

Factors Influencing Stakeholders Management in Effective Implementation of Water Projects in Kiambu County, Kenya

¹Mureithi Ndugo Muhiai, ²Yusuf Muchelule Wanjala, ³Prof. Mike Amuhaya Iravo

School of Human Resource Development, Jomo Kenyatta University of Agriculture and Technology, Kenya

Abstract: The Kenyan government and international organizations have continued to invest in the implementation of water development projects to assist the rural communities to alleviate the problem of water scarcity. The performance of these projects is the major problem as they are not successful and falling out of use at an alarming rate. To invest in the implementation of water development projects more effective and worth, success rates of these projects should be increased. The Study, therefore, examined the stakeholder's management factors in the effective implementation of water projects in Kiambu County by focusing on four specific objectives: stakeholder policy factors, beneficiary factors, contractor factors and consultant factors. The study was guided specifically by the following four theories: Stakeholders participation theory, the complexity theory, constraints theory and project management competency theory. The unit of observation was Project managers, assistant project managers and the project supervisors of 40 water projects and the unit of analysis was 40 water projects implemented in Kiambu County for the last four years. The study adopted a census survey design with the respect of the unit of analysis which is the 40 water projects that have been implemented in Kiambu County for the last four years. A census was conducted since only 40 projects were studied and a census is applicable when the entire population is small. Data was collected through the use of semi-structured questionnaires which were administered to the project manager's, assistant project managers and project supervisors and analyzed using statistical package for social sciences (SPSS) version 23. A pilot study was conducted to pretest the validity and reliability of data collection instruments. Both quantitative and qualitative data were collected. Analysis of data was done using descriptive and inferential statistics. The relative importance index method was used to determine the relative importance of the various factors that influence effective implementation of water project according to the responses. The Spearman's rank correlation coefficient was used to show the degree of agreement between the rankings of any two parties. The analyzed results were presented using tables and qualitatively.

Keywords: Beneficiary Factors, Consultant factors, Contractor Factors, Project Implementation, Stakeholders, Stakeholders Management.

1. INTRODUCTION

Stakeholders are individuals and organizations that are actively involved in the project, or whose interests may be positively or negatively affected as a result of project execution or project completion; they may also exert influence over the project and its results. Stakeholder management factors are seen as the empowerment of individuals and communities regarding acquiring skills, knowledge, and experience, leading to greater self-reliance. Stakeholders can be a considerable asset, contributing knowledge, insights, and support in shaping a project brief as well as supporting its execution. The high failure rate of major projects has been attributed to a lack of attention to stakeholders. Stakeholders' negative attitudes towards a project can cause cost overruns and schedule delays due to conflicts over project design and implementation. It is argued that by establishing a process of genuine Stakeholder management, development will occur as a direct result.

To underscore the importance of access to safe water, The Bill of Rights under article 43 of the Constitution of Kenya (COK) 2010 states that access to safe water and safe sanitation is a right. The draft NWP 2012 further aligns the sector with the new Constitution based on the guiding principles right to water with pro-poor orientation, participatory approach to water development and management and good governance practices at all levels. The Policy Objectives of the draft further include “progressively achieving universal rights to water supply and sanitation for all by 2030 in the rural and urban areas”. However, in spite of the new policy, legislative frameworks and increased sector investments in rural water development which rose from Ksh 3 billion in 2003/2004 FY to Ksh 12 billion in the 2010/2011. The Republic of Kenya (ROK) has been committed to fostering on-going water sector reforms, aimed at water projects achieving both technical and infrastructural viability. Kenya faces enormous challenges in providing sustainable access to safe water which is estimated at around 60% in urban and 40% in rural settings. Missing baseline data and sustainable information systems hinder obtaining a clear nationwide picture, and thus, coverage can only be estimated. Therefore, sustainable access to safe water and basic sanitation is still declining regarding quality and quantity.”

The biggest challenge however that is there is a gap regarding locally conducted studies to assess the sustainability of community water projects in Kenya. According to [8], a project is considered to be successfully implemented if it is on schedule, within budget, and achieves all the goals originally set for it and is accepted and used by the beneficiaries for whom it is intended. Inability to complete projects in time is among the challenges faced in the course of executing construction projects [7]. [2] Explained that achieving Project Implementation on time, within budget, at specified quality standards, and most importantly without unprecedented cost escalations is a major criterion of success of a project.

2. EMPIRICAL REVIEW

[9] Conducted a study on causes of poor performance in World Bank Water and Sanitation projects in the USA. The study found out that most beneficiaries participants were actively involved and participated in the project execution activities but rarely participated in project planning and design as well as monitoring and evaluation. The target population of the study was 283 CDF funded projects in Karachuonyo constituency that were clustered and sampled for analysis. It, therefore, recommended that for effective project implementation, there should be adequate budget allocations, prompt disbursements and clear selection and allocation criteria through the involvement of all key stakeholders in the project cycle. The above study focused on factors that influence effective implementation of CDF projects while the current study focuses on stakeholder management factors in the effective implementation of water projects in KIAMBURU County.

[8] Studied time delay factors for housing projects of Kenya Agricultural Research Institute (KARI). They identified insidious elements of uncertainty and demand, which so often affect project performance and success. Implementation of groundwater projects in Ghana was negatively affected by poor contractor management factors due to monthly payment difficulties from agencies, material procurement, poor technical performances, escalation of material prices and unexpected events [3]. They suggested that there was the need to improve contractor's factors on managerial skills and the establishment of effective material procurement systems within projects to minimize delays in groundwater projects implementations. [6] investigated the effect of competence of contractors on the construction of buildings in Kenya. The study targeted local contractors based in Nairobi, and from it, it was established that internal bidding for works by contractors who cannot execute the scopes was done. Further, the study also reveals lack of peer review especially on best practice standards and also lack of registration by specific professional bodies as some of the real teething issues inhibiting effective delivery of the projects. Therefore, the study necessitated having a local legislative framework that would guide and manage the implementation of various construction projects within the given fields.

In Tanzania, a study by [7], found the main factors that influenced the implementation of construction water projects were consultant factors in relation to design changes, delays in payment to contractors, information delays, funding problems, poor project management, compensation issues and disagreement on the valuation of work done and it, therefore, recommended that adequate construction budget, timely issuing of information, finalization of design and project management skills should be the main focus of consultant involved in project management. [9] Found that change orders, financial and other client-related factors are the most significant factors that affected completion of projects in the United Arab Emirates. They identified 42 factors and grouped them into five categories which included contractors, consultants, project beneficiaries, clients, financial and other unforeseen factors. Time and cost overrun were the two most important effects of untimely completion of projects, ranked first and second respectively by both consultants and project managers. In Libya, the main causes of delays were improper planning, consultant related factors, lack of effective communication,

and the shortage of supply of materials, i.e., steel, concrete, etc. design errors, slow decision making and financial issues[11].

3. CONCEPTUAL FRAMEWORK

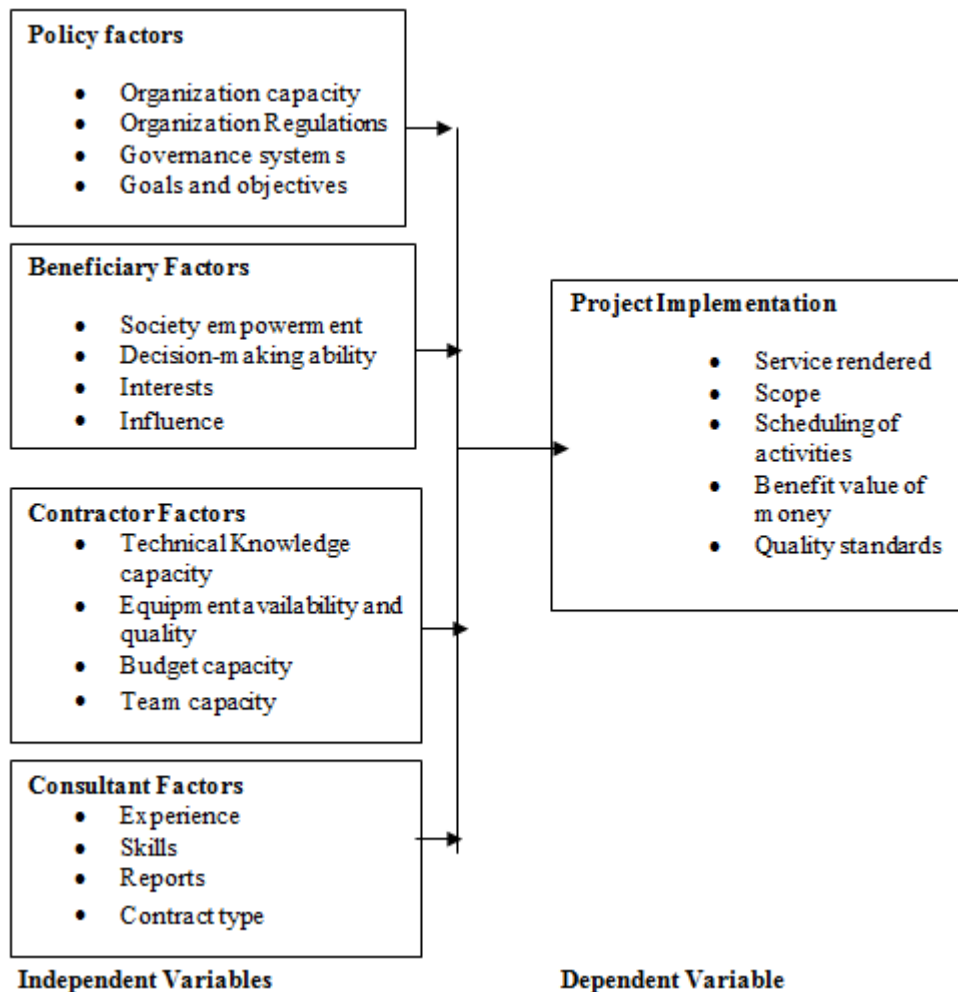


Figure 2.1: Conceptual Framework

4. SUMMARY AND CRITIQUE OF EXISTING LITERATURE

Factors affecting completion of housing projects were studied by [5], who covered project management, contractors, consultants, and finance. This study also excluded external factors and was also for an urban setting, and therefore there was a need to have projects in rural areas with unique challenges. [4], studied educational levels and training of project staff, promptness in the release of funds by donors and regularity monitoring and thus it covered projects funded through foreign institutions, which might limit generalization on other projects, which has other sources of funding. The major causes of unsuccessful completion of construction projects around the world were delayed payments, financial deficiencies on the part of the beneficiary or the contractor, contract modifications, economic problems, material procurement problems, changes in design drawings, staffing problems, unavailability of equipment, poor supervision, construction mistakes, poor coordination on site, changes in specifications, labour disputes and strikes, coordination problems, poor communication, site accidents [1].

5. RESEARCH METHODOLOGY

The study adopted a descriptive survey design. Both qualitative and quantitative research approaches were adopted because of the nature of the research questions. The design was appropriate for this study since it allowed the researcher to describe the record, analyze and record and report the conditions of the water projects as they are. The target population

for the study was 40 water projects implemented in KIAMBU County. The unit of analysis was 40 water projects whereas the unit of observation was the project managers, assistant project managers and project supervisors from each project since they were actively involved in the implementation of the projects. Therefore, the target population was 120 (3*40). The study used census since the population of 40 water projects was small and the study aimed at reaching the project managers, assistant project managers and supervisors of the 40 projects since there were the ones who were responsible for overseeing the implementation of the projects. The study used self-administered questionnaires. This study utilized both primary and secondary data. Questionnaires were used to collect primary data which was distributed to the staff.

6. RESULTS AND DISCUSSION

Response rate:

The response rate regarding the study was measured at 57.5% whereby 69 respondents out of 120 turned up. The questions asked were answered correctly thus providing a four-item response rate for each variable.

Stakeholder Policy Factors:

Communication as a stakeholder policy factor as effective. Communication was undertaken through organized workshops, 15 (21.74%) of the respondents strongly agreed, 44 (63.77%) agreed while 5 (7.25%) of the respondents were neutral, 4 (5.8%) of the respondents disagreed and, 1 (1.45%) of the respondents strongly disagreed (mean = 3.9855, SD = 0.81336). The majority that was 44 (63.77%) of the respondents agreed that Communication of project policies to team members was through organized workshops. About Greenwood, (2007) engaging stakeholders' means to undertake practices that involve stakeholders in a positive manner in organizational activities. The respondents were also the extent Stakeholder Policy factors affects effective implementation of water projects. The results were such that 4 (5.8%) of the respondents noted clients are awareness to policies on projects implementation was to a great extent, 22 (31.88%) noted great extent, 35 (50.72%) noted to no extent, 6 (8.7%) disagreed and 2 (2.9%) noted to a little extent (mean = 3.2899, SD = 0.82429). Majority of the respondents 35 (50.72%) were to no extent. Impact of Environmental management policies on effective project implementation, 37 (53.62%) of the respondents noted it as a great impact, 9 (13.04%) as a very great impact while 13 (18.84%) of the respondents noted no impact (mean = 3.594, SD = 0.89638).

Beneficiary factors:

About the effective implementation of the water projects, the beneficiary was consulted during decision-making, 7 (10.14%) of the respondents strongly agreed, 32 (46.38%) agreed while 16 (23.19%) of the respondents were neutral. However, 13 (18.84%) of the respondents disagreed while 1 (1.45%) strongly disagreed to the same (mean = 3.434, SD = .90983). On the beneficiary was consulted during decision-making majority of the respondents 32 (46.38%) agreed. Beneficiaries are either experienced or inexperienced. The main important role of the beneficiary is financing the project. Finance is an integral factor that leads to project success. The respondents were also asked Impact of beneficiary funds adequacy on effective water projects implementation. The results were such that 9 (13.04%) of the respondents gave it as a very great impact, 40 (57.97%) noted it as great impact, 9 (13.04%) noted it as small impact, 7 (10.14%) noted it as no impact (mean = 3.623, SD = 1.03044). Majority of the respondents 35 (50.72%) agreed that the make frequent visits to the debtors reminding them to pay. From the study, it emerged that all respondents indicated that beneficiary factors such as financial capability and decision-making capabilities improved implementation by over 75%, which was a positive effect on the effective implementation of water projects. There are various sources of funding for construction projects.

Contractor factors:

On the requirement of to what extent, does possession of right equipment by the contractor influence effective implementation of water projects, 10 (14.49%) of the respondents noted a very great impact, 29 (42.03%) of the respondents noted great impact and 25 (36.23%) of the respondents noted small impact. However, 5 (7.25%) was for no impact (mean = 3.6087, SD = .89471). Contractors were able to fully fund six projects in 2013, 11 projects in 2014, ten projects in 2015 and 19 projects in 2016. This was a sign of commitments to the mere contractor. These findings are in line with Sambasivan and Soon (2007) who indicated that contractors played a significant role in influencing completion of construction projects. He asserted that contractor related factors included delays caused by the subcontractor, site management, improper construction methods, improper planning and errors during construction, and inadequate contractor experience. Furthermore, training was also sponsored by the organization to improve its staffs' skills and knowledge in regards to effective implementation of the water projects, and the highest number of training was 12

conducted in 2016. The study further noted that contractor factors such as financial capacity, equipment availability and skilled work force positively influence effective implementation of water projects as 80% of respondents noted it improved implementation by between 50% to 75%.

Consultant factors:

Post Graduate consultants were 16 (23.19%) of the respondents, 33 (47.83%) were undergraduates, 11 (15.94%) of the respondents were of Diploma level, and 9 (13.04%) of the respondents were secondary level. Consultants had executed between 25 to 30 projects as from 2013 to 2016 period. This shows consultants were rarely sought which could negatively affect effective implementation of water projects. This was further asserted when respondents indicated that contractor factors such as experience, site inspection and decision making improved implementation by between 25% to 50% which was too low and therefore negatively influence effective implementation of water projects. The issue of time taken by consultant to inspect a project during implementation was also sought by the researcher, 2 (2.9%) of the respondents noted more than 5 times a year 65 (94.2%) of the respondents noted between 5 and 3 and 2 (2.9%) of the respondents noted between 3 and 1 (mean = 3.9710, SD = .38237). Majority of the respondents who constituted 65 (94.2%) agreed that it was done between 5 and 3. impact of consultant decision on effective implementation of water projects, 6 (8.7%) of the respondents it was a very great impact, 37 (53.62%) noted great impact while 16 (23.19%) of the respondents noted a small impact, 10 (14.49%) of the respondents noted it had no impact (mean = 3.536, SD = .91683). The majority, which is 37 (53.62%) of the respondents noted it had a great impact.

Effective Implementation of Water Projects:

Regarding the number of the projects that were effectively completed within the stipulated budget, 23 (33.33%) of the projects were in 2016, 32 (46.38%) were in 2015, 8 (11.59%) were in 2014 and 6 (8.7%) of the projects were in 2013 (mean = 4.014, SD = .97758). Majority of projects, 32 (46.38%) was in 2015. Project implementation is considered to be tied to project success, and this is also tied to project objectives. The findings also provide the number of projects that were effectively implemented as per the initial project scope 24 (34.78%) of the projects was implemented in 2016, 22 (31.88%) of the projects implemented in 2015 and 17 (24.64%) were in 2014. However, 6 (8.7%) were in 2013 (mean = 3.884, SD = 1.07835). Less than half of the respondents, 24 (34.78%) of projects were implemented in 2016.

7. CONCLUSION

Results indicate that stakeholder policy factors had a positive influence on water projects implementation. Engaging stakeholders and developing a consultation plan considers the need for consultation and the added value which consultation can bring to the policy process. It deals specifically with the initial task of identifying those groups to be consulted, how they should be consulted and when. The output of this section can assist policy makers in developing a consultation plan. Results indicate that beneficiary factors had a positive influence on water projects implementation. [10], found beneficiary related factors which influence project implementation were finance and payments of completed work, owner interference, slow decision making and unrealistic contract duration imposed by owners for projects. Results indicate that contractor factors had a positive influence on water projects implementation. Results indicate that consultant factors had a negative influence on water projects implementation. [6] Also found that consultants influenced completion of construction projects through, contract modifications, changes in design drawings, poor coordination on site, poor supervision and changes in specifications.

REFERENCES

- [1] Abd El-Razek, M., Bassioni, H., & Mobarak, A. (2008). Causes of delay in building construction projects in Egypt. *Journal of Construction Engineering and Management*, 134(11), 831-841.
- [2] Choge, J., & Muturi, W. (2014). Factors affecting adherence to cost estimates: A survey of construction projects of Kenya National Highways Authority. *International Journal of Social Sciences and Entrepreneurship*, 1(11), 689-705.
- [3] Frimpong, Y., Oluwoye, J., & Crawford, L. (2003). Causes of delay and cost overruns in construction of groundwater projects in a developing countries; Ghana as a case study. *International Journal of project management*, 21(5), 321-326.

- [4] Gaturu, N., & Muturi, W. (2014). Factors affecting the timeliness of completion of donor-funded projects in Kenya: a case of world agro forestry centre (ICRAF). *European Journal of Business Management*, 2(1), 189-202.
- [5] Kamotho, J. M. (2014). *Factors Influencing Project Implementation in the Housing Construction Industry, Nairobi County*. (MA Thesis), University of Nairobi.
- [6] Kaliba, C., Muya, M., & Mumba, K. (2009). Cost escalation and schedule delays in road construction projects in Zambia. *International Journal of project management*, 27(5), 522-531.
- [7] Kikwasi, G. (2012). Causes and effects of delays and disruptions in construction projects in Tanzania. *Australasian Journal of Construction Economics and Building-Conference Series*, 1(2), 52-59.
- [8] Mbaluku, H. N., & Bwisa, H. (2013). *Delay Factors in in Construction Project Implementation in the Public Sector; A Case Study of the Kenya Agricultural Research Institute Construction Projects*. Paper presented at the JKUAT-SHRD Research Conference, JKUAT, Kenya.
- [9] Motaleb, O., & Kishk, M. (2010). *An investigation into causes and effects of construction delays in UAE*. Paper presented at the Annual Conference of the Association of Researchers in Construction Management Leeds.
- [10] Sambasivan, M., & Soon, Y. W. (2007). Causes and effects of delays in Malaysian construction industry. *International Journal of project management*, 25(5), 517-526.
- [11] Tumi, S. A. H., Omran, A., & Pakir, A. H. K. (2009). *Causes of delay in construction industry in Libya*. Paper presented at the The International Conference on Economics and Administration.