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MONITORING AND EVALUATION PRACTICES AND PERFORMANCE OF WATER PROJECTS IN ISIOLO COUNTY, KENYA

[1] Biftu Karayu Jillo, [2] Dr. Mungai Anne Marie Wairimu

[1] Masters Degree in Monitoring and Evaluation, Jomo Kenyatta University of Agriculture and Technology

[2] Lecturer, Jomo Kenyatta University of Agriculture and Technology

ABSTRACT

Water projects play a great role to society development and economic spheres as the nation becomes more industrialized and urbanized. Despite the government and NGOs making good efforts to supply water to citizens, it has not been able to cover all areas particularly rural areas. In Isiolo County, water projects have been plagued with poor performance in terms of budget overruns, poor quality, and late delivery. The general objective of this study is to determine the effect of monitoring and evaluation practices and the performance of water projects in Isiolo County, Kenya. The specific objectives are to determine the effect of M&E human capacity building, M&E within organizational structure and water projects in Isiolo County. The study used guided by the human capital theory, and contingency theory. The study involved 9 water projects implemented by the county in the financial year 2021/22. The unit of observation was; 9 project supervisors, 9 project managers, 16 county M&E staff, 23 ministry of water officials, and 90 water projects committee members. Census was used to sample all the targeted respondents. This study used a questionnaire to collect primary data. Statistical Package for Social Sciences (SPSS version 28) was used for analysis. A pilot test was conducted with 10% of the sample, hence 15 project team members was used for piloting. The study used content and construct validity and found that; M&E human capacity building had an AVE of 0.533, M&E within organizational structure had an AVE of 0.550. Reliability was tested using the Cronchba Alpha coefficient and the results showed that; M&E human capacity building had alpha value of 0.726, M&E within organizational structure 0.881. Therefore, the instrument for measuring monitoring and evaluation practices and project performance was considered reliable and valid for actual data collection. The regression findings, with significant coefficients (M&E human capacity building: $B = 0.815$, $p = 0.027$; Organizational Structure: $B = 0.648$, $p = 0.003$ underscore the substantial influence of M&E human capacity building, organizational structure on the performance of water projects in Isiolo County, Kenya, suggesting that investments in enhancing these areas can significantly improve project outcomes. Therefore, recommendations include prioritizing capacity-building initiatives, implementing clear organizational structures, to optimize project performance and ensure sustainability.

Key Words: Monitoring and Evaluation Practices, M&E Human Capacity Building, M&E within Organizational Structure, Water Projects, Isiolo County

Background of the Study

M&E practices just like any other practices is constituted by tools, techniques, resources, and ideas working together to ensure that projects and programs are adequately monitored, and results documented to inform their implementation. Documenting performance of the projects/programs are essential elements to ensure accountability and as a learning process for implementation of similar projects. This involves understanding the strength, weakness, opportunities, and threats of the project (Nicholas & Steyn, 2017). Project Monitoring and Evaluation (M&E) has turned out to be an increasingly vital means in realizing the global efforts in environmental, economic, and social sustainability of infrastructural projects. Monitoring and evaluation of projects is not only important to project, but it is part and parcel of project design (PMBOK, 2016). Resources are scarce and they need to be properly and efficiently utilized. Monitoring and evaluation has been used globally over the last several years as an integral part of the project cycle and of good management practice. Monitoring and evaluation is fundamental if the project goals, objectives, and success are to be realized (Olive, 2018).

According to Hlatshwayo and Govender (2015), monitoring and evaluation is becoming a powerful tool for public sector transformation and service delivery. Monitoring and evaluation initiatives are implemented as barometers of democracy, equality, and equity with different levels of success, with the capacity to transform government departments and the public sector into a functional system that is participatory and representative. Due to the advent of globalization, there is growing pressure on Governments around the world to be more responsive to the demands of internal and external stakeholders for improved governance, accountability and transparency, development effectiveness, and delivery of results. As this demand grows, so does the need for enhanced result-based monitoring of policies, projects, and programs implemented by Governments (Görgens & Kusek, 2019). According to PMBOK, the Four Components of the Monitoring and Evaluation Framework include; organizational structures With M&E functions, data dissemination and Use, the Human Capacity for M&E Framework, communication, Advocacy, and Culture for M&E.

Statement of the Problem

Kenya's vision 2030 planning blue is structured into three main pillars; economic, social, and political (Nyobange, Ogolla & Kitheka, 2019). The plan recognizes the importance of water to society development and economic spheres as the nation becomes more industrialized and urbanized. The plan estimates that by 2030, everyone will have access to water which appears to be consistent with the UN's 2030 Sustainable Development Goals for Water and Sanitation (Chepyogon & Kamiya, 2018). Water supply GDP growth rate in Kenya 2019-2022 was by 1.9%. Water projects contributes to approximately 1% of the GDP in Kenya. Water sector is heavily donor dependent with approximately 70% of annual capital investment coming from the donor community with the Government providing the bulk balance and private sector playing negligible role. This illustrates the vulnerability of the sector and emphasizes the need to find ways of mobilizing domestic private funds.

Despite the government and NGOs making good efforts to supply water to citizens, it has not been able to cover all areas particularly rural areas. In Isiolo County, water projects have been plagued with poor performance in terms of budget overruns, poor quality, and late delivery. WASREB (2019) rated overall water service delivery in Isiolo at below average. Isiolo Water and Sewage Company was among the bottom performers ranked position 24 out of 28 medium sized water utilities in Kenya and overall ranking of 66 out of 84 publicly owned utilities where the ranking was based on various indicators of service delivery such as water coverage, non-revenue water hours of water supply, cost coverage as well as metering ratio, revenue collection efficiency among

others. The water projects funded by the government and NGOs are not near to the households hence poor water accessibility. According to Hagarsu Wanyonyi and Kikwatha (2020), approximately 70% of community water projects in Isiolo County initiated in 2016 have not been completed due financial challenges resulting from suspended donor funding, poor resource management by project managers, and unclear policies governing water project implementation. Water projects in Isiolo County have poor planning and execution strategies and have weak monitoring and evaluation framework that have led to the failure of project to meet the required quality standards of the users. Two thirds (67%) of water projects in the County do not serve the locals for more than five years. The projects are not sustainable and 75% of the water projects deteriorate and collapse three years after the departure of donors.

Several studies were conducted on monitoring and evaluation practices and performance; Hussein and Minja's (2019) study on the effect of monitoring and evaluation on service delivery in Garissa found that performance monitoring positively influenced service delivery. Tong (2019), on the effects of monitoring and evaluation on the performance of Kisii County, found that the performance of county government projects is determined and affected by baseline survey, monitoring, and evaluation findings. Okeyo, Mogusu, and Ombachi (2019), on the effectiveness of monitoring and evaluation structure on the performance of counties in the Nyanza region, concluded that there needs to be an adequate monitoring and evaluation structure to facilitate the desired project performance and outcomes. The organizational structure did not include monitoring and evaluation offices as part of the functional structure. However, none of these studies were conducted in Isiolo County. This study aimed to close the research gap by examining the effect of monitoring and evaluation practices and the performance of water projects in Isiolo County, Kenya.

Research Objectives

i. To determine the influence of M&E human capacity building on the performance of water projects in Isiolo County, Kenya.
ii. To assess the influence of M&E within organizational structure on the performance of water projects in Isiolo County, Kenya.

LITERATURE REVIEW

Theoretical Review

Human Capital Theory

The term human capital (HC) was developed by (Schultz, 1961). HC focuses on the know-how and capabilities of the staff working in an organization. According to Howard, Richard, and Fermin (2013), human capital refers to the ‘staff, their productivity, and their potential in the organization’. Staff potential is essential since it shows that they may develop their abilities and skills over time. Human capital is directly valuable in the production process since it helps to deal with the ever-changing environment, which the staff must adapt. Monitoring and evaluation is a dynamic activity that necessitates a constantly changing set of abilities from those who practice it. The theory assumes that training is targeted toward the organization through change management to increase the organization's production levels, therefore recouping the training expenditure. Any organization that prioritizes employee capacity building is more likely to increase the mastery of its obligations, functions, and responsibilities, consequently boosting M&E's core functions. Employees need to know the results to report on and what is required to enable proper monitoring and reporting that translates into the quality of the project desired. This theory is associated with the variable of M&E human capacity building.

Contingency Theory

Contingency Theory was proposed by Pfeffer in 1982. Contingency theory holds that organizational survival and performance are dependent on the extent of alignment or fit between organizational structure and several dependent factors. The better the alignment amongst structural components and dependent factors, the greater the capability and performance of the organization. For instance, organizations with little levels of centralization and formalization are more successful and effective in stormy environments. In contrast, organizations with high levels of centralization and formalization are more successful in calm environments. The contingency theory holds that there is no suitable way of managing an organization and that any way of organizing is only similarly successful if the design of an effective organization and its subsystems fits in the environment and its subsystems (Pfeffer, 1982).

Contingency theory's fundamental principle is that organizations whose internal characteristics match the demands of their environment will attain the most suitable adaptation. The requirements of a firm are met when it is accurately structured and the leadership style is suitable both to the jobs carried out and the nature of the team in a department. Khandwalla (1977) stated that performance is linked to the match between specific combinations of organizational characteristics, like strategy, structure, technology, culture, staff, management, and environment. Reid and Smith (2000) observed strategy-structure combinations must be optimal since very few mismatches are expected between structure and the competitive environment under competitive business conditions. The market is assumed to select the optimal alignment of strategy and structure. This method is empirically the commonly applied approach in contingency literature.

Govindarajan and Gupta (1985) found out that small organizations require decentralized and personal structures, but as they grow, more centralized and impersonal structures are more effective. Systematic organizations are well-organized, inelastic, foreseeable, and consistent organizations. Precisely, they have a fixed chain of command, high formalization levels, and a high dependency on regulations. They have a fragile command chain, low formalization levels, slack procedures, and variability of duties that can adopt varying environments (Govindarajan &Gupta, 1985). Van de Ven and Ferry (1980) explored the interaction approach, which examines performance through the interaction effects of pairs of strategy and structural variables on performance.

Factors associated with the organizational structure are essential to the execution process. The organization structure constantly changes as the competitive advantage changes. Greve (2004) opined that structures that have significant levels of decentralization result in excellent levels of organizational unit effectiveness, irrespective of the strategic context. Woods (2009) agrees that organizational structure should be accustomed to the strategy to efficiently guarantee effective strategy implementation, although this may be different for different strategy types. The theory supports the variable on organization structure as it helps in understanding the roles of every staff involved in the monitoring and evaluation.

Conceptual Framework

A conceptual framework is a diagrammatic representation showing the hypothesized associations among key factors, variables and concepts. Figure 2.1 shows the hypothesized relationship between M&E human capacity building, M&E within organizational structure, and project performance.

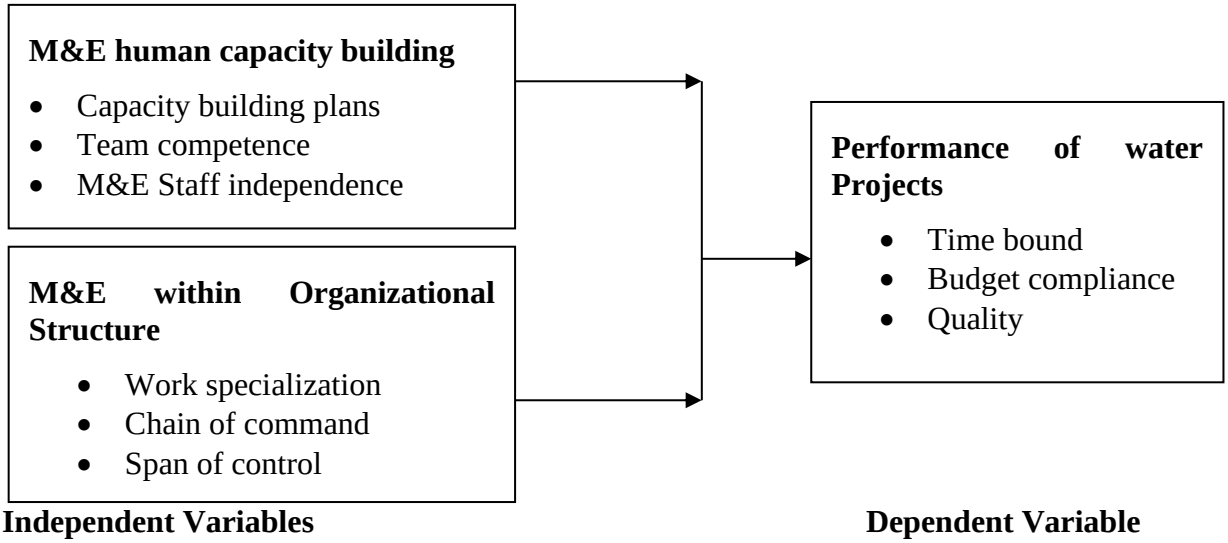

Figure 1: Conceptual Framework

M&E human capacity building

Capacity building is described as the process of strengthening and developing abilities, and skills of the project team to achieve project performance. Staff capacity building ensures that managers get the best from their employees by addressing employee work performance challenges. It ensures that there is coaching and consultation to facilitate human capacity building (Frey, 2018). Rahmawati and Suwaji (2022) state that capacity building is facilitated by providing necessary training on resilience in conducting effective operations. Capacity building ensures the creation of clear descriptions that facilitate effective hiring and clarify work responsibilities. Human capital, with proper training and experience is vital for the production of M&E results. There is need to have an effective M&E human resource capacity in terms of quantity and quality, hence M&E human resource management is required in order to maintain and retain a stable M&E staff. This is because competent employees are also a major constraint in selecting M&E practices (Koffi, 2018). Practical M&E training is essential for increasing human capability since it assists in the interactions and management of M&E practices. M&E training begins with an understanding of M&E theory and establishing that the team understands the links between the project changes and the results framework.

Human capital must be matched with clear job description; if there is a gap, then skills improvement should be planned for. Those who are engaged in projects out in the field, managers need to provide effective support. Organizations must always strive to make better their staff in order to produce results. This support to the field officers together with the increased expectations and opportunity may prompt the officer to enhance his output. An important factor that influences the success of a project is staffing. In order for a project to succeed, the implementers of a project must be committed to it and they must empathize with the project beneficiaries. If the staff have the requisite training and are reasonably remunerated and are working in decent conditions, the project is likely to succeed. Also, staffing is a concern for M&E since it calls for specialized skills in project management (Acevedo, et al, 2018).

M&E within organizational Structure

Organization structure is the formal system of duties and managers relationships which guides how staff work together and use resources to achieve organizational goals. Project organization structure is considered as an important and critical dimension in the management of projects. It refers to where individuals interact with each other in effective design chart that maps team structure, employment relationship, specialization and centralization that impacts the effectiveness of the organization structure parties (Berberoglu, 2018). The suitable organizational structure plays an important role in managing the project team for achieving high performance in the project and gaining value and efficiency. Every project has different goals and these goals are varying from one project to other. According to Suhaeni, Setiawati, Setiawardani, and Suhartanto (2019), selecting the best and suitable organization structure for the project is considered critical issue not for establishment of project organization structure only but also for the project success at all. Furthermore, construction projects are projects with special nature and therefore it deserves effective organization structure. Project managers can play vital role to assist senior managers in setting the project's structure by offering their experience to shape and influence the design of project structure. However, project managers have no influence on the way the organization is structured but they need to understand the nature and rationale of their project structure to be able to deliver better results (Natalia et al., 2019).

Prasad (2020) says that in matrix organization structure, the employee has a double reporting line because line manager assigned worker to a project team and the employee work in the project. There is a lot the job responsibility to other team members and employees report to line manager and project manager. When the project is successfully completed the line manager assigns a new team and new project. So, in this organization structure is an arrangement of different structures and double reporting requirement is very difficult for employees to manage and allocate the job responsibilities to their team in different environments. The second dimension that is decentralization. This structure allows that employee who is more knowledgeable on the project. Such staff are also involved in the decision-making process. Organic organization structures improve employee empowerment and reduced the organization's hierarchical level. The result is the close coupling of variation at both level technical and management. Working continuously on overall work improvement plays a vital role to enhance the organization's efficiency. According to Yao, Li, Zhu, Li, and Zhang (2020) the third dimension of organic organization structure is multifunctional employees. In this structure, job performance is improved by the employees and this enhances their experience as well. Employees who possess multiple skills can create more ideas and development related to project or production process and employee work together which enhances sharing (Määttä, 2022). According to Dahlan, Abdullah, and Suhaimi (2021) the dimension of organic organization structure allows the communication between lower-level employees and high-level management, the worker can share their knowledge related the process and product to his top management.

Empirical Review

M&E human capacity building and Project

Sifa, Mutabazi, and Gamariel (2022) studied impact of monitoring and evaluation on project performance in Rwanda's health sector. The sample was 76 project team members. Questionnaires were used to collect data. Results showed that professional monitoring and evaluation staff has a significant effect on project success in the health sector. The project managers strive to get competent staff whose skills were consistently improved through in-service training. Shabani, Nyaburiri and Maijo (2020) assessed usefulness of M&E practices on community health projects sustainability in Tanzania. The study employed a descriptive survey design. Sample was 80 project staff. The study concluded that project staff capacity building enhanced sustainability of health projects.

Chege and Bowa (2020) sought to determine effect of M&E staff skills and expertise on performance of development projects in Nairobi Kenya. The study used a descriptive survey. Interviews and questionnaires were used to collect data. The research sample was 156 officers working on education initiatives in Nairobi County. The findings concluded that the effectiveness of monitoring and evaluation is related with the effectiveness of the M&E team and the appropriateness of the M&E strategy used. Karanja & Yusuf (2018) studied role of monitoring and evaluation on performance of non- governmental organizations projects in Kiambu county. Results showed that technical expertise influenced project performance in NGOs by benefiting from expert judgment, coordination of human resource skills, project performance projection and lastly capacity development & training on M&E.

M&E within organizational Structure

Hayat, Hafeez, and Bilal (2022) explored the interactive usefulness of organizational structure as well as teamwork quality on project management in Pakistan. The data was collected using questionnaires from the employees working in non-governmental organizations in Pakistan. Findings showed that there is a highly considerable positive association between the type of structure an organization chose to work in and project success. The teamwork quality has a significant impact on the project success. Sarhan and Dulaimi (2020) investigated challenges faced in completion of construction projects in UAE market. The study used qualitative research approach whereby data was collected using interviews and from literature reviewed. The main challenge faced in construction projects was unnecessary changes and slow or inadequate response to change by senior managers in contractor's project organization structure. These changes had negative impact on the project management roles and responsibilities, additional cost and time impact. Furthermore, there were negative consequences on the performance of the project's team and their effort to create new ideas as well as their innovation inside the construction project that they are involved. The findings indicate that having clear and defined roles and responsibilities have positive impact on project performance and team effectiveness. Moreover, the contractor's senior managers have a vital role in establishing, managing the project organization structure and ensuring that any changes to the structure are dealt with effectively. This would enable the project to progress according to plan, reduce project activity reworks and address any weakling communication and cohesiveness between project team members.

Aniagyei (2017) examined the relationship between the organisational structure and the performance of projects in AGA Ltd-Obuasi. The research adopted an inductive case study approach with both qualitative and quantitative research methods. Interviews and questionnaires were employed as the main tool of data collection for the study. The study found out that the organisational structure in place relates to projects in a very weak matrix structure due to the nature of its operations, the strategy adopted, the size of the company and the need to respond rapidly to the dynamic complexity of the external environment. Matrix structure is the source of major problems in implementation of projects as the study revealed and concluded that some of the organisational structure related factors significantly impact inversely to the categories of the key performance index namely time, cost and quality.

Akira and Fridah (2017) investigated on factors affecting project performance of Kenya Port Authority. The study used descriptive research design and questionnaires were used to collect data. The study established that organization structure had a positive effect on project performance. The study noted out that organization structures provided framework for initiation and execution of projects duties. The study added that the structures reduced uncertainty and confusion that occurred during project management. Ochieng (2016) investigated influence of structure of organization on performance of projects in Kenya. The study findings showed that structure of organization had a positive significant influence on performance of projects. The study outlined that leadership influenced success of the projects as projects ideas were from leaders with

consultation of the other staffs. In addition, the study outlined that formation of departments" increased division of labour that made projects activities done within the expected time. Okweto (2018) examined the performance of the public building construction in Kenya. The study adopted descriptive survey techniques. Study collected both primary and secondary data. The results showed that lack of appropriate project organization structures, poor management practices and leadership are the major causes of poor project performance. The researcher concluded that there is need to overhaul the incumbent project organisation structure for public projects and the management practices and also train the professionals on leadership skills to enhance the performance of the construction industry.

RESEARCH METHODOLOGY

This study used a descriptive research design. This design deals with gathering distributed information to represent a large area of study (Orodhe, 2014). The study targeted nine water projects in Isiolo County implemented in 2022/2023. The unit of observation was the key people involved in the water projects which included the 9 project managers, 9 project supervisors, 16 County M&E staff, 23 officials in the ministry of water Isiolo county Government and 90 water projects committee members. In this study, the sampling frame was 9 water projects implemented by Isiolo County in 2022/2023. The study adopted a census. The Census technique is more suitable since the population is less than 200, which was 147. A census survey is more accessible to administer because it includes all persons in the target, and all respondents have a chance to take part in the study (Singh & Masuku, 2014). The study hence sampled the 9 project supervisors, 9 project managers, 16 county M&E staff, 23 ministry of water officials, and 90 water projects committee members. This study used a questionnaire to collect primary data.

A pilot test was conducted to ascertain the validity and reliability of the questionnaire. A pilot test was conducted with 10% of the sample, hence 15 respondents, as recommended by Doody and Doody (2015). The results of the piloted questionnaire enabled the researcher to determine the consistency of respondents' responses and adjust them accordingly.

Statistical Package for Social Sciences (SPSS version 28) was used for analysis. Inferential and descriptive statistics were used to analyze quantitative data. The descriptive statistics included frequency, percentage, and mean. Inferential statistics will include Pearson correlation analysis, and multivariate regression analysis. Correlation analysis was used to assess the association between the independent variables and the dependent variable. Regression analysis was used to measure how a unit change in the independent variable would cause changes in the dependent variable.

RESEARCH FINDINGS AND DISCUSSION

The study sample size was 147 individuals comprising of project managers, project supervisors, County M&E staff, officials in the ministry of water Isiolo county Government and water projects committee members. Out of the selected respondents, 15 participated in pilot test leaving 132 individuals. The 132 individuals were issued with questionnaires for data collection out of which 118 were dully filled and returned forming a response rate of 89.4%. In their research, Groves and Peytcheva (2008) argue that for survey samples to be considered adequately representative, a response rate of at least 50% is necessary. Therefore, the response rate was adequate for further analysis and reporting.

Descriptive Analysis

Descriptive analysis was used to describe the basic features of the data under study as they provide summaries about the sample and its measures. In this study descriptive analysis including means, and standard deviation, were used to describe the likert scale questions associated with each of the study variable. The study requested respondents to rate their responses in a scale of 1-5 where 1=

Strongly Disagree, 2=Disagree, 3= Not Sure, 4=Agree and 5=Strongly Agree. The means and standard deviations were used to interpret the findings where a mean value of 1-1.4 was strongly disagree, 1.5-2.4 disagree, 2.5-3.4 Not Sure, 3.5-4.4 agree and 4.5-5 strongly agree. Standard deviation greater than 2 was considered large meaning responses were widely spread out and not tightly clustered around the mean.

M& E Human Capacity

The first objective of the study was to determine the effect of M&E human capacity building on the performance of water projects in Isiolo County, Kenya. Respondents were requested to indicate the extent to which they agree with statements on M&E human capacity building. Table 1 presents summary of the findings obtained.

Table 1: Descriptive Statistics on M& E Human Capacity

Statements	Mean	Std. Dev.
There are regular trainings held for M&E staff on emerging M&E trends	4.071	0.799
Staff capacity needs assessments are conducted to make sure that correct skills are gained to manage M&E activities.	4.055	0.208
Project staff are trained frequently to equip them with technical skills required for M &E	3.982	0.622
There is supervision, opportunities for training and coaching of M&E focal persons	3.742	0.079
M&E implementation in the County is largely determined by technical skills of staff	3.645	0.667
The monitoring and evaluation officers are knowledgeable in the day to-day management of monitoring and evaluation systems hence provide quality work	3.636	0.205
Project staff receive need-based training on M&E gaps internally	3.623	0.398
Aggregate Score	**3.822**	**0.425**

The findings show that the respondents agreed that there are regular trainings held for M&E staff on emerging M&E trends (M= 4.071, SD= 0.799); that staff capacity needs assessments are conducted to make sure that correct skills are gained to manage M&E activities (M= 4.055, SD= 0.208); and that project staff are trained frequently to equip them with technical skills required for M &E (M= 3.982, SD= 0.622). They also agreed that there is supervision, opportunities for training and coaching of M&E focal persons (M= 3.742, SD= 0.079); that M&E implementation in the County is largely determined by technical skills of staff (M= 3.645, SD= 0.667); that the monitoring and evaluation officers are knowledgeable in the dayto-day management of monitoring and evaluation systems hence provide quality work (M= 3.636, SD= 0.205); and that project staff receive need-based training on M&E gaps internally(M= 3.623, SD= 0.398).

The aggregate mean of 3.822 (SD= 0.425) show that the respondents agreed on average that M&E human capacity building affects the performance of water projects in Isiolo County, Kenya. The finding that M&E human capacity building affects the performance of water projects in Isiolo County, Kenya, aligns with the literature on M&E human capacity building and project performance, particularly the studies by Sifa, Mutabazi, and Gamariel (2022) and Chege and Bowa (2020). These studies emphasize the importance of professional staff expertise and capacity building in enhancing project success. The aggregate mean of 3.822, indicating agreement among respondents, reflects the significance of having competent M&E staff, whose skills are continually improved through training, in ensuring the success of water projects.

Organization Structure

The second objective of the study was to assess the effect of M&E within organizational structure on the performance of water projects in Isiolo County, Kenya. Respondents were requested to indicate the extent to which they agree with statements on organization structure. Table 4.5 presents summary of the findings obtained.

Table 2: Descriptive Statistics on Organization Structure

Statements	Mean	Std. Dev.
There is a clear procedure to implement change to development projects	4.104	0.758
There is proper implementation for change in the project structure by the top management	3.925	0.549
There is effective communication between the new staff and the other project parties such as the consultant and client	3.881	0.055
The organization structure matches the project conditions and requirements.	3.843	0.349
Enough time is given to staff to implement project changes	3.838	0.171
The project manager is able to manage the change in the project structure	3.785	0.076
There is cooperation between the project manager and the company top management	3.728	0.265
The roles of project staff members are well defined	3.715	0.410
Changes to the project are common in the development projects	3.637	0.187
Aggregate Score	**3.828**	**0.313**

The findings show that the respondents were in agreement that there is a clear procedure to implement change to development projects (M= 4.104, SD= 0.758); that there is proper implementation for change in the project structure by the top management (M= 3.925, SD= 0.549); that there is effective communication between the new staff and the other project parties such as the consultant and client (M= 3.881, SD= 0.055); and that the organization structure matches the project conditions and requirements (M= 3.843, SD= 0.349). They further agreed that enough time is given to staff to implement project changes (M= 3.838, SD= 0.171); that the project manager is able to manage the change in the project structure (M= 3.785, SD= 0.076); that there is cooperation between the project manager and the company top management (M= 3.728, SD= 0.265). In addition, they were in agreement that the roles of project staff members are well defined (M= 3.715, SD= 0.410); and that changes to the project are common in the development projects (M= 3.637, SD= 0.187).

The aggregate mean of 3.828 (SD= 0.313) suggests that respondents agreed that M&E within organizational structure affects the performance of water projects in Isiolo County, Kenya. The findings agree with studies by Hayat, Hafeez, and Bilal (2022) and Akira and Fridah (2017) who emphasize the importance of clear roles, effective communication, and leadership within project organizations for achieving desired project outcomes. These studies highlight that well-defined organizational structures facilitate coordination, reduce uncertainty, and enhance project management processes, all of which contribute to improved project performance. The finding in Isiolo County's water projects aligns with this literature, emphasizing the importance of establishing and maintaining effective organizational structures to ensure the success and sustainability of water projects in the region.

Project Performance

The main objective of the study was to determine the effect of monitoring and evaluation practices on the performance of water projects in Isiolo County, Kenya. Respondents therefore agreed on

the level of agreement on statements related to project performance. Table 4.8 presents summary of the findings obtained.

Table 3: Descriptive Statistics on Project Performance

Statements	Mean	Std. Dev.
Projects are sustainable in the long term	3.981	0.385
The projects were budget compliant	3.93	0.936
Project activities addressed objectives outlined	3.869	0.107
There was timely completion of projects	3.717	0.899
Projects have successfully addressed intended beneficiaries needs	3.627	0.756
Aggregate Score	**3.825**	**0.617**

The findings show that the respondents agreed on average that projects are sustainable in the long term (M= 3.981, SD= 0.385); that the projects were budget compliant (M= 3.93, SD= 0.936); and that project activities addressed objectives outlined (M= 3.869, SD= 0.107). They further agreed that there was timely completion of projects (M= 3.717, SD= 0.899); and that projects have successfully addressed intended beneficiaries needs (M= 3.627, SD= 0.756). The findings indicating respondents' agreement on the sustainability, budget compliance, alignment with objectives, timely completion, and meeting beneficiaries' needs of the projects closely align with various literatures on project performance and evaluation. Studies by Sifa, Mutabazi, and Gamariel (2022) and Chege and Bowa (2020) emphasize the importance of monitoring and evaluation in ensuring project success and sustainability. Additionally, literature on M&E within organizational structure by Hayat, Hafeez, and Bilal (2022), stress the significance of clear roles, effective communication, and leadership in achieving project objectives. Moreover, research on M&E reporting by Gamba (2016) underscores the importance of utilizing M&E outcomes for decision-making and project improvement. These findings collectively highlight the critical role of effective project management practices, monitoring, and evaluation in achieving project success and meeting stakeholders' needs in Isiolo County's water projects.

Correlation Analysis

The study computed correlation analysis to test the strength and the direction of the relationship that exists between the dependent and the independent variables. The correlation values range from 0 to 1; if the correlation values are r = ±0.1 to ±0.29 then the relationship between the two variables is small, if it is r = ±0.3 to ±0.49 the relationship is medium, and when r= ±0.5 and above there is a strong relationship between the two variables under consideration. Table 4.9 presents correlation analysis findings for this study.

Table 4: Correlations

		Performance of water projects	M&E human capacity building	M&E within organizational Structure
Performance of water projects	Pearson Correlation	1		
	Sig. (2-tailed)			
	N	118		
M&E human capacity building	Pearson Correlation	.797**	1	
	Sig. (2-tailed)	.000		
	N	118	118	
M&E within organizational Structure	Pearson Correlation	.763**	.150*	1
	Sig. (2-tailed)	.000	.612	
	N	118	118	118

For the performance of water projects, the correlation with M&E human capacity building is highly significant with a Pearson correlation coefficient of 0.797 ($p < 0.05$), indicating a strong positive relationship. This suggests that as the capacity of monitoring and evaluation staff increases, the performance of water projects tends to improve significantly. The findings align with existing literature emphasizing the pivotal role of skilled monitoring and evaluation personnel in driving project success. Studies by Sifa, Mutabazi, and Gamariel (2022) underscore the importance of professional expertise and capacity building in enhancing project outcomes.

Concerning M&E within organizational structure, the correlation with the performance of water projects is also significant, though to a lesser extent, with a Pearson correlation coefficient of 0.763 ($p < 0.05$). This indicates a strong positive relationship as well. It implies that a well-defined organizational structure within project management positively influences the performance of water projects. The findings resonate with literature highlighting the importance of well-defined organizational frameworks in project management. Research by Hayat, Hafeez, and Bilal (2022), Sarhan and Dulaimi (2020), and Aniagyei (2017) emphasizes the positive impact of clear roles, effective communication, and leadership within project organizations on achieving project objectives.

Multiple Regression Analysis

The study computed multiple regression analysis to address the main objective of the study which was to determine the effect of monitoring and evaluation practices on the performance of water projects in Isiolo County, Kenya.

Model Summary

The study used model summary to test the amount of variation in dependent variable as a result of changes in independent variables. In this study, the amount of variation in performance of water projects in Isiolo County, Kenya as a result of changes in M&E within organizational Structure, M&E human capacity building was examined. Table 5 presets the findings obtained.

Table 5: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.841[a]	.708	.697	.36165

a. Predictors: (Constant),M&E within organizational Structure, M&E human capacity building

The model summary indicates the goodness of fit for a regression model used to predict the performance of water projects based on several predictors, including M&E within Organizational Structure, and M&E human capacity building. The coefficient of determination (R Square) for the model is 0.708, meaning that approximately 70.8% of the variability in the performance of water projects can be explained by the predictors included in the model. The adjusted R Square, which takes into account the number of predictors in the model, is 0.697, suggesting that about 69.7% of the variability in the performance of water projects can be attributed to the predictors after adjusting for the number of predictors. The significant R and R Square values indicate that the regression model including M&E within Organizational Structure, and M&E human capacity building as predictors is statistically significant in predicting the performance of water projects.

Analysis of Variance

The study used analysis of variance to test the significance of the model. The significance of the model was tested at 95% confidence interval.

Table 6: Analysis of Variance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	35.788	4	8.947	68.406	.000[b]
	Residual	14.780	113	.131		
	Total	50.568	117			

a. Dependent Variable: Performance of water projects

b. Predictors: (Constant), M&E within organizational Structure, M&E human capacity building

The ANOVA table presented indicates the results of an analysis of variance for a regression model used to predict the performance of water projects based on several predictors: M&E within Organizational Structure, and M&E human capacity building. The findings shows the breakdown of variability in the dependent variable (Performance of water projects) explained by the predictors in the model. The F-statistic of 68.406 tests the overall significance of the regression model, and a high value indicates that the model as a whole is statistically significant. The associated p-value (Sig.) of .000 indicates that the regression model is statistically significant at the 0.05 level, suggesting that at least one of the predictors in the model has a significant effect on the performance of water projects. Therefore, the predictors collectively have a significant influence on the performance of water projects.

Beta Coefficients of the Study Variables

The findings from coefficients table helps to fit the regression model;

Table 7: Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.329	.219		6.068	.000
	M&E human capacity building	.815	.363	.724	2.243	.027
	M&E within organizational Structure	.648	.210	.593	3.087	.003

a. Dependent Variable: Performance of water projects

From the findings, the following regression equation was fitted;

$$Y = 1.329 + 0.815\ X_1 + 0.648\ X_2$$

Regarding M&E human capacity building, the B value of 0.815 indicates the change in the dependent variable (performance of water projects) for each unit increase in M&E human capacity building, holding other predictors constant. The corresponding p-value of .027 suggests that M&E human capacity building is statistically significant in predicting the performance of water projects. This finding is consistent with literature by Sifa, Mutabazi, and Gamariel (2022) and Chege and Bowa (2020) emphasizing the crucial role of skilled monitoring and evaluation personnel in driving project success.

Similarly, for M&E within Organizational Structure, the B value of 0.648 indicates the change in the dependent variable for each unit increase in M&E within Organizational Structure, holding other predictors constant. The corresponding p-value of .003 suggests that M&E within Organizational Structure is statistically significant in predicting the performance of water projects. This finding is in line with literature by Hayat, Hafeez, and Bilal (2022) on the importance of well-defined organizational frameworks in project management.

Conclusions

For M&E human capacity building, the study underscores the significance of investing in professional development and skill enhancement for monitoring and evaluation staff. The positive correlation and regression analyses reveal that strengthening M&E human capacity building through training and skill development positively impacts the performance of water projects in Isiolo County. Consequently, the study concludes that investing in the professional growth and expertise of M&E staff significantly influences the success and effectiveness of water projects, emphasizing the importance of ongoing capacity building initiatives in the M&E field.

Regarding M&E within organizational structure, the findings emphasize the importance of establishing clear roles, effective communication channels, and cohesive teamwork within project organizations. The positive correlation and regression analyses demonstrate that well-defined organizational structures contribute significantly to the performance of water projects in Isiolo County. Hence, the study concludes that implementing robust organizational structures positively impacts project outcomes, highlighting the necessity of fostering collaboration and coordination among project teams to ensure project success and sustainability.

Recommendations

For M&E human capacity building, it is recommended that organizations invest in continuous training and skill development programs for monitoring and evaluation staff. This could involve regular workshops, seminars, and courses to keep staff updated on emerging trends and best practices in M&E. Additionally, conducting regular capacity needs assessments will help identify specific skill gaps and tailor training programs accordingly. Moreover, providing opportunities for on-the-job training and mentorship can further enhance the expertise and performance of M&E personnel.

Regarding M&E within organizational structure, organizations should focus on establishing clear roles, responsibilities, and communication channels within project teams. This can be achieved through regular team meetings, job role clarifications, and fostering a culture of open communication and collaboration. Additionally, providing adequate support and resources for project managers to effectively manage organizational structures is essential. Moreover, encouraging feedback mechanisms and performance evaluations can help identify areas for improvement and ensure alignment with project objectives.

Suggestions for Further Studies

Further studies could explore the impact of contextual factors such as organizational culture, leadership styles, and external environment on the effectiveness of monitoring and evaluation practices in water projects. Additionally, comparative studies across different regions or countries could provide insights into the transferability of M&E strategies and their effectiveness in diverse contexts. Furthermore, longitudinal studies tracking the long-term outcomes of water projects and their relationship with M&E practices could offer valuable insights into sustainability and scalability issues. Moreover, qualitative research approaches such as interviews and focus groups could complement quantitative findings by providing a deeper understanding of stakeholders' perspectives and experiences related to monitoring and evaluation in water projects.

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