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The effect of monitoring and evaluation practices on the success of development projects of non-governmental organizations

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Abstract

Though project management literature documents that monitoring and evaluation (M&E) is of paramount importance in explaining the project success, there are few empirical studies that address the unique contribution of M&E in project success. The purpose of this study is, therefore, to investigate the effect of M&E practices on project success. The study mainly employs survey research design comprising explanatory research types. Using 92 development projects of the Non-Governmental Organization (NGO) sector in Ethiopia, the findings from multiple linear regression indicate that project M&E practices in terms of planning, staff technical skill, budgeting and stakeholders' engagement have positive and significant effects on project success. Thus, the findings of this study imply that project-oriented organizations including NGOs need to establish robust project M&E system in order to enhance the project success.

Keywords: Project success; M&E Plan; M&E budget; stakeholders' engagement; NGO sector; development projects; Ethiopia; job satisfaction, organizational citizenship behavior, organizational performance

1. Introduction

Projects have been identified as vehicles by which nations; particularly developing countries promote their social and economic development (Thaddee, 2020). They mainly contribute to reduce problems of poverty, poor health, and unemployment, which predominant in the rural areas of many developing countries. Project management involves the application of knowledge, skills, tools and techniques to project activities to meet project requirements (PMBOK, 2017). This entails identifying the most critical and urgent needs, completing the project within time and budget. The accomplishment of project success requires undertaking several project

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management practices ranging from project initiation to project controlling and closing (Thaddee, 2020; Zid *et al*., 2020).

Non-Governmental Organisations (NGOs) are not new to project management and evaluation as they regularly look at their projects' efficiency and effectiveness. Since the majority of NGOs are project-based, it is very beneficial to understand the various factors that determine project success or failure during project implementation (Nanthagopan *et al*., 2016; Tall *et al*., 2021).

One of the most common challenges in project management is determining whether a project is successful or not (PMBOK, 2017). Successful project management depends on identifying key determinants of project success, usually termed as critical success factors (Ika *et al*., 2012). Researchers have tried to develop some well-recognized lists of critical success factors (CSFs) in project management, which can be grouped into project context, technical and behavioural dimensions (Aga, 2016). Monitoring and evaluation (M&E) is among the technical factors that could explain the success of projects. Several studies also show M&E as one of the CSFs that contributes to project success (Heldman, 2005; Kissi *et al*., 2019). In the same vein, Micah and Luketero (2017) underscore that project success depends on many factors both within and outside the control of the project team. One of the aspects within the control of the project team is M&E.

The importance of M&E in project success including for NGO sector projects is often emphasized in Project Management literature. Though empirical studies document that M&E is a major contributor to project success, only a few of them have focused on M&E in isolation and in greater detail (Ling *et al.*, 2009; Kamau and Mohamed, 2015). Besides, M&E practices are given less recognition in the project execution process (Kissi *et al*., 2019). As per a study by Papke-Shields *et al*. (2010), constantly monitoring the progress of projects increases the probability of project success, among other things. M&E can also help project managers demonstrate accountability and contribute to project sustainability, which is of paramount importance in project-based organisations such as NGOs.

Monitoring and evaluation capacity assessments of NGOs in Ethiopia reveal gaps, both institutional and individual skills development for M&E (World Bank, 2015). There are several challenges in institutionalizing and sustaining the M&E system (Kusek and Rist, 2004). The challenges that NGOs encounter in practicing M&E can be seen from two perspectives, internally from NGOs' own capacity gaps and externally from their key stakeholders (Kissi *et al*., 2019). The practices of M&E in the majority of NGOs are mainly donor-driven, and less concerned about internal program improvements and downward accountability towards beneficiaries (Claude and Didace, 2020; Micah and Luketero, 2017).

Effective M&E requires undertaking standard practices such as M&E planning, stakeholder engagement, staff capacity building and adequate budget allocation (Kissi *et al*., 2019). This study, thus, aims to examine the extent to which these building blocks of M&E influence the success of projects. In this study, we look at development projects from Pro-Development Network (PDN), which is one of a consortium of local non-governmental organisations in Ethiopia. PDN was formally registered in March 2010 to contribute towards the realization of accelerated and sustainable development in the country.

The remainder of this paper is structured as follows: the next section (Section 2) provides a review of the extant literature and the derivation of the research hypotheses. This section covers important theories pertaining to project M&E and project success along with the hypotheses of the study. Section 3 describes the method used to obtain data on perceived project success and project practices related to Monitoring & Evaluation (M&E). This section mainly comprises such

sub-sections as research setting and participants, sampling design and data collection procedures, measures of the main study constructs, and methods of data analysis. The next section (Section 4) presents the survey results and the outputs from running descriptive statistics analysis and multiple regression. This is followed by a discussion of the results in Section 5, which also indicates the theoretical and practical implications of the findings as well as possible limitations of the study. In Section 6, we present our conclusions.

2. Theoretical Framework and Hypothesis

This section presents some important theories that guide this study. It also presents the conceptual framework and hypotheses of the study.

2.1. Theory of Change

Carol Weiss first publishes the theory of change in 1995. According to Weiss (1995), a theory of change is an intentional method for considering and articulating how and why a program or intervention will succeed, as well as who will benefit and how. It focuses not just on generating knowledge about whether a project is effective, but also on explaining how and what methods it uses to be effective (Cox, 2009). A theory of change is a tool used for developing solutions to complex social problems. It provides a comprehensive picture of early and intermediate-term changes that are needed to reach a long-term set goal. It, therefore, provides a model of how a project should work, which can be tested and refined through monitoring and evaluation. The theory is also a specific and measurable description of the change that forms the basis for planning, implementation and evaluation (Claude and Didace, 2020). This theory suggests that by understanding, what the project is trying to achieve, how and why, project staff and evaluators will be able to monitor and measure the desired results and compare them against the original theory of change. It is also essential to involve key stakeholders and staff in the development of the theory of social change as it will create a sense of ownership (Tong'I *et al*., 2019).

The theory of change helps in developing comprehensible frameworks for monitoring and evaluation. It is mainly used by NGOs and donors to articulate long-term impact on projects (Tengan *et al.,* 2019). An important task for monitoring and evaluation is to gather enough knowledge and understanding to predict – with some degree of confidence – how a project and set of activities might work in a different situation, or how it needs to be adjusted to get similar or better results, hence influencing project success-the concern of this study (Jones, 2011).

2.2 Program Theory

Program theory recommends using flow diagrams to model the sequence of steps between a program intervention and the desired outcomes during monitoring and evaluation. This is an informal model that aids the evaluator in identifying the variables to be assessed, determining where the chain of events breaks down and anticipating changes in program implementation that is likely to occur (Claude and Didace, 2020). The program theory has been used to guide evaluation for many years; it shows the capability of the program to fix a problem by addressing the needs in the assessment. It also gives tools to determine areas of impact in evaluation (Sethi and Philippines, 2012). It is often developed during the planning stage of a new project intervention though it can be developed during implementation and even after a program has finished. When an evaluation is being planned, it is useful to review the program theory and revise or elaborate it, if necessary, by asking questions in order to examine the cause-and-effect relationships that create underlying problems (Gaibo and Mbugua, 2019). This theory is relevant

to the present study because, during monitoring and evaluation, experts must prepare a sequence of plan and program of activities to be monitored and evaluated, as well as to avoid non-value-adding M&E activities, which have no impact on project performance.

2.3 Stakeholder Theory

The Stakeholder theory addresses morals and values in managing an organisation. A project stakeholder is an individual, group, or organisation that may affect, be affected by, or perceive itself to be affected by a decision, activity, or outcome of a project (PMBOK, 2017). In addition, a stakeholder could affect an organisation's functioning, goals, development, and even survival. In this regard, stakeholders could be beneficial when they facilitate the realization of the goals of the project whereas they may be antagonistic when they oppose the project's mission. They are critical to the successful implementation of projects because their failure to support the project's vision and/or objectives would cause project failure (Mwangi *et al*., 2015).

This theory will help advance the understanding of the four building blocks of M&E that cover M&E planning, M&E budget, M&E staff technical expertise and stakeholder participation in M&E. According to Khwaja (2004), participation is attained through the collaborative or joint involvement of project stakeholders and the implementing agencies. The real value of participation stems from the finding that mobilizing the entire stakeholders leads to more effective results (Gaibo and Mbugua, 2019).

2.4 Resource-Based View (RBV)

The RBV considers the resources of a firm as being essential determinants of the firm's competitive advantage and performance. The supporters of this view argue that organisations should look inside the company to find the sources of competitive advantage instead of looking at a competitive environment for it (Jurevicius, 2013). This theory explains the role of adequate budgeting to funding as a task. It essentially spells out the fact that for success in any task, the right amount of funding needs to be allocated. The theory posits that organisations need to consider their internal strengths.

The RBV of the firm is a strategic management theory that project managers frequently employ. To date, the RBV has been a promising theory that examines how resources, particularly project management capabilities that have been customized to a specific organisational environment and developed over time, can drive competitive advantage. According to Jurevicious (2013), resources would help organisations to increase the value offered to the customers thereby increase performance. An organisation with a valuable resource can achieve at least a temporary competitive advantage. RBV theory implies that the application of the right resources, in this case, funding project M&E, would most likely positively affect project success.

2.5. Conceptual Framework and Research Hypotheses

As depicted in Figure 1, the dependent variable is project success that refers to the completion of the project according to desired specifications, within the specified budget and the promised schedule. This approach is in line with the models proposed by Hoegl and Gemuenden (2001) and Metalign and Maru (2017) that conceptualize project success by efficiency (completion on time and budget) and effectiveness (achievement of objectives). The independent variables of this study are M&E Practices consisting of four subcomponents, namely planning, budget allocation, Staffs' technical skill, and stakeholders' engagement.

A well-functioning M&E system is a critical part of good project management and accountability. Timely and reliable M&E planning provides information to support project

implementation with accurate, evidence-based reporting that informs management and decision-making to guide and improve project performance (Muhammad, 2016). It also contributes to organisational learning and knowledge sharing by reflecting upon and sharing experiences and lessons so that we can gain the full benefit from what we do and how we do it (Gaibo and Mbugua, 2019).

A study conducted by Tengan *et al.,* (2019) indicated that monitoring and evaluation planning was critical in enhancing better project performance on government projects. Likewise, the study conducted by Micah and Luketero (2017) about Monitoring and Evaluation Systems and Performance of Non-Governmental Based Maternal Health Projects in Kenya indicated that M&E plan influences the success of Projects of NGOs. Thus, we propose the following research hypothesis.

Hypothesis 1: M&E Planning is positively associated with the Project success of NGOs

A work by Kamau and Mohamed (2015) indicates that M&E team skills and teamwork have a positive effect on project success. Effective monitoring and evaluation system depends on the extent to which M&E team has skills to select indicators of project outputs, collect and analyse data on monitoring and evaluation. This would in turn positively drive project success. In the same way, Oh and Choi (2020) assert that project team member's competence is one of critical factors of project success. Thereby, the following hypothesis has been formulated.

Hypothesis 2: M&E Staff technical skill is positively associated with Project success of NGOs

The reviewed literature indicates that adequate budgetary allocation is needed for the M&E system to succeed. For instance, Gaibo and Mbugua (2019) in their study about the impact of M&E on projects concluded that a budget for monitoring and evaluation activities was a positively significant determinant of M&E implementation in projects and budgetary allocation played a key role in project success. In addition to adequate skilled staff, available financial resources are vital ingredients in developing an effective M&E system and an essential ingredient to the successful performance of monitoring and evaluation (Kerzner, 2017). In this regard, Mwangi *et al*., (2015) point out that budgetary allocation is a significant contributor to the project success. Based on this argument, we propose the third hypothesis as follows.

Hypothesis 3: Allocation of adequate budget for M&E is positively associated with the Project success of NGOs.

A stakeholder is an individual, group, or organisation that may affect, be affected by, or perceive itself to be affected by a decision, activity, or outcome of a project. Every project has stakeholders who are impacted by or can influence the project positively or negatively; and they may be internal or external to the project (PMBOK, 2017).

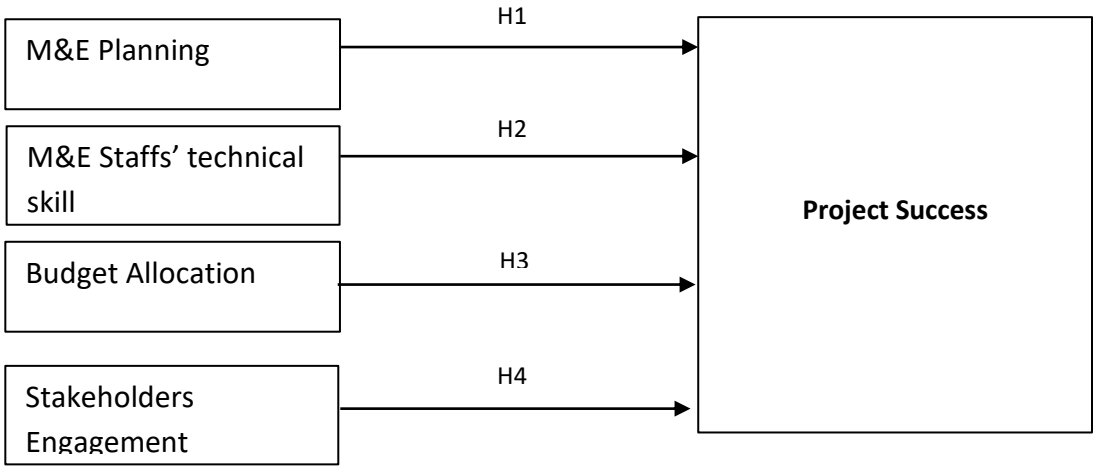
Monitoring and evaluation activities improve communication between different stakeholders. This affords stakeholders a better understanding of implementation issues regarding all aspects of the project. To make communication effective, a constructive environment for exchange and discussion is essential. Clear and transparent communication mechanisms such as regular meetings, workshops, reporting, and information sharing should also be established (Tengan *et al.,* 2019). According to Ngogi and Nyandika (2014), stakeholders' participation through various

forums had a positive relationship to project performance. In line with these findings, we formulate the fourth hypothesis as follows.

Hypothesis 4: Stakeholders' engagement in M&E is positively associated with the project success of NGOs.

Figure 2.1 depicts the conceptual framework of the study which shows the relationship between independent variables (monitoring and evaluation practices) and the dependent variable (project success).

Figure 2.1: Conceptual framework of the study



Source: Adapted from Hoegl and Gemuenden (2001) and Metalign and Maru (2017)

3. Methodology

This section presents research methods applied and measurements of variables in this study. It also presents data analysis methods used in the study.

3.1. Research Setting and Participants

The research setting is Pro-Development Network (PDN) member NGOs where projects are undertaken on a regular basis. PDN is a consortium of local non-governmental organisations in Ethiopia. PDN was registered by the Federal Authority for Civil Society Organisations (ACSO) and given a certificate of registration in March 2010. PDN was established by five NGOs and by now the members reached 50. The main purpose of the network is to contribute towards the realization of accelerated and sustainable development in the country. Building the capacity of member organisations, creating forums for information and knowledge transfer, mobilizing resources on behalf of member organisations, promoting research and supporting priority development sector for sustainable socio-economic development in the country are the core objectives of the network. Hence, data for individual projects was gathered from project managers in the sampled NGOs of PDN members.

3.2. Sampling design and data collection procedures

Based on the recent database from PDN, there are 50-member NGOs. These organisations have completed 144 development projects in the last five years (2016-2020) in the education, health, capacity building, Water and Sanitary Health (WASH), Multi-sector, emergency support, women empowerment and child support sectors. By using Slovin formula (Consuelo and Sevilla, 2007), we included 105 completed projects in the study. As these projects were sectoral dispersed, stratified random sampling technique was employed to obtain the required sample size. The division of projects in sectors made it possible to draw a stratified sample that is homogeneous within a sector (stratum) and heterogeneous across the sectors (strata).

This study, therefore, employed proportional stratified sampling technique to select the representative sample from 144 completed projects across the different sectors to ensure an equal chance of inclusion within each stratum and to ensure proportional representation of projects implemented by the consortium member NGOs (Table 3.1). In addition, sample units were selected from each stratum through a simple random sampling method. Since all 50-member NGOs were participated, we obtained 50 project managers for 105 sampled projects, whom we invited to participate in a survey delivered by hand to each respondent and collected later by hard copy or by e-mail. Each project manager was explicitly informed that, while filling out the questionnaire, he/she should pick up only the selected projects that was completed in the last 5 years. Out of 105 distributed questionnaires, 46 participants returned the survey having information about 92 development projects. Therefore, we analysed 92 projects representing a usable response rate of 87.6%. The data collection period was from March 2021 to May 2021.Considering proportional stratified sampling technique, the sample size was calculated through the formula: ni = n (Ni/N). Where: ni = sample size of sub population, Ni= the size of sub population i, N = total population size, n=sample size of the population and i = the eight types of projects.

Table 3.1: Sampling procedure of the study

Types of Projects in Sector	No. of Projects	ni = n(Ni/N)	Sample Size (n)
Capacity Building	17	105(17)/144	12
Child Support	22	105(22)/144	16
Education	18	105(18)/144	13
Emergency Support	8	105(8)/144	6
Health	20	105(20)/144	15
Multi sector	19	105(19)/144	14
WASH	23	105(23)/144	17
Women Empowerment	17	105(17)/144	12
Total	144		105

Source: Collected from NGOs under study, 2021

3.3. Measures

3.3.1. Project success

Project success was measured by five items comprising two items of efficiency requirements (budget and time performance), one item of project effectiveness, one item of measuring the meeting of the required scope and quality standards and one item of end-user satisfaction. A project manager assessed each of these items on a Likert scale of 1–5 ranging between "strongly disagree" and "strongly agree". This approach is in line with previous empirical works of Hoegl and Gemuenden (2001); Aga (2016) and Metalign and Maru (2017).

3.3.2. Monitoring and Evaluation

In measuring the monitoring and evaluation practices, we have selected four constructs. The questionnaire includes 15 items measuring four core monitoring and evaluation practices: M&E planning, M&E budget, M&E Staff Technical Skill and Stakeholders' Engagement in M&E (Hinkin and Schriesheim, 2008). The questionnaire entails three items for M&E planning, four items for M&E budget, four items for M&E Staff Technical Skill and four items for Stakeholders' Engagement. The project managers were asked to assess each of these items on a five-point Likert scale of 1–5 ranging between "strongly disagree" and "strongly agree". This is in line with previous study of Kerzner (2017).

3.3.3. Control Variables

The sex, experience, and educational level of project managers have been demonstrated to influence project success, so these variables were included as covariates (Barrick *et al*., 2007). In addition, we included project type as control variable. The measures for control variables were as follows: sex as a dummy variable (0=female- reference group, 1=male); experience as a dummy variable (0= work experience greater than 10 years as a reference group, dummy 1= 1-5 years of work experience, dummy 2= 6-10 years of work experience), level of education as a dummy variable (0= above Master's degree as reference group, dummy 1= diploma holders, dummy 2= first degree, and dummy 3= Master's degree); and types of project as one of seven categorical variables (dummy 1=health projects, dummy 2= child support projects, dummy 3= women empowerment projects, dummy 4= education projects, dummy 5= capacity building projects, dummy 6= WASH projects, dummy 7= multi-sectoral projects, and Emergency support project was the reference category. The measurement items for each of the constructs contained in the questionnaire are indicated in Appendix 1.

3.3.4. Data Analysis

In this study, multiple and hierarchical regression techniques were applied to test the hypotheses of the study. To test the relationship between M&E practices (M&E planning, M&E budget, M&E staff technical skill and Stakeholders' engagement in M&E) and project success, multiple regression analyses were conducted. In addition to the multiple regression, hierarchical regression was used to test the effect of monitoring and evaluation practices on project success by considering the covariate variables. For this purpose, the control variables (demographic variables of project managers) were entered in Step 1. Following this, all main effect terms of the proposed predictors, namely the four dimensions of monitoring and evaluation practices (M&E planning, M&E budget, M&E staff technical skill and Stakeholders' engagement in M&E) were entered in Step 2 of the regression equation.

4. Results

In this section, findings of the study are described in the order in which the analyses were conducted, particularly in line with the conceptual framework of the study. First, we present validity and reliability analyses of the scales. Second, we report the regression results for the main effects of M&E practices on project success.

4.1. Validity and reliability analyses

A research instrument is reliable if it gives similar results after several tests. Pilot test was done by administering questionnaires to 10 respondents who were excluded from the final sample. In addition to this, expert judgment was conducted by presenting the study instruments to three project coordinators working in three different NGOs who have more than ten years of experience in project management. As a result, some corrections were made on the instruments based on their comments and suggestions.

The reliability test is an important instrument to measure the degree of consistency of an attribute, which is supposed to measure. As stated by Mahon (2002), the less variation of the instruments produces in repeated measurements of an attribute the higher its reliability. Reliability can be equated with the stability, consistency, or dependability of a measuring tool. Table 4.2 presents the revised number of items and their Cronbach's alphas as well as the means, standard deviations and correlations for the five core composite constructs used in this study.

Table 4.2: Number of items, Cronbach's alpha, means, SD and Correlations

Constructs	No. of items	Mean	SD	Cronbach's Alpha	Correlations				
					1	2	3	4	5
M&E Planning (1)	3	2.18	0.514	0.776	1				
M&E Staff Technical Skill (2)	4	3.51	0.72	0.815	.201	1			
M & E Budget (3)	4	2.24	0.615	0.851	.522**	.149	1		
Stakeholders' Engagement in M&E (4)	4	2.38	0.503	0.712	.481**	.163	.657**	1	
Project Success (5)	5	2.63	0.568	0.728	.572**	.317**	.603**	.580**	1

Notes: N= 92, **. Correlation is significant at the 0.01 level (2-tailed).

The analyses of internal homogeneity also showed acceptable results (Hair J. *et al*., 2010). Cronbach's alphas for project success, M&E Planning, M&E Staff Technical Skill, M&E Budget and Stakeholders' engagement in M&E measures were 0.728, 0.776, 0.815, 0.851 and 0.712 respectively (Table 4.2). Then, we computed composite means for each of the constructs by averaging their respective items. Based on the results of correlation analysis, significant and positive correlations existed among M&E practices and project success. M&E Planning ($r= 0.572$, $p<0.01$); M&E Staff Technical Skill ($r= 0.317$, $p<0.01$); M&E Budget ($r= 0.603$, $p<0.01$) and Stakeholders' engagement ($r= 0.580$, $p<0.01$) and project success were significantly correlated with each other.

Before undertaking regression analysis, we examined for the classical assumptions of normality, homoscedasticity and multicollinearity tests by following the procedures suggested by Field (2018). With regard to normality test, both *Kolmogorov-Smirnov* and *Shapiro-Wilk* tests show that the data on project success (the dependent variable) is normally distributed ($p>0.05$).

With respect to homoscedasticity test, the standardized residual plot reveals that the residuals or error terms are approximately normally distributed. For multicollinearity test, the collinearity diagnostics results show that the cumulative 'condition index' is below 30 and the values of Variance Influencing Factor (VIF) are below 5. This indicates that there is no multicollinearity problem for the model.

4.2. Hypotheses Testing

Results of the hierarchical regression analysis (unstandardized regression coefficients) are indicated in Table 4.3. In step 1, only the control variables were included in the model and the findings reveal that all control variables do not significantly explain the variance of the project success. Hypothesis 1 states that M&E planning positively influences project success. As predicted, the result of step 2 indicates that M&E Planning has a significant positive relationship with project success (β=0.263, $p<0.05$). Hence hypothesis 1 is supported. Hypothesis 2 presumes that M&E staff technical skill is positively associated with project success. Accordingly, the result indicates that M&E staff technical skill has a significant positive relationship with project success (β=0.140, $p<0.05$). Therefore, hypothesis 2 is supported.

Table 4.3: The effect of dimensions of monitoring and evaluation on project success

	(1) Project success	(2) Project success
Sex_ Dummy 1= Male	-0.000766	-0.0198
	(0.160)	(0.111)
Experience Dummy 1= 1-5 years	-0.137	-0.327
	(0.153)	(0.112)
Experience Dummy 2= 6-10 years	-0.0295	-0.0504
	(0.154)	(0.108)
Education level_ Dummy 1=Diploma	0.637	0.533
	(0.519)	(0.358)
Education level_ Dummy 2= First degree	-0.186	0.318
	(0.530)	(0.371)
Education level_ Dummy 3= Master's degree	-0.136	0.123
	(0.438)	(0.304)
M&E planning		0.263*
		(0.109)
M&E staff technical skill		0.140*
		(0.064)
M&E budget		0.319**
		(0.110)
Stakeholders' engagement in M&E		0.261*
		(0.124)
Cons	2.843***	0.255
	(0.580)	(0.513)
N	92	92
adj. R^2	0.002	0.535
F-statistics	1.011	7.161***

Notes: Standard errors in the brackets, $^{*}p< 0.05$, $^{**}p< 0.01$, $^{***}p< 0.001$. Eight types of development projects were identified from the survey of 92 projects. Seven dummy variables of project types were created and used as control variables for hypothesis testing. Their values are not presented in this table for the purpose of brevity.

Hypothesis 3 states that M&E Budget positively explains project success. In line with the hypothesis, the result of hierarchical regression analysis in step 2 indicates that M&E budget has a significant positive relationship with project success ($\beta=0.319$, $p<0.01$). Hypothesis 4.3 is therefore supported. Hypothesis 4 posits that stakeholder's engagement is positively related to project success. As expected, the stakeholder's engagement is found to be significant in explaining the variability in project success ($\beta=0.261$, $p<0.05$). Thus, hypothesis 4 is supported.
The adjusted R-square in step 2 of Table 4.3 indicates that the four M&E dimensions, including planning, budget allocation, staff technical capacity, and stakeholder engagement explain 53.5% of the variation in project success, with a significant relationship explained by F values ($F=7.161$, $P<0.000$). This result indicates that proper implementation of M&E system would maximize the chances of project success.

5. Discussion

The research investigated the influence of the core M&E practices on project success. These core M&E practices in the study include M&E planning, M&E budget, M&E staff technical skill, and stakeholders' engagement. The output of correlation analysis indicates that, all independent variables have a positive and significant relationship with the dependent variable, project success.

The result of hierarchical regressions analysis indicates that all the four independent variables were found to have a 53.5% effect in determining project success. The study, therefore, established a positive and statistically significant relationship between M&E practices and successful project implementation.

5.1. Theoretical Implications

Some theoretical contributions can be drawn from the findings of this work. Primarily, the findings demonstrate that core M&E practices such as M&E planning, M&E budget, M&E staff technical skill and stakeholders' engagement are central to project success. It shows that theorizing about critical success factors for projects will remain incomplete unless key M&E practices are considered as factors.

Second, the study contributes to stakeholder theory in two ways. One relates to the fact that unclear identification of stakeholders and/or stakeholders' vague expectations could lead to the inability to specify a project goal, resulting in project uncertainty. This would in turn reduce the likelihood of project success. The other relates to the finding that engagement of project beneficiaries in decision-making at the early stages of a project contributes to the creation of a sense of ownership. Accordingly, project beneficiaries would develop positive behavioural intentions to promote project success and sustainability. Hence, the most important implication here would be the key role of stakeholders' engagement in project success (Littau, Jujagiri, & Adlbrecht, 2010).

Third, the study contributes to resource-based view theory. Allocation of adequate budget for M&E activities of projects could lead to having skilled experts and can monitor in every step of projects' life cycle regularly. This would in turn increase the likelihood of project success. The findings further confirmed that, projects having an adequate budget for M&E activities have a good success status and vice versa. Consequently, the most important implication here would be the key role of allocation of adequate budget for M&E activities on project success of NGOs (Jurevicius, 2013; Gaibo and Mbugua, 2019).

5.2. Practical and Policy Implications

The study shows the importance of core M&E practices for the successful implementation and closure of projects. M&E planning, M&E budgeting, M&E staff technical skill and stakeholders' engagement are important core M&E practices that are crucial in determining project success. With regard to M&E planning, it has a significant influence on project success directly. The practical implications of this finding are key for NGOs and project managers. One implication relating to NGOs is that they need to work towards the development of M&E plan before the implementation of projects. As indicated by prior studies (e.g., Gaibo & Mbugua, 2019; and Claude & Didace, 2020), a M&E plan generally outlines the underlying assumptions on which the achievement of project goals depends, the anticipated relationships between activities, outputs, and outcomes. In addition, well-defined conceptual measures and definitions, along with baseline data needed, the monitoring schedule; a list of data sources to be used; and cost estimates for the M&E activities. M&E planning deserves prime attention, as it is a base for all subsequent M&E activities.

The budget allocated for M&E activities was found to have a significant influence on project success. One implication of the finding to NGOs is that they need to work towards institutionalizing the earmarking of adequate budget for M&E activities. Prior studies like (Mwangi *et al*., 2014) indicated that, adequate funding is very relevant for an M&E exercise and project success of NGOs.

The research also shows that M&E staff technical skill has a significant influence on project success directly. The practical implication of this finding is vital for NGOs and project managers. When NGOs have an M&E planning and allocated adequate budget for M&E activities, staffing will be the next step.

Stakeholders' engagement in M&E activities also has a significant influence on project success. One straightforward practical implication from this finding is that genuine engagement of project stakeholders in the conception and planning stages of a project requires serious attention from NGOs. They should follow the bottom-up and participatory approaches in identifying the felt needs and demands of the community by involving in all project stages, particularly in the conception and planning stages, such as assessing the local situation, defining the local problems and setting priorities. This finding is in line with prior studies like (Tengan *et al*., 2019; PMBOK, 2017), which indicated that, the ability of the project manager and team to properly identify and engage all stakeholders in an appropriate way can mean the difference between project success and failure.

To sum up the practical implications mentioned above, the core components of M&E practices play an important role in determining project success of NGOs. Hence, NGOs need to develop a conducive environment that nurtures a culture of effective M&E activities, which in turn would enhance project success.

5.3. Limitations and Future Research Directions

This study has some limitations that could be taken as opportunities for future research. First, the study exclusively focused on the effect of M&E practices on project success in the case of Pro-Development Network (PDN) member NGOs. Therefore, the scope of the study was only limited to one consortium of NGOs (PDN) in Ethiopia; and therefore, the findings may not necessarily reflect other consortiums of NGOs due to different dynamics. In addition to this, the projects included in the study were projects implemented in the last five years (2016-2020), and may not necessarily reflect the current situation.

Secondly, the study focused exclusively on four core M&E practices. This implies there may be moderating, mediating, or intervening variables, which may influence the successful completion of projects. Therefore, future studies could search for moderating and/or mediating variables in the relationship between the practices of project M&E and project success. Besides, future research could examine unique influence of monitoring practices and evaluation practices on project success.

Third, the data for this study is a cross-sectional rather than longitudinal research design that limits inferences about causal relations. The researchers, therefore, recommends that longitudinal studies could be used to examine the effects of M&E practices on project success over the project life cycle.

The fourth limitation of the study relates to its coverage, which was only projects of NGO sector in Ethiopia. Besides, only projects of local NGOs were considered in the study. The researchers, therefore, suggest that future researches could take into account international NGOs and project s in other sectors.

6. Conclusion

Successful completion of projects is an essential goal for all project-based organizations. Most of the organizations, however, struggle with the internal and external processes of demands for a continuous improvement of project implementation in order to achieve the main objective of their respective clients.

On the basis of the calls from Ling et al. (2009) and Kamau and Mohamed (2015), the present study sought to examine the isolated role of project M&E practices in explaining the project success. Specifically, the study investigated the effect of the core dimensions of project M&E, namely planning, staff technical skills, budget and stakeholders' engagement on project success. Accordingly, the study confirmed within the context of development projects that there is a statistically significant and positive relationship between each of the core five components of project M&E and project success. In other words, the study underscored that all the components of M& E have positive and significant effect on project success collectively as well as separately.

The findings from this study underscore at least four insights. First, it shows that organizations need to properly plan about all activities and approaches in relation to M&E. Second, the study findings highlight that project-based organizations require competent and adequate technical staff on M&E system so as to increase the likelihood of project success. Third, project-based organizations need to allocate sufficient funds for M&E activities for every project so as to improve the chances of success. Fourth, the findings indicate that organizations envisioning to improve rates of project success need to follow participatory M&E model whereby all project stakeholders take part in the M&E process, which in turn contribute towards project success.

Thus, project-oriented organizations including NGOs need to establish robust project M&E system in order to enhance the project success. This would in turn create a working project climate conducive to M&E practices, which are planning, staff technical skill, budget and stakeholders' engagement. We hope that our study will stimulate future research on project M&E and project success by considering the mediating and intervening variables

References

Aga, D. A. (2016) 'Factors Affecting the Success of Development Projects : A Behavioral Perspective', *Tilburg: CentER, Center for Economic Research*. Doctoral dissertation [online]. https://research.tilburguniversity.edu/en/publications/867ae95e-d53d-4a68-ad46-62cb80597f4e

Aga, D. A., Noorderhaven, N., and Vallejo, B. (2016), 'Transformational leadership and project success: The mediating role of team-building', *International Journal of Project Management*, Vol. 34 No. 5, pp. 806-818. doi: http://dx.doi.org/10.1016/j.ijproman.2016.02.012

Barrick, M. R., Bradley, B. H., Kristof-Brown, A. L., & Colbert, A. E. (2007),'The moderating role of top management team interdependence: Implications for real teams and working groups',*Academy of Management Journal*, 50(3), pp. 544-557.

Chatterjee, S., & Hadi, A. S. (2006). *Regression analysis by example*: John Wiley & Sons.

Claude and Didace (2020),'Project Monitoring and Evaluation and Project Success in Local Government in Rwanda', *Journal of Business & Financial Affairs*, Volume 9 No. 2, 2020. DOI: 10.37421/jbfa.2020.9.376

Consuelo, G., and Sevilla, E. D. (2007), *Research Methods*. Rex Printing Company. Quezon City.

Cox, P. (2009). *Evaluation for Improvement:* A Seven-Step Empowerment Evaluation Approach for Violent Prevention Organisations. National Centre for Injury Prevention

Field, A. (2018). *Discovering statistics using SPSS* (5th ed.). Los Angeles: Sage Publications.

Gaibo, G. and Mbugua, S. (2019), 'Influence of Monitoring and Evaluation Practices on The Implementation of County Governments' Infrastructural Development Projects In Marsabit County, Kenya'. *International Academic Journal of Information Sciences and Project Management*. Vol. 3, Issue 5, pp. 184-217.

Hair, J., Black, W., Babin, B., & Anderson, R. (2010). *'Multivariate data analysis'*, 7th ed. New Jersey: Pearson Prentice Hall

Heldman, K. (2005), *Project Management Professional Study Guide*, New Jersey: Wiley Publishing Inc

Hinkin, T. R., and Schriesheim, C. A. (2008),'A theoretical and empirical examination of the transactional and non-leadership dimensions of the multifactor leadership questionnaire (MLQ)',*The Leadership Quarterly*, Vol. 19 No. 5, pp. 501-513.

Hoegl and Gemuenden (2014),'Teamwork Quality and the Success of Innovative Projects : A Theoretical Concept and Empirical Evidence'. *Organisation Science*, Vol. 12, No. 4, pp. 435-449. https://doi.org/10.1287/orsc.12.4.435.10635

Ika, L. A., Diallo, A., and Thuillier, D. (2012),'Critical success factors for World Bank projects: An empirical investigation',*International Journal of Project Management* 30: 105-116

Ika, L.A. (2012),'Project management for development in Africa: why projects are failing and what can be done about it', *Project Management Journal*, Vol. 43 No. 4, pp. 27-41.

Jones, H. (2011),'A guide to monitoring and evaluating policy influence, Overseas Development Institute Background Notes; ODI.

Jurevicius, O. (2013),'Resource-Based View*', Strategic Management insight*.

Kamau, C. G., and Mohamed, H. B. (2015),'Efficacy of Monitoring and Evaluation Function in Achieving Project Success in Kenya: A Conceptual Framework',*Science Journal of Business and Management*. Vol. 3, No. 3, 2015, pp. 82-94. doi: 10.11648/j.sjbm.20150303.14

Kerzner, H. (2017), 'Project management: a systems approach to planning, scheduling, and controlling', New Jersy: John Wiley & Sons

Khwaja, A. I. (2004),'Is increasing community participation always a good thing?',*Journal of the European Economic Association.*Vol 2, No. (2-3), pp. 427-436.

Kissi, E., Agyekum, K., Baiden, B. K., Tannor, R. A., Asamoah, G. E., and Andam, E. T. (2019), 'Impact of project monitoring and evaluation practices on construction project success criteria in Ghana', *BEPAM, Emerald Publishing Limited* 2044-124X. https://doi.org/10.1108/BEPAM-11-2018-0135

Kothari. (2004), *Research Methodology Methods and Techniques* (Second rev). New Age International Publishers.

Kusek, J. Z., and Rist, R. C. (2004),'Ten Steps to a Results-Based Monitoring and Evaluation System', Washington DC, United States of America: *The International Bank for Reconstruction and Development* / The World Bank.

Ling, F. Y., Low, S. P., Wang, S. Q., and Lim, H. (2009),'Key project management practices affecting Singaporean firms'project performance in China',*International Journal of Project Management*, Vol 27, No. 1, pp. 59-71.

Littau, P., Jujagiri, N. J., & Adlbrecht, G. (2010). 25 years of stakeholder theory in project management literature (1984–2009). *Project Management Journal*, Vol 41, No, 4, pp.17-29.

Metalign, A. and Maru, S. (2017), 'Determinants of Project Success in NGOs: The Case of PACT Ethiopia', *JBAS*, Vol. 9 No. 1. pp. 67-99

Mahon J. F. (2002), 'Corporate Reputation: Research Agenda Using Strategy and Stakeholder Literature', *Sage Journals***,** Vol. 41 No. 4, pp: 415-445

Micah and Luketero (2017),'Monitoring and Evaluation Systems and Performance of Non-Governmental Based Maternal Health Projects in Bungoma South Sub-County, Kenya', *European Scientific Journal*, 13 (23). ISSN: 1857 – 7881.

Muhammad, R.C. (2016),'Modern Project Management',*New Age International (P) Ltd Publishers*

Mwangi, J. K., Nyang'wara, B. M., and Kulet, J. L. (2015),'Factors Affecting the Effectiveness of Monitoring and Evaluation of Constituency Development Fund Projects In Kenya: A Case of Laikipia West Constituency',*IOSR Journal of Economics and Finance*, 74-87.

Nanthagopan, Y., Williams, N. L., & Page, S. (2016). Understanding the nature of project management capacity in Sri Lankan non-governmental organisations (NGOs): a resource based perspective. *International Journal of Project Management*, *34*(8), 1608-1624.

Ngogi, K., and Nyandika, F. O. (2014),'Influence of stakeholders participation on performance of Road projects at Kenya National Highways authority',*Journal of Business Management*, 1(11), 384-404.

Oh, M., and Choi, S. (2020),'The competence of project team members and success factors with open innovation',*Journal of Open Innovation*: Technology, Market, and Complexity, 6(3), 51.

Papke-Shields, K.E., Beise, C.andQuan, J. (2010),'Do project managers practice what they preach, and does it matter to project success?'*International Journal of Project Management*. 28, 650–662.

PMBOK, (2017),*A Guide to the Project Management Body of Knowledge* (PMBOK Guide), 6th ed. Project Management Institute (PMI), Inc., Pennsylvania

PMI (2018),*Pulse of the Profession Report 2*. Ahead of the Curve: Forging a Future- Focused Culture a New Way Forward

Sethi, R. and Philippines, R. (2012),'The influence of project managers on project success criteria and project success by type of project', *European Management Journal*, Vol 25 No. 4, p. 298-309.

Tall, B., Matarneh, S., Sweis, G., Sweis, R., & AlBalkhy, W. (2021). Factors affecting the success of development projects of the non-governmental organisations (NGOs) in Jordan. *International Journal of Construction Management*, pp. 1-12.

Tengan C**.,** Aigbavboa, C. T. and Thwala D., (2019) 'A principal component analysis of monitoring and evaluation determinants for construction projects delivery in developing countries', *Researchget.net/publication*/326042773. Vol 27, No. 4, pp. 420–434.

Thaddee, B. (2020),'Influence ofproject management practices on project success in Rwanda - the case of Girinka project in Runda sector, Kamonyi district, Rwanda', *European Journal of Management and Marketing Studies*, pp. 88–113 https://doi.org/10.46827/ejmms.v5i3.860

Tong'I, J. N., Otieno, M.and Osoro, H.K. (2019), 'Effects of Monitoring and Evaluation Process on the Performance of County Government Projects Kisii County, Kenya', *IJARKE Business & Management Journal*, Vol. 1 Issue 2, pp. 81-93. DOI: 10.32898/ibmj.01/1.2article07

Weiss C. (1995). Nothing as Practical as Good Theory: Exploring Theory-Based Evaluation for Comprehensive Community Initiatives for Children and Families (Connell, J, Kubisch, A, Schorr, L, and Weiss, C. (Eds.) 'New Approaches to Evaluating Community Initiatives' ed.). Washington, DC: Aspen Institute.

World Bank (2015),'Devising an Appropriate Strategy for Capacity Building of a National Monitoring and Evaluation System : Lessons from Selected African Countries', Segone 2010.

Zid, C., Kasim, N. and Soomro, A.R. (2020) 'Effective project management approach to attain project success, based on cost-time-quality', *Int. J. Project Organisation and Management*, Vol. 12, No. 2, pp.149–163.