

EFFECT OF PROJECT RISK TRANSFER STRATEGY ON PROJECT SUSTAINABILITY OF NGO HEALTHCARE PROJECTS IN SOUTH NYANZA, KENYA

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Abstract: *Healthcare projects are highly prone to risks which make them susceptible to failure or unsustainability. This is more prevalent for NGO healthcare projects. The general objective of the study was to evaluate the effect of project risk response strategies on project sustainability with a specific objective to determine the effect of project risk transfer strategy on project sustainability of Non-Governmental Organizations' (NGO) healthcare projects in South Nyanza, Kenya. This study was anchored on three theories; Enterprise Risk Management (ERM) Theory, Theory of Constraints and Resource Dependency Theory. The target population of the study was the project managers of the NGO healthcare projects in South Nyanza. Census survey design was used in the present study on the 93 project managers of the 93 NGO projects in South Nyanza. According to the findings, risk transfer strategy has a positive significant effect on project sustainability. This implies that when all factors are held constant, a unit increase in risk transfer strategy leads to a significant increase in project sustainability in the organizations.*

Keywords: *Healthcare Projects, Project Risk Response, Risk Transfer Strategy*

Study Background

Healthcare projects are highly prone to risks which make them susceptible to failure or unsustainability. This is more prevalent for Non-governmental Organisation's healthcare projects. Performance of the project can be determined by a number of indicators which include; cost, health, the satisfaction of the client, time and project sustainability (Kinyua, Ogollah & Mburu, 2015).

Project sustainability is central to functionality and prosperity of any public entity (Leon, 2017). A project is sustainable if its key activities would not come to a stop when external funding agencies withdraw their funding support. As asserted by Kinyua *et al.*, (2015), project sustainability for NGO healthcare projects would therefore ensure that the projects survive through to the future for the benefit of beneficiaries. The project sustainability of organizations may however be affected by many factors including project risk response strategies adopted by the organizations (Nyakundi, 2015).

Sustainability of projects has been a major problem for many donors funded projects in the health sector in Kenya. In many cases, donors usually fund health projects in public hospitals, assist in their start-up process and continue to support them for a period until they start delivering benefits to its target population. The donors then withdraw project support but may continue providing technical support for a little bit longer or as the need arises. The government is then expected to run the health project and ensure that the project continues to

provide the benefits it was intended to deliver (USAID, 2018). However, sustaining the health project has been a major problem, especially for public hospitals, in which projects start deteriorating soon after the funding organization has withdrawn (WB, 2013).

Development programs in Kenya's healthcare sector have proven to operate inadequately, with many more seemingly turning non-operational soon after financing was discontinued. There are also several cases of donor-initiated projects which have become non-operational, regardless for those with the greatest of intentions. As per Health Policy Project Report (2017), the health sector is estimated to invest US\$13,142 million throughout fiscal years 2015/16 and 2016/17. (KSh 1,103 billion). The management and provision of Kenya Essential Package for Health (KEPH) interventions through health projects provided for the lion's share of health sector costs, accounting for 43 percent of total health sector costs. Human Resources for Health, logistics, and health infrastructure projects account for 55% of overall health sector project costs, while health information systems, public health services, and governance account for 2%. (USAID, 2015).

Despite marked progress in many areas over the past decades, Kenya continues to grapple with challenging health problems and issues of health service delivery. The national and County Governments, local and international NGOs and other concerned organizations invest large sums every year for the implementation of health projects. However, these projects do not help as they fail after a short time. Report from World Bank (WB) reveals that the Government of Kenya receives massive donor aid from various sources

Further statistics from Government of Kenya (GoK) reveal that 63% of the health projects fail after a short time after implementation, thereby being not sustainable (GoK, 2019). The Organization for Economic Co-operation and Development (OECD) shows that health projects in public hospitals collapse one year after completion of the projects (OECD, 2018). Despite all the efforts from the various development partners, most of the health projects in public hospitals experience major hurdles in their life cycle and barely overcome the implementation stage. Most of the projects have failed and others struggle to survive and sustain jobs created by the projects, (World Bank, 2019).

NGO healthcare projects occasionally find themselves operating in an ever-changing environment which results into risks that affect, not only the way the NGOs are run, but also the donors and other organizations funding these NGOs (Mucheru, 2013). In an attempt to remain sustainable in this competitive environment therefore, the NGO healthcare projects managers must critically analyze their project sustainability models in order to justify returns to donors and other stakeholders. The present study therefore attempted to link project risk response strategies and project sustainability of NGO healthcare projects in South Nyanza which has reported high cases of projects failing after donors withdrawing their funding.

Project Risk Transfer Strategy

As per Kerzner (2003), risk transfer includes finding another party who is willing and ready to undertake management control and project responsibility if the risk happens. Kerzner also said that transferring risk does not eliminate it because the danger still exists but is managed and controlled by another person. In fact, they believe that risk minimization is the optimal approach for dealing with risk exposure. Kerzner (2003) acknowledged that the principal objective of transferring risk is to confirm that it has been run and operated by the best party.

The single most important thing to do is to delegate risk to the party that is best able to control and detect risk. These stakeholders must be prepared to accept risks whilst still maintaining the project stability to handle the consequence (Gorrod, 2004). Rahman and Kumaraswamy (2019) acknowledged that some risks need the

involvement of contractual parties in order to be properly controlled. Indeed, they classified collaborative risk management as a relational contractual premise. These ideas are crucial in a variety of endeavors, including project alliance and joint venture.

Project Sustainability

Several economists and international development organizations defined project sustainability as a project's opportunity to sustain to deliver its projected advantages over an extended period of time (Bamberger and Cheema, 2010). A development program is considered to be sustainable when it can continue to provide acceptable levels of benefits when substantial project, management, and technical help from an external donor is withdrawn (US Agency for International Development, 2008).

Sustaining a project would be the process of ensuring that the institutions supported by projects, as well as the benefits obtained, are preserved, and continue after the project is over (IFAD, 2007). Assessing sustainability thus requires examining if the project's effects were sustained in the medium or even long term without continuing external help (IFAD, 2006). A project is an endeavour in which human, material, and project resources are coordinated in a novel manner to execute a unique scope of work of provided specification, with cost and time restrictions, to produce beneficial change defined by quantitative and qualitative objectives (Bolles, 2012).

Influence of Project Risk Transfer Strategy on Project Sustainability

Ahamed and Azhar (2014) in their study assess recent practices of risk transfer and management embraced by contractors in Florida construction industry. The study findings also revealed that risk transfer strategy was adopted by more than 55% of respondents in Florida as their strategy of managing risk. Findings also reveal that contractors of Florida use both risk transfer through project means such as insurance or to special subcontractor, however, favours transferring the risks to special sub-contractor when the loss expected is higher. Finally, the study also reveals that risk transfer sometimes can lead to poor quality, low productivity and project delays.

Problem Statement

Project sustainability is central to functionality and prosperity of any public entity such as a healthcare projects that are funded by NGOs (Leon, 2017). An organization is project is sustainable if its key activities would not come to a stop when external funding agencies withdraw their funding support. As asserted by Kinyua *et al.*, (2015), project sustainability for NGO healthcare projects would therefore ensure that the projects survive through to the future for the benefit of beneficiaries

Despite the efforts by all players in the healthcare industry, many NGO healthcare projects in Kenya run a high risk of being project unsustainable (Wanyonyi, 2013). This is especially true for NGO healthcare projects in South Nyanza. According to the Migori County's Ministry of Health, up to 48% of projects initiated by NGOs in the County fail in the first five years after the withdrawal of the funding NGO (Migori County, 2017). For example, the Migori County-based HIV/AIDS prevention and management NGO Community Action for Rural Development (CARD) collapsed two years after the donors had left. This implies that most of the NGO healthcare projects in Migori County are project unsustainable which poses a problem that warrants a study.

Previous studies on project sustainability fail to link project risk response strategies to project sustainability of NGO healthcare projects. Ngugi and Odhiambo (2014) contended that effective risk control treatment resulted in the success of the projects as it lowers chances of occurrence of undesirable risk and reduces the risk impact

when it occurs. Their study found that risk avoidance reduced risk of projects by up to 30%. Elsewhere, Wanyonyi (2013) surveyed risk response in twenty-four constituency development fund (CDF) projects in Kiambu County and found that project success was limited due to a dismal application of risk response practices. However, the study found that risk reduction effectively enhances project performance of projects by 40%.

An empirical literature review of project risk response strategies suggests that the strategies could enhance the performance of a project. However, the applicability of these strategies has not been tested and empirically studied in case of NGO healthcare projects. Numerous studies on effect of risk response strategies on general performance of projects have been conducted in other sectors, with little being done in case of NGO healthcare projects in Kenya. This is the gap the present study sought to fill.

Objectives of the Study

The general objective of the study was to evaluate the effect of project risk response strategies on project sustainability of Non-Governmental Organizations’ (NGO) healthcare projects in South Nyanza with a specific objective to determine the effect of project risk transfer strategy on project sustainability of NGO healthcare projects in South Nyanza.

Research Methodology

The study employed a correlational research design. This is because the study surveyed NGO healthcare projects in two counties in South Nyanza; Migori County and Homa Bay County and sought to evaluate the effect of project risk management practices on project sustainability. According to the NGO Coordination office in the two counties, there are 93 NGO healthcare projects each with a project manager. This implies that all the 93 project managers formed the population of the study. Primary data was collected by means of a semi-structured questionnaire.

Pilot Testing

The questionnaire designed based on the research questions was pilot-tested to refine the questions before it can be administered to the selected sample. A pilot test was conducted to detect weakness in design and instrumentation and to provide proxy data for selection of a probability sample. This was done by use of 10% of the sample size which totalled to 9 respondents from the 93 project managers. This is in line with Creswell (2013) who suggested that a pilot study in academic research can be done with between 10% and 20% of the sample size. Mugenda (2011) asserted that the accuracy of data to be collected largely depended on the data collection instruments in terms of validity and reliability. This was considered adequate for analysis. The results for the response rate are presented in Table 1 below.

Table 1: Response Rate for the Pilot Study

Targeted Sample		Response		Non-Response	
Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
9	100%	9	100%	0	0.00%

Reliability of the Data Collection Instrument

The first test carried out for the collected data after the pilot study was the test for reliability. Instrument reliability refers to the consistency of scores or answers from one administration of an instrument to another, and from one set of items to another (Fraenkel & Wallen, 2003). For this study, Cronbach’s Alpha (α) was

used to test for the instrument reliability. Cronbach (α) is the measure of the extent to which all the variables in the scale are positively related to each other (Ravi & Shankar, 2015). A reliable coefficient should be between 0.00 and 1.00. A coefficient of 0.00 means the measurement is not consistency while a coefficient of 1.00 means the instrument is perfectly consistent. However, as Nunally (1978) contends, a general rule for measuring Cronbach's should be above 0.7, meaning that there exist a high and realistic degree.

Table 2: Reliability of the Research Instrument

Variable	Coefficient (α)	Number of Items	Verdict
Risk Transfer	0.769	8	Reliable
Project Sustainability	0.826	6	Reliable

Validity of the Data Collection Instrument

According to Foss and Saebi (2017) validity is the degree by which the sample of test items represents the content the test is designed to measure. There are four types of validities; face, content, construct and criterion. In this study, three types of validities were tested; face, content and construct validities. According to Kothari (2009), face validity ensures that there is a logical link between research objectives and research questions, i.e., to test whether the content of the questionnaire appears suitable to its aims. Content validity, on the other hand, measures the extent to which underlying constructs are represented in the research instrument, i.e., if the instrument measures knowledge of the content domain of which it was designed to measure (Wilson, 2010). It is a measure of the degree to which data collected using a particular instrument represents a specific domain or content of a particular concept.

In this study, both face validity and content validities were tested using expert judgement. To first test for face validity, two professional project managers were used to evaluate the appearance of the questions in terms of feasibility, readability, consistency of style and formatting and the clarity of the language used. The experts confirmed that based on these metrics, the research questionnaire was valid.

Content validity was measured using the Content Validity Index (CVI). As observed by Waltz, Strickland and Lenz (2010), at least two or three experts in the area of the content to be measured can evaluate the validity of the items, and when only two or three experts are employed, content validity index (CVI) is used to measure the level of agreement between the experts. A formula suggested by Mason (2010) was used to calculate the Content Validity Index (CVI); $CVI = (\text{Relevant Items} / \text{Total Items})$ after the two experts had rated the items in the questionnaire as relevant or irrelevant in terms of the content domain of which they were designed to measure. The average CVI obtained was 0.877, indicating that the instrument was valid in terms of content validity. Mason (2010) observes that a CVI of greater than 0.7 is acceptable.

Construct validity which is the degree to which a test measures what it claims to measure (Boudreau *et al.*, 2004) was assessed using convergent and discriminant validities. According to Waltz, Strickland and Lenz (2010), convergent validity defines the degree to which two measures of constructs that theoretically should be related are actually related, while divergent validity tests whether the measurements that are supposed to be unrelated are actually unrelated.

Factor loadings of constructs estimations by use of Principal Factor Analysis (PCA) were used to assess convergent validity of each of the constructs (Hair, *et al.*, 2010). Factor analysis is mainly concerned about the internal-correlations among the items under investigations to ensure that there is consistent correlation among the items under investigation as illustrated by Mugenda and Mugenda (2010). According to Hair *et al.* (2010),

the ideal standardized loading estimates should be 0.7 or higher, but that factor loadings with score of 0.5 or higher are very significant. The factor analysis for the construct is shown in Table 3 below.

Table 3: Principal Factor Analysis (PCA) for Study Variables

Variable	Factor Loadings	Number of Items	Verdict
Risk Transfer	0.659	8	Reliable
Project Sustainability	0.657	6	Reliable

Descriptive Statistics on Risk Transfer Strategy

The descriptive findings of the study show that the respondents agreed there are provisions for purchasing insurance premium on some of the project items to ensure no circumstance will cause the delay of projects (M= 3.94, S.D. =0.794), that the insurance premiums on the project are paid regularly (M=3.52, S.D. = 0.926), and that the insurance premiums are paid from the project proceeds (M=2.53, S.D. = 0.723). Respondents also agreed that the partners outsource those functions that may cause delay when performed by the project team and that the partners outsource those functions that may cause delay when performed by the project team (M=4.94, S.D.= 1.037). The respondents neither agreed nor disagreed that the project manager signs legal agreements mostly to any event that may result in delaying the project (M=2.53, S.D. = 0.723). These means and standard deviations show that the respondents generally agree that there existed risk transfer strategy in the NGOs. The study findings are presented in Table 4 below.

Table 4: Descriptive statistics on Project Risk Transfer

Statements	Mean	Std. Deviation
1: There are provisions for purchasing insurance premium on some of the project items to ensure no circumstance will cause the delay of projects.	3.94	0.794
2: The insurance premiums on the project are paid regularly	3.52	0.926
3: The insurance premiums are paid from the project proceeds	4.19	0.402
4: The project manager signs legal agreements mostly to any event that may result in delaying the project.	2.53	0.723
5: The partners outsource those functions that may cause delay when performed by the project team.	4.94	1.037
6: My organization has a system that ensures risk is transferred to minimize financial stress.	2.45	1.005

N= 78

Descriptive Statistics for Project Sustainability

A project is sustainable if its key activities would not come to a stop when external funding agencies withdraw their funding support. The practices measuring project sustainability Table 5 shows that financial sustainability is very low. This is shown by the weighted average mean of 2.03 which indicates that the respondents generally disagree that there are financial sustainability practices in the NGOs. Out of the six indicators of Project sustainability, the respondents generally disapproved most the fact that the NGOs have a system of monitoring risks ($M = 1.45$ $SD = 0.895$). However, they were undecided on the statement that the projects are likely to continue to deliver services even after the external donor support has been withdrawn ($M = 2.97$, $S.D. = 0.194$).

Table 5: Descriptive statistics on Project Sustainability

Statements	Mean	Std. Deviation
1: Our project is likely to continue to deliver services even after the external donor support has been withdrawn.	2.97	0.194
2: Our project will continue to make a positive difference in issues like waste, energy and water usage, and promote wellness of the community and the environment in the foreseeable future.	2.72	0.626
3: Our projects will continue to generate revenues to ensure it continues to operate long after the donor has stopped giving major project and technical support.	1.59	0.431
4: Our project is project sustainable	1.53	0.567
5: There is a high chance that our organization will be operating five years from today	1.94	0.797
6: We have a system of monitoring risks	1.45	0.895

N= 78

Correlation Analysis

Correlation analysis shows the direction, strength and significance of the relationships among the variables of study (Sekaran, 2000). To establish whether there was a relationship between the variables, a correlation analysis was conducted. The correlation analysis shows the direction, strength, and significance of the relationships among the variables of the study. A positive correlation indicates that as one variable increases, the other variables will also increase. On the other hand, a negative correlation indicates that as one variable increases the other variable decreases (Sekaran, 2003).

Table 6: Pearson Product-Moment Correlations between risk transfer strategy and project sustainability of NGO healthcare projects

Variable		Risk transfer	Sustainability
Risk transfer strategy	Pearson Correlation	1	.341**
	Sig. (2-tailed)		.000
	N	78	78
Project sustainability of NGO healthcare projects	Pearson Correlation	.341**	1
	Sig. (2-tailed)	.000	
	N	78	78

**.

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

Table 6 shows that Risk Transfer Strategy is also positively and strongly correlated with Project sustainability with a significant correlation coefficient of 0.786 ($p < 0.01$) implying that the use of Risk Transfer Strategy increases as the Project sustainability of the NGO healthcare projects in South Nyanza also increases. This implies that there is a strong positive association between Risk Transfer Strategy and Project sustainability in NGO healthcare projects in South Nyanza.

In general, the correlation data reported in Table 6 show that there is a positive association between Project risk response strategies and Project sustainability. These findings are consistent with those of Ahamed and Azhar (2014), who evaluated contemporary risk analysis and management procedures adopted by contractors in the Florida construction sector and compared it to other states' construction industries that are regarded highly profitable and modern. The study's findings demonstrated a favorable relationship between risk response techniques and project performance. The study's results are in conformity with those of Bryan and Shapiro (2006), who explored construction contracts and design as the appropriate techniques of transferring risk in the construction industry, and Jun, Qiuzhen, and Qingguo (2016), who investigated the effects of project risk avoidance on IT project performance using a case study of China vendor firms.

The study findings, however, contradict those of Addison and Vallabh (2017), who conducted a study on the impact of project risk reduction performance of software projects in IT enterprises in China, and Ahamed and Azhar (2014), who assessed recent risk transfer and management practices adopted by contractors in the Florida construction industry. Both researches discovered a non-significant link between risk response tactics and project performance.

Regression Model

A regression model was used to evaluate the effect of project risk transfer strategy on project sustainability of Non-Governmental Organizations' (NGO) healthcare projects in South Nyanza. The general form of each type of regression was:

$$Y = \beta_0 + \beta_1 X_1 + \varepsilon$$

Where; Y = Project Sustainability of NGO healthcare projects

X_I = Risk Transfer Strategy

β_0 = Constant Term

β_I = Beta coefficients to be estimated;

ε = Error Term.

Table 7: Regression Coefficients

Model	Unstandardized Coefficients		Standardised Coefficients	t-stat	Sig.
	Beta	Std. Error	Beta		
(Constant)	0.320	0.146		2.192	.000
X_I	0.257	0.098	0.204	2.622	.034

Predictors:(constant), X_I

Dependent Variable: Y

From Table 7 above, several inferences can be derived. The constant term in the regression equation of 0.320 indicates the level of project sustainability that is in existence in the NGO healthcare projects.

Risk Transfer Strategy and Project Sustainability

Regression results based on the third objective which was to establish the effect of Risk Transfer Strategy on Project sustainability of NGO healthcare projects in South Nyanza show that Risk Transfer Strategy has a positive significant effect on Project sustainability ($\beta = 0.257, p = 0.034$). This implies that when all factors are held constant, a unit increase in Risk Transfer Strategy leads to a 25.7% significant increase in the Project sustainability in the organizations. The results agree with those by Ahamed and Azhar (2014) who assessed recent practices of risk transfer and management embraced by contractors in Florida construction industry. The study findings also revealed that risk transfer strategy was adopted by more than 55% of respondents in Florida as their strategy of managing risk. Findings also reveal that contractors of Florida use both risk transfer through project means such as insurance or to special subcontractor, however, favours transferring the risks to special sub-contractor when the loss expected is higher. Finally, the study also reveals that risk transfer sometimes can lead to poor quality, low productivity and project delays.

Summary

The study objective was to establish the effect of Risk Transfer Strategy on Project sustainability at NGO healthcare projects in South Nyanza. Regression results show that Risk Transfer Strategy has a positive significant effect on Project sustainability. This implies that when all factors are held constant, a unit increase in Risk Transfer Strategy leads to a significant increase in Project sustainability in the organizations.

Conclusions

Regression results based on the study objective shows that Risk Transfer Strategy has a positive significant effect on Project sustainability implying that when all factors are held constant, an increase in Risk Transfer Strategy leads to a significant increase in Project sustainability in the organizations. It is therefore concluded that Risk Transfer Strategy is significantly important in increasing the Project sustainability in the organizations.

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