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FACTORS INFLUENCING IMPLEMENTATION OF WATER PROJECTS IN COAST WATER SERVICES BOARD

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Abstract: **Due to scarcity of freshwater available for humanity use like domestic, agriculture and industrial, It is the desire of every country and community to implement water project and ensure their sustainability so as to improve the quality of life through improved access to that precious resource. Given the fact that only 1% of water is available for all humanity need, there is need for all stakeholders in both private and public sectors to join hands to ensure that such projects are implemented and maintained. Therefore the purpose of this study was to examine the factors influencing implementation of such water projects specifically by the Coastal Water Services Board. This study was guided by four objectives that sought to: examine how project mission influences project implementation, examine the influence of resources on project implementation, examine how good management influences project implementation and examine the influence of budget allocation on project implementation. The study was guided by three theories namely; Theory of management, Resource based theory and project mission theory. A descriptive research design was employed during this study. The target population was 203 respondents from which stratified random sampling was employed to sample 134 respondents randomly. The reliability and validity of research instruments was checked through pilot study. Data was collected through questionnaires which were self-administered via enumerators, drop and pick techniques and through e-mails. Coding and analysis of data was done using SPSS version 20. After coding the descriptive data was analyzed using descriptive techniques while quantitative data was analyzed using quantitative statistics comprising of frequency tables and percentages. From the study data analysis and interpretations, the following summary, conclusions and recommendations were drawn; project mission, project resources, management and budget allocation were found to play a big role in factors influencing implementation of water projects in Coast Water Services Board. Thus Coast Water Services Board should deploy project mission, project resources, management and budget allocation in implementing water projects in Coast Water Services Board.**

Keywords: **agriculture, industrial, water project, Coast Water Services Board**.

1. INTRODUCTION

Background of the Study:

Access to clean water for drinking and other domestic purposes remains an insurmountable challenge for 783 million people especially the rural populace mainly due to the unsustainable management of natural water resources and poor public service delivery strategies by the governments (Giupponi, Jakemann, Karssenberg, & Hare, 2016).According to the World Commission on Dams, water dam projects especially in developing countries are underperforming (Bryson, 2014).

They also fail to meet the current standards of social equity. They argue that there is need to be a reallocation of costs and benefits. For instance, the Asian irrigation projects which fail to meet the needs of society. Whittington (2006) argues in support of the notion that the design and implementation of water and sanitation interventions in developing countries are fraught with numerous challenges. These projects end up not providing expected economic benefits. As such each water project is unique and cases of generalization shouldn't be the norm. This is backed by (Whittington, 2006) who suggest that many of the problems facing water projects in developing countries are unique on a case by case basis. (Bennet and Calman (2013) argue that many water projects in developing countries have the negative effects of displacing and impoverishing populations.

The Water Act 2002 provides the legal framework for the implementation of new institutional arrangements based on the following principles: "the separation of the management of Water Resources and the Water Supply and Sewerage provision, decentralization, participation, autonomy, accountability, financial and ecological sustainability and efficiency". To further implement these principles (CWSB, 2008) new institutions with clear roles have been established as follows: Water Resources Management Authority (WRMA) to manage, protect, develop and conserve the nation's water resources, with six Regional Offices at the catchment levels, Water Services Regulatory Board (WSRB) has been established as a Regulator of water and sewerage services provision including issuing of licenses, determination of services standards, provision of a mechanism for handling complaints, establishment of tariff guidelines etc.,

Seven Water Services Boards (WSBs) have been licensed as asset holding institutions, responsible for the efficient and economical provision of water services through the engaging of agents, Water Services Providers (WSP) to be appointed by the Water Services Boards as Agents to provide water supply and sewerage services within their areas of jurisdiction. WSPs may be communities, non-governmental organizations (NGOs), autonomous entities established by Local Authorities or the private sector, Water Services Trust Fund (WSTF) to support the financing of water and sanitation services to low-income communities in rural areas by capturing and disbursing donations, grants and funds allocated by the exchequer and development partners and Water Appeals Board (WAB) (Tribunal) as an independent body to resolve disputes between holders of water rights and the others. The Ministry of Water and Irrigation retains its responsibility of policy formulation, co-ordination, water strategies, supervision, guidance and sourcing for the funds from exchequer and development partners.

Today The Coast Water Services Board has been licensed as an asset holding institution, responsible for the efficient and economical provision of water services by engaging agents as per the Water Act 2002. Its area of jurisdiction coincides with the administrative boundaries of the Coast Province. This covers districts namely, Kwale, Mombasa, Kilifi, Taita/ Taveta, Malindi, Tana River, Lamu, and Tana River (Water Act, 2016). The estimated population of the Coast Region according to the 2009 Census Report is 3,325,307 people.

Statement of the Problem:

Humanity relies on water not just for drinking, but also for food production, dealing with waste, providing energy and transport, to name but a few. To meet its needs humanity harnesses water through dams, irrigation networks, and pumps and pipes that supply drinking water and remove wastes. It is estimated that humanity consumes 1000–1700 m3 of the globe's surface and groundwater resources per year; that is between 22% and 150% of the annual global supply of fresh water (Hoekstra &Wiedmann 2014). This proportion is likely to increase as the global human population increases in the next 30 years and the demands for water in developing countries catches up with that of developed countries. According to the Intergovernmental Panel on Climate Change, changes in climate will amplify existing stress on water availability and will exacerbate different forms of water pollution, with impacts on ecosystems, human health, and water system reliability in large parts of the world (Stocker, Qin, & Plattner, 2013).

In Kenya several projects have been implemented within the water sector. However, studies on water services done within the sector reveal that, the management of water resources and supply is still a major problem in the region. Water projects have not been properly implemented as expected since most of the expected outcomes of the water sector have not been attained. Wambulwa (2013) argues that the reform process is not heading in the positive direction, faces challenges in budget, bureaucracy and differentiation in institutions which do not work together towards the same goal that is the success of the reforms. He adds that too much corruption in the responsible institutions has also lead to poor implementation of these projects.A research done by the Ministry of Water and Irrigation on the National Water Services

Strategy (NWSS) between 2005 and 2007 showed that the institutional plan to adequately carry out the water sector reforms was not properly functional. In addition, the study found out that inadequate methods were lacking and finances to expand water to all underserved areas in the republic were not enough and also misappropriated.Radosewich, (2003) conducted a study on water sector reforms in China. The study found out all water reforms objectives can be realized through comprehensive planning at national level. The study identified planning as the main problem but focused less in project implementation.Cherop (2012) on factors influencing implementation of reforms in the water sector in Mombasa County, Kenya, found out that the dilapidated and old infrastructure operates far below their design capacity. This study however seems to have focused on infrastructure effects on water project implementation and did not emphasize on mission, resources, budget or even management. In consideration of the above gaps and challenges, this study therefore seeks to establish the factors influencing implementation of water projects at the coast water services board with a view to providing appropriate recommendations and solutions for effective service delivery.

Research Objectives:

This study was guided by both general and specific objectives.

General Objective:

The general objective of the study was to investigate the factors influencing implementation of water projects in Coast Water Services Board.

Specific Objectives:

1) To establish the influence of project mission on water project implementation in Coast Water Services Board.
2) To examine the influence of resources on water project implementation in Coast Water Services Board.
3) To assess the influence of management on water project implementation in Coast Water Services Board.
4) To find out the influence of budget allocation on water project implementation in Coast Water Services Board.

Research Hypothesis:

1) HO_1: Project mission has no significant influence on water project implementation in Coast Water Services Board.
2) HO_2: Resources have no significant influence on water project implementation in Coast Water Services Board.
3) HO_3: Management has no significant influence on water project implementation in Coast Water Services Board.
4) HO_4: Budget allocation has no significant influence on water project implementation in Coast Water Services Board.

2. LITERATURE REVIEW

Theoretical Framework:

Resource Based View Theory:

This theory basically explains the role of adequate budgeting to funding as task. It essentially spells out the fact that for success in any task, the right amount of funding need to be allocated. The theoretical basis of RBV dates back to 1950's Penrose's view of an organization as a pool of resources. The RBV consider the resources of a firm as being essential determinants of the firm's competitive advantage and performance. The Resource Based View (RBV) was more clearly explored in 1980s and 1990s after very important studies by Wernerfelt (1984), Prahalad, Hamel and Barney (1991) among others. The theory posits that organizations need to consider the internal strengths of the organization. A resource is a valuable asset that may include capital and may also be considered an internal strength.

According to Baxter and Jack, (2016) resources would help organizations to increase the value offered to the customers thereby increase performance. An organization with valuable resource can achieve at least temporary competitive advantage. RBV theory implies that with the application of the right resources, would most likely positively impact on project success. Time, scope, and cost or the triple constraints criteria is viewed in project management as a way of measuring success in project implementation. Triple constraint is regarded by most project managers as key to the requirements and success of a project. When these three features are optimized, then one can be certain of achieving

quality and timely completion of a project. Scope as a constraint measures the quality of a project. Cost measures how much money is spent for the completion of the project. Time on the other hand is how long the implementation of the project takes. All the three constraints have respective effects on the project even though they have some correlation. Any of the constraints have an effect on a combination of the other two thus affecting the delivery of the project in a greater way. Thus according to Bandaragoda (2013) proper management of constraints can result in reduced project lead times, cycle times, due date performance, and inventory levels. This theory supports the second objective of this study which is the influence of resources on implementation of water projects in Coast Water Services Board.

Project Mission Theory:

The theory of project is provided by the transformation view on operations. In the transformation view, a project is conceptualized as a transformation of inputs to outputs. There are a number of principles, by means of which a project is managed. These principles suggest, for example, decomposing the total transformation hierarchically into smaller transformations, tasks, and minimizing the cost of each task independently. The understanding of management is based on three theories: management-as-planning, the dispatching model and the thermostat model. In management-as-planning, management at the operations level is seen to consist of the creation, revision and implementation of plans. This approach to management views a strong causal connection between the actions of management and outcomes of the organization. The dispatching model assumes that planned tasks can be executed by a notification of the start of the task to the executor. The thermostat model is the cybernetic model of management control that consists of the following elements: there is a standard of performance; performance is measured at the output; the possible variance between the standard and the measured value is used for correcting the process so that the standard can be reached

Regarding the theory of project, the (partial) models of operations as flow and value generation add the consideration of time, variability and customer to the conceptualization provided by the transformation model (Kahariri, 2014).Similarly, the theoretical foundation of management has to be extended. Regarding planning, the approach of management-as-organizing adds the idea of human activity as inherently situated (Isham & Kahkonen, 2015). Thus, planning should also focus on structuring the environment to contribute to purposeful acting. Concerning managerial execution, the language/action perspective, originated by Winograd and Flores (1986), conceptualizes two-way communication and commitment, instead of the mere one-way communication of the classical communication theory. The scientific experimentation model of control of focuses on finding causes of deviations and acting on those causes, instead of only changing the performance level for achieving a predetermined goal in case of a deviation. The scientific experimentation model adds thus the aspect of learning to control. This theory supports the first objective of this study which is the influence of project mission on implementation of water projects Coast Water Services Board.

Review of Literature of Study Variables:

Project Mission:

The project mission is contained in mission statement which is always the first step of the main stages in strategic planning procedure. Various scholars and researchers have defined mission statements differently, for instance; Steve (2017) define a mission statement as a tool reflecting the goal of the organization and ways of realizing it. The mission of an organization as a response to the questions that where is the organization? Where it goes? And how? Powers (2013) define a mission statement as the philosophy of existence of the organization which is a basic guide for future actions of the organization and realization of its goal. Morden((2013) defines a mission statement in relation to the environment of the organization and argues that it indicates the position of the organization in the environment. A mission statement of a particular project therefore is important in realization of its goals and key informants and strategic planners will help in this study to obtain data that is necessary in ascertaining how a project mission affects implementation of the water projects by the CWSB.

This study intends to find out how a mission statement of a project affects its implementation. It's worth noting that the mission should be specific and well understood and supported by relevant stakeholders. There are vast and variant views concerning the mission of a particular project and its implications on the implementation of the intended project. For instance; David, (2015) argues that if the mission of a particular project is clear and specific then there will be effectiveness in defining goals, developing strategies and operational objectives and implementation of strategies and

policies, optimal allocation of resources and a factor for personnel motivation. (Copestake, 2017) who performed their studies to find out the direct relationship between the comprehension of the mission statement and the higher performance of the organization. According to the comprehension of the components of the mission statement is determining the performance of the organization.

Project Resources:

Wikipedia defines resources as materials, energy, services, staff, knowledge or other assets that are transformed to produce benefits and in the process may be consumed or made available. Varied studies; globally, regionally and locally contends that both financial and human resources play a crucial role in seeing the success or failure of a particular project.Muruta (2010) says that resources especially financial have a great influence. He asserts that financial resources if well allocated to a certain project there will be appositive outcome from the project being implemented. According to him increasing resource allocation to a project will also increase the sustainability of that project, expand benefits from it as well as establish relationship of accountability of the resources used. Millennium development goals report of 2012 says that availability of funds for recurrent costs is often seen as a major factor influencing implementation and sustainability of the projects. They therefore advocate for seeking credit from development banks or private sources to help sustain the projects. OECD (2015) argues that many countries allocate insufficient resources to meet the MDG target for sanitation and drinking water .Compared to other sectors, the health, sanitation and drinking water sector receives little funds for both official development and domestic allocation hence this deters proper implementation and sustainability of water projects.

Stockholm Environment Institute (2014) performed research on the importance of funding a water project adequately. Their findings indicate that, proper funding in projects is crucial in both project implementation and sustainability. Insufficient funding is indicated as the main reason to poor implementation, maintenance and even failure of a particular water project. Uwazi report of (2011, which was performed in over five water services provider in Kenya indicates that (Embu, Tana, Athi and Kisumu among others) has shown that; financial resources allocated to such projects have a significant influence on the project implementation and sustainability of the projects.

Management Influence:

Proper management of water projects is seen in its monitoring and evaluation processes which are normally geared towards marking the point of progress of any given project. Without monitoring and evaluation, projects cannot move to other steps hence sustainability is compromised. According to comprehensive assessment of water management in agriculture (2013) proper management should allow for participation of the beneficiaries, giving them the opportunity to decide the criteria of success of a given project. Through evaluation one is able to identify any deficiencies and establish a course of action to mitigate the problems hence steer the project towards sustainability. Moraa, Otieno and Salim(2012) argue that proper management, monitoring and evaluation of projects during and after implementation will enhance sustainability. Such activities will offer a check point to see whether a project is effective and consistent to the goal of the company. Lockwood and Smith (2014) who were studying the role of monitoring and evaluation and sustainability of community based water projects in Kenya, Uganda, Botswana, Lesotho, Egypt and Ethiopia, found that monitoring and evaluation ensure that the work is done to the best.

Wasreb Impact Report of 2012 gives a summary of the role of monitoring and evaluation of projects on various parts of Kenya including the coast. According to their report, management which includes monitoring and evaluation ensures effectiveness of the projects and positive outcomes. This therefore informs both project managers and stakeholders on areas of improvement for achievement of both outcomes and completion of the projects. In the coastal region for instance, Wasreb report of 2012 shows that water and sanitation coverage has little monitoring and evaluation of project a factor which deters sustainability of projects and implementations of new ones by the coastal water and services board. A study carried out in the wider Athi River basin (of which the Kenyan coast is part of) by Magondu, Ngigi and Ndegwa (2014)) suggests water resource management problems due to lack of key information.

Budget Allocation:

Budgetary control involves the preparation and planning of a budget, recording of actual performance, ascertaining and investigating the distinction between actual and budgeted performance and taking suitable precautions so that budgeted

performance may be achieved effectively (Budget Controllers Report, 2014).Budgetary control is the system of controlling spending through budgets. It involves comparing of actual performance with the view of making sure whether what was planned agrees with actual performance. A budget provides a detailed plan of action for an organization over a specified period of time. By implementing proper budgetary control planning, the firm is able to reduce costs and improve on quality of its services based on its budgetary allocations. This helps to reduce on costs and achievement of goals is enhanced and thus project effectiveness. (Mathis, 2013). By budgeting, project managers coordinate their efforts so that objectives of the budget plan harmonize with the objectives of its project implementation. Control ensures that objectives as laid down in the budgets are achieved (Churchill, 2015).

Project Implementation:

When we think about measuring the performance of a project, it's not really the same as measuring the performance of a team or a process. So we need to think a little differently about the kinds of measures that will tell us what we really need to know. When we measure the performance of the business process or team, we're interested in how a particular business result produced by that process or team is changing as time goes by. Bryson (2014) However, when we're measuring the performance of a project we are interested in the impact the project has at a point in time, or over a fixed timeframe. This is because projects by their very definition have a start point and an end point. The reason we do projects is to make a difference and usually the difference we're trying to make is to make some kind of result, especially in business, better. Thus, our first Key Performance Indicator for projects is;-

Direct impact- So the size of this impact on a business performance measure is a measure of a project's success. It's the size of the difference between the level of performance before the project's start time, and the level after the project's end time. But it's not the only measure of success. Bottom line impact-A project won't be successful if the cost of doing it was not sufficiently lower than the value of the impact. The other two other important measures are financial impact, like costs saved or income generated. On time and on budget- Measures can also help us manage the project while we're implementing it. A well-managed project is more likely to have a big impact and big ROI. This is where the most commonly used measures of project performance come in: on-time and on-budget. And these are measured at regular milestones throughout the project. But they only make sense if we don't change the goal posts.

3. RESEARCH METHODOLOGY

Research Design:

This study adopted survey research design using quantitative approach. Quantitative approach puts emphasis on measurement and data is analyzed in a numerical form to provide brief description. Mugenda and Mugenda (2008) notes that quantitative approach is also called scientific method and has been regarded as the traditional mode of inquiry in evaluation and research. It is further argued that this mode of inquiry has various logical and distinct steps starting from determining and highlighting research problem to constructing appropriate inferences and conclusions to the target population. Hence, quantitative approach stresses on procedure, methodology and statistical measures to test hypothesis and make predictions.

Target Population:

Target population consisted of all members of a real or hypothetical set of people, events or objects from which a researcher wished to generalize the results of their research while accessible population consisted of all the individuals who realistically could be included in the sample (Sekaran & Bougie, 2011). The target population comprised all entities in Coast Water Services Board. The study was purposely concentrated on only Coast Water Services Board because the players had the relevant and accurate information needed in this study. This study was therefore comprised of 203 relevant stakeholders who included Coast Water Services board management, project staff and the community/ beneficiaries from which the target and accessible population was drawn. This population was chosen since the people in the management, project staff and community are involved in the day to day running of the boards administration and direct beneficiary of coast water services board projects thus well conversant with the information required in the study.

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Table 3.1: Target Population

Respondents	No of Staff
Coast Water Services Board Management	30
Project Staff	73
Community/Beneficiaries	100
TOTAL	**203**

Source: Coast Water Services Board

Sample Size and Sampling Technique:

Sample Size:

The total sample size for this study was obtained by using the formulae developed by Saunders, Thornhill, and Lewis (2009) and the adjusted sample size was 134 respondents. With a study population of 203 and a sample size of 134 respondents, the researcher applied stratified random sampling to select respondents from the three categories. Table 3.2 shows the sample size of study and distribution of questionnaires. With a confidence interval of 95 percent, the sample size was determined using the formula shown below (Saunders, Lewis, & Thornhill, 2007).

$n = N / 1 + N (\alpha)^2$

Where:

n= the sample size,

N= the sample frame (population)

α= the margin of error (0.05%).

A sample size of 134 firms was arrived at as follows: n = 203

$1 + 203(0.05)^2$

= 134 respondents

This study, therefore, had a total of 134 respondents sampled for the study from a target population of 203 respondents. This sample was deemed good representation of the populations since the sample size was greater than 10 percent of the target population. Mugenda (2003) argue that for a sample to be a good representative of the population it should be at least 10 percent of the target population.

Sampling Technique:

This study used probability sampling since the population and location of Coast Water Services Board stakeholders was known. Specifically, the study used stratified random sampling in order to account for the uneven distribution of various stakeholders in various segments within Coast Water Services Board. This allowed the researcher to measure the factors influencing implementation of water projects in Coast Water Service Board. The uneven distribution of various stakeholders gave rise to heterogeneity which if not properly accounted would have led to biased parameter estimates. In this regard, stratified sampling enabled us to avoid biasness consequently having unbiased parameter estimates. Based on distribution of respondents in the 3 segments (table 3.1), the researcher used proportions that were calculated in the population distribution to come up with a representative sample distribution as shown in table 3.2. The proportions calculated were given the number of respondents to be included in the sample for each segment. Thereafter simple random sampling was used to select the names of respondents in which data was collected from.

Table 3.2: Sample Size

Respondents	No of Staff	Calculation	Sample Size	Percentage of Sample Size
Coast Water Services Board Management	30	134/203*30	20	15%
Project Staff	73	134/203*73	48	35.8%
Community/Beneficiaries	100	134/203*100	66	49.2%
Total	**203**	**$203/(1+203*0.05^2)$**	**134**	**100%**

Data Collection Instruments:

The study used both primary and secondary data collection sources as follows:

Primary Data:

The primary data was collected through a self-administered semi-structured questionnaire using the key-informant method. Wu (2006) explains that views of key informants were widely used in marketing studies because they were deemed to be the most knowledgeable about the issues being investigated for which they were directly responsible. The structured questionnaire was with closed- ended questions and a customized five-part likert scale which was used to collect data on the independent variables from the managers. Respondents were asked to indicate agreement with each item. Each item had a five-point scale ranging from1=strongly disagree, 2=disagree, 3=indifferent, 4=agree, and 5=strongly agree. The various respondents that were targeted were informed about the purpose of the study. The questionnaires had been preferred because personal administration of questionnaires to individuals helped to develop close relationships with the respondents.

Secondary Data:

Information relating to Coast Water Services Board in annual and published financial statements in national newspapers, during annual general meetings messages and in-house magazines was used to provide secondary data information on relevant project implementation indicators. Other important business disclosure in journals, manuals and the Coast Water Service Board documents was used for secondary data collection. The secondary data collected was used to cross validate the primary data collected.

Data Collection Procedure:

The data collection instrument in this study was a questionnaire. The research instrument was conveyed to the respondents through the drop and pick technique. The researcher approached each Coast Water Services Board stakeholder, introduced himself to the relevant respondents by explaining to them the nature and purpose of the study and then left the questionnaires with the respondents for completion and picked later within two weeks. Before the questionnaire was given out, the researcher first sought for authorization from Coast Water Services management to collect data. A covering letter explaining the objectives of the study and assuring the respondents' confidentiality and asking them to participate in the study accompanied the questionnaire.

Pilot Testing:

Activities before the fieldwork process consisted of instrument design and development. Questionnaire administration involved pre-contact with the respondents. In order to ensure content validity, the preliminary questionnaire was pre-tested on a pilot set of respondent for comprehension, logic and relevance. Respondents in the pretest was drawn from all the three segments and 14 respondents were chosen, that is, 10% of the sample size as per recommendations by Mugenda and Mugenda (2003) who observe that a successful pilot study used 1% to 10% of the actual sample size and this was similar to those in the actual survey in terms of background characteristics. Basing on Mugenda and Mugenda (2003) recommendations, the researcher set 14 pilot questionnaires representing 10% of the sample size and which was within the range of 1%-10% and gave to the various respondents in Coast Water Services. The pre-tested respondents were not part of the study population since this would have brought about assessment biases and contamination of the respondents (Mugenda & Mugenda, 2003).

Reliability of the Instrument:

Sekaran (2009) asserts that the reliability of the study measures could be assessed by computing Cronbach's alpha coefficients, which could be used to assess the internal consistency among the research instrument items. Sekaran (2003) notes that reliability of a measure is an indication of the stability and consistency with which the instrument measures the concept and helps to assess the goodness of the measure. Cronbach's alpha was used as a measure of internal consistency. Cronbach's alpha is a reliability coefficient that indicates how well items in a set are positively correlated to one another. The Cronbach's alpha coefficient should range between 0 and1 (De vaus, 2002). Higher alpha coefficient values meant that scales were more reliable. Masilamani and Aris (2009) recommend that acceptable alpha was atleast 0.70 or above.

Validity of the Instrument:

According to Beaglehole *et. al*., (2006), validity ensured that there was no systematic error and also the random error was as small as possible. Validity is the level to which an instrument measures what it purports to measure. The validity reflected the extent at which the result of an observation was a true reflection of reality. To ensure internal validity, the questionnaire was simplified in a language that all participants were familiar with. The researcher determined validity by posing a series of standardized questions. The results of the pilot test established that the questionnaire was easy to answer and the questions were easily understood by the respondents. The researcher used the most common internal consistency measure known as KMO Bartlett's test to measure the validity of the questionnaire. It may be mentioned that its value varies from 0 to 1 but, satisfactorily value is required to be more than 0.6 for the scale to be reliable (Bryman & Bell, 2015). The recommended value of 0.7 is the cut off of reliability.

Data Processing, Analysis and Presentation:

Qualitative as well as quantitative methods of data analysis was used to analyze the research variables. A Likert scale was adopted to provide a measure for qualitative data. The scale helped to minimize the subjectivity and make it possible to use quantitative analysis. The numbers in the scale were ordered such that they indicated the presence or absence of the characteristic to be measured Kothari and Gang, (2014). This mix of tools was necessary because whereas some aspects of the study were qualitative others were of quantitative nature.

Whereas qualitative analysis aimed at providing basic information, quantitative analysis went further to test the theories in the theoretical framework behind the study and prove or disapprove them. For this kind of a study, there was need to go further and test hypothesis. The multiple regression analysis was used to explore the relationship between project mission, project resources, management influence and budgetary allocation as the independent variable, project implementation as the dependent variable. Pearson's product moment correlation analysis was used and it's a powerful technique for exploring the relationship among variables. Correlation coefficient was used to analyze the strength of the relations between variables. Correlation coefficients was calculated to observe the strength of the association. A series of multiple regression analysis (standard and step wise) was used because they provide estimates of net effects and explanatory power. Analysis of variance (ANOVA) was used to test the significance of the model. R^2 was used in this research to measure the extent of goodness of fit of the regression model. The multiple linear was used to estimate the coefficient was as follows:

$$\mathbf{Y= \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon}$$

Y = Represents the dependent variable, Project Implementation

$\boldsymbol{\beta_0}$ = Intercept of regression line

$\boldsymbol{\beta_1 - \beta_4}$ = Partial regression coefficient of the Independent Variables

$\mathbf{X_1}$ = Project Mission

$\mathbf{X_2}$= Project Resources

$\mathbf{X_3}$= Management

$\mathbf{X_4}$ = Project Implementation

$\boldsymbol{\varepsilon}$ = error term or stochastic term.

4. DATA ANALYSIS RESULTS AND DISCUSSIONS

Response rate:

High response rate guarantees that the findings are representative of the target population. Emore (2007) notes that a response rate is the extent to which the collected data takes care of all the sample items, a ratio of actual respondents to anticipated number of persons who respond to the study. Questionnaires were self-administered whereby a total of 134 questionnaires were given out by the researcher to respondents. One hundred and thirty six (122) questionnaires were completely filled, returned and used for analysis in this study. This meant that the active sample was 122 respondents and

this represented a response rate of 91% percent of the sample size which fell within a large sample size. Table 4.1 presents the percentage of response rate of the respondents. According to Kothari and Gang, (2014) a response rate of 50% is adequate for analysis and reporting; a rate of 60% is good and a response rate of 70% and over is excellent; therefore, this response rate was adequate for analysis and reporting.

Table 4.1: Questionnaire Response Rate

	Frequency	Percentage
Response	122	91%
Non-Response	12	9%
TOTAL	**134**	**100%**

Validity Analysis:

Factor analysis was deployed to check on the validity of the constructs. Kaiser-Mayor-Oklin measures of sampling adequacy (KMO) & Bartlett's Test of Sphericity is a measure of sampling adequacy that is recommended to check the case to variable ratio for the analysis being conducted. In most academic and business studies, KMO & Bartlett's test play an important role for accepting the sample adequacy. While the KMO ranges from 0 to 1, the world-over accepted index is over 0.5. Also, the Bartlett's Test of Sphericity relates to the significance of the study and thereby shows the validity and suitability of the responses collected to the problem being addressed through the study. For Factor Analysis to be recommended suitable, the Bartlett's Test of Sphericity must be less than 0.05.

The study applied the KMO measures of sampling adequacy and Bartlett's test of sphericity to test whether the relationship among the variables has been significant or not as shown below in table 4.2. Factor 1 was based on four items that represented project mission; Factor 2 was based on four items that represented project resources, Factor 3 was based on four items that represented management, Factor 4 was based on four items that represented budget allocation. The Kaiser-Mayor-Oklin measures of sampling adequacy shows the value of test statistic as 0.617, which is greater than 0.5 hence an acceptable index. While Bartlett's test of sphericity shows the value of test statistic as 0.000 which is less than 0.05 acceptable indexes. This result indicates a highly significant relationship among variables.

Table 4.2: KMO & Bartlett Test

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.617
Bartlett's Test of Sphericity	Approx. Chi-Square	88.918
	df	15
	Sig.	.000

Reliability Analysis:

Before the commencement of the actual study, a pilot study was carried out to pre-test the validity and reliability of data collected using the questionnaire. The pilot study allowed for pre-testing of the research instrument. The results on reliability of the research instruments are presented in Table 4.3.

Table 4.3: Reliability Analysis

Scale	Cronbach's Alpha	Number of Items	Remarks
Project Mission	0.766	4	Accepted
Project Resources	0.809	4	Accepted
Management	0.793	4	Accepted
Budget Allocation	0.789	4	Accepted
Project Implementation	0.891	4	Accepted

The overall Cronbach's alpha for the four categories which is 0.8096. The findings of the pilot study showed that all the four scales were reliable as their reliability values exceeded the prescribed threshold of 0.7 (Bryman and Bell, 2015).

Coefficient of Correlation:

Pearson Bivariate correlation coefficient was used to compute the correlation between the dependent variable (project implementation) and the independent variables (project mission, project resources, management and budget allocation).

According to Sekaran, (2015), this relationship is assumed to be linear and the correlation coefficient ranges from -1.0 (perfect negative correlation) to +1.0 (perfect positive relationship). The correlation coefficient was calculated to determine the strength of the relationship between dependent and independent variables (Kothari and Gang, 2014).

In trying to show the relationship between the study variables and their findings, the study used the Karl Pearson's coefficient of correlation (r). This is as shown in Table 4.4 below. According to the findings, it was clear that there was a positive correlation between the independent variables, project mission, project resources, management and budget allocation and the dependent variable project implementation. The analysis indicates the coefficient of correlation, r equal to 0.216, 0.193, 0.020 and 0.312 for project mission, project resources, management and budget allocation respectively. This indicates positive relationship between the independent variable namely project mission, project resources, management and budget allocation and the dependent variable project implementation.

Table 4.4: Pearson Correlation

Correlations

	Project implementation	Project mission	Project resources	Management	Budget allocation
Project implementation	1				
	122				
Project mission	**.216***	1			
	.017				
	122	122			
Project resources	**.193***	.065	1		
	.033	.476			
	122	122	122		
Management	.020	**.262****	.026	1	
	.827	.004	.775		
	122	122	122	122	
Budget allocation	**.312****	.104	**.237****	**.425****	1
	.000	.256	.009	.000	
	122	122	122	122	122

*. Correlation is significant at the 0.05 level (2-tailed).
**. Correlation is significant at the 0.01 level (2-tailed).

Coefficient of Determination (R2):

To assess the research model, a confirmatory factors analysis was conducted. The four factors were then subjected to linear regression analysis in order to measure the success of the model and predict causal relationship between independent variables (project mission, project resources, management and budget allocation), and the dependent variable (project implementation).

Table 4.5: Coefficient of Determination (R2)

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.463[a]	.215	.188	3.51026

a.Dependent variable: Project Implementation
b. Predictors: (Constant), Budget allocation, Project mission, Project resources, Management

The model explains 21.5% of the variance (Adjusted R Square = 0.188) on project implementation. Clearly, there are factors other than the four proposed in this model which can be used to predict project implementation. However, this is still a good model as Cooper and Schinder, (2013) pointed out that as much as lower value R square 0.10-0.20 is acceptable in social science research. This means that 21.5% of the relationship is explained by the identified four factors namely project mission, project resources, management and budget allocation. The rest 78.5% is explained by other factors in the project implementation not studied in this research. In summary the four factors studied namely project mission, project resources, management and budget allocation determines 21.5% of the relationship while the rest 78.5% is explained or determined by other factors.

Regression Analysis:

Analysis of Variance (ANOVA):

The study used ANOVA to establish the significance of the regression model. In testing the significance level, the statistical significance was considered significant if the p-value was less or equal to 0.05. The significance of the regression model is as per Table 4.6 below with P-value of 0.00 which is less than 0.05. This indicates that the regression model is statistically significant in predicting factors of project implementation. Basing the confidence level at 95% the analysis indicates high reliability of the results obtained. The overall Anova results indicates that the model was significant at F = 8.003, p = 0.000.

Table 4.6: ANOVA

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	394.439	4	98.610	8.003	.000[b]
	Residual	1441.668	117	12.322		
	Total	1836.107	121			

a. Dependent Variable: Project implementation

b. Predictors: (Constant), Budget allocation, Project mission, Project resources, Management

Multiple Regression:

Table 4.7: Multiple Regression

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.104	2.640		2.176	.002
	Project mission	.449	.123	.322	3.644	.000
	Project resources	.110	.124	.076	2.888	.003
	Management	.292	.113	.251	2.590	.001
	Budget allocation	.547	.122	.435	4.475	.000

a. Dependent Variable: Project implementation

The regression equation was:

$Y = 3.104 + 0.449\mathbf{X_1} + 0.110\mathbf{X_2} + 0.292\mathbf{X_3} + 0.547\mathbf{X_4}$

Where;

Y = the dependent variable (Project Implementation)

X_1 = Project Mission

X_2 = Project Resources

X_3 = Management

X_4= Budget Allocation

The regression equation above has established that taking all factors into account (project implementation as a result of project mission, project resources, management and budget allocation) constant at zero project implementation was 3.104. The findings presented also shows that taking all other independent variables at zero, a unit increase in project mission will lead to a 0.449 increase in the scores of project implementation; a unit increase in project resources will lead to a 0.110 increase in project implementation; a unit increase in management will lead to a 0.292 increase in the scores of project implementation; a unit increase in budget allocation will lead to a 0.547 increase in the score of governance. This therefore implies that all the four variables have a positive relationship with budget allocation contributing most to the dependent variable.

From the table we can see that the predictor variables of project implementation as a result of project mission, project resources, management and budget allocation got variable coefficients statistically significant since their p-values are less than the common alpha level of 0.05.

Table 4.8: Hypotheses Testing

Research Hypothesis	β	t	Sig.	Comments
HO_1: Project mission has no significant influence on water project implementation in Coast Water Services Board	.322	3.644	.000	Reject $H_0$1
HO_2: Project resources has no significant influence on water project implementation in Coast Water Services Board	.076	2.888	.003	Reject $H_0$2
HO_3: Management has no significant influence on water project implementation in Coast Water Services Board	.251	2.590	.001	Reject $H_0$3
HO_4: Budget Allocation has no significant influence on water project implementation in Coast Water Services Board	.435	4.475	.000	Reject $H_0$4

5. SUMMARY OF THE FINDINGS, CONCLUSION AND RECOMMENDATION

Summary of the findings:

From the research findings, project mission had an influence on implementation of water projects in Coast Water Services Board. Majority of the respondents found project planning, project objectives and project goals as key indicators that help administer project implementation in Coast Water Services Board. The findings revealed that project planning, project objectives and project goals had a very strong influence on the implementation of water projects in Coast Water Services Board. Thus the study results exhibited a high degree of positive significance on influence of project mission on implementation of water projects in Coast Water Services Board.

From the research findings, project resources had an influence on implementation of water projects in Coast Water Services Board. Majority of the respondents found human capital resources, financial resources and technological resources as key indicators that help administer project implementation in Coast Water Services Board. The findings revealed that human capital resources, financial resources and technological resources had a very strong influence on the implementation of water projects in Coast Water Services Board. Thus the study results therefore exhibited a high degree of positive significance on influence of project resources on implementation of water projects in Coast Water Services Board hence helping it achieve its role of water supply and sanitation.

From the research findings, management had an influence on implementation of water projects in Coast Water Services Board. Majority of the respondents found competence of managers, staff training and technical expertise as key indicators that help administer project implementation in Coast Water Services Board. The findings revealed that competence of managers, staff training and technical expertise had a very strong influence on the implementation of water projects in Coast Water Services Board. Thus the study results therefore exhibited a high degree of positive significance on influence of management on implementation of water projects in Coast Water Services Board hence helping it achieve its role of water supply and sanitation.

From the research findings, budgetary allocation had an influence on implementation of water projects in Coast Water Services Board. Majority of the respondents found adequate funding, timely funding and financial accountability as key indicators that help administer project implementation in Coast Water Services Board. The findings revealed that adequate funding, timely funding and financial accountability had a very strong influence on the implementation of water projects in Coast Water Services Board. Thus the study results therefore exhibited a high degree of positive significance on influence of budgetary allocation on implementation of water projects in Coast Water Services Board hence helping it achieve its role of water supply and sanitation.

Conclusion

The research findings led to conclusions that project mission had an influence on implementation of water projects in Coast Water Services Board. Further the study concluded that majority of the respondents found project planning, project objectives and project goals as key indicators that help administer project implementation in Coast Water Services Board. The conclusions revealed that project planning, project objectives and project goals had a very strong influence on the

implementation of water projects in Coast Water Services Board and should therefore be enhanced. Thus the research findings led to a conclusion that there was a high degree of positive significance on influence of project mission on implementation of water projects in Coast Water Services Board hence helping it achieve its role of water supply and sanitation.

The research findings led to conclusions that project resources had an influence on implementation of water projects in Coast Water Services Board. Further the study concluded that majority of the respondents found human capital resources, financial resources and technological resources as key indicators that help administer project implementation in Coast Water Services Board. The conclusions revealed that human capital resources, financial resources and technological resources had a very strong influence on the implementation of water projects in Coast Water Services Board and should therefore be enhanced. Thus the research findings led to a conclusion that there was a high degree of positive significance on influence of project resources on implementation of water projects in Coast Water Services Board hence helping it achieve its role of water supply and sanitation.

The research findings led to conclusions that management had an influence on implementation of water projects in Coast Water Services Board. Further the study concluded that majority of the respondents found competence of managers, staff training and technical expertise as key indicators that help administer project implementation in Coast Water Services Board. The conclusions revealed that competence of managers, staff training and technical expertise had a very strong influence on the implementation of water projects in Coast Water Services Board and should therefore be enhanced. Thus the research findings led to a conclusion that there was a high degree of positive significance on influence of management on implementation of water projects in Coast Water Services Board hence helping it achieve its role of water supply and sanitation.

The research findings led to conclusions that budget allocation had an influence on implementation of water projects in Coast Water Services Board. Further the study concluded that majority of the respondents found adequate funding, timely funding and financial accountability as key indicators that help administer project implementation in Coast Water Services Board. The conclusions revealed that adequate funding, timely funding and financial accountability had a very strong influence on the implementation of water projects in Coast Water Services Board and should therefore be enhanced. Thus the research findings led to a conclusion that there was a high degree of positive significance on influence of budget allocation on implementation of water projects in Coast Water Services Board hence helping it achieve its role of water supply and sanitation.

Recommendation:

Based on the findings of the study and as per the specific objectives, the study recommends as follows:

1. That Coast Water Services Board should adopt project mission policies such as project planning, project objectives and project goals so as to enhance implementation of water projects.
2. That Coast Water Services Board should deploy project resources towards implementing water projects by investing heavily on human capital resources, financial resources and technological resources.
3. That Coast Water Services Board should hire competent management to drive the agendas of the organization by providing this managers with competent management skills, staff training and technological expertise training.
4. That Coast Water Services Board should adopt the administration of budgetary allocation by championing for adequate funding, timely funding and accountability so as to implement the projects smoothly without any difficult.

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