
EFFECT OF EVALUATION ON PROJECT PERFORMANCE: A CASE STUDY OF MILLENNIUM VILLAGES PROJECT IN BUGESERA DISTRICT

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ABSTRACT

This study was set out to assess the effect of evaluation on project performance using the case study of Millennium Villages Projects in Bugesera district. Project evaluation helps track project performance at any given time and provides reasons for an observed project status. In this study evaluation was defined by its activities: Evaluation planning, Evaluation training, human resource capacity while project performance was considered as the degree of goal achievement. The objectives of the study were to establish the effect of Evaluation plans on project performance; to assess the effect of Evaluation training on project performance; to determine the effect of human resource capacity on project performance. The target population for this study was 110 stakeholders including managers, project staff members and Monitoring and Evaluation team members from Millennium Villages Projects. Through sample size determination formula by Yamane, a sample size of 86 was used. A stratified random sampling technique was used to select the samples. Data was collected using questionnaires which were distributed to all the samples by the researcher. Both descriptive and inferential statistics were generated through SPSS version 21. The results were presented in tables and pie chart. The study findings revealed that evaluation planning ($r = .486$, $p < 0.01$), training on evaluation ($r = 0.398$, $p < 0.01$) and human resource capacity ($r = .325$, $p < 0.01$) has a significant effect on project performance.

Keywords: Evaluation, Project performance

1. Introduction

In order to ensure successful project implementation as per the set goals and objectives, project managers are continuously getting involved in the process of monitoring and evaluation. The idea of project Evaluation has been growing over time and has seen many changes occur in the way projects are managed (Nyonje et al., 2012). Since 1950s, the practice of project Evaluation has been focusing mainly of efficient utilization of resources (Rodgers and Williams, 2006). With the increasing growth and increased awareness of the role of evaluation in project performance, project funders view evaluation as a tool for reviewing progress and identifying and correcting problems in planning or implementation of projects (Shapiro, 2001; Alcock, 2009; Armstrong and Baron, 2013). According to Naidoo (2011), effective project evaluation provide bases on which a project committee can make an informed decision regarding an ongoing project. The current study sought to demonstrate the influence of project evaluation on project performance.

The Millennium Villages Project is a partnership between the Earth Institute at Columbia University (EI), the UN Millennium Project, the United Nations Development Programme (UNDP), and Millennium Promise (MP). Its design is the product of five years of intensive research and policy advice by hundreds of scientists and development experts from across the UN system, governments, NGOs, the private sector, and academia. The primary aim of the Millennium Villages Project is to help poor villages become self-sustaining units by 2015 through investments in health, food production, education, access to clean water, and the building of essential infrastructure. It is hoped that through the implementation of the project, the villages will be able to attain the Millennium Development Goals of cutting poverty in half by the year 2015. The Millennium Villages Project began in 2005 with the implementation of 3 villages in Kenya, Ethiopia, and Rwanda by the Earth Institute. These villages continue to be funded by private donors and managed by ICRAF, the World Agroforestry Center). Funds provided by the UN Trust Fund for Human Security in 2006 permitted the expansion of the Millennium Villages Project to nine additional villages located in Ghana, Kenya, Malawi, Mali, Nigeria, Senegal, Tanzania and Uganda. The Government of Japan provided \$9 million for 2 years, with a possible extension up to \$20 million for a total of 5 years. This set of twelve villages is referred to as MV1 (MV progress report 2008).

Mayange sector of Bugesera District is located about 40 km south of the capital, Kigali. The area suffers from sporadic rainfall and declining soil fertility, leading to endemic poverty, illness, and a lack of economic opportunity. The project was started in 2006 in Kagenge, one of Mayange's five cells. The population in this cell was facing impending famine because of failing rains and a poor harvest the year before, and the health center was severely lacking in staff, medicines, equipment, and supplies, and had no electricity or running water. Unlike most of rural Rwanda, where individual homesteads are scattered across the hilly landscape, Mayange has several *umudugudus*, or settlements, of closely spaced dwellings, which the government built to house returnees after the 1994 genocide. Nearly 22 years after the genocide, Bugesera and Rwanda as a whole are intently focused on rebuilding and reconciliation (Melissa, 2010).

The Millennium Village cluster Rwanda began in 2006 in Mayange sector of Bugesera District. Since 2006 MV project has been intervening in areas of Agriculture, Education, Health, Infrastructure and Business opportunities and income generation, where it has achieved remarkable success as per the MV report (2008). MVP educational Activities working in Mayange sector include: Advocacy, Teacher training, Access to education, Girls' education, Students Leadership/management, Parenting/community education, Early childhood education/development, Adult literacy, Construction, Resources & equipment, School ICT, School feeding and Environment. Donors continue to spent huge amounts of money to finance development projects. However, many of these projects fail (Kimweli, 2013).

2. Study Objectives

The study was guided by the following objectives

- i. To establish the effect of evaluation plans on project performance
- ii. To assess the effect of evaluation training on project performance
- iii. To determine the effect of human resource capacity on project performance

3. Research Methodology

3.1 Research design

Descriptive research design was employed using survey approach this method was chosen since it was found to be suitable for a large population, it was cost effective and convenient in data gathering

3.2 Target population

The population of this study was composed of 27 project managers, 29 M&E members and 54 project staff members constituting a study population of 110 individuals.

Table 50: Target Population

CATEGORY	Population	Percentage
Project Managers	27	21
M & E Team	29	23
Project staff members	54	42
Total	110	86

3.3 Sample size

A total of 86 employees constituted the sample size for this study. The sample size was statistically calculated using the formula by Yamane (1967).

$$n = N / (1 + N(e)^2)$$

Where;

n is the sample size,

N is the population size (110)

e is the desired level of precision (0.05)

$$n = 110 / (1 + 110(0.0025)) = 86$$

3.4 Sampling Procedure

According to Babbie and Mouton (2006), sampling is the process of selecting units from a population of interest. The advantage of sampling is that by selecting a part of the subject on which measurement is being taken in a population, conclusions may be drawn about the entire population. Stratified sampling was used to ensure representation from the different stakeholders constituting the strata. Through simple random sampling, 86 respondents were picked from the population.

3.5 Data collection Instrument

The study used questionnaire in order to collect data. Lucy and Daniel, (2015) defines a questionnaire as a method for the elicitation, recording and collecting of information. The questionnaires were used because they are inexpensive. The questionnaire had both open and closed ended questions. The closed ended questions made use of a five point Likert scale where respondents were required to fill according to their level of agreement with the statements.

3.6 Data processing and Presentation

The completed questionnaires were checked for completeness to ensure consistency and then the data was coded and grouped into various categories. Quantitative data was analyzed by descriptive analysis using Statistical Package for Social Sciences (SPSS) to describe the effect of monitoring and evaluation on performance of MVP. Descriptive statistics included frequency and percentage. The findings were presented by use of table and charts.

In addition, multiple regressions was used to measure the strength of the relationship between the dependent and independent variables.

The regression equation is: $Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + a$

Where: Y is the dependent variable (Performance of MVPs),

β is the constant/Y-intercept,

$\beta_0 =$ Intercept

$\beta_1, \beta_2, \beta_3$ are the slopes of the regression equation,

X_1 is the Evaluation planning

X_2 is the Evaluation Training,

X_3 is the Human resource capacity,

a is an error term.

The assumptions for the study were that both X_1, X_2 and X_3 each separately add to Y regardless of the value of the other. Random error was assumed to be unrelated to predictors

4. Research findings and Discussion

4.1 Demographic Information

The study sought to investigate the demographic information of the respondents. Demographic characteristics that were studied included gender, age and education level.

4.1.1 Gender Distribution

The study findings revealed that majority (60%) of the study participants were male while female participants constituted 40 % of the study sample as indicated by figure 2 below.

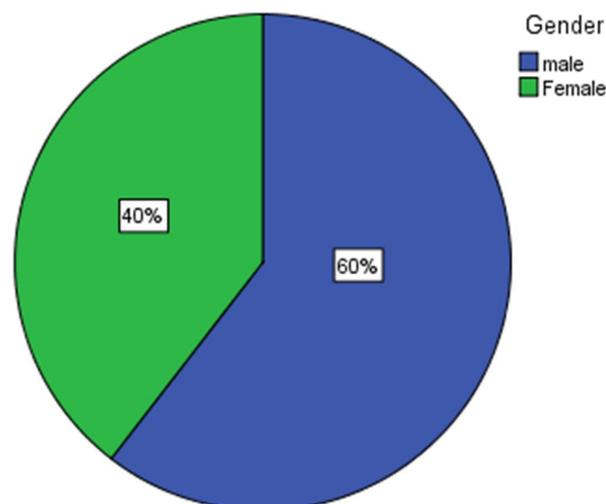


Figure 16 Gender distribution

4.1.2 Age of respondent

The study further sought to establish the distribution of age of the respondents. Data collected under age were presented in the table 2

Table 51 Age distribution

Age Group	Frequency	Percent (%)
<30 years	21	25
31-40 years	45	52
41-50	20	23
Total	86	100.0

Table 2 indicate that majority 52% of the respondents were aged between 31-40years, 25% of the respondents were aged below 30years, 23% of the respondents were aged between 41-50 years. The finding therefore implies that majority of the project employees aged between 31-40 years of age.

4.1.3 Level of Education

Table 52 Distribution of the Education level

Education Level	Frequency	Percentage (%)
Secondary level	38	44
University level	48	56
Total	86	100

The study also sought to determine the highest level of the education attained by the respondents. Table 3 shows that majority (56%) of the respondents had university education, 44% had secondary education. From the findings, it is clear that majority of the respondents had adequate education that is required to implement the project and ensure better performance.

4.2 Evaluation Plan

The respondents were given statements pertaining to evaluation plan. They were asked to respond by indicating yes/no to agree or differ with the statement.

Table 53 Effect of Evaluation Plan on project performance

Statement	Yes	No
Do you think that evaluation contributes to the performance of your projects?	84 (98%)	2(2%)
Is there an evaluation unit for the project	67(78%)	19(22%)
Does your project have a project evaluation plan	80(93%)	6(7%)
Does the evaluation plan help in understanding project expectations	81(94%)	5(6%)

Table 4 indicate that majority (98%) of the respondents felt that evaluation contributes to the performance of MVP project while 2% felt that it didn't. Further, the study showed that 78% of the respondents stated that there was an evaluation unit for the project while 22% stated that the unit was not there. The study also showed that 93% stated that MVP project had a project evaluation plan while 7% of the respondents stated it didn't. Additionally the findings shows that 94% of the respondents felt that evaluation plan helped in understanding project expectations.

Table 54: Considerations made in coming up with the plan

	Frequency	Percentage (%)
Finances	73	85
Capacity	43	48
Feasibility	59	69
Timeline	33	38
Total	86	100

Table 5 shows that 85% of the study respondents stated that finance issues were considered, 48% stated capacity of handling the projects, 69% stated feasibility while 38% of the respondents stated timeline as the factors that were considered in coming up with the evaluation plan.

Table 55: Correlation between project performance and evaluation plan

	Project performance	Evaluation plan
Pearson Correlation	1	
Project performance Sig. (2-tailed)		
N	86	
Pearson Correlation	.486**	1
Evaluation plan Sig. (2-tailed)	.000	
N	86	86

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

Table 6 indicates that project performance and evaluation plan were positively and significantly correlated ($r = .486$, $p < 0.01$). This means that project performance could be improved by ensuring that the project has an evaluation plan.

4.3 Evaluation Training

Table 56 Distribution of responses on Evaluation Training

Statement	SA %	A%	D%	SD%
Evaluation training has a role in enhancing project performance		21(24%)	42(49%)	23(27%)
Your project conduct trainings on Evaluation	57(66%)	29(34%)		
Trainings offered are relevant		11(13%)	29(34%)	46(53%)
Did you participate in Evaluation training for the project		30(35%)	34(40%)	22(25%)
Evaluation training for the project are regular	52(61%)	34(39%)		

SA= Strongly Agree, A=Agree, NS=Not sure, D=Disagree, SD=Strongly Disagree

Table 7 indicates that 24% of the respondents agreed with the statement that evaluation training has a role in enhancing project performance, 49% disagreed while 27% strongly disagreed with the statement. Majority (66%) of the respondents strongly agreed with the statement that their project conduct trainings on evaluation, 34% just agreed with the statement. The study findings also showed that 53% of the respondents strongly disagreed with the statement that trainings offered are relevant 34% just disagreed while 13% just agreed with the statement. Thirty five percent of the respondents just agreed with the statement that they participate in evaluation training for the project, 40% disagreed while 25% strongly disagreed. Majority (61%) strongly agreed with the statement that evaluation training for the project is regular, 39% just agreed.

Table 57: Correlation between project performance and evaluation training

		Project performance	Evaluation Training
Project performance	Pearson Correlation	1	
	Sig. (2-tailed)		
	N	86	
Evaluation in Training	Pearson Correlation	.398**	1
	Sig. (2-tailed)	.000	
	N	86	86

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

Table 8 indicate that project performance is significantly correlated to training on evaluation ($r=0.398$, $p<0.01$). This implies that the more the project implementers are trained on evaluation the better the project performs.

4.4 Human Resource Capacity

Table 58: Distribution of responses on Human Resource Capacity

Statement	Strongly Agree	Agree	Disagree
You have adequate evaluation experience	33(38%)		53(62%)
Project staffs are qualified	73(85%)	13(15%)	
The project have sufficient staff members	48(56%)	38(44%)	
Evaluation officers have relevant skills	25(29%)	61(71%)	

Tables 9 indicate that 38% of the respondents strongly agreed with the statement that they had adequate evaluation experience while 62% disagreed with the statement. Majority (85%) strongly agreed with the statement that project staffs are qualified while 15% just agreed with the statement. The findings also indicated that 56% of the respondents strongly agreed with the statement that the project have sufficient staff members while 44% just agreed with the statement. Twenty nine percent of the respondents agreed with the statement that evaluation officers have relevant skills, while 71% just agreed with the statement.

Table 59: Correlation between project performance and Human Resource Capacity

		Project performance	Human Resource Capacity
Project performance	Pearson Correlation	1	
	Sig. (2-tailed)		
	N	86	
Human Resource Capacity	Pearson Correlation	.325**	1
	Sig. (2-tailed)	.001	
	N	86	86

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

Tables 10 indicate that there was a significant relationship between project performance and human resource capacity ($r =.325$, $p<0.01$). This implies that enhancing human resource capacity would result in improved project performance.

4.5 Regression Analysis

Regression analysis was done to determine the amount of change in project performance that could be explained by the independent variables under study.

Table 60 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.757 ^a	.864	.869	.130

a. Predictors: (Constant), Evaluation plan, Evaluation Training, Human Resource Capacity

Table 11 is a model fit which established how fit the model equation fits the data. The R squared was used to establish the predictive power of the study model and it was found to be 0.864 implying that 86.4% of the variations in project performance are explained by evaluation plan, evaluation training and human resource capacity. Further the 86.4% shows that the model is a good fit for predicting change in the dependent variable.

Table 61 ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.575 ^a	3	.192	11.388	.000 ^b
	Residual	1.379	82	.017		
	Total	1.953	85			

a. Dependent Variable: Project performance

b. Predictors: (Constant), Evaluation plan, Evaluation Training, Human Resource Capacity

Table 12 shows that the probability value of 0.000 indicates that the regression relationship was highly significant in predicting how evaluation plan, evaluation training and human resource capacity affects project performance. The ANOVA results for regression coefficient indicate that the significance of the F is 0.00 which is less than 0.01. This implies that there is a positive significant relationship between project evaluation and project performance.

Table 62: Coefficients^a

Model		Unstandardized Coefficients			t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.591	.081		9.719	.000
	Evaluation plan	.172	.024	.187	2.317	.000
	Evaluation Training	.156	.040	.371	4.934	.000
	Human Resource Capacity	.196	.031	.217	3.192	.004

a. Dependent Variable: Project performance

The study also sought to determine the relationship between project evaluation and project performance. Regression analysis was conducted to assist estimate the relationship. The study adopted the following regression model to depict the expected relationship between project evaluation and project performance

$$Y' = a + b_1X_1 + b_2X_2 + b_3X_3 + e$$

Where,

Y' Indicate the project performance as a, b_1, b_2, b_3 are constants. X_1, X_2, X_3 are the independent variables i.e. Evaluation plan, Evaluation Training and Human Resource Capacity

e - is the random error term

$Y = 0.591 + 0.172$ (Evaluation plan) + 0.156 (Evaluation Training) + 0.196 (Human Resource Capacity).

The regression equation above has established that taking all factors into account (Evaluation plan, Evaluation Training, Human Resource Capacity) constant at zero, project performance will be 0.591. The findings presented also show that taking all other independent variables at zero, a unit increase in the evaluation plan would lead to a 0.172 increase in the scores of project performance and a unit increase in the scores of evaluation training would lead to a 0.156 increase in the scores of project performance. Further, the findings show that a unit increase in the scores of human resource capacity would lead to a 0.196 increase in the scores of project performance. Overall, human resource capacity had the greatest effect on the project performance, followed by evaluation plan while evaluation training had the least effect to the project performance. All the variables were significant ($p < 0.01$).

5. Conclusions and Recommendations

From the evidence from the correlation analysis, the study concluded that evaluation planning, training on evaluation and human resource capacity has a significant effect on project performance. Also the study concludes that finance issues, capacity to handle the projects, project feasibility and timeline are among the factors that could be considered in coming up with the project evaluation plan.

6. Recommendation

Based on the findings of the study, recommendations have been formulated which if Implemented would enhance further the influence of evaluation on project performance. The study recommends that project implementers should be trained on various aspects of monitoring. Also project managers and implementers should endeavor to plan for the implementation of the project, to ensure that the project is implemented within the expected timeline and resources to completion. Further the study recommends that prior to start of the project implementation or launch the project managers should ensure that there is adequate human resource to implement the project.

REFERENCES

1. Alcock, P. (2009). Targets, Indicators and Milestones. *Public Mangement Review*, 6(2)
2. Armstrong, M., & Baron, A. (2013). *Performance Management: The New Realities*. Chartered Institute of Personnel and Development.
3. Babbie, E., & Mouton, J. (2006). *The Practice of Social Research*. UK: Oxford University.
4. Chibweze, A. (2010) Influence of Monitoring and Evaluation Systems Use on Performance of Non-governmental Organizations in Nigeria: *Journal of International Academic Research for Multidisciplinary* Vol 1, Issue 8
5. Kimweli, J. (2013), *The role of monitoring and evaluation practices to the success of donor funded food security intervention projects : a case study of kibwezi district*.
6. Lucy, S. & Daniel, M. (2015) Influence of project monitoring and evaluation on performance of youth funded agribusiness projects in Bahati sub-county, Nakuru, Kenya. *International Journal of Economics, Commerce and Management* Vol. III, Issue 11
7. Melissa T (2010) Millennium Villages Project Rwanda. Retrieved on 2nd June 2016 from http://betuco.be/rwanda/Millennium_villages%20Rwanda.pdf
8. Naidoo, A. (2011). *The role of monitoring and evaluation in promoting good governance in South Africa: A case study of the Department of Social Development*. University of Witwatersrand. Johannesburg: WIREDSpace.
9. Nyonje, O., Ndunge, K. D., & Mulwa, A. S. (2012). *Monitoring and Evaluation of Projects and Programs - A Handbook for Students and Practitioners*. Nairobi, Kenya: Aura Publishers
10. Rodgers, P., & Williams, B. (2006). *Evaluation for practice improvement and organisational learning*, In Shaw, I.F., Greene, J.C. and Mark, M.M. (Eds) *The SAGE Handbook of Evaluation*. London: Sage Publishers.
11. Shapiro, J. (2001). *Monitoring and Evaluation*. Johannesburg: CIVICUS: World Alliance for Citizen Participation.