

INFLUENCE OF PROJECT MANAGEMENT PROCESS ON SUSTAINABILITY OF DONOR FUNDED HEALTH PROJECTS AMONG NON-GOVERNMENTAL ORGANIZATIONS IN NAIROBI COUNTY

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Abstract: Sustainability is a challenging aspect in project management, especially in developing countries. Millions of dollars in form of donor funds are wasted in expenditure on projects whose outcomes are no longer felt once donor funds are ceased. This study aims to determine the influence of project management process on the sustainability of donor funded health projects among NGOs in Nairobi County. The influence of Stakeholders participation was used to assess sustainability of donor funded health projects among NGOs. Adopting an extensive review of primary sources of data relevant to the projects the study adopted resource based and stakeholders' theories. The study focused on health projects implemented between the years 2013 and 2017 and the researcher used descriptive survey design. Data was collected using self-administered questionnaires. The target population was all project managers working in the 379 NGOs implementing health projects in Nairobi County. Simple random sampling method was used to sample 195 project managers in NGOS implementing donor funded health projects in Nairobi County. Data collection tools were piloted among NGOs that were implementing health projects in Nairobi County but were not part of the sample population. Descriptive and inferential statistics were used to measure the relationship between project management process and project sustainability. The regression analysis yielded a coefficient of R value of 0.688^a and R² =0.474. Similarly the overall model showed a statistically significant influence of stakeholder participation on project sustainability (p< 0.001). Having achieved the objective, the study rejected the null hypothesis and accepted the alternate hypothesis that stakeholder participation has a significant influence on sustainability of donor funded NGO projects in Nairobi County.

Keywords: Project, stakeholder participation, project sustainability, Non-Governmental Organization.

I. INTRODUCTION

International donors have played a major role in leveraging the efforts of governments through bridging social economic gaps especially in developing countries Banks, Hulme, & Edwards, 2015 [1]. Over the years NGOs have evolved and play a critical role in fulfilling needs that are for a reason or another are left behind by governments and private sectors, these is enabled through implementation of projects courtesy of funds from international donors Banks et al., 2015[1]. Sustainability from an NGO point of view means continuing to deliver project benefits to the primary target group after termination of donor funding Banks et al., 2015 [1].

According to Bigdon & Korf, 2004 [3] sustainability of projects has become an area of concern across various factions from the; project beneficiaries, governments, implementing partners to the donor institutions. Both governments and international development agencies are aware that development planning sometimes focuses more heavily on project approval and implementation and that less attention is paid to issues of sustainability of project outputs and outcomes Savaya, Spiro, & Elran-Barak, 2008 [17].

Major donors have raised a concern on the number of projects that fail once donor support ceases World Bank,2000 [20]. A study by Savaya et al., 2008 [17] which evaluated various projects implemented between 1980 to 2000 in Israel conclude that project sustainability is a serious problem and that as many as 40% of all new programs are not sustained beyond the first few years after termination of external funding. Reports across the globe indicate that funded projects in Africa have had a history of poor performance compared to other regions in the world with a high number of projects being either partially or completely unsuccessful this is mainly due to inability of project sustainability once donor funds are terminated World Bank, 2000 [20]. In Kenya alone, a total of 1778 million USD has been spent in funding for development projects by donors that is then disbursed to the government as well as local NGOs Hynes & Scott, 2013 [19]. This shows the magnitude with which projects need to be critically analysed for sustainability, as heavy resources are used to support projects Hynes & Scott, 2013[19].

Muriithi and Crawford 2003,[15] avers that the question of the success or failure of project sustainability can be linked to many facets of project management, it is thus vital to explore some of the factors that may influence the sustainability of projects.Wang, Hawkins and Lebrede, 2012 [19] noted that no studies had been explored on the strategies that organizations ought to adopt in order to ensure sustainability of projects. At the same time Wabwoba and Wakhungu ,2013 [18] conclude that further study is needed to explore the role of stakeholders in project sustainability.

Statement of the Problem:

An observation by World Bank 2000 [20]) indicated that project sustainability remains a major challenge among NGOs in many developing countries. In Sub Sahara Africa research has shown that projects implemented have always achieved low sustainability Miki, Kagiri, & Nganga, 2017[11].In an evaluation study of sustainability of development food assistance projects implemented by three NGOs carrying out projects in different regions of Kenya, Coates, Elizabeth, Tina and Alexander,2016 [4] concluded that none of the projects had a viable mechanism to continue provision of assistance once there was cessation of donor support.

African countries are among the biggest beneficiaries in development funding through projects that are aimed at complimenting governments efforts in improving social economic gaps Hynes & Scott, 2013[19].With this in mind a glance at the water projects in Africa indicates that over 50,000 water supply projects have since seized operations upon exit of implementing organizations, this represents between 215-350 million USD dollars of donor funds wasted on projects whose benefits have been short lived ,Fair water foundation, 2009 [6].The issue of sustainability has impacted negatively on donors since programs incur heavy start-up costs that are injected in projects meaning that while huge expenditures are being incurred in implementing projects, poor sustainability is depriving off the returns expected of these investment Coates et al., 2016 [4].This therefore, goes without saying that project management processes should incorporate measures that ensure sustainability of projects.

Research Objectives:

General Objectives:

The general objective of this study is to assess the influence of project management process on sustainability of donor funded health projects among NGOs in Nairobi County.

Specific Objective:

One of the specific objectives of the study was to:

1. To determine the influence of stakeholder participation on the sustainability of donor funded NGO projects.

Research Hypothesis:

H_{01} : Stakeholder participation has no significant influence on sustainability of donor funded NGO projects in Nairobi County.

Justification of the Study:

Sustainability is said to be an important final step in the life cycle of a project Mkomagi & Namwata, 2015 [12]. Any successful change or innovation must continue to benefit the beneficiaries to whom the change is intended. Sustainability of projects is of significance especially due to financial and moral reason Moore, 2010 [13]. An uneventful termination of projects when needs remain unmet questions the moral standing of a project and failure of a project to continue its

intended benefits after the end of a project life leads to waste of funds that have been heavily invested most of which taxpayer's money is Savaya et al.,2008, [17] .Although a lot of effort is always put in project management processes a comparable investment is rarely made in order to see to it that the projects are sustained. With the current financial constraint's projects ought to carefully plan for sustainability of project benefits Bennett, Singh, Ozawa, Tran, & Kang 2011[2].

II. RESEARCH METHODOLOGY

Research Design:

Descriptive survey design was used in this study as it would enable the researcher to understand the specific issues with regards to project sustainability within the target population.

Target Population:

Population is defined as the total collection of elements about which one wishes to make inferences Cooper & Schindler, 2003 [6]. Target population refers to an entire group of individuals, events or objects having a common observable characteristic, Mugenda & Mugenda, 2003 [14]. The target population comprised of project directors working in the 379 NGOs implementing health projects in Nairobi County.

Table 1: Target Population

NGOs	Target Population
Water and Sanitation Hygiene	31
HIV/AIDS	221
TB & Malaria	26
Reproductive health and Maternal Child Health	78
Nutrition	23
Total	379

Sample Population:

In this study the sampling frame consisted of a list of all NGOs that have been identified as implementing health programs in Nairobi County. It is from this sampling frame that the researcher selected the sample. The sample size was computed using, Yamane, 1967 [21] formula recommended for calculation of minimal sample size for any given finite population at a 95% confidence level. Simple random sampling was used to sample the NGOs from which the respondents were picked. A list of NGOs implementing the different health program were be outlined alphabetically and assigned numbers which were then picked out randomly until the sample size was attained.

Table 2: Sample population

Program	Target Population	Sample Population
Water and Sanitation Hygiene	31	16
HIV/AIDS	221	114
TB & Malaria	26	13
Reproductive health and Maternal Child Health	78	40
Nutrition	23	12
Total	379	195

Research Instruments:

Questionnaire were administered to the project managers leading the implementation of the health programs in NGOs that were sampled out. The first section of the questionnaire captured the general information such as age, gender, professional qualifications and experience of the respondents while the second section contained information on project management processes that influence sustainability of donor funded projects among NGOs in Nairobi County.

Data Collection Procedure:

Data collection as defined by Mugenda & Mugenda , 2002 [14] is the process of gathering specific information aimed at proving or refuting some facts. The primary data was collected through a self-administered semi-structured questionnaire on a drop and pick later basis to allow respondents enough time to fill the questionnaire and reduce non-response error Groves, 2006 [7].

Pilot Study:

A pilot study is one of the important stages in a research project and is conducted to identify potential problem areas and deficiencies in the research instruments prior to implementation during the full study Hassan, Schattner & Mazza, 2006 [8]. Reliability of the instrument was tested using the test-retest technique through pilot study. The questionnaires were administered to two respondents working in NGOs in Nairobi County but had not been picked as part of the sample population. After the respondents return of instruments the same instruments were re-administered to the same respondents after some time. The answers from both tests were compared to look for consistency based on the outcome of the pilot test, questions were reworded, introduced or deleted to ensure that they were stated clearly and had the same meaning to all respondents.

Cronbach's alpha was used to measure the reliability of the questionnaire. Cronbach's alpha was computed from the following formula

$$Alpha = \frac{NC}{v+(N-1)C} \dots\dots\dots (1)$$

Where; N = the number of items, v = the average variance, C = the average inter-item covariance.

A correlation coefficient greater or equal to 0.7 is acceptable ,Kuria& Wanyoike, 2016 [10]

Data Analysis:

The study data collected both quantitative and qualitative and therefore descriptive and inferential statistics was used to analyse the data. The collected data was edited, coded and analysed using using descriptive statistics calculated as frequencies and percentages. The data was be presented in tables. The Pearson correlation coefficient was be used to show the degree of relationship among the variables. Regression analysis was also be used to analyse the data to show the cause effect relationship of the project management processes that influence project sustainability.

III. RESEARCH FINDINGS AND DISCUSSION

Response Rate:

A response rate is a mathematical formula that is calculated by a researcher and is used as a tool to understand the degree of success in obtaining completed interviews from a sample Mugenda,2003[14]. The results of the response rate were as presented in Table 3.

Table 3: Response rate

Issued	Returned	Percent %
Returned	149	76
Not returned	46	24

A total of 195 questionnaires were self-administered to project managers overseeing implementation of NGO health projects in Nairobi County. Out of which 149 were returned giving a response rate of 76%. This is a reliable response rate since according to Mugenda,2003[14], a response rate of 50% is adequate for analysis and reporting; a rate of 60% is good and a response rate of 70% and over is excellent.

Sample Profile:

Gender Distribution:

The study sought to ascertain the gender distribution of the respondents. Table 4. that follows presented the disaggregation of respondents by gender.

Table 4: Gender distribution

Gender	Frequency	Percent %
Male	88	59.1
Female	61	40.9
Total	149	100.0

The results of the study showed that out of 149 respondents working as project managers in donor funded health projects among NGOs in Nairobi County 59.1% were male while 40.9% were females. This shows that there is a noticeable higher number of males holding leadership roles in health NGOs as compared to their female counterparts.

Academic Level:

As part of general information, the researcher sought to find out the level of formal education of the respondents. Table 5. presents the disaggregation of the respondents by the level of their education.

Table 5: Academic Level

Level of education	Frequency	Percent %
Diploma	36	24.2
Degree or higher	47	31.6
Postgraduate	66	44.2
Total	149	100

The findings from the study indicate that most of the project managers working in health NGOs in Nairobi County have postgraduate qualifications at 44.2% while 31.2 % of the respondents are degree holders and 24.2% of the respondents indicated that they had attained college diploma as their education qualification.

Length of service:

The study summarized the respondents' period of service at their respective NGOs within Nairobi County. The findings obtained by the researcher were as shown in Table 6.

Table 6: Length of service

Duration	Frequency	Percent %
Less than 1 year	28	18.8
Between 1-5 years	80	53.8
Between 6-10 years	23	15.4
Above 11 years	18	12
Total	149	100

From the results in Table 6.a majority of the respondents had served within the NGOs in Nairobi County for 1 to 5 years 53.8%. A few number of respondents had held their positions for less than 1 year at 18.8% and above 11 years at 12%. At the same time a few had held their positions for 6 to 10 years 15.4%. Therefore, this shows that most of the project managers working in NGOs implementing health projects within Nairobi County had spent less than 5 years in the NGOs they worked with.

Data Reliability:

Reliability of data is the degree to which a data collection instrument gives results that are consistent after repeated trials Mugenda & Mugenda, 2003 [14]. To determine reliability Cronbach's Alpha coefficient was used which gave results shown in Table 7.

Table 7: Cronbach's Alpha Coefficient of variables

Composite Variable	Cronbach's Alpha	Number of items
Stakeholders	0.732	6

Results from the Cronbach's alpha coefficients for all the variables, it was found that the research instrument used was reliable therefore based on this the data collected was as well reliable since the Cronbach's alpha for all the variables were above 0.7 the acceptable alpha coefficient value.

Stakeholder Participation:

The study sought to establish whether stakeholder participation as a project management process influences sustainability of donor funded health projects among NGOs in Nairobi County. Stakeholder participation was operationalized by two indicators (stakeholder engagement and stakeholder empowerment) with six questionnaire items. The results obtained were indicated in Table 8.

Table 8: Stakeholder participation

Stakeholder Participation	SA %	A %	N %	D %	SD %
Stakeholders are mapped	7.4	73.8	18.1	0.7	0.0
Stakeholders select projects	14.8	64.4	12.8	8.0	0.0
Plan of engagement	9.4	65.8	14.8	6.0	0.0
Stakeholders make decisions	12.8	70.5	6.8	10.0	0.0
Stakeholders involved in implementation	10.7	74.5	6.8	6.0	0.0
Communication to stakeholders	6.0	74.5	14.8	2.7	0.0

Most of the respondents 81.2% were for the opinion that stakeholders are mapped out before the beginning of a projects while 0.7% were of the contrary opinion that stakeholders are not mapped out before a project begins. On the other hand, 79.2% of the respondent mentioned that stakeholders are involved in the selection of projects at the same time 8.0% of the respondents did not involve respondents in the selection of projects.

Most of the respondents at 75.2% agreed to have a stakeholder's engagements plan while 6 % of the respondents mentioned that there was no stakeholders' engagement plan in place. 83.3% of the respondents said that stakeholders are involved in decision making while 10 % of the respondents said they did not involve stakeholders in decision making.

Similarly, 85.2% of the respondents said that stakeholders are involved in implementation of the projects while 6 % of the respondents said stakeholders were not involved in the implementation of projects. Lastly, many of the respondents at 80.5% agreed to have constant communication with the stakeholders while 2.7 % of the respondents said they did not have a constant communication with the stakeholders.

Correlation Analysis:

Correlation analysis was conducted to determine the existence, strength and direction of a linear relationship between project management process variables and sustainability of donor funded projects. The results of the correlation analysis were presented in Table 9.

Table 9: Correlation between stakeholder participation and project sustainability

		1	2	3	4	5
Stakeholder	Pearson Correlation	.241**	1	.427**	.297**	.688**
	Sig. (2-tailed)	.003		.000	.000	.000
	Pearson Correlation	.444**	.347**	1	.411**	.386**
Project sustainability	Sig. (2-tailed)	.000	.000		.000	.000
	Pearson Correlation	.176*	.688**	.499**	.344**	1
	Sig. (2-tailed)	.032	.000	.000	.000	

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

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

Correlation between Stakeholder participation and project sustainability:

The results of Table 4.10 show that the influence of stakeholder participation on project sustainability was positive and significant ($r = 0.688^{**}$ $p < 0.01$). The findings are supported by Kuria and Wanyoike (2016 [10] who suggested that stakeholder participation in donor funded projects promote sustainability. The findings are as well like Sabbil and Adam, 2015 [16] who indicated that project sustainability involves stakeholder participation in a collective decision-making process that meets the social, cultural, environmental, and economic needs of the community hence ensuring sustainability.

Regression Analysis:

The main objective of the researcher assesses the factors that determine the sustainability of donor funded health projects among NGOs in Nairobi County. To determine these four hypotheses were developed to empirically test the influence of various predictor variables and project sustainability. The hypotheses were as follows: The first hypothesis (H_{01}) predicted that there is no significant relationship between stakeholder participation and sustainability of donor funded NGO projects.

Regression Analysis of stakeholder participation on project sustainability:

To establish whether stakeholder participation had an influence on project sustainability and to test the hypothesis H_{01} : Stakeholder participation has no influence on project sustainability. Stakeholder participation (predictor variable 1) was regressed against project sustainability and results obtained were as shown in Table 10.

Table 10: Regression results of stakeholder participation and project sustainability

Model	R	R Square	Adjusted R square	Std Error of the estimate	Change Statistics F change	Sig.
1	.688 ^a	.474	.470	.26308	132.462	0.000

a.

Predictors: (Constant), stakeholders

Table 10. confirmed that stakeholder participation has a statistically significant influence on project sustainability. The regression analysis yielded a coefficient of R value of 0.688 and $R^2 = .474$. This means that 47.4 % of the corresponding variation in the predicted variable (project sustainability) could be predicted by stakeholder participation. In addition, the results in Table 10. gave the F test value of 132.462, $p < 0.01$ which was large enough to support the goodness of fit of the model which explains the variation in project sustainability. This confirms the usefulness of the predictor variable (stakeholder participation) on project sustainability. Therefore, from the findings of the regression analysis it was established that there is a positive and significant influence of stakeholder participation on sustainability of health projects among NGOs in Nairobi County.

Table 11: Coefficients of stakeholder participation

Model	Unstandardized Coefficients B	Standardized Coefficients Beta	t	Sig.
1 (Constant)	.420		2.434	.016
Stakeholders	.903	.846	19.245	.000

a.

Dependent Variable: Project sustainability

The unstandardized regression coefficients β value of the computed (composite index) scored of stakeholder participation was 0.903 with a t-test value of 19.245 and a significance level of $p < 0.01$. Since the t-value is greater than +1.96, the regression model obtained in table 4.12 is confirmed to be significant. Having achieved the objective, the study rejected the null hypothesis that: H_{01} : Stakeholder participation has no significant influence on sustainability of donor funded NGO projects in Nairobi County.

IV. CONCLUSION

The findings of this research indicate that project management process has a positive statistical significance on project sustainability. Given the results the researcher concluded that; a stakeholder participation is majorly implemented and considered as a project management process that could influence sustainability of donor funded health projects in Nairobi County. Most project managers lead their NGOs in mapping out, putting in place stakeholder engagement plans, involving stakeholders in deciding the projects to be implemented as well as kept constant communication with stakeholders during project implementation. Similarly, the findings also enabled the researcher to conclude that stakeholder participation as a project management process has a positive and significant influence on sustainability of donor funded health projects in Nairobi County.

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