



**TEAM MANAGEMENT PRACTICES AND PERFORMANCE OF WATER
PROJECTS IN KIAMBU COUNTY, KENYA**

¹Jane Njoroge, ²Dr. Yusuf Muchelule, PhD

¹ MSc in Project Management, Jomo Kenyatta University of Agriculture and Technology;

² Lecturer, Jomo Kenyatta University of Agriculture and Technology

ABSTRACT

Background: This study sought to investigate the influence of team management practices and performance of Water Projects in Kiambu County Kenya. The study considered Team Management Skills and Team monitoring as the independent variables while performance of water projects was the dependent variable.

Methodology: The study used descriptive research design and explanatory research design. The target population was 103 water projects (comprising of water schemes, water pan, boreholes, springs etc.) as mentioned in the in Kiambu county Integrated development plan. The respondents of the study were 321 individuals involved in water projects including various water agencies in Kiambu County. A sample of 187 respondents was drawn for the population of 321.

Findings: In the regression analysis team management skills ($\beta = .222$ sig = .039) and team monitoring ($\beta = .441$ sig = .009) significantly influenced performance of water projects in Kiambu County. Team monitoring (Beta = .497) had the highest influence on performance of water project followed by team management skills (Beta = .271).

Keywords: Team management practices, team monitoring, team management skills, performance of water projects.

Background of the Study

The African continent faces the most difficult challenge for achieving the water and sanitation Millennium Development Goals (MDG) targets. Recent projections show that Sub-Saharan Africa would only reach the MDG targets for water services by 2040, and those for sanitation by 2076 (United Nations Development Program (UNDP, 2006) if the current pace of expansion is not increased. Increasing efficiency in the existing systems for example by reinforcing adequate cost management plans, structured communication system, team monitoring and community participation investments would unlock the potential in the African water sector. In the 1990s, many governments sought to implement policy, regulatory and institutional reforms of urban water supply and sanitation (WSS) services, in order to improve water services provision. By then reforms were badly needed: millions of people lacked access to piped water and sanitation services; and for millions of others, services were often poor. Deteriorated infrastructure, fast urban growth, and large investment needs coexisted with scarce fiscal resources. Water sector reforms emphasize the need for consumers' access to efficient, adequate, affordable and sustainable services (Hukka & Katko, 2004). Many African governments have therefore in the past two decades reformed their WSS systems so as to provide better services to their citizens.

Lack of universal access to safe water and sanitation results in over a million preventable deaths each year. Nearly 10% of the total burden of disease worldwide is attributable to unsafe water, sanitation, and hygiene and the associated diseases claim 3.6 million lives annually (Pruss-Ustun et al., 2008). Access to improved water and sanitation is important because it is the foundation for healthy communities, and results in significant health, economic, and social gains (Mihelcic et al, 2003) and in both the water and sanitation sectors, there is critical need for greater Performance. In Kenya's water projects leaves no doubt that Performance is a challenge. This scenario is evident in most of the water projects that have been undertaken over time with little impact afterwards despite the resources used.

For example, Thematic Group (2005) found out that, among 24 million rural dwellers in Kenya about 10 million have access to an improved water supply through piped or point source systems. Among those with access, 30% are served by community managed water supply schemes, many of which are developed by self-help groups through donor support. The study further reveals that most of them are inactive yet the Government of Kenya has continued to establish numerous new water projects, while giving little regard to rehabilitating existing non-functional ones. An Evaluation of agricultural projects in Kenya by the Development Bank (Roseland et al 2005) revealed that the essence of capacity building is Performance, but many of the barriers to Performance have the same root cause: the inadequacy of local resources to support project activities after donor funds have been drawn down.

Effective team management skills by competent project managers play a number of different roles in water projects. According to Mbata (2006) the Performance of any community projects require a team of highly competent managers owing to many dynamics of the project implementation. The failure of project is largely blamed on lack of professionalism and management skills of the project implementers owing to poor academic background. In order to establish good rapport leaders, need time, resources and authority to invest in a project. Flexibility is critical in the way leaders interpret their own and others' roles and in the activities they and the projects undertake (Carter et al. 1999).

Statement of the Problem

Water coverage in Kenya is 53% in regions served by Water Service Providers. Sewerage coverage is now at 16%. This contrasts with the Vision 2030 ambition of 100% coverage, making this development goal a considerable challenge for the government. According to Kenya's National Water Master Plan for 2014, KES 1,765 billion is required for urgent restoration and medium-term extension of piped WSS systems in order to meet the 2030 targets. Kiambu County shows that only 21% of the intended water projects have been effectively and

efficiently completed, 45% are still struggling while the remaining have been abandoned or failed. This indicates that various water projects face enormous challenges of performance in the county. In 2017, the abandoned and failed water projects were reported to be at 38%, 44% in 2018, and 47% in 2019 (Kiseu, 2019). There are four major areas that contribute to water project Performance, including the physical environment, the financial conditions, the socio-political context of the country and community, and a community's ability to access some form of outside development assistance, be it private, public, or non-governmental (Niyi et.al, 2007). It was noted that devolved funds and the political responsibility are not sufficient to ensure service delivery since there is lack of technical capacity in the county. Some of the challenges related to the project included: funds delays, lack of priority, frequent transfers of project trained public health officers, community resistance, and lack of commitment of county officers (ARUDCO, 2017).

Objectives of the Study

The general objective of the study was to investigate the influence of team management practices and Performance of Water Projects in Kiambu County in Kenya.

Specifically, the study sought;

- i. To determine the influence of team management skills on water project Performance in Kiambu County.
- ii. To assess the influence of team monitoring on water project in Kiambu County.

LITERATURE REVIEW

Theoretical Review

The study was underpinned by the system theory. The discussion of sustainable water project may be considered incomplete if it does not touch on system theory. System theory looks for holistic patterns in scientific and metaphysical contexts, and the management approach to systems theory it is especially effective for recognizing and leveraging the particular pattern that company's operation follows. System theory is one of the theories that has gained popularity in different fields. It has a background in science traced back to 1968. Though its origin is not clearly known many authors have linked it to Ludwig von Bertalanffy a biologist who used it as a basis for the field of study known as general system theory. This involves analysis of multidisciplinary fields to understanding a problem.

In his argument, this theory provided that any approach to problem solving must consider the systematic thinking where one view any living entity as subject to. Influence by many other factors from both inside and outside (Midgley, 2003 & Kerzner, 2017). This theory is related to Performance theory since the two acknowledges the role of harmony between people and their nature or environment (Mbiti.1996). As environment occupants they exist in an environment characterized with several and complex interrelationship (Midgley, 2003). As far as this study is concerned and in relation to system theory, understanding how a project itself operates is a system is a system within other systems and this is crucial in approaching the issue of community participation, management skill, technology and team monitoring in relation to water project Performance.

Understanding how a project itself operates is a system within other systems and this is crucial in approaching the issues of community capacity in managing a project (Beata, 2014). Socio-Political, cultural, economic, technological and legal environment determine water project Performance. A system theory developed by Ludwig von Bertalanffy and others provides an analytical Framework which can be used to describe some of the many factors involved in projects (Whitehorse, 2000 & Tamas, 2000). Some of the key concerns in projects, such as power and influence, dynamics of intergroup relationships, and considering the changes

involved in planning development activities, can be understood and described using System Theory.

In the context of this study, there is agreement with other authors that the use of System theory concepts can help the water project manager in organizing information and see the patterns in complex processes as they plan and carry out activities with their teams. Following the system theory argument, project management and its development stages conform to system theory. The stages of projects may exhibit different challenges in terms of capacity especially where people assume all project stages have the same characteristics. Empirical study that considers the variation of project characteristic and its likely influence on project Performance will most likely form a foundation of “why and what” questions as proposed in this study.

Conceptual Framework

Conceptual framework is a diagrammatical representation that shows the relationship between dependent variable and independent variables as shown below in Figure 1.

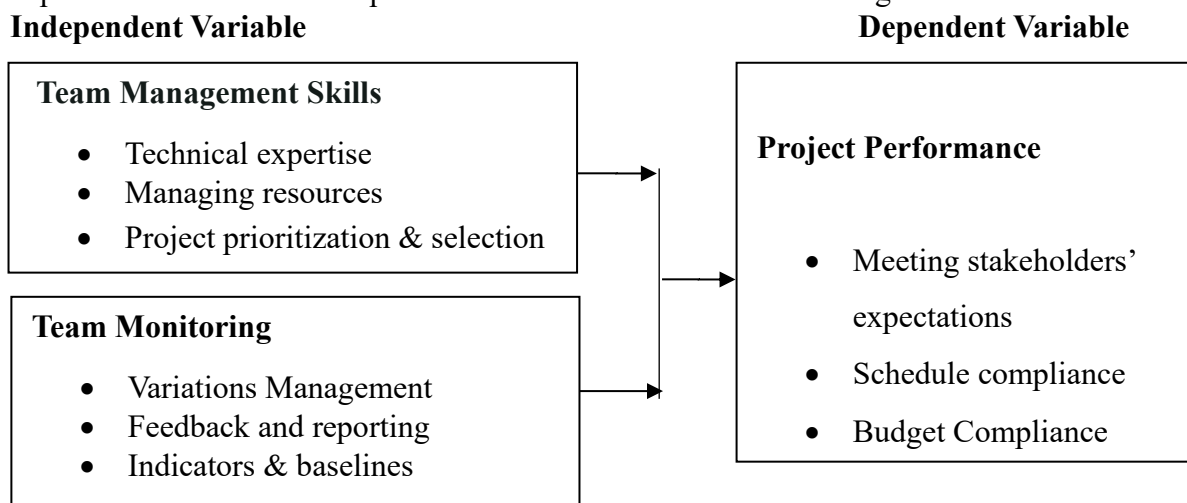


Figure 1: Conceptual Framework

Team Management Skills

Management of projects involves increasing the alignment of projects with stakeholder’s priorities and coordinating aid efforts at all levels (local, national, and international) to increase ownership and efficient delivery of services. It is therefore basically offering leadership to achieve certain laid objectives. According to McDade (2004), good management ensures that sufficient local resources and capacity exist to continue the project in the absence of outside resources. Water projects are complex (Weinberg, 2008) and require multifaceted management skills. A project manager (PM) has to manifest not only project management related skills (Kirsch, 2000), but also technical and expertise as required by the project (Thite, 2001). Project management activities include but are not limited to defining project scope and requirements gathering, managing resources and relevant training issues within a project, advising about technical architecture, identifying specific and general project management practices and escalation procedures, estimating project schedule and budget, ascertaining and managing risks within a project and preparing risk mitigation

The matching or fit between a PM and project extends not only to the technical skills as enumerated above, but also to other general project-PM profile attributes, such as prior exposure to the methodology experience (Swanson and Beath, 2000). A PM is likely the most senior person within a project and is often perceived as a sounding board for technical and architectural decisions made for the project. In addition, the PM is also expected to demonstrate a deep knowledge of the business objectives of the project being undertaken (Bloom, 2006). Prior literature has shown that task familiarity helps in improving performance and increasing

Performance of a project (Goodman and Leyden, 2001). Prior exposure to the project characteristics such as technology, or methodology would make the current task more familiar to the PM, and hence improve Performance (Banker and Slaughter 2000).

According to Espinosa, *et al.* (2007) task familiarity is important in the community-based projects and this is usually linked to performance which in turn is linked to Performance. As Irsch (2000) and Thite (2001) suggest, a PM should be able to take on the leadership role with respect to not only managing the project but also leading the technological initiatives. Fiedler, Chemers and Mahar, (2004) defined leadership as a process by which one individual influences others toward the attainment of group or organizational goals. They emphasize three points about the definition of leadership. First, leadership is a social influence process. Leadership cannot exist without a leader and one or more followers. Second, leadership elicits voluntary action on the part of followers. The voluntary nature of compliance separates leadership from other types of influence based on formal authority. Finally, leadership results in followers' behaviour that is purposeful and goal-directed in some sort of organized setting. Many, although not all, studies of leadership focus on the nature of leadership in the workplace, however, leadership has benefits in a wider scope.

Team monitoring

Team monitoring have been in existence since the ancient times (Kusek and Rist, 2004), however today, the requirements for M&E as a management tool to show performance has grown with demand by stakeholders for accountability and transparency through the application of the team monitoring (Gorgens *et al.*, 2010). Development banks and bilateral aid agencies also regularly apply M&E to measure development effectiveness as well as demonstrate transparency (Briceno, 2010). Team monitoring (M&E) are important management tools used to track progress of a project and facilitate decision making, (Sera and Beaudry, 2007).

United Nations Development Programme (2006) defined monitoring as a continuing function that aims primarily to provide the management and stakeholders of an ongoing intervention with early indications of progress. Shapiro (2002) defines monitoring as the systematic collection and analysis of information as a project progresses. Monitoring has also been described by International Federation of Red Cross and Red Crescent Societies (2011) as the routine collection and analysis of information to track progress against set plans and check compliance to established standards. Evaluation on the other hand has been defined as the systematic and objective assessment of an on-going or completed project, program, or policy, and its design, implementation and results, with the aim of determining the relevance and fulfilment of objectives, efficiency, effectiveness, impact and Performance, (International Federation of Red Cross and Red Crescent Societies, 2011).

A project that has evolved through participatory processes of identification, planning and implementation should of necessity be appraised in the same spirit with the key stakeholders maintaining a key role throughout the process, (Barasa and Jelagat, 2013). Participatory M&E is a process through which stakeholders at various levels engage in monitoring or evaluating a particular project, program or policy, share control over the content, the process and the results of M&E activity and engage in taking or identifying corrective actions, (Philip *et al.*, 2008). Conventionally, M&E has involved outside experts coming in to measure performance against pre-set indicators, using standardized procedures and tools. In contrast, participatory M&E focuses on the active engagement of primary stakeholders, (World Bank, 2010a). Stakeholders and community's representatives therefore participate jointly in drawing up the terms of reference for M&E. The process ensures local ownership and commitment not only to the exercise and its outcome but more importantly, to the future of the programme evolution, (Barasa and Jelagat, 2013).

In an evaluation of community development projects funded by the Agha Khan Rural Support Programme in Northern Pakistan, Khwaja (2003) found that community managed projects were

better maintained than projects managed by the local government. Khawaja's (2003) study suggests that since community managed projects are better maintained, they are also more sustainable than those managed by local governments. Narayan (1993) analysed lessons from 121 rural water-supply projects funded by different agencies in 49 developing countries in Africa, Asia and Latin America. He found that participation was the most significant factor contributing to project Performance. Most of the projects referred to community participation or made it a specific project component. It was when people were involved in decision-making during all stages of the project, from design to maintenance that the best results occurred. If they were just involved in information sharing and consultations, then results were much poorer.

Empirical Review

It emerged from the reviewed literature that water projects are established to provide beneficial effects that is access to clean water to the target communities. However, there is little that has been done regarding influence of team management skills and team monitoring on project Performance. Literature reviewed reveals the need for further studies on factors influencing water project Performance in order to achieve generalization of results.

Xu and He (2018) researched on the influence of team attitude and behavior on information system project success in US. The study deployed descriptive survey design; the study targeted different firms in US. The success of IT projects was greatly determined by commitment and quality teamwork. The direct and indirect influence of goal commitment on project success shows the need for teamwork attitude to complete an information system project successfully. Liang, Liu and Lin (2017) researched the influence of team diversity on software project performance in Taiwan. The study developed a research framework. Findings revealed that knowledge diversity significantly influences team performance. It was further revealed that team diversity negatively influences team performance. In addition, member diversity like gender and social category has an impact on team performance.

Assaf, Hassanain and Mughal (2018) researched on project teams' effectiveness and how they influence project performance in Saudi Arabia. The study deployed two questionnaires for data collection. The study targeted 13 teams of large construction projects. Study findings revealed that there was a high correlation between project success and team effectiveness. It was further revealed that team leadership, role and responsibility, as well as goal and responsibility had a great influence on project success. In Kenya, Njeri and Were (2017) researched on the influence of project team commitment on project performance in Non-Governmental Organizations. The research employed descriptive research design. The study targeted 304 respondents composing of senior managers, field officers, branch managers, and accountants. It was revealed that project team commitment has significant influence on project performance in NGOs in Kenya.

RESEARCH METHODOLOGY

Research Design

The study used descriptive research design and explanatory research design.

Target Population

The target population was 103 water projects (comprising of water schemes, water pan, boreholes, springs etc.) as mentioned in the in Kiambu county Integrated development plan. The unit of observation is 3 project team members from the 103 water projects as well as leaders involved in water projects, Kiambu Water & Sewage Company (3), water Services Regulatory Board (WASREB) (3), Water Service Trust Fund (WSTF) (3) and state department of water (3). (County Government of Kiambu, 2018). Thus, the unit of observation was 321 respondents. A sample of 178 was drawn using Slovin's formula.

RESEARCH FINDINGS AND DISCUSSION

Response Rate

The study distributed 178 questionnaires to water companies in Kiambu County where 138 questionnaires were returned. This represented a 77.5% response rate which is considered to be good as explained by Kothari and Garg (2014). Table 1 below shows the response rate.

Table 1: Response Rate

Questionnaire	Frequency	Percentage
Returned	138	77.5%
Unreturned	30	22.5%
Total	178	100%

Descriptive statistics

The study computed the descriptive statistics in order to ascertain the whether the objectives are met. Measure of central tendency was used to compute the statistics. The study questionnaire was presented in 5-point Likert scale where 5 (SA) = Strongly Agree, 4(A) = Agree, 3(N) = Neutral, 2 (D) = Disagree, and 1(SD) = Strongly Disagree. Both mean and standard deviation were used to interpret the significance of the statistics.

Team Management Skills

The first specific objective of the study was to determine the influence of team management skills on water project Performance in Kiambu County. The objective was measured by technical expertise, managing resources, and project prioritization. Rogers (2019) in a study on project team success and project team individual found that success or failure of project in based on the project team. The project manager depends on the individual in the team for success. Thus, a lack of focus on the project team members as well as their desire to have a cohesion team to work on the project undermines the project manager's performance. Rogers (2019) further argued that, mutual accountability, trust and commitment cannot be achieved in a project team without identification of the values of the project team members. The project manager must define the skills and knowledge for the roles in the team and later assigns responsibilities in order to ensure a cohesive team. Successful project human resource management team brings vision to life (PM4dev, 2019).

Water projects are complex and require multifaceted management skills. A project manager has to manifest not only project management related skills. Project management activities include but are not limited to defining project scope and requirements gathering, managing resources and relevant training issues within a project, advising about technical architecture, identifying specific and general project management practices and escalation procedures, estimating project schedule and budget, ascertaining and managing risks within a project and preparing risk mitigation (PMI, 2017). Managing people in a project environment is different from managing in departments. Thus, the project manager's job is more complex as compared to those managing departments though they may have similar responsibilities or people (Newton, 2015).

Table 2: Team Management Skills

Team Management Skills Items	SD %	D %	N %	A %	SA %	M	STD
Project manager has adequate experience and qualification in project teams	12.4	12.8	8.2	51.7	19.9	3.841	1.410
The project team has the technical skills needed to determine the quality and standards for successful implementation of the projects	6.7	9.7	19.8	41.2	28.8	3.958	1.445
There is sufficient human resource for Performance of the project	4.8	27.5	11.7	42.4	5.7	3.517	1.432
The project manager ensures there is adequate resources and appropriately utilized and the skill sets are appropriately shared across the projects.	5.3	18.6	13.9	40.2	24.6	3.650	1.373
The project manager invites project team after identifying the tasks that are believed to make up the project	7.3	8.6	15.9	35.1	30.1	3.751	1.360
The project team has the skills and expertise needed for prioritizing projects based on experience on the projects or through formal trainings	8.3	13.8	13.1	44.1	20.7	3.551	1.487

From the results, the respondents agreed (71.6%) that the project managers have adequate experience and qualification in project teams (M = 3.841, Std = 1.410). The participants (70%) also concurred that the project teams have the technical skills needed to determine the quality and standards for successful implementation of the projects (M = 3.958, Std = 1.445). The respondents agreed (48.1%) that there is sufficient human resource for Performance of the project (M = 3.517, Std = 1.432). According to the responses (64.8%), the project manager ensures there is adequate resources and appropriately utilized and the skill sets are appropriately shared across the projects. (M =3.650, Std = 1.373). The respondents (65.2%) agreed that the project manager invites project team after identifying the tasks that are believed to make up the project (M = 3.751, Std = 1.360). finally, the respondents (64.7%) agreed that the project team has the skills and expertise needed for prioritizing projects based on experience on the projects or through formal trainings (M =3.551, Std = 1.487).

Team Monitoring

The second objective of the study was to assess the influence of team monitoring on water project in Kiambu. County. Team monitoring in this study was by variation management, feedback and reporting, and baseline indicators. Project monitoring as a continuous function involving the day to day operation during the implementation of a project or programme and is a routine measurement of programme inputs and outputs delivery, and implementation of projects, in compliance with the required procedures and achievement of planned targets, the main purpose being to indicate at the earliest instance any shortcomings with regards to achieving intended objectives so that ameliorative measures can be undertaken in good time (PMI, 2017). Team monitoring have been in existence since the ancient times, however today, the requirements for M&E as a management tool to show performance has grown with demand

by stakeholders for accountability and transparency through the application of the team monitoring. A project that has evolved through participatory processes of identification, planning and implementation should of necessity be appraised in the same spirit with the key stakeholders maintaining a key role throughout the process (PMI, 2017).

Table 3: Team Monitoring

Team Monitoring Items	SD %	D %	N %	A %	SA %	M	STD
The project team is involved in variance analysis to ensure the project progress is on track.	15.2	11.0	6.2	49.7	17.9	3.641	1.112
All the staffs working on the projects are involved in team monitoring stages.	5.5	8.3	18.6	40.0	27.6	3.758	1.233
There is well establish communication plan to ensure project team members report, communicate, and provide feedback on the project	2.8	25.5	9.7	41.4	20.7	3.507	1.338
The company has project progress reports	8.3	13.8	13.1	44.1	20.7	3.452	1.147
The project has well established performance indicators that are used by the project team in monitoring the project.	4.1	9.7	29.7	34.5	22.1	3.606	1.440
The project team uses the baseline data for monitoring the project in all stages	8.3	13.8	13.1	44.1	20.7	3.452	1.366

The project team is involved in variance analysis to ensure the project progress is on track. Acknowledged by the respondents (67.6%) and illustrated by a mean of 3.641 (Std = 1.112). The participants (67.6%) also concurred that all the staffs working on the projects are involved in team monitoring stages (M = 3.758, Std = 1.133). As shown by a mean of 3.507 (std. dv = 1.338), the respondents (62.1%) agreed that there is a well establish communication plan to ensure project team members report, communicate, and provide feedback on the project. The respondents (64.8%) agreed that the water companies have project progress reports (M = 3.452, Std = 1.147). As shown by a, mean of 3.606 (Std = 1.440) the respondents (56.6%) agreed that the water projects have well established performance indicators that are used by the project team in monitoring the project (M =3.452, Std = 1.366).

Project Performance

The main objective of the study was to investigate the influence of team management practices and Performance of Water Projects in Kiambu County in Kenya. In this study project performance was measured by budget compliance, schedule compliance, and meeting stakeholders’ expectation indicators. According to Association of Project Management (2018), Project performance refers to how the project is being executed throughout its lifecycle. This includes the indicators being used to assess whether or not the project performs successfully. Commonly agreed success criteria consider constraints such as scope, time, and cost. Project Performance is the accomplishment of a project within the set schedule, scope, budget and achievement of set business objectives (Geambasu, Jianu, & Gavrila, 2017). In a study by Maimuna (2017) on the factors influencing performance of water projects in Arid and semi-Arid areas identified maintenance funds, community participation, water infrastructure, and project management as the main factors. The quality of the project is also compromised by

delays as the project team dedicates less time to issues of quality control as they prioritize only the completion of the project. When a project has a social benefit, delays in those projects lead to social harm for example delays in infrastructure projects mean the social needs are also delayed. Workers are also forced to do overtime to increase their productivity which indeed attracts extra costs, and most of the time results in reworks and even failure (Solís-Carcaño, Corona-Suárez, & García-Ibarra, 2015).

Table 4: Performance of water projects

Project performance Items	SD %	D %	N %	A %	SA %	M	STD
The stakeholders felt the project were successful implemented	8.3	13.8	13.1	44.1	20.7	3.551	1.130
There was good coordination between the project stakeholders and the project team on the project status and performance,	9.7	12.4	7.6	37.2	33.1	3.717	1.345
Due to team management practices the project was implemented as per schedule.	3.2	25.3	9.7	41.1	20.7	3.517	1.239
Team management practices have ensured the project is completed on time	15.2	11.0	6.2	49.7	17.9	3.641	1.419
The project was implemented within their budgets due to effective team management	8.3	7.6	9.9	41.1	33.1	3.751	1.380
The stakeholders were satisfied with the quality and standards of the project.	4.1	9.7	29.7	34.5	22.1	3.606	1.319

The stakeholders felt the project were successful implemented as acknowledged by the respondents (64.8%) as illustrated by a mean of 3.551 (Std = 1.130). The participants (70.3%) also concurred that there was good coordination between the project stakeholders and the project team on the project status and performance, (M = 3.717, Std = 1.345). As shown by a mean of 3.517 (Std = 0.1.239), the respondents (61.8%) agreed that team management practices have ensured water projects were implemented as per schedule. The respondents (67.6%) agreed that Team management practices have ensured the project is completed on time (M = 3.641, Std = 1.419). As shown by a mean of 3.751 (Std = 1.380) the respondents (74.2%) agreed the water projects were implemented within their budgets due to effective team management (M =3.751, Std =1.380). Finally, the respondents (56.6%) agreed that the stakeholders were satisfied with the quality and standards of the project (M = 3.606, Std = 1.319).

Correlation Analysis

The performance of water projects is the dependent variable, and this study used Pearson correlation analysis to examine the relationships between the dependent variable and the independent variables (community participation, team management skills, team design, team monitoring).

Table 5: Correlation Analysis

		Performance of water projects
Team management skills (X1)	Pearson Correlation	.447**
	Sig. (2-tailed)	.002
	N	138
Team monitoring (X2)	Pearson Correlation	.661**
	Sig. (2-tailed)	.000
	N	138

Team management skills has a positive slightly strong correlation with performance of water project in Kiambu County. The Pearson correlation of 0. 447 shows a slightly strong association as 0.447 nears 0.5. The p-value (0.002) which is below the threshold of 0.05 indicates the significance of the association. Since the association is positive it indicates a direct relationship

i.e. an increase by a unit on any of the variable will lead to an increase in the other. Team management skills as an element of team management practices can lead to a variation performance of water project in Kiambu County. As for team monitoring, there is a strong significance correlation with performance of water project in Kiambu County with Pearson correlation coefficient of 0.661 and a p-value (0.000) indicating the significance of the association. The positive Pearson coefficient further indicates a direct association where a change in one may lead to a change in the other. Thus, team monitoring as an element of team management practices can lead to a variation of performance of water project in Kiambu County.

Regression Analysis

Findings from regression analysis indicate that all the beta coefficients for the independent variables were significant i.e. the p-values were less than the significant value 0.05. Thus, individual variables (team management skills and team monitoring) were significant in explaining the performance of water projects in Kiambu County. Team monitoring had the highest influence with a correlation .497 while team management skills had a correlation of .271.

Table 6: Regression Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.106	.449		2.462	.018
¹ Team management skills (X1)	.222	.106	.271	2.099	.039
Team monitoring (X2)	.441	.166	.497	2.654	.009

a. Dependent Variable: Performance of water projects

The model can be fitted as follows

$$Y = 1.106 + .222X1 + .441X2 \dots \dots (i)$$

Team management skills beta coefficient .222, P-value = .039; a unit increase in Stakeholder Project Planning leads to an improvement of Project Performance by .222 units. Team management skills explained 0.271 or 27.1% of variation in performance. Team management skills significantly influences Performance of water projects in Kiambu County. The findings are supported by Rogers (2019) studied project success and project team individuals. The study argues that the success or failure of project in based on the project team. The project manager depends on the individual in the team for success. Thus, a lack of focus on the project team members as well as their desire to have a cohesion team to work on the project undermines the project manager’s performance. For a project team to perform successful in a project, the project manager and the project sponsor should prove the value for working on the project to the project team members. Given that project fail due to people related issues thus, attention should be given to needs of the individuals performing the tasks in projects. Mutual accountability, trust and commitment cannot be achieved in a project team without identification of the values of the project team members.

Team monitoring beta coefficient .441 P-value = .009; and a unit increase in Team monitoring leads to an improvement of Project Performance by .441 units. Team monitoring explained 0.497 or 49.7% of variation in Performance of water projects in Kiambu County. Team monitoring significantly influences Performance of water projects in Kiambu County. The findings also concurred with Njeri and Gichunge (2018) who argued that, having a sufficient number of qualified M&E staff can improve project performance by ensuring that data is captured accurately and appropriately analysed. The adequacy of M&E staff is critical to project performance, as they are responsible for ensuring that the project is effectively and efficiently monitored and evaluated. Therefore, without adequate M&E staff, project managers may

struggle to assess the impact and effectiveness of their interventions, leading to ineffective and inefficient use of resources.

CONCLUSIONS

This study therefore concludes that team management practices significantly influence project performance. The study found team management skills to significantly influence performance of water projects in Kiambu County. The study thus concludes that team management significantly influences project performance. The study found that team monitoring significantly influences performance of water projects in Kiambu County. The study therefore concludes that team monitoring significantly influences performance of projects.

RECOMMENDATIONS

Team management is the capability of an individual or organization to govern and supervise a group of people to complete a specific task. The study found team management practices to significantly influence performance of projects. The study recommends a collaborative teamwork to ensure improved performance of projects. As for team management skills. The project leadership influences the success of project teams. Thus, project team is highly dependent on the team leader or the project manager's ability to effectively manage and influence the diverse pool of individuals. Since project teams are diverse, interdependent and multidisciplinary in nature, it is essential for the project managers to integrate the efforts of the project participants through team building. Water projects should therefore ensure they have competent project managers who have the necessary skills to manage the team and also ensure its development through an appropriate leadership style. Finally, the study recommends of a having a competent team for monitoring water projects. The project leadership should also encourage participatory monitoring to ensure all the project team are involved in monitoring the project progress and success

REFERENCES

- ARUDCO, 2017. *Bomet Water, Sanitation and Hygiene project*, s.l.: African Rural and Urban Development Consortium.
- Assaf, I.A.S, Hassanain, I.A.MI & Imughal, I.H.I (2014). Effect of Project Team on Project Success. *International Journal*, 17(24), 15148-5156.
- Barasa, F., and Jelagat, T. (2013). Community Participation in Project Planning, Management and Implementation: Building the Foundation for Sustainable Development. *International Journal of Current Research* Vol. 5, Issue, 02, pp.398-401.
- Geambasu, V., Jianu, G. & Gavrila, A., 2017. Determinants of Development of Choices in Software Companies. *Journal of Management and Accounting*, 10(4), pp. 479-494.
- Gorgens, M., & Kusek, J.Z. (2010). *Making Team monitoring Systems Work: A Capacity Development Toolkit*. Washington D.C, World Bank,
- International Federation of Red Cross and Red Crescent Societies. (2011). *Project/programme Team monitoring (M&E) guide*. Retrieved from <http://www.ifrc.org/Global/Publications/monitoring/IFRC-ME-Guide-8-2011.pdf> on March 3, 2016.
- Kerzner, H. (2017). *Project Management: A systems approach to planning, scheduling, and controlling* (10th ed.). New Jersey: John Wiley & Sons, Inc.
- Khwaja, A. I. (2003a). "Can Good Projects Succeed in Bad Communities? The Determinants of Collective Success in Maintaining Local Public Goods." KSG Working Paper RWP01-043
- Maimuna, M. (2017). *Factors influencing performance of water projects in Adir and semi Arid areas: A case of Ewaso Ng'iro north brehole projects in Isiolo county Kenya*. M.A. in project planning and management, University of Nairobi.
- Mata, M. N., Khan, F. H., Martins, J. M., Rita, J. X., & Dantas, R. M. (2021). Team diversity and project performance: Role of trust and absorptive capacity in IT industry. *Academy of Strategic Management Journal*, 20(2), 1-20.

- Midgley James (1986) *Community participation, social development, and the stat.* Meuthen London
- Narayan, D. (1995) —Participatory Evaluation: Tools for Managing Change in Water and Sanitation.” Paper NO. 207, The World Bank, Washington, D.C., USA,
- Newton, P., 2015. *Managing a project team.* s.l.:Free-management-ebooks.
- Njeri, D. N., & Were, S. (2019). Determinants of project performance in NGOs in Kenya: A case of Hand in Hand eastern Africa. *International Journal of Project Management*, 1(4), 61-79.
- Njeri, E. M., & Gichunge, C. M. (2018). The Role of Monitoring and Evaluation in Enhancing Performance of Humanitarian Programs in Kenya. *International Journal of Scientific and Research Publications*, 8(11), 50–56.
- Philip, R., Anton, B., Bonjean, M., Bromley, J., Cox, D., Smits, S., Sullivan, C. A., Niekerk, K. V., Chonguica, E., Monggae, F., Nyagwambo, L., Pule, R., Berraondo, L.M. (2008). *Local Government and Integrated Water Resources Management (IWRM) Part III: Engaging in IWRM – Practical Steps and Tools for Local Governments.* Freiburg: ICLEI European Secretariat GmbH
- PM4dev, 2019. *Project team management.* s.l.:Project management for development organizations.
- PMI, 2017. *A Guide to the Project Management Body of Knowledge: PMBOK Guide.* 6th ed. Newtown Square, PA: Project Management Institute, Inc..
- Rogers, T. M. (2019). Project success and project team individuals. *European Project Management Journal*, 9(1), 27-34.
- Shapiro, J. (2002). CIVICUS Toolkit for Monitoring & Evaluation. Retrieved from <http://www.civicus.org/new/media/Monitoring%20and%20Evaluation.pdf> on March 11, 2016
- Shapiro, J., (2004). *Monitoring and Evaluation.* Johannesburg: CIVICUS.
- Solís-Carcaño, R. G., Corona-Suárez, G. A., & García-Ibarra, A. J. (2015). The Use of Project Time Management Processes and he schedule performance of construction projects in Mexico. *Journal of Construction Engineering*, 2015, 1-9.
- The Millennium Development Goals Report (2012). United Nations, New York. <http://mdgs.un.org/unsd/mdg/Resources/Static/Products/Progress2012/English2012.pdf> f. Accessed 2012 Rio+20 (2012). UNDP website accessed July 3, 2012. Get the site address
- UN. (2013, May 2015). *The Millennium Development Goals and beyond 2015.*
- UNDP. (2006). *Beyond scarcity: power, poverty and the global water crisis.* Human Development Report.
- World Bank. (2010a). Participatory Monitoring and Evaluation, in Topics: Community Driven Development. Washington D.C.:
- Xu, X., & He, X. (2018). Effect of team behaviour and attitude on success of project. *international journal of project magament*, 8(4), 41-52.