European Journal of Business and Management
ISSN 2222-1905 (Paper) ISSN 2222-2839 (Online)
Vol.10, No.28, 2018

The Influence of Project Planning and Implementation on the Performance of Agricultural Projects by Community Based Organizations in Bungoma County, Kenya

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Abstract
Kenya's economy is heavily dependent on agriculture. As such, the agricultural sector provides the basis for the development of other sectors. However, the performance of many agricultural projects in Kenya is still wanting. Some projects have stalled while others get completed but with low returns. Therefore, the study sought to establish the influence of project management practices on the performance of agricultural projects by community based Organizations in Bungoma County in western Kenya. Based on the study, this paper discusses the findings on the influence of project planning and implementation on the performance of agricultural projects in Bungoma County. The study used descriptive and explanatory research designs. It targeted 138 community project groups carried out by CBOs registered in Bungoma County. The study used stratified sampling to select 61 project groups from the target population. Primary data was collected using a self-administered questionnaire. Interviews were also conducted with 15 field officers. Descriptive statistics were computed to describe the characteristics of the variables whereas inferential statistics in form of simple and multiple regression were used to establish the nature and magnitude of the relationships between variables. Data was analysed using SPSS version 22. Qualitative data was analysed through content analysis. On simple regression, project planning and project implementation were found to influence agricultural project performance. Therefore, the study recommended that, in order to have the desired project performance, the sponsors should ensure more extension services and expose the farmers to more effective projects for benchmarking.
Keywords: Project Planning, Implementation, Performance, Agricultural Projects, Community Based Organizations, Bungoma, Kenya

INTRODUCTION

One of the most important organizational developments in the recent years has been the significant growth in project work across different sectors and industries (Maylor, Brady, Cooke - Davis & Hodgson, 2006). Projects are used as means of reducing problems of poverty, poor health and unemployment which are predominant in rural set up of many developing countries (International Development Research Centre, 2004). Agricultural projects have been recognized for their role and importance in development and growth of economies. Kenya's economy is also heavily dependent on agriculture sector. The sector also serves as the basis for the development in the other sectors of economy (Republic of Kenya National Development Plan, 2002).

The agricultural sector has a direct contribution to Gross Domestic product (GDP) of 25% and indirectly contributes a further 27% through linkages with agro-based and associated industries (Alila & Atieno, 2006). The sector employs about 75% of the total labour force, generates 60% of export earnings, and provides 75% of industrial raw materials and 45% of Government revenue. As a result, the government of Kenya has placed a lot of emphasis on agricultural projects by among other strategies forming and funding of youth and women to run the projects groups.

These project groups, however, have not performed to their optimum due to several challenges ranging from social, economic and technical which are yet to be addressed by the ministry of agriculture (Ministry of Agriculture, 2011).

Project Planning and Performance of Agricultural Projects

According to Barry, Dent and Dubois (2000), in their study on rural planning in the developing world, rural planners in developing countries have tended to focus on the provision of social infrastructure roads, schools, clinics, etc. Planning for the rural areas has been mainly a top-down process, usually the domain of government departments concerned with rural development, agriculture and natural resources e.g. fisheries, forestry, wildlife, water. The findings of the study show that project plans have usually been made in offices, remote from the areas being planned and the people who would be affected. Weiss and Wysoiki (2012) add that, commonly, procedures set out in planning manuals have been rigidly applied and their focus has been largely on the use of land and land resources. The planning process has relied, first, on the gathering of information about the natural resources and socio-economic conditions of the area under consideration, followed by analysis and interpretation, all as a professional exercise.

According to Botchie (2000), regarding rural district planning in Ghana, local strategic planning requires information about the condition and trends of natural resources, social and economic conditions. Methods to gather, synthesise and interpret the information are well established. Methods and mechanisms to enable the participation of stakeholders also exist. There is also a need for skilled and dedicated people to use the methods for a planning framework within which they can be brought together and for financial resources sufficient to do the job at the local level (Project Management Institute, 2004). The findings of the study revealed that assistance in rural planning in a particular country will require a structured response which should first involve an assessment of current rural planning arrangements which is planning framework, institutional roles and responsibilities, skills base and an assessment of needs. The lead in such an assessment should be taken by nationals as part of the raising of awareness of the issues and possible responses.

The issues raised by Botchie find support in the work of Heldman (2002) which revealed that donor assistance is likely to require considerable investment in training, building capacity and skills, and providing incentives which will encourage bureaucracies to change which requires a long term commitment. Without this, continued investment in or support for projects which arise from flawed planning processes will lead to poor project performance and poverty. According to Anandajayasekeram (2014), in the study on agricultural project planning and analysis in Belgium, project planning represents processes during the identification and preparation stages of the project life cycle in which the broad context of project operation is clarified. The planning stage is where particular problem areas are identified and clear objectives are set to achieve the required changes; where alternatives are developed and choices are made, and where appropriate actions are prepared for implementation.

The findings of the study by Anandajayasekerem (2014) revealed that the Logical Framework Approach, which is a tool for planning, monitoring and evaluating projects, is also a useful approach to link projects to the broader context of regional development programs and national goals is very useful in effective participative project planning. LFA is essentially used as a tool to clarify cause-effect relationships and to clarify the logical link between project inputs and objectives; project activities and outputs; broader purposes; and the ultimate goals a project could serve. LFA is therefore a systematic planning process based on logical deductions. Experience and knowledge is important to apply LFA. Taylor (2006) also points out that project planning provide the framework for project management, implementation, monitoring and evaluation. To participate in and manage the planning process, it is important to learn to work with uncertainty, subjective perceptions and values, and flexibility, openness and communication. Participation is a key to successful project planning.

A report by Multiple Release Custom (2015), on planning phase in projects in Britain, mentions that a project manager should consider the six schedule management processes. The study findings showed that the development of the schedule baseline will involve activity definition, activity sequencing, activity resource estimation and activity duration estimation. The schedule management plan should be focused on the methods for controlling the schedule. The study concludes that approval of the project management plan, the execution of the planning project status review, and the approval to proceed to the next phase signify the end of the planning phase.

Project Implementation and Performance of Agricultural Projects

According to Christen and Pearce (2005), in a study on managing risks and designing products for agricultural projects and international fund for agricultural development in Rome, bureaucracy in government has affected implementation of policies related to food security issues. Sometimes, these policies are inappropriate or unrealistic and may become vulnerable to economic and political dynamic shifts. The effect may cascade down and affect funding of agricultural activities especially those that are funded by donors and other providers involved with agricultural activities. The findings of the study showed that red tape may increase the cost of credit thereby discouraging borrowers from financial institutions thereby hampering smooth project implementation. These policies cause delay in the process of availing loans to farmers which contribute to 50% failure in terms of execution of the ventures. This will eventually lead to reduced food production and high poverty rates.

According to Nyariki and Wiggins (2007), in a study on household food insecurity in the sub-Saharan Africa, for project management to achieve project performance, literacy levels of the implementers should be satisfactory to ensure minimal penetration in terms of growth and advancement in society. Lack of access to formal education and training has contributed greatly to low employment and understanding of issues that contribute to project implementation. The Millennium Development Goals (MDGs) included the important objective of full parity of enrolment of boys and girls at all levels of education. Education could and would inevitably have a positive effect behaviour and performance. The study finds out that that the educated populations are able to internalize concepts and processes related to project management easily especially in agricultural setups in rural areas where women dominate.

Project Management Institute (2013) adds that educated society is geared towards correct implementation of set up plans from management groups since they are able to interpret and apply the given agricultural activities.

Dynamism in project activities requires fairly skilled manpower that can interact objectively to achieve project outputs and outcomes. Data exists which points to the fact in the market-place males can succeed with fewer years of schooling than can their female counterparts. Laurent (1972), in a study on currency transfers by denomination in Chicago, points out that modern information and communication technologies have the potential to increase agricultural productivity through communicating knowledge and information to rural agricultural communities, providing capacity building, accessing markets and credit. The findings of the study revealed that project managers have used ICT to advance their strategies in several ways to enhance successful project implementation. Over the last few years, several banks have embraced mobile banking technologies, enabling customers to access their bank via their mobile phones. This has helped quick access to funds that have facilitated the smooth running of the farming activities during implementation of the project.

Amponsah (2010), in a study on underlying theory of project management done in Finland, brings forth the underlying theory on project execution. The findings of the study reveal that the underlying theory on project execution provides that dispatching consists of two elements. The first is decision for selecting task for work station from those predefined tasks that are ready for execution. Secondly, is communicating the assignment to the work station .The study further reveals that for the case of project management, the decision making is largely taken care of in the planning stage and thus dispatching is reduced to mere communication or authorization to start work.

Ndede (2015), in the study, reports that leading microfinance institutions in Kenya, including Jamii Bora, K-Rep and Faulu Kenya, have also introduced services based on SMS that let their clients view their balances, request account statements and transfer of money. Technology and innovation are therefore a major component of project design and implementation. M-PESA's growth is a classic example and its contribution in social activities. Through this platform salaries are paid to farmers involved with projects, information concerning important decisions is conveyed through mobile phones. Project managers also pass important extension message ideas through phone technology.

Statement of the Problem

Project failure rates in Kenya are high and the costs involved in starting and running them are equally high (Kenya Agriculture Research Institute, 2012). The findings of an impact assessment on community-funded projects showed that only 5 out of 36 project groups in Bungoma County funded in 2007 were partially active, while the rest had become defunct and could not be traced after cessation of funding (Wabwoba & Wakhungu, 2013). Despite the Ministry of Agriculture report on smallholder horticulture marketing programme (2014) recommendations through the NALEP service extension group to increase the number of community based organizations and improve skills of farming, there is still persistent food insecurity and poverty among the rural communities in some Counties like Bungoma having 53% of its population still suffering from intense poverty and malnutrition (Youn, 2013). In light of these realities, this paper examines the influence of project planning and implementation on the performance of community based agricultural projects in Bungoma County, Kenya.

MATERIALS AND METHODS

The study used both descriptive and explanatory research designs. The target population of this study consisted of all 138 agricultural project groups and 24 field officers carried out by CBOs in Bungoma County. The study used stratified random sampling. The agricultural project groups in every sub county were stratified as per their sponsors which are government, ICS, one acre fund and self-sponsored. The agricultural projects representing each sub county were then selected using proportionate sampling basing on similarity and variability of projects. A statistical formula was used to determine the sample size as suggested by Fisher, Laing, Stoeckel and Townsend (1985). At 95% confidence level, a sample of 61 out of 138 was selected.

Data from the study was collected using both semi structured questionnaire and an interview guide. Qualitative data was analysed based on the content matter of the responses. Responses with common themes or patterns were grouped together into coherent categories. Quantitative data was analysed by use of both descriptive and inferential statistics. Descriptive statistics such as frequencies, percentages, mean and standard deviations were computed to describe the characteristics of the variables of interest in the study.

RESULTS AND DISCUSSION

Influence of Project Planning on Performance Agriculture of Projects

The study tested the following null hypothesis to determine the influence of project planning on agricultural project performance: *Project planning has no significant influence on performance of agricultural projects by community based organizations in Bungoma County, Kenya.* The hypothesis was tested through regression of project planning measures (independent variable) on performance of agricultural projects (dependent variable). The relevant results were as presented in Table 1 below.

Table 1: Regression Results for Project Planning on Performance of Agricultural Projects

Model summary						
Model		***R***	***R^2***	***Adj. R^2***	***Std Error***	
1		0.542	0.293	0.279	0.61083	
			Anova			
Model	*Sum of squares*	*Df*	*Mean square*	*F*	*Sig*	
	Regression	*7.744*	*1*	*7.744*	*20.7*	*0.00*
1	*Residual*	*15.655*	*50*	*0.373*		
	Total	*26.4*	*51*			
			Coefficients			
Model		*Unstand.* Coefficients		*Stand.* Coefficients		
		B	***Std***	***Beta***	***t-statistics***	***Sig***
1	*(Constant)*	*3.167*	*0.085*		*37.348*	*0.00*
	Project planning	*0.355*	*0.078*	*0.542*	*4.556*	*0.00*
Predictors (constant), Project planning Dependent Variable: performance of agricultural projects Source: survey data (2017)						

The regression results in Table 1 show the regression coefficient of 0.355 obtained in the study. This implies that a unit improvement of the project planning variable would lead to 0.355 increases in project performance. the relationship between project planning and agriculture project performance was significant at (F = 20.756, p=0.00 where p <0.05). The model implies that there was significant influence of project planning on agricultural project performance and that the independent variable of project planning contributes significantly to changes in the dependent variable. Therefore, the study rejects H_{01} at (α =0.05 and conclude that project planning influence performance of agricultural projects.

The R^2 was 0.279 which implies that only 27.9% of the agricultural project performance was explained by the project planning variable. This means project planning had low explanatory power on project performance. Based on the analysis, the following model was formulated.

Project performance = 3.167 +0.355 *Project planning+e ……..(1)

The findings are in agreement with Taylor's (2006) that the project plan must be manageable and viable and must bring about management plans that are developed by the management. The findings are also in agreement with those of Anandajayasekerem (2014) that project planning provides the framework for project management, implementation, monitoring & evaluation and, therefore, forms a key part of project management practices.

Influence of Project Implementation on Performance Agriculture of Projects

The study tested the following null hypothesis to determine the influence of project implementation on project performance: *Hypothesis 2: Project Implementation has no significant influence on performance of agricultural projects by community based organizations in Bungoma County, Kenya.* Simple linear regression was computed to test hypothesis two and the corresponding results are presented in Tables 2.

Table 2: Regression Results on Project Implementation and Performance of Agricultura Projects

Model summary						
Model		*R*	*R^2*	*Adj. R^2*	*std Error*	
		0.411	0.169	0.152	0.66287	
			Anova			
Model		*Sum of squares*	*Df*	*Mean square*	*F*	*Sig*
Regression		*4.463*	*1*	*4.463*	*10.173*	*0.002*
1	*Residual*	*21.937*	*50*	*0.439*		
	Total	*26.4*	*51*			
			Coefficients			
Model		*Unstand.* Coefficients		*Stand.* Coefficients		
		B	Std error	Beta	t-statistics	Sig
1	*(Constant)*	*3.178*	*0.092*		*34.588*	*0.00*
Project Implementation		*0.277*	*0.087*	*0.411*	*3.169*	*0.002*
Dependent Variable: performance of agricultural projects Predictors (constant), Project Implementation						

Source: Survey Data (2017)

The regression results in Table 2 above show that the regression coefficient in the study was 0.227. This implies that a unit increase of project implementation would lead to 0.227 increases in project performance. The F statistic value = 10.173, p=0.002 where p <0.05 implies that the relationship between project implementation and agriculture project performance was significant. As such, the study rejected $H0_2$ at α =0.05 and concluded that project Implementation positively influences performance of Agriculture projects. The R^2 in the study was 0.152 which implies that 15.2% of agricultural project performance was explained by the project implementation variable. The R^2 implies that project implementation had low explanatory power on project performance. Based on the analysis in tables 4.18, the following model was formulated:

Project Performance = 3.178+0.227*Project Implementation+e…… (2)

The findings are in agreement with the findings of Meredith and Mantel (2010) in a study which revealed that project implementation is essential step of all the project activities and resources utilization. It requires a combination of techniques, procedures, people and systems focused on the successful completion. The findings are also supported by Project Management Institute (2013) which adds that implementation phase accounts for 80-85% of the project work hence if has very high influence on the success of the project.

CONCLUSION

The study found that project planning influences performance of agriculture projects. Similarly, project implementation influences agricultural project performance by community based organizations. However, as much as the joint regression show that planning and implementation had no influence to project performance, it was attributed to the fact that the two variables are interlinked since planning ushers in implementation as shown in literature review. The findings of joint regression on project planning and project implementation, therefore does not change the earlier conclusions made through simple regression.

RECOMMENDATIONS

Based on the findings, it is recommended that the managers of different organizations which sponsor projects should continually modify several aspects of management to improve performance of agriculture projects. Certain aspects of management should be addressed as a matter of policy, such as encouraging farmers through extension services to diversify farming activities to include more of horticultural crops like tomatoes, vegetables and onions. The farmers should also practice dairy farming and bee keeping more than they do currently to diversify their farming which will contribute to improve their economical level. Moreover, the government is judged with a responsibility of employing highly qualified managers especially field officers and supervisors to help exercise their management skills for better performance. The qualified human resource should also ensure that it practices all the recommended management practices correctly and effectively to enhance maximum project performance. These practices involve improving the monitoring and evaluation skills through effective supervision, ensuring that the implemented projects strictly go by set up plans of the project.

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