and complete on estimated completion times	1.3	3.8	39.7	28.2	26.9	3.76	.942
Our projects are usually completed based on preset cost estimates	1.3	7.7	17.9	48.7	24.4	3.87	.917
Our projects meet intended quality standards	0	9	21.8	38.5	30.8	3.91	.942
All our projects are undertaken and completed based on the set technical requirements	0	9	26.9	32.1	32.1	3.87	.972
Our projects are completed based on budget provisions	0	3.8	35.9	48.7	11.5	3.68	.730
Our projects are usually evaluated based on the preset objectives	0	6.4	32.1	44.9	16.7	3.72	.820

Source: Author (2024)

From the findings in Table 2, majority of the respondents agreed that their project phases start and complete on time [Mean=3.76, SD=.942], that their projects were usually completed based on preset cost estimates [Mean=3.87, SD=.917], that all their projects met the intended quality standards [Mean=3.91, SD=.942], that all their projects were undertaken and completed based on the set technical requirements [Mean=3.87, SD=.972], that their projects were completed based on budget provisions [Mean=3.68, SD=.730] and that their projects were usually evaluated based on the preset objectives [Mean=3.72, SD=.820]. The findings on the performance of project implied that CDF projects met the key project performance indicators of time, cost and quality of project outputs. Furthermore, the means of their opinions indicated an agreement to the statements on performance and the standard deviations indicated convergence of opinions on the statements on project performance.

### 4.4 Regression Analysis

Regression analysis is used to estimate the average relationship between a dependent variable and one or more predictor variables and it provides a mechanism of establishing the parameter estimates. Since the collected data met all the regression assumptions, regression analysis was undertaken and the model summary results are presented in Table 3.

**Table 3: Model Summary**

R	R Square	Adjusted R Square	Std. Error of the Estimate
.571 <sup>a</sup>	.326	.318	.46442

Source: Author (2024)

From Table 3, the study established that there was a strong and positive correlation between task planning and project performance ( $r=.571^{**}$ ,  $p=.000$ ). The positive correlation implied that higher levels of project performance can be attained depending on how project teams are able to effectively plan their tasks. The findings concur with those of Tuyishime and Nyambane (2021) who revealed that setting objectives, targets and key performance indicators, coordination of activities and mobilization of resources all had significant positive influence on project performance. The findings also tallied with those of Kabiti and Kikwatha (2022) who indicated that there was a significant effect of project resource, schedule, communication and scope planning on the performance of road construction projects. Similar findings were also reported by Mwangi and Muchelule (2022) who indicated that project scope planning, scope budgeting, scope scheduling and scope control had significant effects on the implementation of infrastructural health projects.

Furthermore, from the findings in Table 3, the R-square of 0.326 implied that task planning explained 32.6% of variation in project performance. Therefore, other factors not investigated in the present study explained 67.4% of variation in project performance. The ANOVA findings were as shown in Table 4.

Table 4: ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Regression	7.944	1	7.944	36.831	.000 <sup>b</sup>
Residual	16.392	76	.216		
Total	24.337	77			

Source: Author (2024)

Furthermore, from the findings in Table 4, the overall model was found to be statistically significant ( $F = 36.831$ ,  $p=.000$ ). The finding on the overall model thus implied that the fitted model can be used to estimate the relationship between task planning and project performance. The regression coefficients were as shown in Table 5.

Table 5: Regression Coefficients

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.372	.404		3.400	.001
Task Planning	.642	.106	.571	6.069	.000

Source: Author (2024)

From the fitted model, the study established the following regression function:

$$Project\ Performance = 1.372 + 0.642Task\ Planning$$

From the model, it can be seen that holding task planning constant, project performance would increase by a factor of 1.372 and a unit increase in task planning would cause an increase in project performance by a factor of 0.642. From the findings of the linear regression analysis, task planning ( $t = 6.069$ ,  $p=.000<.05$ ], the null hypothesis was rejected and the null hypothesis was rejected and the study concluded that task planning has significant influence on project performance in CDF projects. The findings also tallied with those of Kabiti and Kikwatha (2022) who indicated that there was a significant effect of schedule and scope planning on the performance of road construction projects. Similar findings were also reported by Mwangi and Muchelule (2022) who indicated that project scope planning, scope budgeting, scope scheduling and scope control had significant effects on the implementation of infrastructural health projects.

## V. CONCLUSIONS AND RECOMMENDATIONS

The study concluded that project teams jointly with stakeholders developed and implemented sequencing of tasks and that they ensured that all stakeholders were fully aware and understood sequencing of all project tasks. The study therefore concluded that task prioritization as part of task planning positively influences performance of projects. Similarly, the study concluded that project teams jointly with all stakeholders allocated and monitored all project tasks and that joint task allocation enabled smooth execution of all project tasks. The study therefore concluded that task allocation positively influenced performance of projects. The study also concluded that in planning tasks, project teams jointly identified and monitored all project tasks and that task monitoring reports helped their project teams to plan for future project obstacles. The study therefore concluded that task monitoring positively influenced performance of projects. The study further concluded that there was a strong and positive correlation between task planning and project performance and that task planning was a significant predictor of project performance. The study recommends the need to increase in quality and quantity of technology integration in the planning process so as to enhance the quality of planning outputs. The study finally recommends a review of the NG-CDF Act to make it de-politicized, enhance oversight, review project identification process and promote efficient resource utilization thereby enhancing project management practice.

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