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## **Effect of Agile Project Management Techniques on Performance of Public Funded Projects: A Case of Kenya Urban Roads Authority**

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# Effect of Agile Project Management Techniques on Performance of Public Funded Projects: A Case of Kenya Urban Roads Authority

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## Abstract

In Kenya many public funded projects fail or are never completed. The performance of projects in developing countries is hindered by diverse factors. Indeed, various studies in agile project management have explored diverse success factors in improving the performance of agile project management. The main focus of this study was to establish the influence of agile project management techniques on performance of public funded projects in Kenya. The study specifically focused on the influence organisational strategy, resource mobilization, project team competence and stakeholders' involvement on the performance of public funded projects in Kenya. The study was guided by resource mobilization theory, competency theory, stakeholder theory and theory of reasoned actions. This study adopted a descriptive survey design. The target population for this study included project managers at KURA for all for ongoing project in Nairobi County. The target population for the study was a total of 78 projects managers from all the 78 ongoing projects in Nairobi County. The study adopted a census technique with respect to the unit of observation which is the project managers for all ongoing projects in Nairobi County. The instrument for data collection was mainly a questionnaire. Questionnaires were distributed to the respondents to be filled questionnaires and it were picked after two weeks. Inferential statistics; regression coefficient and bivariate correlation were used to analyze the relationship of the dependent variable and the independent variables. The major findings revealed that resource mobilization, stakeholders' participation and project team competence had a positive and significant relationship with project performance. Organisational strategy had a positive but insignificant relationship with project

performance. Based on the study findings, the study concluded that use of agile project management techniques positively affected the project performance. The study recommended that policy makers both at the national level and at the county level should revise existing and formulate new policies to regulate how public funded projects are procured and implemented.

**Keywords:** *Resource, Mobilization, Stakeholders', Participation, Competence, Strategy*

## 1.1 INTRODUCTION

Project management is management specific to a project. It encompasses the knowledge, skills, and activities, as well as the tools and techniques, to bring a project to its desired outcome (Turner, 2016). The project manager is the person charged with fulfilling the project objectives. The project manager can work independently or with others as part of a project management team (Walker, 2015). To properly manage a project, one has to identify the project requirements, clearly define the objectives and project deliverables, balance the “triple constraint” of time, scope, and cost, and collaborate with project stakeholders (Schwalbe, 2015).

Project management methods have been extensively used by many public and private entities to solve their problems, manage scarce resources and, achieve important objectives (Kerzner & Kerzner, 2017). For developing countries, the potential benefit of project management is extremely high and the proper application of it may even be critical; as in those countries; resources are extremely scarce and, achievement of project objective, in most cases, is extremely important (Morris, 2013).

Agile project management (APM) has emerged as an area of great interest in the 21<sup>st</sup> century. APM relates to the management of software projects which are developed by means of several agile frameworks (Morris, 2013). These frameworks include extreme programming (XP) as well as scrum. These methods ensure have several advantages such as quick response to customers, efficient customer collaboration, as well minimal documentation coverage. Agile project management has become quite popular in project management lately. Hence, this makes it an interesting area of research as there are several areas within agile project management need further research (Fox, 2010).

In the public sector, agile tools increase efficiency and success of organization’s project. According to Khan, Turner and Maqsood (2013), agile methodology allows the organization collaborate with its suppliers. It allows the project team selects small- and medium-sized companies to supply agile services for the projects it is undertaking. Such small teams facilitate quick decisions thereby increasing project success. However, the project team has to contend with the employee’s mindset because the structure for managing agile delivery, unlike traditional methods, is not prescribed (Murat, 2016).

Ochieng, Price and Moore (2013) averts that agile approach when used in the public sector should involve all stakeholders in the process. Stakeholders are important in defining the most important requirements, which can be documented and used by the organization and the project team. Besides, consultation with the stakeholders establishes a small team able to address a number of business need in each iteration which the methodology embraces (Ochieng, Price & Moore, 2013).

In Kenya many public funded projects fail or are never completed (Omolo, 2016). The performance of projects in developing countries is hindered by diverse factors. Public funded projects especially infrastructure projects are key to the economic development of the country. Kenya vision 2030 is very specific on the role of infrastructural development in realization this vision (Republic of Kenya, 2013). This therefore calls for the need to address this issue of performance of public funded projects to reap maximum benefits on economic growth

While most studies have revealed agile management techniques on the performance, their studies have focused on general public and private entities and in developing countries as whole. However, few or limited studies have highlighted their effects on a single public entity. Thus, it is against this background that this research aims at assessing the influence of agile project management techniques on performance of public funded projects in Kenya: a case study of Kenya urban roads authority. The study determined the effect of organization strategy in supporting the performance of agile projects in public funded projects. The study also explored resource mobilization and its influence on the performance of agile project management. Further, the project team competence as well as the impact of stakeholders was assessed to determine their influence on agile project management in public funded projects

## **2.0 LITERATURE REVIEW**

### **2.1 Theoretical Background**

The study was guided by resource mobilization theory, competency theory, stakeholder theory and theory of reasoned actions. The resource mobilization theory was founded by Zald and McCarthy (1987). The resource mobilization theory of social movement views that a social movement emerge from the long-term configuration in an organization, available resources and the opportunities for an organization's action. Zald and McCarthy (1987) illustrates that the resource mobilization theory encompasses five chief principles

The resource mobilization theory reveals that the social movements benefits through efficient resource mobilization and fixing political opportunities for members. Social movements can harness both non-materials and material resources. According to Ryan, Emmerling and Spencer (2009), the global move to competence based training has introduced a number of new concepts and chief among these concepts is the concept of competence. The concept has created confusions and a host of conceptual misunderstandings at global.

The theory indicates that better performance can be achieved if project team competency is consistent with the job's needs. Stakeholder theory which was developed by Freeman (1984) begins with the assumption that values are necessarily and explicitly a part of doing business. The theory informs the relationship between stakeholders' involvement and performance of public funded project. According to the model, managers must develop relationships, inspire their stakeholders, and create communities where everyone strives to give their best to deliver the value the organization promises

The Theory of Reasoned Action (TRA) is a model that finds its origins in the field of social psychology. This model developed by Fishbein and Ajzen (1975) defines the links between beliefs, attitudes, norms, intentions, and behaviors of individuals. This theory is

relevant to this study since it provide the link between behavioral intentions and behavior. Based on this theory, the study argues that having a clear strategic plan and inculcated into each individual members of the project team can lead to better project performance.

## **2.2 Empirical Literature Review**

A study conducted by Maximini (2015) intimated that the organizational strategy contributes to the success of project management in an organization. The study established poor, lack or inadequate organizational strategy will lead to weak structures manifesting in incomplete agile project

Beleiu, Crisan and Nistor (2015) further concluded that poor planning, lack of experience among the executing teams, scope creep, change in project design, project complexity and fraudulent practices may results in budget overruns. Siborurema, Shukla and Mbera (2015) evaluated the influence of projects funding on their performance. The project funding factors which had been considered during this research are the project cost estimation, the project technical design, and the project funding policy applicable in Rwanda which influences the project budgeting, these three factors were the research independent variables on one hand; and the project performance which has been measured in matter of project implementation time and was considered as the dependent variable for this research on the other hand

Hwang and Ng (2013) revealed that scheduling and planning management is a significant knowledge while delegation, leadership, decision making and problem solving are the essential skills for the construction process. Atiibo (2012) examined stakeholder management challenges and their impact on project management in the case of advocacy and empowerment in the upper east region of Ghana. The study found that the interests and roles of the key stakeholders were very critical to the operations, however stakeholder management was found to be characterized by casual and ad-hoc actions and predominantly not institutionalized. Menoka, (2014) carried out a study on stakeholder Involvement and sustainability-related project performance in construction. Based on the findings from the interview and questionnaire survey a conceptual framework was set out that underlined the preparation and presentation of stakeholder Involvement to improve the construction project performance through achieving construction sustainability

## **3.0 RESEARCH METHODOLOGY**

This study adopted a descriptive survey design. The target population for this study included project managers at KURA for all for ongoing project in Nairobi County. According to KURA websites there were a total of 78 ongoing projects in Nairobi County. Therefore, the target population for the study was a total of 78 projects managers from all the 78 ongoing projects in Nairobi County. The study adopted a census technique with respect to the unit of observation which is the project managers for all ongoing projects in Nairobi County. This therefore ruled out application of specific sampling design and sampling technique. Based on the sampling techniques adopted by the study, the entire population was included in the sample. The instrument for data collection was questionnaires. Data gathered from the questionnaires was analyzed quantitatively using statistical package for social sciences (SPSS) computer software. SPSS which generate both descriptive and inferential statistics was employed. Descriptive statistics including the mean and standard deviation were used to capture the characteristics of the variables

under study. Inferential statistics; regression coefficient and bivariate correlation were used to analyze the relationship of the dependent variable and the independent variables. The multivariate model was as follows;

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

Where;

Y = Performance of Public Funded Project

X<sub>1</sub> = Organisational Strategy

X<sub>2</sub> = Resources Mobilization

X<sub>3</sub> = Project Team Competence

X<sub>4</sub> = Stakeholders Involvement

ε = Error Term

## 4.0 ANALYSIS, FINDINGS AND DISCUSSIONS

### 4.1 Introduction

The study total sample size was 78 respondents (project managers) hence equivalent number of questionnaires was administered by the study assisted by research assistants. The study managed to have 65 (83%) of the questionnaires dully filled and returned while 13 (17%) were incompletely filled or unfilled by the respondents.

**Table 1: Respondents Background Information**

		Frequency	Percentage (%)
Response Rate	Returned Questionnaires	64	83
	Unreturned Questionnaires	14	17
Gender	Female	18	27.7
	Male	47	72.3
	Total	65	100
Age Bracket	Less than 25 years	7	10.8
	26-36 years	23	35.4
	37-47 years	23	35.4
	Above 47 years	12	18.5
	Total	65	100
Years of Experience	Less than 1 years	9	13.8
	2-4 Years	24	36.9
	5-7 years	23	35.4
	Above 7 Years	9	13.8
	Total	65	100
Level of Education	Post Graduate	6	9.2
	Graduate	30	46.2
	Diploma	20	30.8
	Certificate	9	13.8
	Total	65	100

## 4.2 Descriptive Results

This section presents the results on descriptive analysis. In this section the study used percentages, mean and standard deviation in analyzing the how various respondents responded to the statements in the questionnaires. This section was presented based on the research objectives.

### 4.2.1 Organisational Strategy

The first objective of the study was to establish the effect of organisational strategy on the project performance of public funded projects in Kenya. Descriptive findings on this objective are presented in Table 2.

**Table 2: Descriptive Analysis Results for Organisational Strategy**

Statement	SD	D	N	A	SA	Mean	StDev
KURA has a clear strategic plan that guides all the projects	9.2%	6.2%	24.6%	29.2%	30.8%	4	1.24
Our strategic plans includes clear guidelines on how each projects will be implemented	10.8%	10.8%	27.7%	26.2%	24.6%	3	1.27
In the organization strategy each project is broken down into easily understandable units	7.7%	15.4%	26.2%	27.7%	23.1%	3	1.22
Our organization strategy has proper resource allocation for each and every project	12.3%	9.2%	33.8%	24.6%	20.0%	3	1.25
Having organization strategy greatly influence the performance of our projects	9.2%	7.7%	18.5%	30.8%	33.8%	4	1.27
KURA has timeframes for all the projects in the strategic plan	13.8%	6.2%	26.2%	30.8%	23.1%	3	1.30
Every task or activity in the organization is aim at fulfilling organizational strategy	6.2%	6.2%	33.8%	24.6%	29.2%	4	1.15
Organization strategy enhances project management through efficient planning	16.9%	12.3%	23.1%	26.2%	21.5%	3	1.38
Strategic plans ensures accurate timelines and cost estimates	10.8%	4.6%	18.5%	29.2%	36.9%	4	1.30
Organization strategy is crucial for the performance of projects	12.3%	9.2%	20.0%	27.7%	30.8%	4	1.35
<b>Overall Mean</b>						<b>3.5</b>	<b>1.27</b>

The overall implication of the findings was that KURA had strategic plans that incorporated all the ongoing projects however the plans failed to address the various aspects such's clear guidelines on how each projects will be implemented, project being broken down into easily understandable units and finally, timeframes for all the projects in the strategic plan. These implications could justify why most projects had time

overruns and cost overruns leading to lack of completion. These findings concurs with those of Maximini (2015) who intimated that the organizational strategy contributes to the success of project management in an organization. Similarly, Beleiu, Crisan and Nistor (2015) further concluded that poor planning, lack of experience among the executing teams, scope creep, change in project design, project complexity and fraudulent practices may results in budget overruns.

#### 4.2.2 Resources Mobilization

The second objective of the study was to determine whether resources mobilization as one of the agile project management techniques was being applied at KURA and how it affected the performance of projects. Table 3 presents the findings on resources mobilization as provided by the respondents in this study.

**Table 3: Descriptive Analysis Results for Resources Mobilization**

Statements	SD	D	N	A	SA	Mean	StDev
All our project are adequately funded	16.9%	9.2%	35.4%	18.5%	20.0%	3	1.33
KURA has reliable sources of funds for all the projects being undertaken	9.2%	6.2%	24.6%	26.2%	33.8%	4	1.26
The total amount of financial resources needed for projects is availed before the project start	13.8%	10.8%	24.6%	27.7%	23.1%	3	1.33
Budgeting and resources allocation for all project is usually done early enough	7.7%	13.8%	23.1%	29.2%	26.2%	4	1.24
KURA is very effective in mobilization of resources for their projects	9.2%	4.6%	23.1%	30.8%	32.3%	4	1.23
KURA has a clear understanding of how resources should be allocated	15.4%	10.8%	27.7%	20.0%	26.2%	3	1.38
KURA has resource allocations guidelines	7.7%	9.2%	29.2%	24.6%	29.2%	4	1.22
Kura takes into consideration all the costs including the miscellaneous	7.7%	13.8%	20.0%	20.0%	38.5%	4	1.32
Sources of funds enhance projects performance	6.2%	15.4%	29.2%	20.0%	29.2%	4	1.24
Performance of projects heavily rely on amount of resources available	9.2%	7.7%	23.1%	27.7%	32.3%	4	1.27
<b>Overall Mean</b>						<b>3.7</b>	<b>1.28</b>

These findings implied that although projects resources were mobilized there were still some challenges in terms of adequately funding all the ongoing projects, availability of all financial resources before the project start and clear understanding of how resources should be allocated. These are key components that ensure the performance of the projects which could be derailing the efforts of KURA in realizing 100% percentage in

their ongoing projects. However, the overall mean of 3.7 revealed that KURA had good resource mobilizations strategy for their projects.

The finding of this study concur with the proponents of resource mobilization theory who argue that implementation of public projects can be compared to social movements whereby the success of these projects heavily relies on the ability of the projects managers to mobilize enough resources. Similarly, Kerzner (2015) and Maina (2016) reinforced the need for proper financial planning in ensuring high performing projects.

#### 4.2.3 Project Team Competence

The third objective of the study was to determine the effect of project team competence as one of the agile project management techniques on projects performance at KURA. Highly competent team is argued to improve the quality of the projects. The respondents' opinions on team competence and performance are presented in Table 4.

**Table 4: Descriptive Analysis Results for Project Team Competence**

Statements	SD	D	N	A	SA	Mean	StDev
All the employees working on KURA projects have high qualification	15.4%	6.2%	24.6%	29.2%	24.6%	3	1.35
KURA employs skilled and knowledgeable project teams	12.3%	10.8%	26.2%	30.8%	20.0%	3	1.27
Project managers at KURA have a lot of experience in project management	9.2%	7.7%	20.0%	44.6%	18.5%	4	1.16
All employees working in various projects understand their work demands properly	15.4%	12.3%	29.2%	16.9%	26.2%	3	1.38
Recruitment of project teams at KURA is competence based and very competitive	9.2%	9.2%	24.6%	24.6%	32.3%	4	1.28
Competence influence project team and the leadership of its project manager	12.3%	13.8%	33.8%	18.5%	21.5%	3	1.28
Project Professionals have a personality type that make them develop some soft skills for easy project management	9.2%	6.2%	24.6%	29.2%	30.8%	4	1.24
Skills competencies are important for effective communication with team members and conflict resolution	6.2%	9.2%	32.3%	27.7%	24.6%	4	1.15
Personal experience helps one to identify options and solve problem	10.8%	4.6%	38.5%	27.7%	18.5%	3	1.17
A competent project team is efficient and effectively in undertaking their duties	12.3%	7.7%	29.2%	32.3%	18.5%	3	1.23
<b>Overall Mean</b>						<b>3.5</b>	<b>1.25</b>

The findings presented in table 4. revealed that majority of the respondents agreed and strongly agreed with the statements on whether project managers at KURA had a lot of

experience in project management, on whether, recruitment of project teams at KURA was competence based and very competitive, on whether, project professionals had a personality type that make them develop some soft skills for easy project management and finally on whether skills competencies are important for effective communication with team members and conflict resolution. All the statements had a mean response of 4 implying that majority of the respondents agreed and strongly agreed as shown in Table 4.

On the other hand, the respondents were divided on whether all the employees working on KURA projects had high qualification, on whether all employees working in various projects understood their work demands properly, on whether competence influenced project team and the leadership of its project manager, on whether personal experience helped one to identify options and solve problems and finally in whether a competent project team was efficient and effectively in undertaking their duties. These statements recorded a mean response of 3 which implied that respondents agreed and disagreed in almost equal measure. These findings further implied that team competence varied from one project to another hence the variation in the response. However, the overall mean of 3.5 implied that majority of the projects teams at KURA were competence in the work.

#### 4.2.4 Stakeholders Participation

The final objective of the study was to determine the effect of stakeholders’ involvement on project performance at KURA. Stakeholders’ participation plays a major role in ensuring the projects meet beneficiaries’ expectations and they are delivered within the desirables and costs. Hence this study sought to establish whether projects that incorporated stakeholders also had a better performance. Table 5 presents the findings on stakeholders Participation among KURA projects.

**Table 5: Descriptive Analysis Results for Stakeholders Participation**

Statement	SD	D	N	A	SA	Mean	StDev
All the stakeholders are involved in KURA projects	6.2%	7.7%	33.8%	27.7%	24.6%	4	1.13
Frequent stakeholders meetings are held during project implementation	7.7%	4.6%	29.2%	27.7%	30.8%	4	1.18
Stakeholders are allowed to conduct analysis of all KURA projects	12.3%	6.2%	21.5%	29.2%	30.8%	4	1.32
Stakeholders policy decision are considered for all the projects	12.3%	9.2%	29.2%	26.2%	23.1%	3	1.28
All stakeholders are allowed to frequent monitor and evaluate KURA projects to ensure value for money	9.2%	12.3%	24.6%	27.7%	26.2%	3	1.26
Stakeholder requirements are key components at the initial phase of the project development cycle	13.8%	9.2%	29.2%	24.6%	23.1%	3	1.31
Stakeholders have over time proved to be a key tool in enhancing performance of public funded projects	9.2%	12.3%	24.6%	21.5%	32.3%	4	1.31
KURA policies often give direction on how different stakeholders relate	16.9%	4.6%	24.6%	32.3%	21.5%	3	1.34
Stakeholders’ analysis helps elevate an understanding of the costs and benefits	4.6%	7.7%	24.6%	32.3%	30.8%	4	1.11
There is high awareness of stakeholder management amongst project managers	4.6%	10.8%	16.9%	32.3%	35.4%	4	1.17
<b>Overall Mean</b>						<b>3.6</b>	<b>1.24</b>

The overall mean 3.6, however, indicated that majority of the projects managers performed above average on stakeholders’ participation which implied that they incorporated stakeholders views during projects implementations. These findings concurs with Krishnan, Teo and Lim (2013) who posited that stakeholder has over time proved to be a key tool in enhancing performance of public funded projects. Similarly, Kerzner and Kerzner, (2017) also stressed the significance of predetermined stakeholder requirements at the initial phase of the project development cycle.

#### 4.2.5 Project Performance

This section presents the descriptive results on project performance of projects management by KURA. These section covered aspects of time of delivery of projects, cost involved and quality and functionality of the projects as indicators of project performance. Results are presented in Table 6.

**Table 6: Descriptive Analysis Results for Project Performance**

Statements	SD	D	N	A	SA	Mean	StDev
KURA projects are delivery in good time and for the right purpose	4.6%	13.8%	30.8%	21.5%	29.2%	4	1.19
KURA delivers very quality projects that meets the expectation of the users	13.8%	3.1%	18.5%	30.8%	33.8%	4	1.35
All the projects managed by KURA offer value for Money in terms of cost effectiveness	9.2%	3.1%	32.3%	33.8%	21.5%	4	1.15
The cost involved in KURA projects in significantly low compared to other players in the market	12.3%	9.2%	21.5%	27.7%	29.2%	4	1.34
Our projects are usually within scheduled time	9.2%	16.9%	26.2%	21.5%	26.2%	3	1.30
Our projects are usually within scheduled cost	4.6%	12.3%	30.8%	16.9%	35.4%	4	1.22
All the projects managed by KURA meet expectations of the end users	3.1%	10.8%	20.0%	29.2%	36.9%	4	1.13
KURA projects have high functionality and serve the intended use effectively	6.2%	10.8%	30.8%	30.8%	21.5%	4	1.13
KURA's projects have ability to create economic wealth for public	9.2%	9.2%	35.4%	20.0%	26.2%	3	1.24
KURA's project have immense potential in addressing the problem of poverty, unemployment, inequitable distribution of resources	7.7%	7.7%	29.2%	35.4%	20.0%	4	1.13
<b>Overall Mean</b>						<b>3.8</b>	<b>1.22</b>

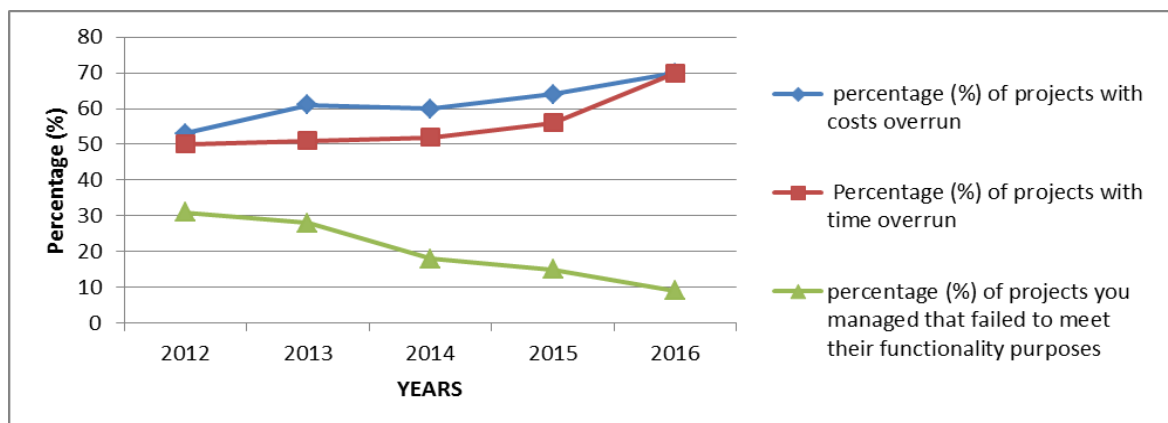
On the time of delivery, the study sought to find out from the respondents whether their projects are usually within scheduled time and whether KURA projects are delivery in good time and for the right purpose. The result revealed respondents agreed and strongly agreed as shown by the mean response of 4 that their projects are usually within scheduled time. However, the respondents were divided as shown by the mean response of 3 that KURA projects are delivery in good time and for the right purpose. These finding implied that some projects were delivered in time but failed to fully address the intended purpose.

These sought to establish whether KURA delivered very quality projects that meets the expectation of the users, the statement had a mean of 4 which implied majority of the

respondents agreed and strongly agreed. The study further sought to establish whether KURA projects had high functionalities and served the intended use effectively, similarly, the findings revealed that this statement had a mean of 4 confirming that majority of the respondents also agreed and strongly agreed. These finding implied that KURA delivered quality projects.

The study sought to establish whether all the projects managed by KURA offer value for mMoney in terms of cost effectiveness, the results showed that majority of the respondents agreed as shown by the mean response of 4. On whether the cost involved in KURA projects was significantly low compared to other players in the market, the resulted revealed that majority of the respondents agreed and strongly since the statement had a mean of 4. The findings also revealed that majority of the respondents agreed and strongly agreed with the statement on whether projects were usually within scheduled cost, on whether all the projects managed by KURA met expectations of the end users, on whether KURA’s projects had ability to create economic wealth for public, and finally on whether KURA’s project had immense potential in addressing the problem of poverty, unemployment, inequitable distribution of resources. The responses obtained by the study implied that the respondents were confident on cost and value for money for all the projects delivered by KURA.

These finding concurs with those of Shen (2015) who found that project implementing agencies have faced several challenges in search of appropriate mechanism for delivering public sector construction projects. Kerzner and Kerzner (2017) reported that project management has been traditionally described as managing or controlling company resources on a given activity, within time, within cost and within performance.



**Figure 1: Performance of KURA Projects**

The results presented in figure 1 indicated that both time overruns and cost overruns of KURA slightly increased between 2012 and 2016 which indicated poor performance of the projects. However, percentage of the projects delivered by KURA that failed to meet their functionality reduced between 2012 and 2016 which indicated that KURA projects performed well in meeting the user expectations on their projects.

### 4.3 Correlation Results

This section presents the results on correlation analysis that sought to test the association between the study variables.

**Table 7: Correlation Matrix**

		Organisational Strategy	Resource Mobilization	Team Competence	Shareholder Involvement	Project Performance
Organisational Strategy	Pearson Correlation Sig. (2-tailed)	1				
Resource Mobilization	Pearson Correlation Sig. (2-tailed)	0.374 0.002	1			
Team Competence	Pearson Correlation Sig. (2-tailed)	0.429 0.000	0.649 0.000	1		
Shareholder Involvement	Pearson Correlation Sig. (2-tailed)	0.575 0.000	0.466 0.000	0.46 0.000	1	
Project Performance	Pearson Correlation Sig. (2-tailed)	0.53 0.000	0.649 0.000	0.63 0.000	0.717 0.000	1
	<b>N</b>	<b>65</b>	<b>65</b>	<b>65</b>	<b>65</b>	<b>65</b>

The findings presented in Table 7 revealed that there was no multicollinearity between the study independent variables. On the other hand the correlation results revealed a strong, positive and significant association between organisational strategy ( $r=0.53$ ,  $p=0.000$ ) resource mobilization ( $r=0.649$ ,  $p=0.000$ ), project team competence ( $r=0.63$ ,  $p=0.000$ ) stakeholders participation ( $r=0.717$ ,  $p=0.000$ ) and project performance at KURA. The finding implied all the independent variables had positive association with project performance.

The findings supports findings of Kerzner (2015) and Maina (2016) who found that proper financial planning ensured high performing projects. According to Ryan *et al.*, (2009) competencies not only imply what an individual is capable of doing but what they want to do. Thus for effective prediction of work performance, both of these factors have to be taken into account. The finding agree with those of previous researchers such as Krishnan, Teo and Lim (2013) who posited that stakeholder has over time proved to be a key tool in enhancing performance of public funded projects.

#### 4.4 Regression Analysis Results

The study used regression analysis to further test the nature of relationship between independent variables and dependent. Model summary provided the percentage variation in dependent variable explained by independent variables, ANOVA provided the result on significant of the overall model while regression coefficient provide results on significant of each variables and the magnitude of the effect of independent variables on the dependent variable.

**Table 8: Model Summary Results**

Model	R	R-Square	Adjusted R-Square	Std. Error of the Estimate
1	0.820	0.673	0.651	0.36873

The result showed that organisational strategy, resource mobilization, team competence and stakeholders participation had a significant association with project performance at KURA (R=0.820). The results further revealed that organisational strategy, resource mobilization, team competence and stakeholders' participation jointly accounted for 67.3% of the variation in project performance at KURA. These finding implied that these variables had a high explanatory power on the variation in performance of projects.

**Table 9: ANOVA Results**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	16.797	4	4.199	30.885	0.000
	Residual	8.158	60	.136		
	Total	24.954	64			

The results of ANOVA in table 9 indicate that organisational strategy, resource mobilization, team competence and stakeholders' participation were significant predictor variables of project performance at KURA. This was indicated by the F-statistics results (F=30.885, p=0.000) indicating that the model used to link the independent variables and dependent variable was statistically significant.

**Table 10: Regression Coefficients Results**

	B	Std. Error	Beta	t	Sig.
(Constant)	0.265	0.305		0.87	0.388
Organisational Strategy	0.068	0.078	0.081	0.87	0.388
Resource Mobilization	0.243	0.089	0.272	2.715	0.009
Team Competence	0.196	0.092	0.214	2.116	0.039
Shareholder Involvement	0.429	0.093	0.445	4.615	0.000

The regression results revealed that organisational strategy had a positive but insignificant ( $\beta=0.068$ ,  $p=0.388$ ) effect on project performance at KURA which implied that having organisational strategy increase the project performance, the increase was not statistically significant. At this point the findings failed to agree with Maximini (2015) who intimated that the organizational strategy contributes to the success of project management in an organization.

On the relationship between resource mobilization and project performance, the study established a positive and significant relationship ( $\beta=0.243$ ,  $p=0.009$ ). The finding implied that increase in resources mobilization significantly and positively affected project performance. The findings supports findings of Kerzner (2015) and Maina (2016) who found that proper financial planning ensured high performing projects.

The regression analysis also revealed that project team competence had a positive and significant effect on project performance ( $\beta=0.196$ ,  $p=0.039$ ). Similarly, increase in project team competence would result to significant increase in project performance. A unit increase team competence would cause 0.196 units increase in project performance. These findings concur those of Ryan *et al.*, (2009) who argued that competencies not only imply what an individual is capable of doing but what they want to do. Thus for effective prediction of work performance, both of these factors have to be taken into account.

The study finally revealed that stakeholders' participation had the most significant and greatest effect on project performance ( $\beta=0.429$ ,  $p=0.000$ ). The results implied that a unit increase in stakeholders' participation would result in 0.429 units increase in project performance. According to the study results stakeholders' participation was the most important factors in determining project performance. The finding agrees with those of previous researchers such as Krishnan, Teo and Lim (2013) who posited that stakeholder has over time proved to be a key tool in enhancing performance of public funded projects. Similarly, Kerzner and Kerzner, (2017) also stressed the significance of predetermined stakeholder requirements at the initial phase of the project development cycle. Based on the findings of this study the optimal model therefore became;

### **Optimal Model**

$$Y = 0.265 + 0.429 (X_4) + 0.243 (X_2) + 0.196 (X_3) + 0.068 (X_1) + \varepsilon$$

Y = Project Performance

$X_4$  = Stakeholder Participation

$X_2$  = Resource Mobilization

$X_3$  = Team Competence

$X_1$  = Organisational Strategy

$\varepsilon$  = unexplained variations (32.7%) by variables not in the model

### **5.0 Conclusion**

Based on the study findings, the study concluded that use of agile project management techniques positively affected the project performance. The study further concluded that a clear strategic plan that guides all the projects is a key component in ensuring high performing projects. The study also concluded that project managers that had every project task or activity captured in organizational strategy, had accurate timelines and cost estimates in the organisation strategy also reported high performance of projects they managed.

The study also concluded that project performance to a very large extent relied on the resources mobilization. Having reliable sources of funds for all the projects being undertaken, budgeting and resources allocation for all projects being done early enough, and effective in mobilization of resources for their projects are major components in increasing the project performance. The study also concluded that projects that performed very well were managed by very competent team. Project managers had lot of experience in project management, recruitment of project teams was based on competence and very

competitive and project managers had personality type that made them develop some soft skills for easy project management.

The study also concluded that projects where the project teams involved stakeholders were delivered in good time, had no cost overruns and met the expectations of the users in terms of functionality and benefits. In such projects frequent stakeholders meetings were held during project implementation, stakeholders were allowed to conduct analysis of projects and stakeholders' analysis helped elevate an understanding of the costs and benefits for beneficiaries of the projects.

### **6.0 Recommendations**

Based on the findings of this study, the study recommended that policy makers both at the national level and at the county level should revise existing and formulate new policies to regulate how public funded projects are procured and implemented. Such policies should incorporate clear roadmap on resources mobilization, technical capability of the company that is mandated to implement such project and clear guidelines on when and how stakeholders should be consulted and involved in public funded projects.

At the organisational level, companies or organisation that deal with public funded projects should have policies in place on resources mobilization, technical capability of individual manning such projects and guideline for stakeholders participation. Such organisation polices should considered before tendering for public funded project whether by private entities or public organisations

This study recommended that projects managers or senior management of KURA or any other organisation that manages public funded projects should have an organisation strategy that clearly captures clear guidelines on how each projects will be implemented, each project should be broken down in the strategic plan into easily understandable units and have proper resource allocation for each and every project components and delivery timeframes for all the projects in the strategic plan to enhance the project performance.

The study further recommended that project managers should ensures that all the employees working on the projects have high qualification, have adequate skills and knowledge, all employees working in various projects understand their work demands properly and have adequate past experience. This will ensure that the projects team is technically prepared to handle projects management and implementation demands.

The study finally recommended that managers of public funded projects should improve in stakeholder participation. These include having stakeholders' participation policy for all the projects, Stakeholder participation at the initial phase of the project development cycle and having policies and guidelines that provide direction on how different stakeholders relate.

### **7.0 References**

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