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The Role of Leaders on the Performance of Water Resources Projects in Kwale County

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Abstract- Water resources projects are essential to the population of Kwale County as well as being the pillar that support most projects in agriculture and fisheries sectors. In this study, the role of leaders such as coordination, change agent, conflict resolution and monitoring were analysed, and the findings showed how the leader's roles influenced performance of projects and ultimately dictate the success of these projects. From the study, it was important for leaders to optimize performance measurement on projects so as to provide the basis for assessing how well projects progressed toward the planned and achieve targeted objectives. The study was conducted through a descriptive design. The target population for the study constituted 21 water resources projects that had a total population of 190 participants. The sample frame was 62 as the sample size which was 30% of the total population. The instrument for primary data collection was a structured questionnaire with questions anchored on a five (5) point Likert type ranking scale. The data processing and analysis was done mainly by descriptive analysis and the use of statistical package for social science (SPSS Version 20) to produce presentable summaries of the data and findings. A multiple regression analysis was used to explain the existence of a relationship between the independent variable; (Coordination role, Change agent role, Conflict resolution role and Monitoring role) and the dependent variable; (Performance of water resources projects). The findings indicated that the role of leaders as coordinators, and monitoring had a higher influence on the performance of water resources projects in Kwale County. Additionally, the study concluded that monitoring role should be a continuous task thought all project phases especially in areas relating to resource utilization, budget and the timelines defined in the project briefs and schedule.

Index Terms- Performance of Projects, Project Leadership, Role of Leaders, Water Resources Projects.

I. INTRODUCTION

Modern project management practices require effective leadership to be core to the successful project execution especially in this digital era where tough global competition, complex negotiations, challenges in integration and a dynamic trend toward decentralization of project management activities is becoming a norm. (Damousi, Rubenstein, and Tomsic, 2014) define leadership as not a position or a person but a process of influence, often aimed at mobilising people towards change for example, in values, attitudes, approaches, behaviours and ideologies. Similarly, Northouse (2010) defines leadership as a process whereby an individual influences a group of individuals

to achieve a common goal. In contemporary project environments the leadership task might involve, supporting groups to face realities and accept responsibilities, creating opportunities and encouraging aspiring leaders to foster social learning or sustainable problem-solving. Project leaders lead the project team and other major stakeholders to achieve desired project objectives within specified constraints. (Richman, 2011) Project leadership as the presence and process carried out within an organizational role that assumes responsibility for the needs and rights of those people who choose to follow the leader in accomplishing project results. (Cleland and Ireland, 2007). In this respect then, project leaders are responsible for setting direction, aligning people and tasks and monitor people to ensure project goals are achieved and give power and significance to the project effort.

Water Resources: Global Perspective

Water is essential to human development and prosperity, but many people still live without reliable access to it. For the 748 million people without dependable access to improved sources of drinking water and the 2.5 billion without adequate sanitation, this means living with the continual threat of illness, lost income, and malnourishment. (USAID Report of Water Sector Activities, 2015)

In one of recent reports, (World Bank & Huffman, 2014) argue that countries cannot grow sustainably, or strengthen their resilience to climate change, without smart water management that takes into account decreasing water availability and quality, and the need for deliberative allocation based on social, environmental, and economic needs. At least 2.5 billion and 768 million people in the world remain without access to improved sanitation and water, respectively. Providing these services sustainably requires integrated planning and management, including securing a quality water supply.

Water Resources: Local Perspective

Kenya as a country is facing a number of serious challenges related to water resources management. A number of these challenges are as a result of factors both within and outside the water sector. Climate variability and increasing demand for water as a result of development and population pressure are factors that the sector may not be able to control but can initiate mitigation measures to ensure sustainable water resource development. Kenya is among the countries to being affected especially due to the rapid population growth, urbanization, rampant deforestation activities and general global warming conditions. As is the case in majority of counties in Kenya, water infrastructure in Kwale County is unreliable with most piped

water systems centered around urban/commercial centers thus disproportionately affecting access and water portability in sparsely populated areas and rural population. (County Government of Kwale, 2013). The main sources of water are boreholes, springs, dams, water pans and rock catchments. The average distance to the nearest water point in the County is two Kilometers. This is well above the internationally required five meters distance to the nearest water source. However, most of the rivers are seasonal thus cannot be relied upon to supply the much needed water in the county for both agriculture and household uses.

According to the Publication of (KNBS and SID, 2013), Msambweni constituency has the highest share of residents using improved sources of water at 74%. That is three times Lunga-Lunga constituency, which has the lowest share using improved sources of water. Msambweni constituency is 27 percentage points above the county average. Ukunda ward has the highest share of residents using improved sources of water at 88%. That is 87 percentage points above Ndavaya ward, which has the lowest share using improved sources of water. Ukunda ward is 41 percentage points above the county average. (County Government of Kwale, 2013).

In this study, the role of leaders on the performance of the different water resources based development projects was analysed. Project performance can be measured and evaluated using a large number of performance indicators that could be related to various dimensions (groups) such as time, cost, quality, client satisfaction, client changes, business performance, health and safety (Cheung *et al.* 2004).

Statement of the problem

Kwale County faces a myriad of challenges across sectors of social and economic development. Marshall (2011), says water scarcity has been a major issue in Kenya, caused mainly by years of recurrent droughts, poor management of water supply, contamination of the available water, and a sharp increase in water demand due to relatively high population growth. The shortage has been amplified by the government's lack of investment in water, especially in rural areas, and lack of leadership in the guidance and management of scarce water resources we have in the country.

Although some of the challenges are common across most sectors, such as poor infrastructure and poor management system among others, quite a number are unique to specific sectors (County Government of Kwale, 2013). However, a lot of problems related to leadership and commitment to the course of the projects affecting the goal attainment of these projects in general and therefore having a negative impact on the social development of Kwale County residents.

Robertson and Williams (2006), argues that despite advances in project management methodologies many projects continue to fail for a number of reasons and the most common being performance. In relation with Mullaly's (2004) findings, Thamhain (2004a) suggested that many factors, which drive project performance, are derived from the human side. Among these factors, managing conflicts and problems in projects is an important determinant of project success. Another research study by Cambridge University's School of Business and Economics concluded that 80% of projects failed because of poor leadership

(Zhang and Faerman, 2007). The findings further suggested that poor leadership skills reflected limited or no teamwork, inadequate communication, and an inability to resolve conflicts as well as other human related inefficiencies (Thompson, 2010). Therefore, project leaders and project managers in the counties are under immense pressure to deliver projects successfully by ensuring that they manage performance throughout the project life cycle in order to effectively satisfy expectations of the people in their county.

Research Objectives

General Objectives

The general objective was to evaluate the role of leaders on the performance of water resources projects within Kwale County.

Specific Objectives

1. To examine the role of leaders as coordinators on the performance of water resources projects in Kwale County.
2. To investigate the role of leaders as change agents on the performance of water resources projects in Kwale County.
3. To assess the role of leaders in conflict resolution on the performance of water resources projects in Kwale County.
4. To examine the role of leaders in monitoring on the performance of water resources projects in Kwale County.

II. CONCEPTUAL FRAMEWORK

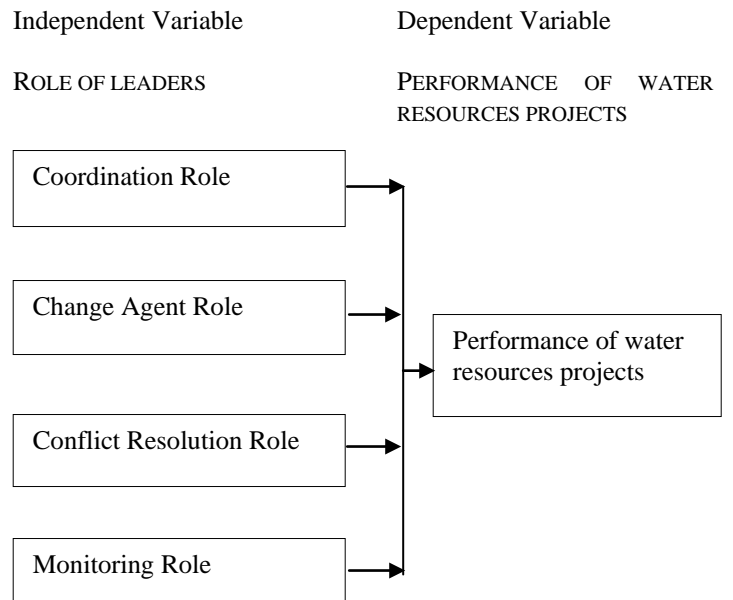


Fig 2.1: Conceptual Framework (Source: Author, 2016)

Role of leaders on the performance of projects

The nature and characteristics of projects being unique, time bound, and often associated with complexity, unknowns and uncertainty makes leaders' role more challenging than as would

be in non-project environments. The key roles of leaders analysed in this study included:

Coordinator role

Coordinating is the function of establishing such relationships among various parts of the organization that they all together pull in the direction of organizational objectives. It is defined as the interrelation of functions, structures, and resources in an organizational context (Viinamäki, 2004). It is thus the process of tying together all the organizational decisions, operations, activities and efforts so as to achieve unity of action for the accomplishment of organizational objectives which can take place at different levels or possess different dimensions.

In project management coordination will ensure unity of action among individuals, work groups and departments, and brings harmony in carrying out the different activities and functions so as to achieve the project goals efficiently. Coordination is achieved by synchronizing the actions of line managers, project managers, decisions taken at various hierarchical levels, and the action taken by employees from different structural departments to achieve efficiently the projected goals. Meredith & Mantel (2009) argue that the most difficult aspect of implementing the plan for a complex project is the coordination and integration of the various elements of the project so that they meet their joint goals of performance, schedule, and budget in such a way that the total project meets its goals. In this case, the coordinator is the glue that holds the team and its tasks together to meet deadlines and deliverables for the project.

Role as change agents

In contemporary organizations' change is on a continuous basis and especially when the organizations face external pressure to cope with technology, satisfy expectations of its stakeholders and remain competitive in a global market. The rate at which change is present in contemporary projects requires excellent leadership personality and desire to willingly change by all those whom the change will affect. It is important leaders have to play a bigger role in ensuring that the needed change is effectively implemented and managed. Similarly, ensuring that all the factors necessitating the change are clearly understood and communicated to all in the project will be critical for a successful change process. Burnes (2009) defines change agents as "people responsible for directing, organising, and facilitating change in organisations". Likewise, Hughes (2010) citing Lewin (1997) also define change agent as "a rational actor who defines, directs, and manages feedback during the implementation of change". This definition bodies well within project environments and more so where projects and management of those projects plays a critical role to achieving the objectives of an organisation as it is in the case of Kwale County. The nature of projects means they are bound to be affected by changes both internal and external, this calls for proper planning and management of the changes that occur in order to realize the strategic goals set by the County. Leaders play a key role as change agents since they initiate and influence the adoption of changes that affect the organisation and projects. Project leaders are change agents in project environment; as such they have to use knowledge of employees, project team members and proper change management techniques to minimize the cost of change. Once a project is initiated, alterations during project life cycle and implementation often affect the project with respect to cost, time

and scope of project outcomes. The implication of changes in these key project variables will in the end have an adverse effect on the performance of the project in question. One major change likely to affect water resources projects is the change of mandate. Meredith & Mantel (2009), argued that change by mandate raises an additional problem. Not only are the project's deliverables, budget, and schedule usually changed, the priorities of other projects are typically changed too, if only temporarily while the mandate receives the system's full attention. This challenges are very common especially where the tasks of key projects have been devolved and leadership personnel in the Counties feel they want more ownership of projects.

Conflict Resolution role

Conflicts are a way of life in project environments and generally occur at any time or stage in a project life cycle. Kohlrieser (2007), argues that conflict manifests itself as a difference between two or more persons or groups characterized by tension, disagreement, emotion or polarization, where bonding is broken or lacking. Irrespective of the nature or type of conflict, it will have an impact on the project outcome and performance. As leaders, it is important to understand that conflicts will occur at one stage in the project, so putting up preventive measures and proper controls will help manage the impact the conflict may have on the performance of your projects.

Project environments are particularly vulnerable to generating conflict especially where a large number of beneficiaries and stakeholders are involved. Water resources projects undertaken in Kwale County are most likely to have same problems since the environment where they are initiated and implemented is very dynamic and often affected by changes in political leadership with vested interests from the political leaders.

However, as Kerzner (2004) suggests sometimes conflict is meaningful and produces beneficial results. These meaningful conflicts should be permitted to continue as long as project constraints are not violated and beneficial results are received. Involvement of all affected stakeholders, good communication and the desire to empower the local communities through these projects will be key to attaining project success.

Similarly, Identification, analysis, and evaluation before taking action are the keys to effective management of conflict. Project managers must use practical strategies that involve following three steps: preparing for conflict, facing conflict, and then resolving conflict. (Thamhain and Wilemon, 1975). As a leaders in the project you need essential interpersonal skills, including effective communication, negotiation, and appreciation of cultural differences in order to handle conflicts involving diverse communities.

Monitoring role

Raut, Pimplikar and Sawant (2013) describe project monitoring as a managerial process which aims to generate information to support decision-making and to stimulate cost reduction, value improvement and continuous improvement in the organisation. Therefore project monitoring is a holistic management process that involves collection, recording, reporting and disseminating information concerning performance achieved or forecasted in projects to ensure project objectives are achieved within the agreed implementation schedule or plans. Through monitoring the project manager and leaders are able to also perform control function which is a management function that involves

comparing and correcting work performance. The fundamental role of monitoring is to evaluate success in relation to expected results based on the goals or objectives of the projects as set out during the initiation and planning phase in the project life cycle. Schwalbe (2009), says that monitoring involves regularly measuring progress to ensure that the project is meeting its objectives and addressing current business needs. The project manager and other staff monitor progress against plans and take corrective action when necessary. In order to achieve effective project performance, the variables of time, cost and scope must be closely monitored and controlled since they have a great influence on the performance outcomes of the project at hand.

Mitra (2010) suggests that project performance monitoring is an area one should spend significant time on and you need to measure project success against established performance parameters. In this case as a leader you have to take a proactive role to ensure the execution of your projects are achieved within the agreed project performance benchmarks. Leaders' ability to inspire and motivate project team members will play a critical role to ensure all activities in the project are undertaken according to the agreed schedule. Schwalbe (2009), agree that many project managers often cite delivering projects on time (schedule control) as one of their biggest challenges, because schedule problems often cause more conflicts than other issues.

Project performance

Project performance can be measured and evaluated using a large number of performance indicators that could be related to various dimensions (groups) such as time, cost, quality, client satisfaction, client changes, business performance, health and safety (Cheung *et al.* 2004). Time, cost and quality are, however, the three predominant performance evaluation dimensions. As Hill (2010) points out project performance analysis is that aspect of project management that examines planned project events and outcomes relative to actual project events and outcomes primarily in terms of cost, schedule, and resource utilization. It therefore provides the project leaders and project team with analytical indications of project progress and status of ongoing activities.

Another interesting way of evaluating project performance is through two common sets of indicators (Pheng and Chuan, 2006). The first set is related to the owner, users, stakeholders, and the general public; the groups of people, who will look at project performance from the macro viewpoint. The second set comprises the developer and the contractor; the groups of people who will look at project performance from the micro viewpoint. As discussed by Purbey *et al.* (2007), performance measurement systems were developed as a mean of monitoring and maintaining organizational control. In order to analyse and monitor performance, a common and widely adopted model of earned value analysis (EVA) is often employed. Earned value is the amount of planned work that has been accomplished to date and represents the value that has been achieved by the project to date as a result of that work accomplishment. (Hill, 2010). The analysis returns or information gives clear indication of the performance of work activities in the project and it can help decision makers within the project make informed decisions of what to do to improve performance supposing it is below expectation. Hill (2010) further discusses that earned value

analysis is based on the following elements: First; *Budgeted Cost of Work Performed (BCWP)* - the value, in dollars, of the work accomplished to date. It is also known as earned value because the value associated with a particular work package is earned when the task is completed. Second; *Budgeted Cost of Work Scheduled (BCWS)* - the value, in dollars, of the work scheduled (planned) to be completed to date, that is, the project budget. BCWS is the planned value for the planned work. Third; *Actual Cost of Work Performed (ACWP)* - The value, in dollars, of the actual cost expended for project work performed to date.

METHODOLOGY

Research Design

A research design is the conceptual structure within which research is conducted since it constitutes the blueprint for the collection, measurement and analysis of data. Creswell (2014), defines research design as plans and the procedures for research that span the decisions from broad assumptions to detailed methods of data collection and analysis. He further states that the selection of research design is also based on the research problem or issue being addressed, the researcher's personal experience and the audience for the study.

The researcher used a descriptive survey to investigate the role of leaders on the performance of water resource projects in Kwale County. Sekaran & Bougie (2011), describe a descriptive study as one undertaken to ascertain and be able to explain the characteristics of the variables of interest in a phenomena. The purpose is therefore to obtain information concerning the current status of the phenomena and to describe "what exists" with respect to variables or conditions in a situation. Since the research was meant to test rather than generate theory, it adopted this quantitative approach which focuses on describing and drawing inferences from the findings on the relationships between water resources project performance, and the role of leaders such as coordinators, change agents, conflict resolution and monitoring. It also allowed the researcher to think systematically about aspects in a given situation, offer ideas for further probe and help make certain important decisions.

Population

The targeted population for the study comprise project committee members, project coordinators involved directly or indirectly in the implementation and management of water resources projects within Kwale County. The projects under study were twenty one (21) and a total of 190 personnel from across the 21 projects were used as the target population.

Sample and Sampling technique

The sampling frame is a physical representation of all the numbers in the population from which the sample is drawn. (Sekaran & Bougie, 2010). The research used purposive sampling which is a form of non-probability sampling in which decisions concerning the individuals to be included in the sample are taken by the researcher, based upon a variety of criteria which may include specialist knowledge of the research issue, or capacity and willingness to participate in the research. (Kothari, 2011). This method expose the researcher to various participants who had different experiences on issues concerning implementation and management of water resources projects.

The selection criteria was based on the number of project committee members involved in each project under study. From the target population of 190 which is also a sample frame, the research obtain 62 respondents as the sample size that were subject to investigations.

Research Instruments

Questionnaires were used to gather data because the information was supposed to be collected from diverse groups and projects. Archival documents were also be used as secondary data. This documents included completed projects documentations, project reports, and project work plans. Regular cross checking and follow ups was done to ensure accuracy, relevance, completeness, consistency and uniformity of the data collected.

Data collection procedure

The data collected by the researcher was through distribution of formulated questionnaires to the respondents. Sixty two questionnaires were distributed to the responders and the researcher had to be involved on two occasions to guide filling of the questionnaires for three respondents who did not understand key questionnaire items. Half of the questionnaires specifically those that were sent in Msambweni, Kwale and Lung Lunga sub-counties were collected after three weeks from that date of administering, while the remaining questionnaire documents were collected after five weeks.

Pilot test

Pilot study of the questionnaire were conducted by a scouting sample of five questionnaires with the aim of testing the suitability of the instruments to be used for data collection. These questionnaires were distributed to project committee members in relevant projects under study two weeks before the actual data collection process, in order to assess the reliability and validity of the instruments used.

Reliability

In this study, the reliability of the questionnaire were analysed using a Cronbach's alpha coefficient. This helped determine the level of accuracy and reliability of the obtained data from the pilot study. Cronbach's alpha was considered appropriate since according to Zinbarg *et al* (2005), Cronbach's alpha is a coefficient of reliability that gives an estimation of data generalization without any bias and it requires only a single test administration to provide a unique estimate of the reliability for a given test. In this research study, the findings of the Cronbach's alpha gave a value of 0.718 which indicated that the items on the questionnaire gave a consistent outcome and therefore were reliable for carrying out the study.

Table 3.2: Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.718	.727	4

Source: Researcher, (2016)

Validity

The instruments for this study were validated through application of content validity, which was determined by expert judgment by knowledgeable lecturers and researcher's supervisors.

Data processing, analysis and presentation

This process involved data cleaning to eliminate discrepancies and thereafter classified on the basis of similarity and tabulated. Then the data was organised into four objectives of the study, classified, tabulated and summarized using descriptive measures, percentages and frequency distribution tables for presentation of findings. Descriptive analysis approaches were used to find the views of the respondents on performance of water resources projects and to investigate the relationships between the variables and the extent to which the independent variables explained influenced the performance of projects. (Creswell, 2009).

A regression analysis was used to determine the relationships that existed between variance in the dependent variable that were explained by the independent variables since there existed more than one study variable affecting project performance. Regression attempts to determine whether a group of variables together predict a given dependent variable. In this study performance of water resources projects was regressed against four independent variables: coordination role, change agent role, conflict resolution role, and monitoring role. The regression equation used in this study was:

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

Where: **Y** = the dependent variable that measured performance of water resources projects.

α = Constant term indicating the level of project performance in the absence of any independent variables.

β₁, β₂, β₃ and β₄ = are the coefficient functions of the independent variables.

X₁ = Represented the independent variable that measured coordination role.

X₂ = Represented the independent variable that measured change agent role.

X₃ = Represented the independent variable that measured conflict resolution role.

X₄ = Represented the independent variable that measured monitoring role.

ε = Error term represented other factors other than the above leaders roles variables which were not defined in the model.

III. RESULTS AND ANALYSIS

Response rate

A total of 62 (Sixty two) questionnaires were distributed to the target respondents. Fifty five (55) were returned translating to 89% return rate. The high return rate was as a result of making several visits to the sites to make sure most of the respondents return the questionnaires.

Role of leaders on project performance

In responding to which role has a greater influence on the performance of projects, 69% of the respondents agree that coordinator role has a very high influence on performance of water resource projects, followed by monitoring role at 62%, then followed by conflict resolution role at 51%, and finally change agent role at 42% being the percentage of respondents

who agree that the role of change agent is important in influencing project performance. Further, 4% of the respondents confirm that conflict resolution has very low influence on project performance.

Project Performance

The performance of a project is critical to all projects irrespective of their scope as it helps define the success or failure of that project. Hill (2010) asserts that project performance analysis is that aspect of project management that examines planned project events and outcomes relative to actual project events and outcomes primarily in terms of cost, schedule, and resource utilization. Based on this, the research sort the views of the respondents on how they rated their projects performance and their views are summarized in the table 4.23 as shown.

Table 4.23: Overall views on project performance indicators.

Overall, where do you rate the performance of your project in relation to the project meeting or fulfilling the criteria of Time (Schedule), Cost (Budget), resource utilization and meeting its objectives?	Frequency	Percent
Very Poor	1	2
Poor	9	16
Average	28	51
Good	11	20
Very Good	6	11
Total	55	100

Source: Researcher, (2016)

From the findings as summarized in (table 4.23), 11% of the respondents rated the performance of their projects to be very good, while 20% rated their project performance as good. A bigger percentage of the respondents i.e. 51% rated their projects performance as average, while 16% of the respondents gave the rate of poor. Finally, only 2% of the respondents rate the performance of their projects as very poor, which may indicate the projects is not within the planned time, cost and over-utilized resources available. It may also indicate the project has not meet its objectives.

Regression Analysis

In this study, a multiple regression analysis was conducted to test the influence among predictor variable (Coordination role, Change agent role, Conflict resolution role and Monitoring role), to the dependent variable performance of water resource projects. The research used a statistical package for social science (SPSS v20) to code, and compute the measurements of the regression model.

Table 4.24: Model Summary

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.784 ^a	.688	.123	0.83601

- a. Predictors: (Constant), Monitoring role, Change agent role, Coordinator role, Conflict resolution

Source: Researcher, (2016)

Table 4.24 is a regression model summary showing how the independent variable combined influence the performance of water resource projects. The value of (R) is positive 0.784, indicating the existence of a positive correlation between role of leaders and performance of water resources projects. The coefficient of determination (R²) of the model is 0.688 meaning that 68.8% of the performance of water resources projects in Kwale County is influenced by role of leaders in those projects in the county. Equally, it also means that 68.8% of the variations in the performance of water resources projects in the County is explained by the role of leaders as coordinators, change agents, role in conflict resolution and monitoring role. Further, the adjusted R² indicates that 12.3% of the performance of water resource projects is influenced by the role leader’s play.

Table 4.25: ANOVA

ANOVA ^a					
Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	12.443	4	3.111	2.898	.031 ^b
1 Residual	53.666	50	1.073		
Total	66.109	54			

- a. Dependent Variable: Performance of Water Resource projects
- b. Predictors: (Constant), Monitoring role, Change agent role, Coordinator role, Conflict resolution

(Source: Primary data, 2016)

From table 4.25 (ANOVA table), it is clear that the regression model predicting the relationship between the dependent variable and the independent variable is significant at p=0.031 which is <0.05.

Table 4.26: Coefficients

Coefficients ^a					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error			
(Constant)	3.123	1.853		2.304	0.002
Coordinator role (X ₁)	0.815	0.105	0.474	0.560	0.018
1 agent role (X ₂)	0.217	0.145	0.198	1.501	0.064
Conflict resolution (X ₃)	0.106	0.157	0.090	0.672	0.045

Monitoring role (X_4)	0.576	0.137	0.329	1.435	0.002
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a. Dependent Variable: Performance of Water Resource projects

Source: Researcher, (2016)

From table 4.26 (Coefficients table), the established regression model of the study can be derived as follows:

$$Y = 3.123 + 0.815X_1 + 0.217X_2 + 0.106X_3 + 0.576X_4$$

X_1 = Represents the independent variable that measured coordination role.

X_2 = Represents the independent variable that measured change agent role.

X_3 = Represents the independent variable that measured conflict resolution role.

X_4 = Represents the independent variable that measured monitoring role.

The results in table 4.26 indicate that three of the variables (Coordination, Monitoring and Conflict resolution) have a positive influence on the performance of water projects except the change agent variable which offers less contribution to the dependent variable. In terms of magnitude, the most influential variable is coordinator role with a regression coefficient of 0.815 and a P- value of 0.018. This is followed by monitoring role with a regression coefficient of 0.576 and a P-value of 0.002. The third most influential variable is change agent role with regression coefficient of 0.217 and P- value of 0.064. Lastly, conflict resolution role has the least impact with a regression coefficient of 0.106 and P- value of 0.045.

From the regression equation, it can be established that taking all factors into account (Coordination role, Change agent role, conflict resolution role and monitoring role) constant at zero performance of water resources projects will be 3.123. Further, the presented findings indicate that taking all other independent variables at zero, then a unit increase in coordination role would lead to a 0.815 increase in the performance of water resources projects, a unit increase in change agent role would lead to a 0.217 increase in the performance of water resources projects, while a unit increase in conflict resolution role would lead to a 0.106 increase in the performance of water resources projects in Kwale County. Finally, a unit increase in monitoring role would lead to a 0.576 increase in the performance of water resources projects.

Discussion of the results

The first objective of the study was to examine the role of leaders as coordinators on the performance of water resources projects in Kwale County. As far as the coordinator role is concerned, the results showed that the level of coordination by leaders highly influences the performance of water projects. From the study findings, over 75% of the respondents agreed that by enhancing communication, having periodic meetings and coordinating resources and other project activities, the performance of projects significantly improves. The findings of these study are in agreement with (Kihoro & Waiganjo, 2015) who in their study of the factors affecting performance of construction projects concluded that there should be continuous coordination and proper relationship management between all stakeholders involved in the project. Proper channels should be used to solve

problems during the project life cycle and develop performance of the project. Similarly, these finding concur with (Gray and Larson, 2005), who found that openness and transparency in communication are essential to nurture human relationships; predictability and openness are important factors in establishing trust within project teams.

The second objective related to the role of leaders as change agents and the findings showed that leaders being champions of change in projects has an impact but not very influential. Only about 35% of the respondents agreed that by leaders being champions of change and change implementers they need to manage and control changes in projects in order to improve their performance.

The third objective was to assess the role of leaders in conflict resolution on the performance of water resources projects in Kwale County. The findings indicated that less than 30% of the respondents felt that the approach or strategy the leader adopts in handling a conflict will have an influence on project performance. The respondents agreed that it is important for the leader handles the conflict well and resolves it without bias however that will not influence the performance of the projects. This findings differ with studies by Thamhain (2004b) who found that satisfying personal and professional needs of team members will have the strongest effect on team performance, and identified some other factors, which include ability to resolve conflict, mutual trust and respect, and communications across organizational lines which can enhance the overall performance of projects.

The fourth objective was to examine the role of leaders in monitoring on the performance of water resources projects in Kwale County. This role had a relatively high positive influence with over 60% of the respondent suggesting it is the second most important variable to influence performance of water resource project. The monitoring role covered key aspects of result monitoring, schedule monitoring and cost monitoring. The results also indicated that failure to monitor project activities will drastically affect the performance of projects being undertaken. Since there are high expectations from the local community to ensure the success of this critical projects, leaders are compelled to undertake close monitoring to ensure they deliver on the project outcomes and that the allocated funds to the projects are accounted for effectively.

These findings on the monitoring role of leaders on the performance of water resources projects concur with studies on factors affecting performance of projects by (Kihoro & Waiganjo, 2015) who concluded that project activities need to be properly monitored and documented irrespective of the nature and magnitude of the project. This would provide information necessary for monitoring and evaluating various project challenges and hence prevent future recurrence of such project shortcomings.

IV. CONCLUSIONS

This study analyzed the role of leaders such as coordination, change agent, conflict resolution and monitoring to determine how they influence performance of water resources projects and ultimately dictate the success of these projects in Kwale County. The findings showed that role of leaders was very critical in determining how the projects performed. The role of

coordination and monitoring were found to have the greatest influence and this points to the need for fostering good human relation within project teams and at the same time continuously monitor project activities to manage deviations from plans.

The research tested the relationship between independent variable (roles of leaders) and dependent variable (Performance of projects) to establish whether the independent variable influences project performance. The findings of this determination as summarized in tables (4.24, 4.25, and 4.26) and regression analysis clearly show a strong relationship existed between independent and dependent variable. The results also indicated that as much as change agent role was a determinant of the performance of water resources projects, it had the least influence on performance

In this study; coordination, change agent, conflict resolution and monitoring, all had some influence on the performance of water projects. It was clear from the findings that coordination role and monitoring role had the highest influence on the performance of water projects. Leaders are therefore encouraged to be the critical link especially between project teams and the project stakeholders.

Further, leaders have to act as the bond that ties the project team together since the project teams often comprises of individuals from diverse cultural background, ethnicity, and education levels yet the team must work together to achieve a common project objective under tight schedules. Monitoring was very crucial and leaders have to monitor resource utilization, schedule and cost of the project in order for the projects to realise their objectives. Water projects in Kwale County are mostly funded by private sector in partnership with the county government and hence the need for close monitoring to ensure nothing is wasted or mismanaged. The study indicated that those projects that were closely monitored and reports on performance being reviewed periodically achieved high performance and were equally the most successful in meeting expectations of all stakeholders.

V. RECOMMENDATIONS

The study justifies that for projects to perform better, leaders need to provide proper coordination within project teams. At the same time leaders must be able to continuously monitor the progress of activities in projects. This way they can determine whether their projects are performing or not by measuring their performance against set criteria's for success as well as providing corrective action where a deviation occurs. Another recommendation for leaders is on effective communication. From the study, it is evident that proper coordination goes hand in hand with effective communication. As a result leaders must learn to enhance their communication skills in order to lead their teams effectively.

As much as change is inevitable in projects, the study recommends that leaders should provide an environment where all team members in a project environment be part of the change. The aspect of change management needs to be a shared responsibility among project team members. This will provide an environment where everyone feels to be part of the change and therefore they will easily embrace and accommodate changes when they occur.

Project leaders should not show any form of bias when resolving conflicts within project teams. In case the conflict creates a

positive vibe among team members as a leader you should encourage it for the good of the project. Further, the study recommends that a project leader be flexible in choosing a conflict resolution strategy that qualifies for the nature of conflict that occurs and the circumstances under which the conflict may be resolved.

Finally, the aspect of monitoring project activities is crucial for the success of the project being implemented. It is therefore recommended that leaders keep track and document all activities and progress of the water resources projects. This will enable leaders to plan in advance for any deviations that may occur late in project execution stage. The monitoring activities will need to start early in the project cycle phases and be performed until when the project is terminated.

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