

INFLUENCE OF STRATEGIC FACTORS ON THE PERFORMANCE OF WATER PROJECTS IN MACHAKOS TOWN SUB COUNTY, KENYA

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Abstract: *The purpose of this study was to examine the influence of top management support on the performance of water projects in Machakos Town Sub County in Kenya. This study was guided by Resource Based Theory developed by Penrose and was concerned with why organizations in the same industry have differing performance levels over the same timelines. The differences in performance was attributed to the differences in the firms' internal capabilities that yield to competitive advantage for the organizations. A descriptive research design was used because it allowed a systematic and well-ordered description which was reliable, accurate as well as valid. The target population comprised of 69 project managers, 207 project coordinators, 138 project ground supervisors and 276 users of the water projects in the sub county thereby having 690 respondents. To achieve the objective a sample of 253 respondents was drawn from the population. Questionnaire was used as the main instrument for data collection. The questionnaire was tested for validity and reliability before collecting data. The data obtained from the respondents was analyzed using descriptive and inferential statistics. The results showed that top management support influences the performance of the water projects in Machakos Town Sub County. The study concluded that top management support has a positive and significant effect on the performance of water projects in Machakos Town Sub County. The study recommends that top management should set a clear strategic direction, delegate duties based on staff competencies so as to fully realize their potential towards improved performance of the projects.*

Keywords: *strategic factors, top management support, water projects*

1.0 INTRODUCTION

According Top management support provides the strategic direction of the project, delegates duty based on staff capabilities/competencies, allocates resources efficiently, rewards and recognizes employees who show exemplary performances in all its processes. This leads to project performance since the performing employees are motivated while other employees are encouraged to participate fully in the project (Yunus et al. (2013).

1.1 Background

According to Burns, (2008) top management support refers to the organization's senior manager's favourable attitude and behaviour towards the project, and visible support during and after the implementation. Top Management support has been identified as a key factor influencing the performance of projects in general.

Top management support identifies the right persons, free them from other responsibilities, organize them into an interdisciplinary team, and empower them for the responsibility of the project (Chen, 2001). Top management support plays a significant role in project outcomes (Ahmed, Mohamad, & Ahmad, 2016; Hwang, Lin, & Lin, 2012). The success or failure of projects in organizations depends on the intensity of support from the top management (Liebowitz, 1999; Raymond Young & Poon, 2013)

1.2 Research objective

To determine the effect of top management support on the performance of water projects in Machakos Town Sub-County.

1.3 Top Management Support and performance of water projects

Kirkpatrick and Ackroyd (2015) concluded that top management plays a crucial role in achieving performance; Top management involvement assures the successful performance in the projects since they act as key pillars by setting targets and inspires employees in the project.

Top management provides the strategic direction of the project, delegates duty based on capabilities/competencies, allocates resources efficiently, rewards and recognizes employees who show exemplary performances in all its processes. This leads to project performance since the performing employees are motivated while other employees are encouraged to participate fully in the project (Yunus et al. (2013).

Additionally, there are other critical reasons for allocating resources efficiently, setting the strategic direction of the project and delegating duty based on capabilities/competencies. For example, delegating duty based on competencies allows a project to acknowledge and reward its best employees, which leads to profit growth and performance.

A further implication is that Top management support is the breakthrough that resolves the persistent issue of information technology projects' failure. These findings have informed the development of Australian Standards AS8015 and AS8106 (Corporate Governance of IT), the first of which has been adopted by the International Organization for Standardization as ISO 38500. The findings are also consistent with an entire special issue of the International Journal of Project Management (Volume 24, Issue 8) and other research in this area (Kohli and Devaraj, 2004; Peppard et al., 2007).

Many past studies have highlighted the success of the organizations due to effective top management support. Among the scholars are Young and Jordan (2008), who agreed that TMS is the most important critical success factor for project success. This statement also is supported by later study by Feng and Zhao (2014) that manifest the top management support in the context of manufacturing firms in China. Top management support is elucidated by the support of the employees received from top management to improve the supply chain management.

2.0 EMPIRICAL REVIEW

Riaz Ahmed (2021) carried out a study of top management support and project performance in the public sector projects in Pakistan and found that top management support significantly contributes to project performance. The findings imply that project managers and engineering managers should grasp apt support from the top

management to improve project performance, due to the positive and significant relationship between top management support and project performance.

Young and Jordan (2008), who agreed that top management support is the most important critical success factor for project success. This statement also is supported by later study by Feng and Zhao (2014) that manifest the top management support in the context of manufacturing firms in China. Top management support is elucidated by the support of the employees received from top management to improve the supply chain management. Aside from that, a study done by Yunus et al. (2013) at Klang Valley, Malaysia, towards a chosen of public-private organizations found that the TMS plays a vital role in achieving the vision of the organizations.

3.0 RESEARCH METHODOLOGY

The study adopted the descriptive research design. The quantitative data was analyzed using Statistical Package for Social Sciences (SPSS Version 27.0) and presented inform of frequencies, percentages, means and standard deviations. Qualitative data was analyzed by testing the four hypotheses and by the ordinal regression model and presented through tables, charts and graphs. Inferential statistics was used to draw conclusions about the population from the sample taken.

3.1 Population and Sampling

According to Sekaran and Bougie (2010), population is defined as a definite different set of services, events, elements, people and households under a research-based investigation or collection of items. The target population for this study was 690 respondents identified through stratified random sampling technique and consisting of 69 project managers, 207 project coordinators, 138 project ground supervisors and 276 users of the water projects in Machakos Town Sub County. The sample size was 253 respondents determined using Yamane (1967) formulae. Primary data was obtained using self-administered questionnaires made up of both open ended and closed ended questions to gather relevant data.

3.2 Data Collection Instruments

Questionnaires and personal interviews were used in this study. Likert scale, close-ended and open-ended questions were in the semi structured questionnaire. Likert scales were important in ensuring that the objectives of the study were evaluated comprehensively and they could also give the respondents statements of a wide scope developing from the literary conversation, where they were expected to agree or disagree. Close ended type of questions simply agree to particular kinds of answers like Yes or No, whereas in the open ended questions, respondents stretch answers according to their individual thinking.

3.3 Validity of the Research Instrument

Validity is simply measuring of accuracy. The researcher's judgment are based on the assessments of validity of the research instrument. Validity is the approximate truth of preposition, inferences or conclusion (Sachdeva, 2018). Validity of the instrument was first ascertained to ensure that the questions measured what they were supposed to measure for instance clarity of wording and whether the respondents could interpret all questions well to eliminate areas that were likely to cause ambiguity and confusion.

For the questionnaire validity to be enhanced, content validity index was calculated where the research instruments were appraised by the first and second supervisors from a research viewpoint. To ensure content of the instrument of research, field test was conducted with pilot randomly selected respondents from the population sample and also the corrections on the identified questions were incorporated in the instrument.

3.4 Reliability of research instrument

Reliability was tested by the Cronbach alpha test to assess whether the results remain the same over the same sample but over different time spans.

Bell, Bryman and Harley (2022) indicated that a Cronbach's alpha of 0.7 is an acceptable reliability. In this study Cronbach's Alpha of 0.7 was considered acceptable reliability. A Cronbach Alpha above 0.7 is an acceptable reliability coefficient. As shown in Table 1 value for scale reliability for top management support was more than 0.7.

Table 1: Reliability results

Variable	Number of items	Cronbach alpha	Decision
Top Management Support	4	0.774	Reliable

From the above table, all the Cronbach Alpha Coefficients were above 0.7 and therefore close to 1 indicating that the items in the questionnaire were highly correlated with each other ensuring a good reliability and internal consistency, therefore all the questions were reliable, and thus accurate responses could be drawn from them to objectively explain the influence of top management support on the performance of water projects in Machakos Town Sub County.

3.5 Data Analysis and Presentation

Descriptive and Inferential statistics was used in this study to analyze data. Standard deviations, means, percentages and frequencies were used as the statistical tools for analyzing data. Data collected was examined thoroughly and checked for comprehensiveness. Data was coded as well as entered into the SPSS version 27.0. The processed data was then presented in form of tables, charts and graphs.

4.0 DATA ANALYSIS AND PRESENTATION

4.1 Introduction

A total of 253 questionnaires were distributed to the respondents categorized into project managers, project coordinators, project ground supervisors and water users. Out of the questionnaires distributed, 210 were collected leading to a representation of 83 percent.

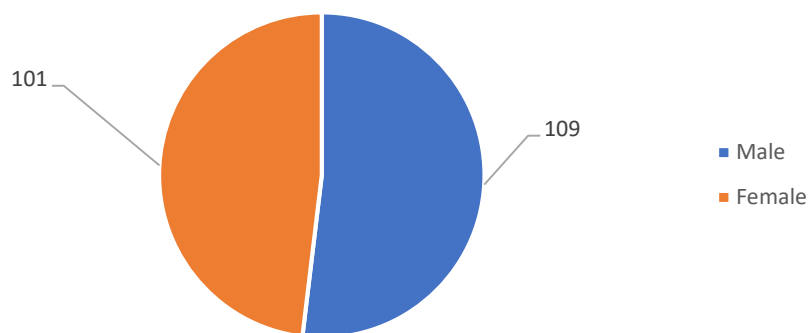
The high response rate minimized the chances for nonresponse bias and simultaneously enhanced the reliability and validity of the study findings. Mugenda and Mugenda (2013) avers that a response rate of 50% or more is acceptable for conducting estimation.

4.2 Demographic Characteristics

This section consists of information that describes basic respondent’s characteristics including position occupied by the respondents, gender and number of years worked in the water projects in Machakos Town Sub County.

4.2.1 Gender of respondents

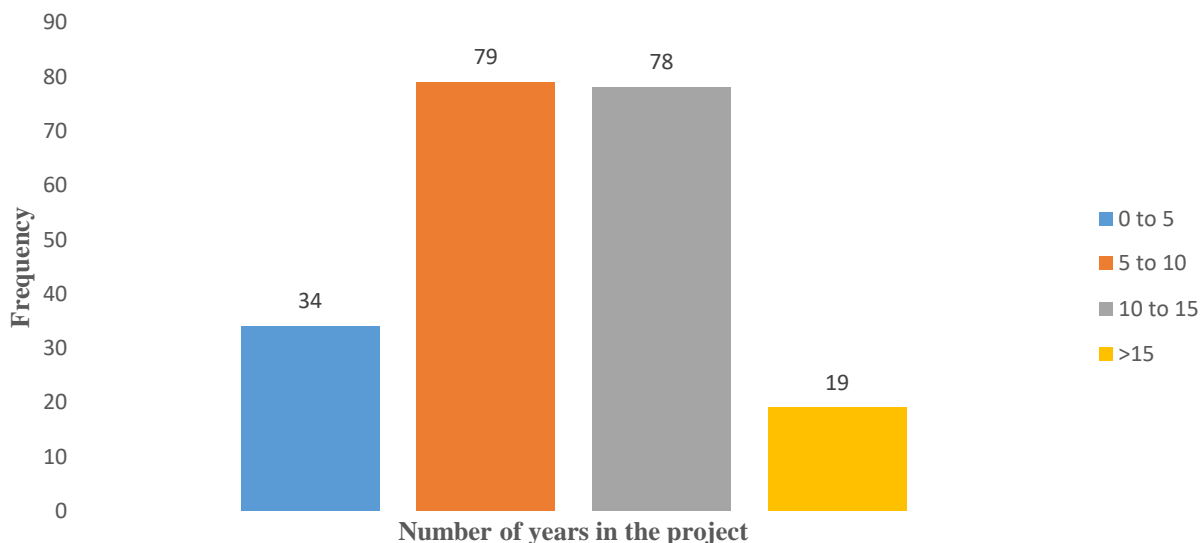
Figure 1 presents the findings on the gender of the respondents



The finding showed that male was the majority of all the respondents with 51.9% while female was 48.1%. This shows that in the study both gender was represented though, there was a slight percentage difference in terms of gender.

4.2.2 Number of years served in the water project

The respondents were asked to record the number of years they had been working in the projects. The results obtained are shown in Figure 2.



The finding indicated that majority of the respondents have been working in the project for between 5-10 years at 37.6 %, between 10-15 years at 37.1 %, 0- 5 years with 16.2 %, and over 15 years at 9%. From the findings, the respondents had been working in the current positions for long enough to be informed on the performance of the water projects in Machakos Town Sub County and how it has been influenced by top management support

4.3 Descriptive Statistics

This was done by the calculation of mean and standard deviation. The average mean of top management support and performance of water projects in Machakos Town sub county was 4.8203 which means that top management support affected the performance of water projects to a very great extent.

The study sought to establish whether top management support affects the performance of water projects in Machakos Town Sub County. The responses were rated on a Likert scale and the results are as presented in Table 2.

Statement	Mean	Standard Deviation
Top Management provided a clear strategic direction in this water project	4.7810	0.58663
Top Management has actualized a clear delegation of duties based on staff competencies in this water project	4.9095	0.28755
Top Management has provided efficient allocation of resources in this water project.	4.8476	0.36025
Top Management has empowered staff in terms of relevant skills and providing requisite working tools	4.7429	0.44889
Average	4.8203	0.4209

4.4 Regression Analysis and Hypothesis Testing

The study tested the significance of top management support effect on the performance of water projects in Machakos Town Sub- County at $\alpha = 0.05$ level of significance.

Ordinal regression analysis was conducted so as to quantify the influence of top management support on the performance of water projects in Machakos Town Sub County. Finding out the isolated effect of top management support on performance of water projects was crucial given the fact that the effectiveness of the variable in influencing performance of water projects in Machakos Town Sub County was quite different. The following hypothesis was formulated and tested;

H01: Top management support has no significant effect on the performance of water projects in Machakos Town Sub County

Table 3: Parameter Estimates

		Estimate	Std. Error	Wald	df	Sig.	95% Confidence Interval	
							Lower Bound	Upper Bound
Threshold	[Perf = 1.00]	2.704	2.253	1.439	1	0.230	-7.120	1.713
	[Perf = 1.33]	1.274	2.247	.321	1	0.571	-5.678	3.131
	[Perf = 1.67]	.000	2.245	.000	1	1.000	-4.401	4.401
	[Perf = 2.00]	.844	2.248	.141	1	0.707	-3.562	5.249
	[Perf = 2.33]	1.908	2.259	.713	1	0.038	-2.520	6.336
	[Perf = 2.67]	2.725	2.283	1.425	1	0.233	-1.749	7.200
Location	Top Management support	0.027	.465	.195	1	0.009	1.117	.706

Link function: Logit.

The positive value of ordered regression coefficient (0.027) is associated with an increase likelihood of performance when the top management support increases. It was statistically a significant predictor variable at 5% significance level having less than 0.05 P-value. Therefore, the null hypothesis was rejected implying that top management support had a positive and significant influence and was a key determinant on performance of water projects in Machakos Town Sub County. Therefore, the null hypothesis was rejected implying that top management support had a significant influence and was a key determinant on performance of water projects in Machakos Town Sub County.

This finding is consistent with Riaz Ahmed (2021) who carried out a study of top management support and project performance in the public sector projects in Pakistan and found that top management support significantly contributes to project performance. Additionally, Young and Jordan (2008) in their study agreed that top management support is the most important critical success factor for project success. This statement is also supported by later study by Feng and Zhao (2014) that found top management support was the most influential aspect of performance in the context of manufacturing firms in China.

Table 4: Goodness-of-Fit

	Chi-Square	df	Sig.
Pearson	29.794	29	.424
Deviance	30.432	29	.393

Link function: Logit.

Goodness of fit measures how well the observed data values correspond to the fitted model. Goodness of fit statistics indicates a good fit if the significance value is greater than 0.05. In this case it was greater than 0.05 hence it adequately fits the data.

4.5 Regression Coefficient

The output showed the regression estimate (β coefficient) computed that assisted in determining if top management support significantly influenced the performance of water projects in Machakos Town Sub County by observing its associated t statistic and p value. The findings demonstrated that top management support had a positive and significant influence on the performance of water projects

$p = .0027, p < 0.05$). These results meant that an increase in the top management support would result to improved performance of water projects by 0.027 units when all other factors were held constant.

Given that the calculated p value was 0.027 was less than 0.05, the null hypothesis (H_0) was thus rejected and an inference made that the top management support had a positive and significant influence on the performance of water projects in Machakos Town Sub County.

These findings compare with the sentiments of most of the respondents who noted that this top management support influenced the performance of water projects in the Sub County.

5.0 CONCLUSION AND RECOMMENDATIONS

5.1 Conclusion

The objective of this study was to examine the influence of top management support on the performance of water projects in Machakos Town Sub County in Kenya. The study concluded that top management has provided a clear strategic direction, has actualized clear delegation of duties based on staff competencies has allocated resources to the water projects efficiently and has empowered staff in the water projects in terms of relevant skills as well as provision of the necessary working tools. This has improved the overall performance of the water projects in the Sub County.

5.2 Recommendations

The study recommends that both National government and Counties put extra measures to ensure maximum absorption of resources both human and capital, delegate duties based on staff competencies and should ensure they provide a clear strategic direction for effective and efficient service delivery.

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