

Effect of Project Management Practices on Performance of Food Security Projects in Kilifi County

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Abstract: Globally, reports on the poor performance, higher failure rate and unsatisfactory performance of food security projects are common despite the massive investments by the various stakeholders raising concern on their sustainability attainment of the mission of the stakeholders. The primary concern of this study was to address how the project management practices affected these food security projects performances in Kilifi County. There is a little comparative analysis of the effect of project management practices on the performance of food security projects in Kilifi County, hence creating gaps in the existing literature. The distinct objectives of the study were to establish the extent to which monitoring and evaluation, stakeholder analysis, leadership, and scope management affected these food security projects in Kilifi County. The study was informed by system theory, the theory of social protection and theory of constraints. The study utilized a descriptive survey design to carry out a detailed and informative evaluation of the projects. The project had a target population which included all the stakeholders in the food security projects in Kilifi County that were randomly sampled to a sample population of 128. To be able to realize these general objectives, the study utilized both primary and secondary data. The study mainly used questionnaires to collect primary data. Quantitative data were analyzed using descriptive statistical techniques which included frequencies, means, and standard deviations and presented in the form of figures and charts. Inferential statistics such as Pearson Product Moment correlations were used to establish the relationships between the variables. Multiple regressions were used to determine the cause-effect relationship. Through regression model, the study found out that that monitoring and evaluation, stakeholder analysis, leadership, and scope management had positive and significant effects on the performance of food security projects, $r=0.256$ $p<0.05$, $r=0.279$ $p<0.05$, $r=0.312$, $p<0.05$, $r=0.335$ $p<0.01$ respectively. Cronbach's alpha reliability coefficients for stakeholder Analysis, scope management, monitoring and evaluation and project leadership are all greater than 0.700 (0.734, 0.824, 0.782 and 0.744 respectively). The overall F-test was 107.655 with a P value of <0.001 . The study outcomes enabled the policymakers to formulate, design and implement policies that create enabling environments for sustainable food security project successes and private sector involvement in development projects. Found to be integral to these project at all levels, the study recommended that project management practices be accurately written and reinforced to the letter.

Keywords: Food Security, Agribusiness, Horticulture, Project Monitoring, and Evaluation, Smallholder farmers

1. INTRODUCTION

Kenya has a developing economy with agriculture being the chief economic activity. However, despite the need for growth and numerous efforts in the area to feed the ever-increasing population, agricultural productivity has dwindled over the years and is currently 2-3 times lower than the world average [3]. This the government and the NGOs try to solve using food security projects. Some practice subsistence farming but a minimal number practiced large-scale agriculture. Some work as wage laborers in coffee farms, tea, sisal, sugarcane, coffee, miraa and fruits plantations. They depend on the small salaries, and life becomes somewhat intolerable at times. Those who exercise small-scale farming, their chief source of income comes from the sale of their field produce. Some are in small markets like the selling of agricultural products in marketplaces, while others trade in livestock and the sale of milk [2] and [13].

[10] describes project performance as a project that meets the objectives and stakeholders' expectations when it produces the desired deliverables within cost and schedule. The conception of project performance has been a matter of utmost concern to most stakeholders in the food security projects. This is because a lot of billions is pump into these projects and the level of food insecurity is also wanting. Satisfactory achievement of the set goals makes a project successful. Project performance has been considered to be tied to project success, and this is linked to project goals [1]. [1] developed a consolidated framework for measuring project success using the dimension of environmental performance, cost, quality, user expectations, time, commercial value, health and safety and participant.

Project success, on the other hand, can be defined as one which accomplishes complex endeavors that meet the specific set of objectives within the constraints of resources, time, and performance objectives. Globally, there are two distinct views about project success. There is the view, which perceives project success solely regarding traditional project objectives of time, cost and quality, and the perspective, which considers project success regarding these goals and the effectiveness of the project's product [5]. Nonetheless, food security project's success has also been discussed, in few cases, around other project objectives like health, safety and environmental friendliness [6]. [7] in his study defines critical success factors as elements which must exist within the organization to create an environment where projects may be managed with excellence on a consistent basis.

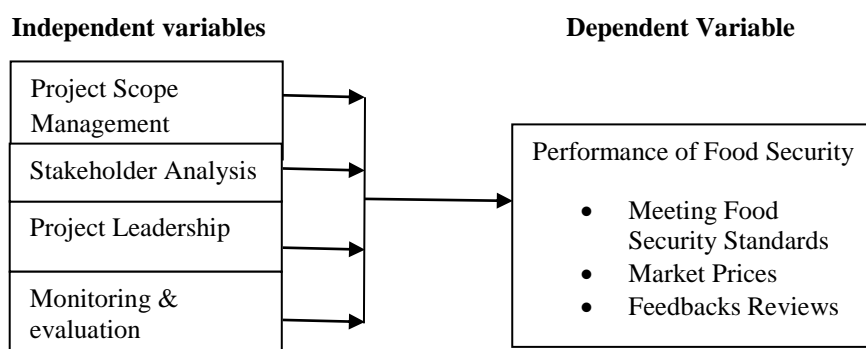
2. EMPIRICAL REVIEW

Various other studies have been done on project management practices linking them to project performance. A study done by [4] indicates that fair front-end project designing with clear project scope definition can mitigate the potential for cost overrun, inadequate project planning and poor scope definition which may lead to expensive changes, delays, rework, cost overruns, schedule overruns, and project failure. It adds that the purpose of project definition is to provide adequate information that is needed to identify the work to be performed to avoid significant changes that may negatively affect project performance [5].

[10] indicate that lack of community participation leads to failures in meeting the appropriate and vital humanitarian needs, an unnecessary increase in requirement for external resources and general dissatisfaction over performance. Further, [8] suggest that the success of community-based projects depends on community leaders' accountability to beneficiaries. As open systems, the food security projects are subjected to forces of a more comprehensive socio-political environment and the pressures and demands stemming from external stakeholders [12]. They may be not formal actors in the project but affect or are affected by the project [12]. The responses required are of significantly higher levels of skill than ever in the analysis, planning, implementation, and monitoring and evaluation [3].

Empirical studies that have been done include [9] research on the influence of stakeholders' participation in the performance of road projects at Kenya National Highways Authority (KeNHA). The study found that awareness, feasibility, conferences, and seminars in user involvement have a tremendously positive influence on road projects performance. Also, IT skills, computer-aided designs, use of intranet and internet and IT policies were found to influence the performance of road projects to a great extent. Top management support was found critical in overseeing funding approvals, goodwill/commitment, participation and approval of projects which influence positively to road projects performance in KeNHA.

3. CONCEPTUAL FRAMEWORK



4. SUMMARY AND CRITIQUE OF EXISTING LITERATURE

Globally, there are distinct views about project success. There is the view, which perceives project performance solely regarding traditional project objectives of time, cost and quality, and the perspective, which considers project performance regarding these goals and the effectiveness of the project's final results [5]. The literature reviewed revealed that project performance is a topic that is frequently discussed and yet rarely agreed on. There is an absence of consensus concerning the criteria by which project or project performance is judged. Client fulfillment with the final result has a great deal to do with the perceived performance, success or failure of projects according to [7].

Different lobbies of people claim that those involved in project implementation may perceive them as successful yet customers poorly receive the very same projects. Similarly, some people argue that some other project consume excessive resources and are considered internal failures but are later hailed as successful by their customers and become a source of revenue for the beneficiaries for many years. Neither the practitioners nor the academicians appear to agree on what forms project success. There is a wide divergence of opinions in this field, and the only agreement seems to be the disagreement on what constitutes project performance and to some extent success. According to [11], inputs in a project encompass a wide range of people with their subjective perception of performance.

5. RESEARCH METHODOLOGY

Survey design was suitable for this study because it allowed interviewing real people directly and useful in getting primary data. However, exploratory research was carried out where literature study was to be done to get the variables of the survey. To test the importance of the correlation between the variables, some statistics were explicitly used correlation matrix and multiple regression analysis. By design, the evaluation employed both quantitative and qualitative research techniques. Key informant interviews, observation, surveys questionnaires and case studies were the primary tools used to conduct the research. The target population in this study was all the food security projects in Kilifi County including their implementers and other related stakeholders. Of particular interest was the horticultural food security projects especially those that are involved with smallholder farmers in improving food security. There was up to 15 food security projects in Kilifi County. The subset of the target population included other stakeholders, women, NGOs and the national government. It was from this population that a representative sample was drawn and questionnaires administered randomly.

The sampling frame in this study was derived from the list of all food security projects in Kilifi County that are registered with the county government including their beneficiaries and all the stakeholders. The desired sample size thus comprised of 128 respondents. The study used a stratified sampling technique to select the employees where the respondents were picked from the strata's. The theoretical, primary and secondary research was the primary source of data for this study. Primary data was collected through questionnaire and was essential because it provided direct data or first-hand evidence about an event. A pilot study was conducted through simulations within the research team to test the questionnaires. It also examined how the research team can translate the questionnaire in the native Swahili which is widely used in Kilifi.

Multiple regression was used to determine the strength of association between the predictors (independent) and project implementations among its dimensions. The test for significance of coefficient of correlation was established by the use of f-test.

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + e_0$$

Where: β_0 = Y-intercept (constant) whose influence on the model is insignificant

X_1 = Scope Management

X_2 = Stakeholder Analysis Factors

X_3 = Project Leadership

X_4 = Monitoring, and Evaluation

$\beta_1, \beta_2, \beta_3, \beta_4$ = Model coefficients which are significantly large to have a significant influence on the model. Is the error term. Data was represented in the qualitative and quantitative format through tables, charts, graphs, and discussions.

6. RESULTS AND DISCUSSION

Response Rate

In this study, one hundred and twenty-eight questionnaires were administered to the food security projects stakeholders in Kilifi County. The respondents, who had a response rate of 100% of the total questionnaires, completed one hundred and twenty-eight questionnaires.

The response rate of 100% that was attained during this study is acceptable because it is above the 60%. The response rate is reflected in Table 6.1

Table 6.1: Response Rate

Response	Frequency	Percent, %
Target respondents	128	100
Actual Respondents	128	100
Total	128	100

6.1 Stakeholder Analysis

From the findings, 52 (34.7%) disagree, 13 (10.2%) neither agreed nor disagreed, 6 (4.6%) strongly disagreed, 42 (32.8%) agreed while 62(48.5%) strongly agreed that stakeholders stakeholder participation affected project performance, mean 3.48 and standard deviation 1.140. This means that stakeholder participation affected food security project performance. The more they were involved and participated in the project the more performance was boosted. The reverse was also true. Some respondents either disagreed, strongly disagreed or remained neutral. This meant that there were other factors that they considered to affect food security project performance other than stakeholder participation.

6.2 Stakeholder Participation strategy

The researcher sought to find out the influence of stakeholder participation strategy on project performance. The respondents were asked to rate questions on participation strategy using a 5-point Likert scale with strongly agree, agree, neutral, disagree and strongly disagree options. 52 (34.7%) disagreed, 37 (24.7%) neither agreed nor disagreed, 30 (20%) strongly disagreed, 26 (17.3%) agreed while 5 (3.3%) strongly agreed that stakeholders were involved in strategy planning. Asked if they understood the mission, vision, and objective of the project, 46 (30.7%) disagreed, 41 (27.3%) agreed, 29 (19.3%) strongly disagreed, 21 (14%) strongly agreed while 13 (8.7%) were neutral. 67 (44.7%) disagreed, 45 (30%) strongly disagreed, 22 (14.7%) were neutral, 11 (7.3%) agreed while 5 (3.3%) strongly agreed to participate in making budget plans and resource allocations. On whether stakeholders were involved in monitoring and evaluation, 42 (28%) disagreed, 37 (24.7%) strongly disagreed, 35 (23.3%) were neutral, 26 (17.3%) agreed while 10 (6.3%) strongly agreed. 55 (36.7%) of those interviewed disagreed on stakeholders participating in decision making on issues affecting the project, 34 (22.7%) agreed, 28 (18.7%) strongly disagreed, 26 (17.3%) strongly agreed while 7 (4.7%). 67 (44.7%) strongly agreed, 63 (42%) agreed, 9 (6%) neither agreed nor disagreed, 7 (4.7%) disagreed while 4 (2.7%) strongly disagreed that stakeholder participation affected project performance.

6.3 Stakeholder Participation Policy

The researcher inquired to find out the influence of stakeholder participation policy on project performance. The respondents were asked to rate questions on participation policy using a 5-point Likert scale with strongly agree, agree, neutral, disagree and strongly disagree options. A majority of stakeholders strongly agree that there was a policy on stakeholders in the project at 86 (57.3%). This was followed by 48 (32%) who agreed, 13 (8.7%) who were neutral, 2 (1.3%) who disagreed while 1 (0.7%) strongly disagreed. Asked whether stakeholders were involved in making of the policy, 70 (46.7%) disagreed, 47(31.3%) strongly disagreed, 24 (16%) neither agreed nor disagreed, 6 (4%) agreed while 3 (2%) strongly agreed. 38 (25.3%) disagreed, 38 (25.3%) were neutral, 31 (20.7%) agreed, 22 (14.7%) strongly agreed while 21 (14%) strongly disagreed that the policy was used throughout the project period.

Of the stakeholders interviewed, 44 (29.3%) disagreed, 33 (22%) agreed, 27 (18%) strongly agreed, 25 (16.7%) strongly disagreed while 21 (14%) were neutral on whether stakeholders were consulted from time to time on issues affecting the project. 58 (38.7%) agreed, 35 (23.3%) neither agreed nor disagreed, 22 (14.7%) strongly agreed, 19 (12.7%) disagreed

while 16 (10.7%) strongly disagreed that the policy covered all critical issues. Asked on whether the policy affected the performance of the project, 64 (42.7%) agreed, 57 (38%) strongly agreed, 15 (10%) were neutral, 10 (6.7%) disagreed while 4 (2.7%) strongly disagreed.

6.4 Stakeholder Participation Tools

The researcher explored to find out the influence of stakeholder participation tools on project performance. The respondents were asked to rate questions on participation tools using a 5-point Likert scale with strongly agree, agree, neutral, disagree and strongly disagree options. 49 (32.7%) strongly agreed, 45 (30%) agreed, 26 (17.3) were neutral, 18 (12%) disagreed while 12 (8%) strongly disagreed when asked if stakeholders were involved in stakeholder meetings. Asked whether they attended capacity building, project progress and information sharing workshops, 72 (48%) agreed, 53 (35.3%) strongly agreed, 15 (10%) were neutral, 7 (4.7%) disagreed while 3 (2%) strongly disagreed. 49 (32.7%) neither agreed nor disagreed, 45 (30%) agreed, 32 (21.3%) disagreed and 24 (16%) strongly agreed to the project using risk management as a tool.

Asked if the information is collected through surveys, interviews, focus discussion groups, 80 (53.3%) agreed, 54 (36%) strongly agreed while 16 (10.7%) were neutral. On schedule being determined by use of tools like Work Breakdown Structures, Gantt charts, Critical Path Analysis, 61 (40.7%) strongly agreed, 55 (36.7%) agreed, 16 (10.7%) neither agreed nor disagreed, 11 (7.3%) disagreed and 7 (4.7%) strongly disagreed. 72 (48%) strongly agreed to stakeholder participation tools affecting the performance of the project, 61 (40.7%) agreed, 15 (10%) disagreed while 2 (1.3%) were neutral

Correlation Results

Correlation Analysis between Scope Management and Performance

A Pearson correlation analysis was done to establish the strength of the relationship between the dependent variable (Project Performance) and independent variables change in project activities, change in project cost and scope change).

Table 5.6: Correlation Analysis between Dependent and Independent Variables

Variable	Mean	S.D	1	2	3	4
Change in project activities	22.45	1.34	1			
Change in project cost	18.64	1.32	0.254*	1		
Scope change	17.876	1.97	0.376**	0.584**	1	
Performance	20.56	1.33	0.320**	0.204*	0.279*	1

*. Correlation is significant at the 0.05 level (2-tailed).

** . Correlation is significant at the 0.01 level (2-tailed).

From table 5.6 above, there was a positive correlation between the dependent variable (project performance) and the independent variables (Scope Management-Change in project activities, change in project cost, scope management.) The results showed that there was a positive correlation between scope management and project performance ($r = 0.335^{**}$, $p < 0.01$). The results also show the significant positive relationship between stakeholder participation policy and project performance ($r = 0.215^*$, $p < 0.05$). The results show a significant positive relationship between scope management and project performance ($r = 0.286^*$, $p < 0.05$).

7. CONCLUSION

The primary objective of this study was to establish the effect of project management practices on food security projects in Kilifi County. More specifically the study sought to determine the effects of monitoring and evaluation, project leadership, project scope management and monitoring and evaluation of these projects. The results showed that project leadership affected project performance of food security projects positively and significantly in Kilifi County. This means that increasing the efficiency of leadership directly lead to improved project performance and hence the success of the projects. Quality leadership is essential not only for individual's career pursuits but is also significant because it influenced the whole project process and the project team. The project team needs to be recruited based on competency, and there needs to continue development of the project leadership through training or seminars. Most projects in Kilifi did not, however, practice good leadership.

Project stakeholder analysis also significantly affected project performance of food security projects. Food security project affects several interests. Representatives of these interest are what is referred to as stakeholders. They all have

vested interest in the success of the projects. However, what may be a success to one may not be considered a success to the other. For instance, in the food security projects, the implementers, donors, farmers and even the County government have varying interest. These interest collectively affect the performance of projects and need to be managed. It then follows that, in the course of implementing a food security project, not all needs and concerns from external stakeholders can be fulfilled. The challenge for the project manager is then to plan and execute the project in a manner that fulfills as many external stakeholder needs and concerns as possible without compromising the purpose of the project.

Project scope management had a positive and significant effects on the performance of food security projects. This signifies that effective scope management ensures the achievement of the right results through the fulfillment of scope. It takes precedence over constraints of budget and deadlines. It will also enable proper utilization of human and nonhuman resources, thus, also helping in avoiding confusion, uncertainties, risks, and wastages. The projects are managed to look at their success, and success is based on being on schedule, within budget, and time frame which is the fulfillment of project scope. Most of the food security perform poorly or just fail due to scope creep. In food security projects, stakeholders would be concerned with the completion of the project and how it results in the intended outcome. The conclusion of the project was found to be reasonable when it came as expected and the result more satisfying when it does not bring in unexpected work and cost.

Monitoring and evaluation of project performance also had a statistically significant positive effect on successful completion of projects. The results indicated that monitoring and evaluation helped to predict deviations in projects before they occur, implying that efficient project monitoring and evaluation can result in successful completion of projects. It contributed to device troubleshooting measures in case of any deviations.

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