



INFLUENCE OF MONITORING AND EVALUATION ON PROJECT PERFORMANCE IN KENYA AGRICULTURAL AND LIVESTOCK RESEARCH ORGANIZATION

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ABSTRACT

This study sought to examine the influence of Monitoring and Evaluation function on project performance in KALRO. Descriptive research design was employed since it is convenient in enabling the researcher in generalizing the findings to a large population. The target population for the study was 175 active projects from which a sample size of 64 projects which formed 37% of the target population was selected. The questionnaire was used as the main data collection instrument while document review was used to collect secondary data. Pilot testing was done to assess questions' validity and reliability of the research instrument. This constituted respondent from 6 projects which was 10% of the sample size selected for the study. In line with the objectives of the study, descriptive data was analyzed, interpreted and inferences made through triangulation of information using statistical package for social science (SPSS) Version 25. The relationship between variables was determined using correlation and regression. Major findings for the study revealed that three independent variables namely planning in M&E, Monitoring and control, and findings of evaluation had a direct relationship with project performance while feedback mechanism had an inverse relationship. Based on results, all the betas indicated that the independent variables were predictors of project performance. The study recommended that KALRO should improve on its planning in M&E through involving all relevant stakeholders by inviting their views in order to assist project managers to easily detect and prevent misunderstanding or opposition during project implementation. Better strategies on implementing monitoring and control measures should also be adopted. Regular feedback should also be collected, analyzed and used systematically and or effectively to inform future policy on project execution in order to enhance project performance.

Key Words: *Planning, Implementation, Evaluation, Feedback Mechanisms, Monitoring and Evaluation*

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INTRODUCTION

Monitoring and evaluation (M&E) has become a key tool within the worldwide efforts in achieving environmental, economic and social sustainability. At national and international levels, the sustainability criteria and indicators for M&E are very crucial in defining, monitoring and reporting on ecological, economic and social trends, tracking progress towards goals and influencing policy and practices (Behn, 2003).

The fundamental changes that have been witnessed in the management of projects have led to evolution of monitoring and evaluation over time. In 1950s, M&E practices were focused on provident allocation and use of resources based on the social scientific trends during that period (Cheng & Moore 2007). The emphasis of these practices followed the dissatisfaction in project management that instigated the setting up of project management as a discipline independent of the management docket in the late 1950s. During that era, M&E exercise concentrated on the lived experiences and stakeholders had more say in project performance, an exercise that resulted in evaluation procedures shaped by consensus (Hailey & Sorgenfrei, 2009).

Kenya has undertaken development planning since it gained independence in 1963. However, due to the non-existence of an integrated monitoring and evaluation (M&E) system, implementation of the development plans over the first four decades of independence was weak (Waweru, 2018). In many parts of the country, there were common complaints of unimplemented, incomplete highly ambitious projects. Information collection, analysis and reporting of results were undertaken in an impromptu manner. Decision-making and feedback at the local level was rarely based on verifiable evidence in the absence of a well-established M&E system. Efforts were made in the 1980s and 1990s to establish individual project- and programme-based M&E in the country (Machoka, 2013). A section of M&E featured in most development plans prepared during this period. However, M&E plans were majorly prepared in response to donor

demands, leading to very specific project and programme evaluations. As a result of the dominance of donor requirements, the M&E reports produced were rarely shared with the intended project/programme beneficiaries (RoK, 2016).

Implementation based monitoring (IBM) and Results based monitoring and evaluations (RBM) are types of M&E that are based on the area of focus (Machoka, 2013). RBM is designed to provide feedback on actual outcomes and objectives of projects. RBM can also be performed in conjunction with strategic partners and it incorporates systemic reporting on the progress to the results (Kusek & Rist, 2004). It is therefore possible to know if the results or objectives are being met or will be after project completion. Implementation-Based monitoring and evaluation is designed around the project inputs, activities and expected outcomes. IMB thus keeps stakeholders abreast of the developments on various levels of project execution and inspires commitment to addressing shortcomings through corrective action where applicable (Shapiro, 2004). From the above discussions, both methods highlight the role that M&E plays in the performance of the project. Presently, project monitoring and evaluation practices apply principles from both types.

The concept of performance in this study is defined in terms of achievement and fulfillment as a result of an operation with respect to pre-set goals (Muchelule, 2018). Performance measurement can be done in terms of the number of projects completed, cost effectiveness of the project, or client satisfaction (PMI, 2004). Monitoring and evaluation helps to separate arising issues, their causative factors, and provide solutions thus facilitating achievement of the overall efficiency of the project (Stuckenbruck, 1979). Monitoring records and tracks the resources used in the project right from its implementation (Neubert, 2010). Evaluation assesses the projects' effectiveness in meeting the desired deliverables and determination of the relevance and sustainability of the activities

in the project (Hunter, 2009). Evaluation shows the correlation between the project plan and the actual project impact. UNDP (2009) assert that conducting monitoring and evaluation involves several complementary activities with conducting a baseline survey being the most important because it guides the rest of the exercise.

Agricultural Research in Kenya started with the establishment of the first government farms in the early 1900s in Mazaras, Nairobi, Naivasha and Kibos for testing suitability of crop varieties and animal breeds, and to propagate planting materials mainly for the settler farms. Later, it was incorporated in the EAC and implemented by the East African Agriculture and Forestry Research Organization (EAAFRO). With the break-up of the EAC in 1977, agricultural research in Kenya was conducted by the Scientific Division in the Ministry of Agriculture. In 1979, the Kenya Agricultural Research Institute (KARI) was established to focus on food, horticultural and industrial crops and livestock. Coffee, Tea and Sugar Research Foundations were established in various years to conduct research on respective mandate crops. The National Agricultural Research System (NARS) policy developed in 2012 indicated that agricultural research was uncoordinated and undertaken by many institutions leading to duplication and inefficient use of resources, hence the recommendation to amalgamate KARI and the three Research Foundations (Biovision, 2015). The Policy led to the enactment of the KALRO Act, No. 17 of 2013 to provide for the establishment and functions of the Kenya Agricultural and Livestock Research Organization, to provide for the organs of the Organization, to provide for co-ordination of agricultural research activities in Kenya, and for connected purposes (KALRO Strategic Plan 2017).

The Agricultural Research Fund (ARF) was established to provide strategic and predictable funding for agricultural research activities and support the operations of the organization. The fund is managed by trustees appointed by the Board. Projects in KALRO can therefore be grouped

into two broad categories according to the funders; i) Donor funded projects. These are projects funded by bilateral or multilateral donors for the purpose of agricultural research. ii) Government funded projects. This is a category of projects funded by money allocated by parliament specifically for agricultural research purposes, projects funded by any interest from loans and advances and funds from any other source approved by trustees. (Kenya Agricultural and Livestock Research Act No. 17 of 2013).

Statement of the problem

At the national level, through provision of a decent of life to all its citizens, Kenya aims at joining the list of industrialized middle-income country by the year 2030. In the view of the aforementioned, flagship projects have been initiated in key economic sectors to realize the vision. Outcome indicators have been identified to monitor and also evaluate the progress of the said projects. The indicators are tracked by NIMES and at the end of each financial year, a series of reports are generated. However, reports on the Flagship Projects are being produced at a greater frequency by the Vision Delivery Secretariat for informing its board and for other strategic decision-making government organs. Over 50 indicators have been identified to be measured to track projects outcomes in the ten key sectors: Science, Public Sector Reforms, Tourism, Agriculture, Infrastructure, Trade, Manufacturing, Technology and Innovation, Business Process Outsourcing & Information Communication & Technology (BPO&ICT), Financial Services, Education & Training (Vision 2030 indicators Handbook, 2008-2012).

Most organizations lack effective monitoring and evaluation practices due to misuse of resources, poor planning, conflict of interest and poor communication in meeting obligatory requirements. In KALRO, the overall picture of projects achievements has remained limited despite monitoring and evaluation practices being in place, information linking Monitoring and Evaluation and project performance is rare. Review of literature on

monitoring and evaluation reveal that most researches have been carried out from USA, South Africa, Malaysia, Nigeria, Iran, India, United Kingdom, among others. Not many of the studies have been carried out on the monitoring and evaluation in relation to project performance in state corporations from a Kenyan perspective. The few that have been carried out have not focused into monitoring and evaluation as a key project performance factor (Muchelule, 2018; Kamau & Mohamed, 2015; Hassan, 2013; Magondu, 2013; Marangu, 2012; Muriithi & Crawford, 2003). This study sought to address this knowledge gap. It aimed at providing knowledge on the influence of monitoring and evaluation on project performance in Kenya Agricultural and Livestock Research Organization.

Objectives of the study

The aim of the study was to establish the influence of monitoring and evaluation on project performance in KALRO. The specific objectives were;

- To establish how the planning in monitoring and evaluation influence performance of projects in Kenya Agricultural and Livestock Research Organization.
- To determine how implementation of monitoring and control influence performance of projects in Kenya Agricultural and Livestock Research Organization.
- To assess how the findings of evaluation influence performance of projects in Kenya Agricultural and Livestock Research Organization.
- To determine how feedback mechanisms influence performance of projects in Kenya Agricultural and Livestock Research Organization.

LITERATURE REVIEW

Theory of Change

In 1995, Carol Weiss defined the theory of change as a theory of why and how an initiative functions. Theory of change describes a process of planned social change, from the assumptions that guide its

design to the long term goals it seeks to achieve. The crux of the theory of change is to make propositions and assumptions explicit and to articulate what should be assessed in evaluation plans (Amott & Mackinaw, 2006).

Most projects have a theory of change although they are usually assumed (Clark & Taplin, 2012). Typically, a monitoring and evaluation plan will include some documents that may have been created during the program planning process, and some that will need to be created new. For example, elements such as the logic model/logical framework, theory of change, and monitoring indicators may have already been developed with input from key stakeholders and/or the program donor. The M&E plan takes those documents and develops a further plan for their implementation.

The theory of change is a rigorous yet participatory process whereby groups and stakeholders in a planning process articulate their long-term goals and identify the conditions and assumptions they believe are necessary for the goals to be met (Waitha, 2018). This made its application in this study relevant since the study sought to establish how planning in monitoring and evaluation help the different stakeholders involved to develop project plans, monitoring and evaluation plans, check that their efforts are proceeding as planned, and to refine and guide their responses if changes are needed. Based on the theory, the propositions of what should be assessed, the related assumptions and expected outcomes were thus well articulated. This provided an overview in establishing the influence of planning in M&E on project performance in KALRO.

The Program Theory

This study was further informed by the Program Theory by Bickman. The theory defines how a program is designed to operate (Bickman, 1987). In the transformation view, a project is conceptualized as a transformation of inputs to outputs (Lipsey, 2003). There are several principles, by means of which a project is managed. These principles suggest, for instance, breaking down the

transformation hierarchically into smaller tasks, and minimizing the cost of a particular task independently. In relation to this theory, Sidani and Sechrest (2010) argued that a program consists of an organizational plan for intended services. Moreover, it deals with utilizing plans for intended beneficiaries, interventions, and the desired social benefit executed projects are expected to deliver. Project outcomes in this theory are attributed to identification of anticipated desired and undesired consequences (Weiss, 2003). It helps understand how a plan works during the implementation process.

The Realistic Evaluation Theory

The realistic evaluation theory as published in 1997 by Pawson, provides a model that revolves around finding the outcomes from project interventions, how they are derived, and the significance of varying conditions in which the interventions occur (Pawson & Tilley, 2004). Realistic evaluation deals with “what works specifically for who, in what respects, in what particular circumstances and how?” (Pawson & Tilley, 2004). The model proposed in the realistic evaluation theory allows an individual to determine the features of an intervention that make it effective or ineffective beside the factors that are needed to apply the same intervention in other areas under different contexts. It is also possible to determine the contextual interventions that make the interventions effective, which makes it possible to develop lessons on how to produce outcomes. In this respect, it falls short because it does not provide a link to project performance but is however, complementary to the theory of change as it covers the shortcoming of the latter as aforementioned.

Effectiveness of project implementation can be determined by considering four basic facets (Betty, 2013). A project can be said to have been successfully executed if it completed on-schedule, within a limited budget, achieves the pre-set goals, and is accepted and put in use by the intended clients. A project can be defined using the criteria of

time frame to completion, a fixed budget, and a specified set of performance characteristics (Action Aid Kenya, 2010).

The Communicative Action Theory

Communicative action is a theory which aims to explain human rationality as the necessary outcome of successful communication (Mitrovic, 1999). The theory can be traced to, Jürgen Habermas, the German philosopher and sociologist who argues that the potential for rationality is inherent in communication and action, and represents a critical understanding (Habermas, 1987). Habermas’ general theoretical aim is to link communicative action theory, as a variable of action theory, with systems theory into a comprehensive approach to social theory (Mitrovic, 1999).

There are two types of rationality namely communicative and cognitive-instrumental Habermas (1984). He describes cognitive-instrumental rationality as ‘monological’, which deals only with subject-subject relation and is directed at the successful realization of privately defined goals. In contrast to this conception of rationality, he speaks about the notion of communicative rationality, which is intrinsically ‘dialogical’, primarily concerned with inter-subjective relation, and geared towards concurrence in social action. In Habermas’ understanding, modernization and rationalization involve not only ‘purposive rationality’ but also ‘communicative rationality’, which is aligned towards consensus forming a base for critique and progress (Wilson, 2001). The communicative action theory can be described as an approach that is mainly concerned with quality of dialogue by creating a rational basis for constructing solutions in democracies. It is an approach that integrates scientific and interpretive/social learning perspectives Watson (2002).

The theory of Communicative Action has greatly influenced planning and policy-making functions. The philosopher’s work inspired a new direction in planning and policy-making processes based on

intercommunication. Features of this new direction in planning include: collective decision-making with the participation of those directly affected directly by the decision and/or their representatives, and decision-making through recommendations offered by and to participants who are rational and impartial.

The feedback aspect of the communicative action theory was relevant to this study. This is because

the study sought to find out how dissemination workshops, networks and feedback from such forums promote knowledge sharing and learning. Thus successful communication inspires a new direction in planning and policy-making processes. This is a key aspect in establishing how feedback mechanisms influence project performance in KALRO.

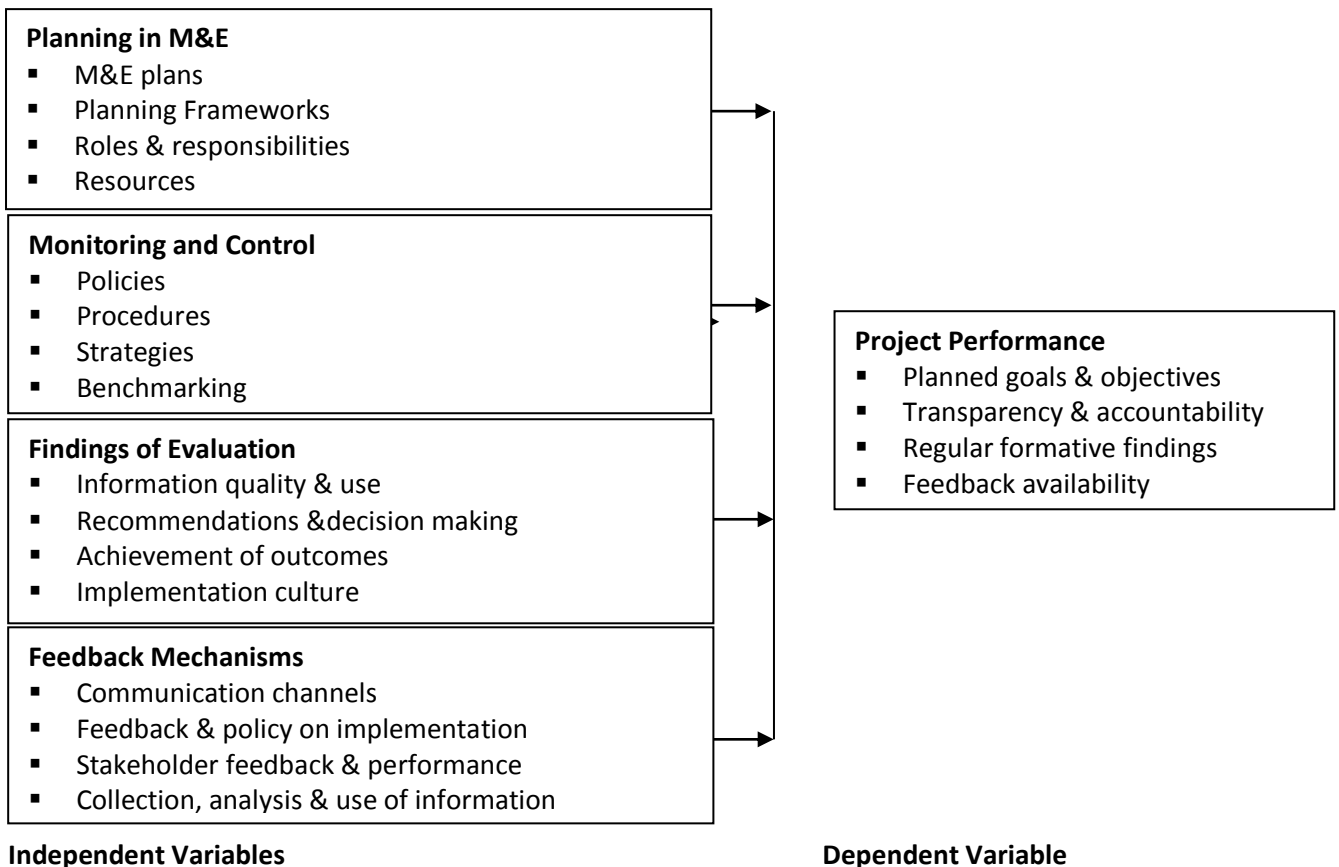


Figure 1: Conceptual framework

Empirical review

According to Kohli and Chitkara (2008), project monitoring and evaluation experts argue that planning in M&E needs to be performed during project planning others still argue that it should be done after completion of planning but before the design phase or intervention (Nyonje et al, 2012). The general consensus however agrees that planning needs to include information on how the project needs to be assessed (Cleland & Ireland, 2007). In this study, the M&E plan details activities that influence project performance. The literature

review has demonstrated that an M&E plan outlines the underlying assumptions on which the achievement of project goals depends, expected relationships between activities, outputs, – the logical framework. The M&E plan also has well-defined conceptual measures and definitions, and the baseline data required; the monitoring schedule, data sources to be used (Wysocki & McGary, 2003); cost estimates for all activities to be implemented during the monitoring and also evaluation exercise. A list of collaborations and partnerships in the project are also a feature of the

plan alongside a plan for the dissemination and utilisation of the information acquired (Wysocki & McGrary, 2003; Alcock, 2009).

Implementation entails those actions by individuals or groups in the public sector and private organizations directed towards achieving pre-set of objectives in policy or programme decisions. Therefore, project implementation is the actual delivery or carrying out of the project activities or interventions by private organizations like NGOs in the private sector, in resolving societal problems (Barber, 2012). When projects are executed, it is crucial to determine know if the projects are actually bringing the desired changes and enable detection of any deviations of the actual from the planned. M&E makes the measuring of results of the implementation of projects possible.

Monitoring & Evaluation within some organizations is considered largely to be a top-down activity. It is seen in this view as a high order management activity, where decisions of what is evaluated are seen as coming from top management. As Paudel (2009) explained, the top-down- approach is a methodology deployed to steer factors and problems, which are easy to manipulate and lead to centralization and control. In some cases, M&E is seen as an activity imposed on NGOs by donors or internally by top management for either accountability reasons or managerial decision-making purposes. Sometimes it is difficult for the intentions of the programme to be fully communicated through the command chain to the lowest level. Thus, a gap is created between the intentions and the results of implementation.

The main purpose of M&E is provision of plausible options based on the best information that can be gathered to support decisions. A major factor that should be taken into consideration is the scope of the monitoring and evaluation task. Mackay (2007) mentions that, once an M&E System is in place, the organizational culture has to encourage sharing of results once they are out. The major challenge faced by public and private evaluation offices alike is to make sure that the evaluations produced are

continuously utilized. Completing an evaluation report, making it publicly available to stakeholders, and assuming that the reports will somehow be utilized is not enough. On the contrary, evaluators and their evaluation offices need to be highly proactive in implementing a detailed strategy for sharing of the evaluation and also evaluation findings so as to inspire adoption of the evaluation's findings and implementation of recommendations. On the other hand, Rogito (2010) study on the influence of monitoring and evaluation on project's performance found that a project implemented without the baseline study faced grave challenges on tracking its' progress effectively on indicators.

According to Rogito (2010), for best practice a baseline needs to be planned and executed a year prior to project implementation so as to get full information on the project to undertake. He concludes that youth projects were performing poorly majorly baseline surveys studies were minimally done making it difficult track indicators and hard to achieve project goals. He recommends proper timing of baseline studies prior to project implementation and that findings should be properly kept and utilized to monitor projects' progress.

A report by USAID (2000) indicates that feedback during project implementation from local project staff and the opportunity for beneficiaries to influence appropriate revisions to project activities contributed to the quality of monitoring information in projects. Moreover, to improve performance information, good baseline data combined with ongoing consultation with beneficiaries provides a firm basis upon which to make judgments about relevant and properly timed interventions, and later about the achievement of major development objectives. Baseline data and needs assessments provide the information you need against which to assess improvements caused by project implementation over time thus in order to evaluate the impact the project has on the lives of beneficiaries, you have to be familiar with the

situation of the beneficiaries before project implementation (Hunter, 2009).

World Bank (2013) asserts that determining the presence or lack of the success factors and constructing reliable indicators that can be used for benchmarking and for comparisons for instance in agribusiness, demands an understanding of the entire value chain from production, marketing systems and the agricultural policies. It also needs thorough knowledge of the environment that promotes or hinders agribusiness within a given territory. In most countries, the demand evidence based decision-making is rare. Misconduct and poor performance and, for instance, are rarely sanctioned. Also, little or no feedback is availed on data collected through ministerial inspection. What matters with M&E is not so much the facts that are available or the data that is collected, but how the data is used to inform choices in the different stages of planning and public service delivery. Such a problem leads to poor quality M&E data in terms of outdated missing, or inaccurate information (Gebremedhin, Getachew & Amha, 2010). The distinction between observed reality and what is hoped for is often not explicit. The M&E systems and practices that are in place may arguably provide a reasonable accountability framework, but their contribution to substantive learning is more limited.

METHODOLOGY

Descriptive survey design was adopted in this research. This research design was chosen for this study due to its ability to reduce bias thereby enhancing reliability of evidence collected. The target population for this study was the number of projects completed within the 2017/2018 financial year spread across the 16 KALRO institutes. A questionnaire was administered to a representative from each category of stakeholder namely; Senior Manager, Monitoring and Evaluation Officer, Principal Investigator and Research Scientist or Technical officer in the KALRO Institute where the project was domiciled. The sampling frame of this study comprised respondents from 175 active

projects. The sampling frame was extracted from the KALRO list of active projects within the 2017/2018 financial year. The sample size of 64 was distributed according to the number of government and donor funded projects across the 16 institutes. The questionnaire was the main data collection instrument in this study. Descriptive data collected was analyzed, interpreted and inferred through triangulation of information. The data was summarized, coded and entered into the Statistical Package for Social Sciences (SPSS) version 25 for analysis to enable the responses to be grouped into various categories. Multiple regressions were used to measure the strength of the relationship between the dependent and independent variables. The regression equation was:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \alpha$$

Where: Y is the dependent variable (Project performance),

- β_0 is the constant/Y-intercept,
- $\beta_1, \beta_2, \beta_3,$ and β_4 are the slopes of the regression equation,
- X_1 Planning in M&E,
- X_2 Monitoring and control,
- X_3 Information systems,
- X_4 Feedback mechanisms,
- α is an error term.

FINDINGS AND DISCUSSIONS

Descriptive Analysis

Planning in M&E

The findings of this study revealed that some respondents strongly agreed that Monitoring and evaluation plans are well applicable in organization activities (mean = 3.80, SD = 0.863) and that employees are well trained on effective monitoring and evaluation planning practices (mean = 3.81, SD = 0.843). This implied that employees had the required skills to arrange project resources in a systematic manner leading to the achievement of project objectives. Majority agreed that network diagrams and logical frameworks are used in scheduling organization projects (mean = 3.60, SD = 0.970). The use network diagrams and logical

frameworks enables project managers to lay out the necessary steps required to achieve the desired results. Therefore, there is an increased understanding of the project objectives and the ultimate goal. However, there is low evidence that the organization conducts stakeholder's analysis

surveys on its resources before it plans, hence project managers may not easily detect and prevent misunderstanding or opposition to the execution of the projects (mean = 3.50, SD = 0.960). The results of the findings were as shown in Table 1.

Table 1: Planning in M&E

Statements	If one agrees or disagrees with the statements						Mean	Std. Dev
	N	1	2	3	4	5		
Monitoring and evaluation plans are well applicable in organization activities	210	3	16	37	118	36	3.80	0.863
Employees are well trained on effective monitoring and Evaluation planning practices in organization projects	210	1	17	41	113	38	3.81	0.843
Network diagrams and Logical frameworks are used in scheduling organization projects	210	8	14	68	85	35	3.60	0.970
The organization conducts stakeholder's analysis surveys on its resources before it plans.	210	10	21	51	109	19	3.50	0.960

Monitoring and control

The study sought to establish the monitoring and control measures used by the organization in its attempt to streamline project implementation. Study findings revealed that the procedures on adopting monitoring and control practices are definitive, clear and easily understood (mean = 3.76, SD = 0.891) and that the policies put in place provide opportunity for adopting monitoring and control best practices (mean = 3.74, SD = 1.031) (see Table 2). With appropriate policies for adopting monitoring and control best practices, project

managers are able to deduce plans that are ideal and most appropriate to implement, thereby enhancing project performance. The results further revealed that the organization benchmarks its monitoring and control practices with other organizations (mean = 3.60, SD = 0.970). However, there is doubt that the organization has better strategies on adopting monitoring and control practices (mean = 3.53, SD = 0.903). In the absence of well-defined monitoring and strategies, it is difficult to achieve defined project objectives.

Table 2: Monitoring and control

Statements	If one agrees or disagrees with the statements						Mean	Std. Dev
	N	1	2	3	4	5		
I am satisfied with the policies put in place which provide opportunity for adopting monitoring and control best practices.	210	5	27	34	95	49	3.74	1.031
The procedures on adopting monitoring and control practices are definitive, clear and easily understood in the project.	210	5	16	36	120	33	3.76	0.891
The Organization has the best strategies on adopting monitoring and control practices	210	8	16	61	106	19	3.53	0.903
The organization benchmarks its monitoring and control practices with other organizations.	210	8	14	68	85	35	3.60	0.970

Findings of Evaluation

The study sought to establish the influence of findings of evaluation on Project performance in KALRO. Study findings revealed that utilization evaluation findings affect the quality of project information (mean 3.81, SD 0.843), evaluation reports clearly highlight factors affecting organization's achievement of project outcome through outputs (mean 3.77, SD 0.857). This implied that project team and others think in terms of

performance measurement before the project implementation starts with a clear picture of the desired outcomes of the project. The recommendations based on evaluation findings are discussed and used to make informed executive decisions (mean 3.60, SD 0.970) There is however low evidence that evaluation findings impact on the organization's culture on project implementation (mean 3.55, SD 0.997).

Table 3: Findings of Evaluation

Statements	If one agrees or disagrees with the statements						Mean	Std. Dev
	N	1	2	3	4	5		
Utilizing evaluation findings affect the quality of project information	210	1	17	41	113	38	3.81	0.843
Recommendations based on evaluation findings impact on executive decision making	210	8	14	68	85	35	3.60	0.970
Evaluation reports clearly indicate organization's achievement of project outcome through outputs	210	1	17	50	104	38	3.77	0.857
Evaluation findings have an impact on the organization's culture on project implementation	210	7	24	58	88	33	3.55	0.997

Feedback Mechanisms

The study sought to establish the feedback mechanisms adopted by KALRO in its attempt to meet the projects' need. Study findings revealed that there were proper channels of communicating the results and lessons learnt during project implementation (mean 3.81 SD 0.843) (see Table 4). The implication was that performance of the project is assessed and guidelines on how to proceed with the project are generated .However, there is little evidence that project team sought

feedbacks from stakeholders with the aim of improving performance(mean 3.55, SD 0.997), regular feedback is collected, analyzed and used systematically and or effectively (mean 3.53, SD 0.903) and there were also doubts that feedback from monitoring and evaluation practices conducted inform future policy on project implementation. (Mean 3.50, SD 0.960). Feedback from key stakeholders is of great essence, failure to solicit their views may lead to uninformed decisions and project inefficiencies.

Table 4: Feedback Mechanisms

Statements	If one agrees or disagrees with the statements						Mean	Std. Dev
	N	1	2	3	4	5		
There are proper channels of communicating the results and lessons learnt during project implementation.	210	1	17	41	113	38	3.81	0.843
Feedback from monitoring and evaluation practices conducted inform future policy on project implementation.	210	10	21	51	109	19	3.50	0.960
Seeking project feedbacks from stakeholders improves performance.	210	7	24	58	88	33	3.55	0.997
Regular feedback is collected, analyzed and used systematically and or effectively.	210	8	16	61	106	19	3.53	0.903

Project Performance

This section highlighted the results of analysis on project performance. Table 5 presented the results. From the results, there was no doubt that Feedback from monitoring and evaluation exercise is accessible for use to improve project performance (mean 3.89, SD 0.766) (See Table 5). The organization gives regular formative evaluation findings on project performance (mean 3.81 SD

0.843). Monitoring and control facilitates transparency and accountability there is therefore proper utilization of project resources (mean 3.81, SD 0.913). The project meets its intended goals and objectives as per the monitoring and evaluation plan (mean 3.79, SD 0.909). The implication is that the concerned stakeholders have sufficient data and metrics to ascertain that the projects have met their intended goals and objectives.

Table 5: Project Performance

Statements	If one agrees or disagrees with the statements						Mean	Std. Dev
	N	1	2	3	4	5		
The project meet its intended goals and objectives as per the monitoring and evaluation plan.	210	7	11	38	117	37	3.79	0.909
Monitoring and control facilitates transparency and accountability of the of project resources.	210	7	11	36	117	39	3.81	0.913
The organization gives regular formative evaluation findings on project performance.	210	1	17	41	113	38	3.81	0.843
Feedback from monitoring and evaluation exercise is accessible for use to improve project performance.	210	4	4	38	129	35	3.89	0.766

Comments and Suggestions

This section highlighted the results of analysis of comments and suggestions from the respondents. Table 6 presented the results. From the results, majority of respondents stated that there was need to collect, analyze and disseminate feedback systematically (n=117, Percentage 55.7). Monitoring and evaluation is applied selectively depending on the project (n=39, Percentage 18.6), There is need to engage stakeholders in formulating the

evaluation findings (n=36, Percentage 17.1), this process will ensure evidence based decision making. The organization should improve monitoring and control strategies (n=11, Percentage 5.2). Involve all stakeholders in planning (n=7, Percentage 3.3). This is to ensure transparency in resource allocation and avoid future conflicts between the management, project implementation team and the project monitoring and evaluation team.

Table 6: Comments and Suggestions

Comments and Suggestions from Respondents	Frequency		Valid	
	Frequency	Percent	Percent	Cumulative Percent
Involve all stakeholders in planning	7	3.3	3.3	3.3
Improve monitoring and control strategies	11	5.2	5.2	8.6
Engage stakeholders in formulating findings	36	17.1	17.1	25.7
Collect, analyze and disseminate feedback systematically	117	55.7	55.7	81.4
Monitoring and evaluation is applied selectively	39	18.6	18.6	100.0
Total	210	100.0	100.0	

Inferential Analysis

Influence of planning in M&E on project performance

The relationship between planning in monitoring and evaluation on project performance was presented in Table 7. The analysis of variance (ANOVA) findings indicated a p value of 0.00 which was less than 0.05, level of significance. Therefore, the relationship between planning in M&E and project performance was statistically significant.

Table 7: Influence of planning in M&E

ANOVA					
Performance	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	48.953	4	12.238	20.385	0.000
Within Groups	123.071	205	0.600		
Total	172.024	209			

Influence of monitoring and control on project performance

The relationship of monitoring and control on project performance was determined through analysis of variance (ANOVA). Results revealed that the p value was 0.000 which is less than 0.05 level of significance (see Table 8), thus the relationship monitoring and control and project performance is

Table 8: Influence of monitoring and control

ANOVA					
Sustainability	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	69.758	4	17.439	34.959	0.000
Within Groups	102.266	205	0.499		
Total	172.024	209			

Influence of findings of evaluation on project performance

The analysis of variance (ANOVA) on the relationship between findings of evaluation and project performance indicated that the p Value of 0.000 is less than 0.05, level of significance (See Table 9). Thus the relationship between findings of evaluation and project performance is statistically

This supported Jha et al., (2010) who stated that a well prepared and executed monitoring and evaluation plan will contribute to both project outcomes and international standards of doing things. Further, Chaplowe, (2008) echoes that monitoring tools such as the logical framework is of essence in enhancing project performance since it links the project goals and objectives to the inputs, process and outputs required to implement the project.

statistically significant. This in line with World Bank (2012) who asserts that participatory monitoring is a technique involving stakeholders such as the project staff, the government and beneficiaries, in the design and implementation of the project. Stakeholders' involvement enables them to outline steps to meet the desired results.

significance. These findings collaborate with the findings of by Sahlin-Andersson and Söderholm (2002) who echoed that the flow of information is vital for the success of such project or organization. In a similar vein, ineffective, poor or lack of communication can lead to a series of problems within project performance (Momballou, 2006).

Table 9: Influence of findings of evaluation

Performance	ANOVA				
	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	61.291	4	15.323	28.367	0.000
Within Groups	110.733	205	0.540		
Total	172.024	209			

Influence of feedback mechanisms on project performance

The researcher conducted the ANOVA tests in order to compare the strength of the relationship between feedback mechanisms and project performance. The p value 0.000 is less than 0.05 (See Table 10), thus the relationship between feedback mechanisms and project performance is not statistically significant. According to NASA

(2001) Continuous improvement process requires a commitment to learning; therefore, the absence of a learning culture within an organization can prevent M&E results from being used for project improvement. A non-learning organization does not recognize the need to evaluate, nor is it hungry to reflect on its experience or identify the problems and experiment with proposed solutions.

Table 10: Influence of feedback mechanisms

Performance	ANOVA				
	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	49.516	4	12.379	20.714	0.000
Within Groups	122.508	205	0.598		
Total	172.024	209			

Correlation analysis

Correlation analysis was conducted in order to determine the direction and the strength of the relationship between the dependent variable and independent variable(s). The correlation analysis between performance of projects and the other five independent variables (Planning in M&E, monitoring and control, information systems, findings of evaluation and feedback mechanisms) supported the results of ANOVA tests (See Table 11). Monitoring and control was significantly correlated with the projects 'performance at the 0.000 level of significance. The correlation coefficient between project performance and

monitoring and control shows a positive correlation. Thus the positive correlation implies that when the level of monitoring and control is increased the projects' performance also increases.

The correlation between monitoring and control and project performance was the most significant, + 0.636^{**}, P < 0.01. The correlation between findings of evaluation and project performance was the moderate, .559^{**}, P < 0.01. The correlation between feedback mechanisms and project performance was also moderate at, .523^{**}, P < 0.01. The other independent variable planning in M&E was the least significant at .473^{**} P < 0.01. positive correlation at the 0.01 level of significant.

Table 11: Correlation analysis

		Y	A	B	C	D	
Spearman's rho	Y	Correlation					
		Coefficient	1.000	.473 ^{**}	.636 ^{**}	.559 ^{**}	.523 ^{**}
		Sig. (2-tailed)	0.000	0.000	0.000	0.000	0.000
		N	210	210	210	210	210

Model summary

Coefficient of determination explains the extent to which changes in the predicted variable can be explained by the change in the predictor variables or the percentage of variation in the predicted variable (project performance) that is explained by all the five predictor variables (Planning in M&E, monitoring and control, information systems, findings of evaluation and feedback mechanisms). Results of the model summary are

shown in Table 12. The five independent variables that were studied, explain only 53.1% of the effects of the independent variables on project performance as represented by the R² which means that other factors not studied in this research contribute 46.9% of the effects of the independent variables on project performance. Therefore, further research should be conducted to investigate the other factors influencing project performance (46.9%).

Table 12: Model summary

Model Summary					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	
1	.729 ^a	0.531	0.520	0.629	

a. Predictors: (Constant), Feedback mechanisms, Planning in M&E, Findings of evaluation, Monitoring &Control, Information systems

The F ratio in the analysis of variance is 46.201 and thus significant at sig=.000. Thus there is evidence of linear relationship between project performance

and the four independent variables namely; planning in M&E, Monitoring &Control, findings of evaluation and Feedback mechanisms, see Table 13.

Table 13: Analysis of Variance results

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	91.352	5	18.270	46.201	.000 ^b
	Residual	80.672	204	0.395		
	Total	172.024	209			

a. Dependent Variable: Project Performance

b. Predictors: (Constant), Feedback mechanisms, Planning in M&E, Findings of evaluation, Monitoring &Control, Information systems

The regression equation for project performance was

$$Y = 0.499 + 0.294X_1 + 0.435X_2 + 0.449X_4 - 0.578$$

The regression equation above has established that taking independent variables to be constant,

Performance of the KALRO projects will be 0.499. Four of the independent variables had positive coefficients. Planning in M&E had a coefficient of 0.294, monitoring and control had a coefficient of 0.435, findings of evaluation had a coefficient of 0.449 while feedback mechanisms had a negative coefficient of -0.578 as illustrated in ANOVA Table 14. These findings also shows that, taking other

independent variables at zero, a unit increase in planning in M&E will lead to 0.294 increase in project performance; a unit increase in monitoring and control will lead to 0.435; a unit increase in findings of evaluation will lead to 0.449 increase in access project performance while a unit increase in feedback mechanism involvement will result in a decrease of 0.578 in project performance.

At 95% confidence level, all variables namely; planning in M&E, Monitoring &Control, findings of evaluation and Feedback mechanisms had a 0.000 level of significance. The coefficients explain significant influence of all independent variables on project performance.

Table 14: Regression model summary

Model		Coefficients ^a		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	0.499	0.261		1.912	0.057
	Planning in M&E	0.294	0.061	0.273	4.815	0.000
	Monitoring &Control	0.435	0.103	0.367	4.212	0.000
	Findings of evaluation	0.449	0.090	0.422	4.993	0.000
	Feedback mechanisms	-0.578	0.131	-0.474	-4.424	0.000

a. Dependent Variable: Project Performance

CONCLUSIONS AND RECOMMENDATIONS

As per the findings of the study it can be concluded that all the independent variables (Planning in M&E, monitoring and control, findings of evaluation and feedback mechanisms) in the study influences KALRO projects performance (dependent variable). The relationship was confirmed through correlation and regression analysis which revealed that there was a negative significant linear relationship between feedback mechanisms to projects performance.

Regression and correlation analysis also confirmed that there is a positive significant linear relationship between planning in M&E, monitoring and control, information systems and feedback mechanisms techniques and adoption of monitoring practices to projects performance. Therefore, the study concluded that Planning in M&E, monitoring and control, findings of evaluation and feedback mechanisms influences project performance.

The following recommendations were proposed in relation to each objective based on the findings of this study. As for the influence of planning in monitoring and evaluation, KALRO should improve on its planning through involving all relevant stakeholders by inviting their views. Stakeholder's analysis surveys on its resources before planning will assist project managers to easily detect and prevent misunderstanding or opposition to the implementation of the policy.

On monitoring and control, the organization should adopt better strategies on adopting monitoring and control measures. Moreover, the organization should adopt a culture of key stakeholder's involvement in formulation of evaluation findings. Finally, regular feedback should be collected, analyzed and used systematically and or effectively and also feedback from monitoring and evaluation practices conducted should inform future policy on project implementation to enhance project performance.

Areas for further Research

This study is a milestone for future research in this area due to its findings, particularly in the agricultural sector in Kenya. The findings emphasize the importance of the component of monitoring and evaluation on projects performance through integrating M&E in all projects and ensuring proper planning in M&E, monitoring and control, appropriate information systems, Utilization of findings of evaluation and well defined feedback mechanisms in all research organizations.

Future research will need to be carried in other research organizations, industries or sectors and countries in order to ascertain if the link between monitoring and evaluation practices and project performance can be generalized. According to existing literature, there exist a future avenue to carry out similar research on monitoring and evaluation adoption, implementation, challenges, barriers, aligning project management practice,

project strategies, project process and monitoring, controlling and evaluation, in other industries and countries in order to establish whether the link between monitoring practices and project performance can be generalized.

This study expands knowledge on the influence of monitoring practices on performance of projects in KALRO. Though the study has fulfilled its aim and objectives, there are a number of areas for additional studies and empirical research, given the limitations of the research. On the scope, this study was primarily limited to 64 projects that formed the sample size. The methodology that has been chosen to achieve the research objectives was limited to questionnaires.

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On the basis of the aforementioned, future research could build on this study by examining monitoring and evaluation practices in different sectors and agencies in both qualitative and quantitative way by using other different methodologies that have not been used in this study. Since projects monitoring and evaluation practices are broad, the study recommends the need for examining the roles or influences of monitoring and evaluation practices that have not been covered in the study on sharing and transferring project management skills, cognitive skills, technical skills, human skills within or outside organizations projects.

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