

# **INFLUENCE OF STAKEHOLDER ACTIVITIES ON IMPLEMENTATION OF RURAL ROAD PROJECTS IN MACHAKOS COUNTY**

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## **ABSTRACT**

This study was aimed at establishing the influence of stakeholder activities on implementation of road projects in Machakos County. The study focused on road projects under Kenya roads authority. The study was motivated by increasing focus on stakeholders who are considered critical in project implementation though not highly focussed on in research. The objectives of the study were to examine the influence of project financiers, oversight activities, regulation and project participation by stakeholders in the implementation of road projects. The study was expected to be of significance to Kenya rural roads Authority as well as future researchers. The study focused on rural road projects under KERRA in Machakos County. Descriptive survey design was used to accomplish the study objectives. Data was mainly collected from employees of KERRA as well as various stakeholders for various road projects. A semi – structured questionnaire was used to collect data from the respondents. Data was analysed to generate both descriptive and inferential statistics. Descriptive statistics summarized the study findings into meaningful parameters such as percentages, mean and standard deviations. Descriptive statistics provided an analysis of the relationship between the study variables. Data analysis was done using statistical package for social sciences. Data was presented in tables and charts and interpretations done based on research objectives. Conclusions and recommendations were drawn from research findings. The study findings showed that financier activities positively and significantly influenced implementation of road projects in

Machakos County. On oversight activities the study established positive and significance influence on implementation of rural road projects. Efficiency in operating environment as a result of approvals and appraisals by KeRRA had enhanced industry awareness as well as implementation of projects. Regulatory activities positively influenced implementation of road projects. Road project works by qualified contractors had ensured delivery of quality road projects through continuous inspection that ensured quality was not compromised. Project beneficiary participation positively and significantly influenced the implementation of road projects in Machakos County. The study recommended a need for the government to ensure availability of funds to contractors on good time, a need to encourage local leaders to work closely with oversight authorities, adoption of other ways of approving the right contractors to ensure that there were no delays in approvals of qualified contractors and a need to award road construction contracts to contractors that are willing to employ the local community to enhance high levels of project acceptability. Further study should be carried out to investigate the factors influencing the implementation of roads projects in other counties in Kenya, in addition an examination of how political instability as well insecurity influences the implementation of roads projects, as well as determining funds mismanagement by both government officials and contractors influence the implementation of roads projects.

**Key Words:** *stakeholder activities, implementation, rural road projects, Machakos County*

## **INTRODUCTION**

Project stakeholders are largely considered critical in shaping the success of projects. According to Miller (2015), there is a set of consistent statistics that has been used to make a case that majority of projects fail to achieve their objectives? Statements such as companies fail to make the change they intent approximately 70% of the time are common. According to Fulton (2013) perhaps the real challenge exist in that company executives, people impacted by the change and even consulting firms have very different views of success or failure of projects. Fulton explains that it is not just an issue between these groups, but also within the groups.

Given this observation, one would probably be prompted to think about the significance contribution of stakeholder activities on project implementation. According to Infragate, (2014) stakeholders are defined as individuals and organizations who are actively involved in the project or whose interests may be positively or negatively affected as result of project execution of successful project implementation. Within project management, the issue of stakeholders and their potential impact on projects is not new. It has attracted considerable interest among researchers.

In the area of road construction sector that is focussed by this study there has been various attempts focussed on stakeholders in relation to road construction projects. In Australia, (Bourne, (2010), established that stakeholder groups as mapped by stakeholder management cycle in infrastructural projects had the power to kill a project through withdrawal of essential resources or withdrawal of advocacy for the project. He also indicated that the structure of project organization will define power relationships within management framework of the organization. The study indicated that most important stakeholders in projects may not be government groups or senior managers of the organization and therefore the perception of stakeholder's power is likely to influence change throughout the project. The study recommended a continuous reassessment of stakeholder milestones in every project.

In Netherlands, Littan, (2013) noted that despite increase attention road agencies on the needs of infrastructural stakeholders, little was known about the satisfaction or dissatisfaction of infrastructure stakeholders with agencies' service provision. The study observed that satisfaction of infrastructure stakeholders affected road maintained. Drawing upon data collected during road maintenance project in Netherlands, it was shown that the expectations only played a major role in the formation of satisfaction. Moreover depending on the contextual setting of the maintenance project, the importance of highway performance impacted on the formation of satisfaction through changed expectations and experiences.

The study findings suggested that value in use experience and time dependence of expectations accounted for the switch in the important and the limited role of expectations. The study underscored the need for road agencies to redirect their efforts from trying to determine and meet stakeholder expectations to allowing stakeholders experiences the improvements of a maintenance project. In Asia countries, Wai (2009) indicated that road

construction projects involved a diverse range of stakeholders and thus the success of the project much depended on fulfilling their needs and expectations.

A stakeholder impact analysis (SIA), based on an approach developed by Olander (2007), was adopted to investigate the stakeholders' impact on the state-owned civil engineering projects in Vietnam. This involved the analysis of a questionnaire survey of 57 project managers to determine the relative importance of different stakeholders. The results showed that clients had the highest impact on projects followed by project managers and senior management state owned engineering firms. Wai identified the importance of recognizing project stakeholders and developing a rigorous stakeholder management process, highlighting that there was limited research investigating the impact of stakeholders in construction projects in developing countries.

In East Africa, the place of stakeholders remain important Tabish, (2012) improve on citation in many construction projects. For instance Ngoma (2012), in an examination on the effect of project communication on project stakeholder commitment in Uganda indicated that intra project communication and extra project communication have positive and combined predictive potential of project stakeholder commitment. He further adds that many projects in Uganda have lacked commitment to projects due to inadequate information attributable to gaps in communication systems.

In Kenya, existence of good and well-functioning road network is vital for the growth of the economy, poverty reduction, and wealth and employment creation. As a result, an important role of attaining Kenya's vision 2030 goals, Millennium development goals (MDGs) and Kenya's economic recovery strategy for wealth employment creation through provision of basic infrastructure facilities to the public by developing, maintaining, rehabilitating and managing road networks in the county (Mbaabu,2012). Kenya's infrastructure has been given the highest priority to ensure that main road projects under economic pillar are implemented.

Occasioned by the importance of roads in social development of the country, Maina (2013) notes that the government has in the recent past increased budget allocation to the roads subsector, however, the performance of road projects in Kenya has been dismal, with reports indicating delay in completion, cost overruns, demolition of residential and business houses, and abortive works (Maina,2013). Various attempts have been put forth to address the performance of roads projects, particularly with regard to the role of stakeholders in the implementation of road projects. Mbaaru (2012) noted that stakeholder involvement was paramount in development projects. Maina (2013) underscored the need for stakeholder involvement particularly on problem sharing. KPMG, (2010) and (2012) highlights poor stakeholder management as probable reasons for project failures and great disappointments. Machakos County which this study focuses on is an administrative county in the eastern part of Kenya.

The county has eight constituencies which include Machakos town, Masinga, Yatta, Kangundo, Matungulu, Kathiani, Mavoko and Mwala. It covers 6,208 square kilometres and has a population of 1,098, 584 persons as far 2009 census. According to Machakos county

strategic plan 2015-2018, development of cost effective world class infrastructure facilities and services in support of vision 2030 is a major vision within Machakos county strategic plan. Infrastructural development was identified in the plan as a major constraints in doing business in Machakos County, As a result, the county focussed on massive investment in road network to ensure communication between the regions by road was effective as well as open areas that could support growth of tourism, agriculture and equally enhance exploration of natural resources (Machakos, County Strategic Plan, 2015-2018).

This is a strategy that has seen the county be praises for relatively good performance compared to other counties in the country. Despite the praises, the county has had her road projects halted by Kenya Rural Roads Authority (Mkawale, 2016). According to Mkwale, the halting was particularly associated with stakeholders whose interest as far as resource allocation and management seemed inadequately addressed. While there has been there has various attempts to addressing the issue of stakeholders and implementation of road projects. Studies reviewed show that there still remains a challenge as far as stakeholder activities and implementation of road projects is concerned. It is therefore in basis of this back ground that this study seeks to examine the effect of stakeholder activities on implementation of road projects in Machakos County.

## **STATEMENT OF THE PROBLEM**

Projects provide organizations with strategic instruments that lead innovation and create value (Lister, 2014). This perhaps makes the importance of project implementation a critical component of project success. Project implementation is important in putting action plan into operation as well as achieving tangible change and improvements, (Philip et al 2008). Failure of projects however muzzles the actualization of these importances for business and organizations each year. A New Zealand study indicated high rates of project failures in developed countries KPMG, (2010), KPMG 2012). International development projects have also been subject to failures and great disappointments, with various scholars citing ignorance of poor stakeholder management as probable reasons for poor project implementation (Aaltonen,2011; Chang, Pisarski, 2013; Hietbrink, Hartmann, &Dowel, 2012).In Africa, Asia and Latin America actualization of road development projects is wanting,(Soo Young, 2008).In east Africa,PWC,(2013) indicates that the most prominent risk faced in the development of infrastructure in East Africa is completion on time and within budget. In Kenya, implementation of infrastructural projects, particularly rural road projects has been described as poor (Government of Kenya, 2012).Other road agencies have particularly been faced with implementation problem forcing the authority to stop implementation of rural roads projects in 29 counties (Mkawale, 2016). Machakos County despite being highly praised as well performing county was among the counties whose road projects implementation was halted.Various research attempts adressing the issue of project implementation have been carried out. Ungwa and Haupt (2007), identify resource management, political interference, obstacles by the project client, non-availability of materials, road closure, handing over, amendment of design and drawing and variation order as determining factors in project implementation. Bundi (2011), showed that political

interference and inadequate allocation of funds hindered completion of road projects, while Nyamwaro (2011), indicated that poor communication and lack of awareness on power of attorney which was stalling project implementation. From these studies, it is notable that various stakeholder activities may be playing a significant role towards implementation of road projects. The issues of Stakeholder activities in relation to project implementation has however been sparsely researched and thus the need to carry out this study to access the influence of stakeholders activities on the implementation of rural road projects.

## **GENERAL OBJECTIVE**

The study sought to examine the influence of stakeholder activities on implementation of road projects in Machakos County.

## **SPECIFIC OBJECIVES**

1. To examine the influence of project financier's activities on the implementation of road projects in Machakos county
2. To analyse the influence of oversight activities on the implementation of road projects in Machakos county
3. To establish the influence of regulation activities on the implementation of road project in Machakos county
4. To determine the influence of project beneficiary participation on the implementation of road projects in Machakos county

## **THEORETICAL FRAMEWORK**

### **Stakeholder Theory**

The study was based on the stakeholder theory by Freeman (1984). According to Freeman, the purpose of a project is to create optimum value to stakeholders. The theory identifies and models the groups which are stakeholders of a project, describes and recommends methods by which management can give due regard to the interests of those groups (Hassan, 2012). Stakeholder theory is primarily a management theory which claims that power and urgency must be adhered to if managers are to serve interests of stakeholders. As such, successful implementation of projects cannot be devoid of stakeholder engagement from which a likely project success is likely to happen.

According to Freeman(2010), the stakeholder theory attempts to address the principle of who really matters. It assumes that values are necessarily and explicitly a part of undertaking tasks. It asks managers to articulate the shared sense on value they create and what brings its core stakeholders together. Freeman further posits that stakeholder theory is managerial in that it reflects and directs how managers operate with its focus being based on two core questions which are what is the purpose of a firm and what responsibility does management have to stakeholders. This propel managers to generate outstanding performance and to articulate what kinds of relationships they want and need to create with their shareholders to deliver on their purpose. This asserts that shareholders are an important constituents in any

activity. The stakeholders theory is important in understanding contribution of stakeholders in project implementation process as well as ethical considerations that may significantly affect implementation of a project.

Koehler (2010), states that the stakeholder theory has two ethical questions that must be resolved. First that organizations are dependent on their stakeholders for their success and failure and the other one is based on the theory of ethics. Essentially when an entity is initiating a project it must ensure through the whole course to the end that all the relevant information is relayed to stakeholders. In public projects like road construction where safety features are very significant, project managers have the moral and integral authority to ensure the expected standards and feasibilities done are communicated to the stakeholders and acted upon to minimize future problem (Bourne, 2006).

Various authors have argued in support of stakeholders theory Bourne (2006), suggested that failure to implementation of a project is caused largely by stakeholders perception to a project and their relationship with the project team. Primarily, the project team should work to meet the stakeholders perceptions and expectations. Bourne suggests that to manage this relationship the stakeholder circle methodology needs to be applied. This is a mechanism for analyzing each key stakeholders influence and understanding their expectations which helps project managers define appropriate procedures for engaging stakeholders. Analytically, a stakeholder approach should assist managers on how the task or company fits into its larger environment (Freeman, 2010).

Contrary to these provisions, there have been vocal critics who have discredited the theory and its propositions. Milton Friedman has criticized the theory by pronouncing that the only social responsibility of corporations is to provide a profit to its owners contrast to what the stakeholder theory claims. It has also been viewed as challenging for other corporations where credible obligations apply. Despite its relevance in the current study, the stakeholder theory is not devoid of some critiques. One of the critiques, of the stakeholder theory of conceptualization Key, (1999), critiques the stakeholder theory conceptualizations for not meeting the requirements of scientific theory and suggests that the theory does not satisfy its conceptual requirements Key, (1999), applying this approach to this study implies that stakeholders are part of road projects in Machakos County and as such have a significant role in the processes and procedures that lead to success of their implementation.

### **Theory of Change**

Other than stakeholders theory, the theory of change is considered suitable in understanding the current study. According to Stein, (2012), the theory of change emerged in the United States in the context of improving evaluation theory and practice of community initiatives. According to Connell et al (1997), the theory of change is a specific type of methodology for planning, participation and evaluation used in the philanthropy, not for profit and government sector to promote social change. The theory defines long term goals and then maps backward to identify necessary change preconditions. The theory of change explains the process of

change by outlining causal linkages in an initiative, that is shorter term, immediate of longer term outcomes.

The indentified changes according to the theory are mapped as the outcomes pathway, showing each outcomes in a logical relationship to all others as well as chronological flow. Connell explains that outcomes in the theory fo changes are explained by rationales or statements of why one out come could be an important prerequisite of another. Stein (2012) notes that the innovation of the theory of change lies in making the distinction between desired and actual outcomes and in requiring stakeholders to model their desired outcomes before they decide on forms of interventions before they achieve those outcomes. According to Vogel (2012), the theory of change can begin at any stage of an initiative depending on the intended. A theory developed at the outset is best at informing the planning initiative, having worked out a change model. This as Vogel adds helps practioners make more informed decisions.

The stakeholder theory and the theory of change are in relation to this study, in the sense that, under stakeholders theory, the influence of different stakeholders on successful implementation of projects is important. Various stakeholders are significantly influential on the extent to which a project is to be implemented while other may not necessarily play a significant role althought they are part and parcel of the project. Depending on the significance of the stakeholders, project managers are in a position to examine and make decision on which stakeholder interest deserve the largest deserves more attention as far as implemenation is concerned. The theory of change, in the context of this study is suitable in indentification of the methodology to be used by the project implementors in the wake of percieved change. The theory change contectualized in the current study provides an understanding of the impotance of situational analysis during project implementation and innovative approaches in which project implementors can undertake to reduce resistance to change.

## **RESEARCH GAPS**

The literature reviewed has extensively provided information related to the influence of stakeholder activities on implementation of rural road projects. Of particular highlight revealed in the study is the emphasis placed on importance of new projects in shaping development. The place of project financing, oversight, regulation and participation has been mentioned as important processes as far as successful implementation of projects is concerned, attention has also been given to project parameters such as time taken to completion, quality of project and management of projects resources. While, the literature provide areas of focus as far as implemenation of projects is concerned, the the activities undertaken by various projects and their implications of implementation of road projects has been scarsely establish. This leaves little or no conclusive evidence indicating the influence of various stakeholders as far as implementation of road projects is concerned. This is a gap that this study intents to fill by examining the influence of stakeholder activities in the implemenation of road projects in Machakos county.

## **RESEARCH METHODOLOGY**

### **Research Design**

In the current study, a descriptive research design was adopted. Descriptive survey design was useful in this study as it sought to examine the situation of project implementation in relation to stakeholder activities without adjusting any situation as it is currently occurring. Further, survey will facilitate sampling from the large number of road projects in Machakos County.

### **Target Population**

The target population for this study was one hundred and four (104) road projects currently under construction in Machakos County. This population was considered suitable for the current study because of the implementation state as well as the ability to provide the researcher with various stakeholders involved in the project implementation. The unit of analysis were stakeholders playing active roles in project financing, oversight activities, regulation, project community participation and implementation.

### **Sampling Frame**

The sampling frame was the list of all road projects undertaking different activities in Machakos County. The list contained the name of the road project and the current project activity.

### **Sample Size and Sampling Technique**

In determination of the sample size, this study adopted Krejcie and Morgan (1990) sample size determination formula for known or finite population.

$$S = \frac{X^2NP(1-P)}{d^2(N-1) + X^2P(1-P)}$$

*Source:* Krejcie and Morgan (1970)

Where:

S = Required Sample size

X = Z value (1.96 for 95% confidence level)

N = Population Size

P = Population proportion (expressed as decimal) (assumed to be 0.5 (50%))

d = Degree of accuracy (5%), expressed as a proportion (.05); It is margin of error

Based on the formula a calculated sample size was 82.01 which was approximately 82 projects. One questionnaire was administered to each project giving a total of 82 respondents. The study adopted a probability sampling technique which gives every element a chance to be picked. Therefore, stratified sampling was used, where the total population was divided into groups (strata) depending on the activity, and a sample was picked randomly from each stratum using proportional methods.

## **Research Instruments**

The study used a semi structured questionnaire to collect data. Questionnaires were best suitable in the current study since it was easy to construct standard questionnaire items for a large sample as the case for the study. The questionnaire had both open and closed ended questions so as to collect as much data as possible in the area of study.

## **Data Collection Procedure**

The study collected both primary and secondary data. It was suitable to create comparison between the primary findings to establish any similarities or differences. For secondary data, the researcher read journal articles, text books and related reports as guided by the study objectives. All relevant information was documented based on various study themes to be later compared with findings from the primary data. For primary data, a self-administered questionnaire was used. The researcher got a letter of introduction entailing the objectives of the study from the institution before embarking on data collection. He then delivered the questionnaires to the different respondents. Where possible scanned copies of the questionnaires were sent through email to the respondents. Telephone contacts were also made to some of the respondents for face to face interviews with them.

## **Pilot Study**

In this study, eight questionnaires were picked for the pilot study representing 10% the study sample, as recommended in Connelly (2008). The researcher used the eight questionnaires provided to examine the reliability and validity of the questionnaire items. The respondents didn't form part of the project study. For this study, content validity was carried out by having the questionnaires reviewed by peers and professionals in the field. Expert opinion was sought from the supervisor.

## **Data Analysis and Presentation**

After data collection, data was coded and input into SPSS computer program. It was then cleaned, that is assessed for any double entries, wrong spellings of data labels or unmatched codes. It was then analysed to generate both descriptive and inferential statistics. Under descriptive statistics, parameters such as mean, standard deviation, frequency and percentages was generated. Under inferential statistics coefficients of regression were obtained to determine the relationship between data variables. Qualitative data analysis entailed grouping of study responses based on common themes based on research objectives. Inferences were drawn from common observations based on the research themes. Quantitative data analysis entailed summarising of study responses using numerical figures to generate statistical parameters such as mean, percentages, frequency, standard deviation and correlation analysis. Qualitative data was analysed through grouping the study responses into themes and discussion common themes emanating from the responses.

## Statistical Model

A multiple regression model of the form below was used to examine the extent and strength of relationship between the study variables.

$$Y = \alpha + \beta_1(X1) + \beta_2(X2) + \beta_3(X3) + \beta_4(X4) + \varepsilon$$

Where:  $Y$  = Dependent variable (project implementation),  $\alpha$  is to the constant,  $\beta$  is the coefficient of Financing,  $\beta_2$  oversight activities,  $\beta_3$  is coefficient of regulation,  $\beta_4$  is the coefficient of participation activities by beneficiaries,  $\varepsilon$  is the error and  $X1, \dots, X4$  are study's independent variables which include; financing, oversight, regulation, and project participation.

Strength of the relationship was determined by the value of  $r^2$ . The value of  $r^2$  ranges from 0 to 1. Values of 0 show no relationship, while 0.5 show moderate relationship and values above 0.7 show strong relationship.

The overall model fit was determined through ANOVA test that uses the value of  $F$ . The statistical test of significance was performed at the 95% critical level. The output of the study findings was presented in form of tables and charts. The results of the numerical data were then interpreted based on the research objectives and thereafter conclusion and recommendations made.

## RESEARCH FINDINGS

### Reliability Analysis

A pilot study was carried out to determine reliability of the questionnaires. The pilot study involved 8 respondents. Reliability analysis was subsequently done using Cronbach's Alpha which measures the internal consistency by establishing if certain items within a scale measure the same construct. Kothari (2010) established the Alpha value threshold at 0.7, thus forming the study's benchmark.

**Table 1: Reliability Analysis**

	Cronbach's Alpha	Number of items	Decision
Project Financer's Activities	.817	9	Reliable
Oversight Activities	.831	8	Reliable
Regulation Activities	.746	7	Reliable
Project Participation Activities	.718	6	Reliable

Cronbach Alpha was established for every objective which formed a scale. The oversight activities was the most reliable with an Alpha value of 0.831, followed by project financier's activities with an Alpha value of 0.817 then regulation activities with an Alpha value of 0.746 while project participation activities was the least reliable with an Alpha value of 0.718. This illustrates that all the four variables were reliable as their reliability values exceeded the

prescribed threshold of 0.7 (Kothari, 2010). This, therefore, depicts that the research instrument was reliable and therefore required no amendments.

### Correlation Results

The correlation matrix shows the strength or degree of linear association of a variable with itself or between variables, (Schade, 2009). Collinearity between variables is shown in the table 2 below. From the test results, the main diagonal entries from the upper left to the lower right corner give the correlation of one variable with itself, which is and should always be one. The other variables are pair-wise correlation among variables.

**Table 2: Bivariate Correlations**

		Project Implementation	Project Financier Activities	Oversight Activities	Regulation Activities	Project Participation Activities
Project implementation	Pearson Correlation	1				
	Sig. (2-tailed)					
Project Financier Activities	Pearson Correlation	.894	1			
	Sig. (2-tailed)	.001				
Oversight Activities	Pearson Correlation	.712	.414	1		
	Sig. (2-tailed)	.004	.010			
Regulation Activities	Pearson Correlation	.747	.523	.513	1	
	Sig. (2-tailed)	.002	.003	.010		
Project Participation Activities	Pearson Correlation	.718	.670	.834	.726	1
	Sig. (2-tailed)	.006	.003	.020	.007	

From the analysis it can also be concluded that there is a there is a positive correlation between the implementation of road projects in Machakos County and project financiers activities, oversight activities, regulation activities as well as project participation activities. In addition, the study reveals that project financiers activities is related to implementation of road projects in Machakos County ( $r=0.894$ ,  $p < 0.05$ ) implying that project financier’s activities influences implementation of road projects in Machakos County and the relationship is statistically significant.

Further, the study reveals that oversight activities are related to implementation of road projects in Machakos County ( $r=0.712$ ,  $p < 0.05$ ) implying that oversight activities influences implementation of road projects in Machakos County and the relationship is statistically significant. Further, the study reveals that regulation activities, are related implementation of

road projects in Machakos County ( $r=0.747$ ,  $p < 0.05$ ) implying that regulation activities influences implementation of road projects in Machakos County and the relationship is statistically significant. Finally the study established that project participation activities is related to implementation of road projects in Machakos County ( $r=0.718$ ,  $p < 0.05$ ) implying that project participation activities influences implementation of road projects in Machakos County and the relationship is statistically significant. This implies that all the variables had a positive and significant correlation with implementation of road projects in Machakos County.

### **Regression Results**

Regression analysis shows how dependent variable is influenced with independent variables. The study sought to determine the influence of stakeholder activities on implementation of rural road projects in Machakos County.

**Table 3: Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.841	0.707	0.686	0.144

Table 3 is a model fit which establish how fit the model equation fits the data. The adjusted R2 was used to establish the predictive power of the study model and it was found to be 0.686 implying that 68.6% of the variations on the influence of stakeholder activities on the implementation of rural road projects in Machakos County is explained by financing activities, oversight activities, regulation activities as well as project participation activities leaving 31.4% percent unexplained. Therefore, further studies should be done to establish the other factors (31.4) influencing implementation of rural road projects in Machakos County.

**Table 4: ANOVA Results**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2.946	4	0.737	33.834	0.000
	Residual	1.219	56	0.022		
	Total	4.165	60			

The probability value of 0.000 indicates that the regression relationship was highly significant in predicting how financing activities, oversight activities, regulation activities as well as project participation activities influenced implementation of rural road projects in Machakos County. The F calculated at 5 percent level of significance was 33.834 since F calculated is greater than the F critical (value = 5.6581), this shows that the overall model was significant.

The established model for the study was:

$$Y = 0.731 + 0.867 X_1 + 0.703 X_2 + 0.732 X_3 + 0.712 X_4$$

The regression equation has established that taking all factors into account (project financier’s activities, oversight activities, regulation activities and project participation activities) constant at zero, the influence of stakeholder activities on implementation of rural road projects in Machakos County was 0.731. The findings presented also show that taking all other independent variables at zero, a unit increase in financing activities would lead to a 0.867 increases onthe influence of stakeholder activities on implementation of rural road projects in Machakos County. The variable was significant since  $0.006 < 0.05$ . This concur with with Okeyo (2015) who said that on the Sondu Miriu- Hydropower project in Kisumu County Kenya revealed that timely payment was crucial for ensuring continuity of works and completion on infrastructural projects especially within time, budget and quality specifications.

**Table 5: Coefficients of Determination**

	Unstandardized		Standardized	t	Sig.
	Coefficients		Coefficients		
	B	Std. Error	Beta		
(Constant)	0.731	0.239		3.059	0.003
Project Financier’s Activities	0.867	0.305	0.368	2.843	0.006
Oversight Activities	0.703	0.287	0.386	2.449	0.017
Regulation Activities	0.732	0.129	0.832	5.674	0.000
Project Participation Activities	0.712	0.222	0.462	3.207	0.002

The study also found that a unit increase in oversight activities would lead to a 0.703 increase the influence of stakeholder activities on implementation of rural road projects in Machakos County. The variable was significant since  $0.017 < 0.05$ . This was similar to Hassan (2012) who underscored the importance of the oversight authority in relation to community stakeholders. He noted that too much oversight could lead to projects expanding just for the sake of satisfying many gatekeepers who make implementing organization make unrealistic commitments. Further the study found that a unit increase in the scores of regulation activities would lead to a 0.732 increase on the influence of stakeholder activities on implementation of rural road projects in Machakos County. The variable was significant since  $0.000 < 0.05$ . This was in line with Hai (2002) who conducted a study in which he acknowledged the comprehensive implementation of a construction regulation system since 1988 in China in the construction industry.

Further, the findings shows that a unit increases in the project participation activities would lead to a 0.712 increase on the influence of stakeholder activities on implementation of rural road projects in Machakos County. The variable was significant since  $0.002 < 0.05$ . This corresponds to Schade (2009) who claims that especially in African countries, political acceptability is the most fundamental for projects to succeed. Overall, project financier’s activities had the greatest effect on the influence of stakeholder activities on implementation of rural road projects in Machakos County, followed by regulation activities, then project participation activities while oversight activities had the least effect on the influence of

stakeholder activities on implementation of rural road projects in Machakos County. All the variables were significant ( $p < 0.05$ )

## **DISCUSSION OF FINDINGS**

### **Project Financier's Activities**

Concerning project financier's activities the study found that it positively and significantly influence the implementation of road projects in Machakos County. The study found that there is sufficient budget allocation for rural road projects, that payment of projects is always approved by project supervisors, that financier activities influence implementation of road projects in Machakos county, that budgetary allocation policy provides for allocation of funds adequate enough to complete projects, that accessibility process of project funds is efficient and that contractors are assured of payment of their works after completion. These findings are in line with Okeyo (2015) who said that on the Sondu Miriu- Hydropower project in Kisumu County Kenya revealed that timely payment was crucial for ensuring continuity of works and completion on infrastructural projects especially within time, budget and quality specifications.

The study further found that project funds are not availed in good time to ensure no delays in the implementation, that procedures for accessible project fund have not been simplified to enhance efficiency and that they are constantly provided with update reports on utilization of funds for various rural road projects. These findings are similar to Saeed (2009), who conducted a study to establish the cause of delay to projects in the construction industry in the United Arab Emirates and noted that delays to a project affect economies and slow down development in other related fields. According to him the reasons for delay included absence of risk management systems and inadequate early planning which is meant to highlight all project costs in the budget.

Further concerning how financing influenced implementation of road projects in Machakos County the study found that it enables projects to be completed on time, that it motivates contractors to deliver quality services, that it's the sole determinant in project implementation and success by extension and that it ensures faster completion of the project. Finally concerning other financing factors the that influence implementation of road projects in Machakos County, the study indicated that the factors include availability of funds on time, political factors, security, inflation of prices of materials, public participation, availability of required materials, supervision and availability of qualified workers. These findings are in line with Kariungi (2014) who conducted a study to find out the determinants of timely project completion in Kenya. He asserts that funding activities are critical to a projects life. His findings revealed that there is a strong correlation that exists between cost overruns and project pace.

### **Oversight Activities**

Further in regard to oversight activities, the study found that it positively and significantly influences implementation of road projects in Machakos County. The study found that there

is efficiency in operating environment as a results of approvals and appraisals by KERRA, that enhancing awareness on industry regulations and environment have influenced implementation of road projects, that oversight activities affect implementation of rural road projects in Machakos, that timely directions by project managers determine how fast a project will be implemented, that timely appraisals of projects by KERRA ensures that all projects are implemented with the set time limits and that there is good working relationship between the contractors and government oversight authorities. These findings concur with Walker (2015) who did a study on governance among road construction authorities in relation to completion of road projects in Nigeria, the report of the findings indicated that effective governance from oversight authorities could cause projects expand beyond their original scope and further noted that lack of clear leadership and direction from the oversight authority resulted in ineffective and unclear accountabilities.

The study found that optimum allocation of project resources ensures project implementation yields maximum benefits and that local leaders don't work closely with oversight authorities to ensure projects are effectively implemented. In regard to how oversight activities influenced implementation of road projects in Machakos County the study indicated that they check on quality of work done, they check on time of completion, they raise public concerns where there is lack of public participation and improves the quality of work done. Concerning other oversight factors influencing implementation of road projects in Machakos County, the study indicated weather, tendering, and public fund and audit bodies. These findings are similar to Hassan,(2012) who underscored the importance of the oversight authority in relation to community stakeholders. He noted that too much oversight could lead to projects expanding just for the sake of satisfying many gatekeepers who make implementing organization make unrealistic commitments.

### **Regulation Activities**

The study also found that regulation activities influences of implementation of road project in Machakos County positively. The study found that that road project works by qualified contractors has ensured delivery of quality road projects, that inspection of project ensure efficient evaluation of project milestones, that continuous inspection of projects has ensured that quality is not compromised and that contractor classification has facilitated easy identification and prequalification of contractors for various jobs. These findings concur with Silva (2009) who conducted a study in which she suggested that better utilization of regulatory requirements was a key factor to improve communication in construction projects.

The study further revealed that regulatory activities influenced implementation of rural road projects in Machakos county and that regulation in road projects has not ensured that there is operational consensus between all the stakeholders and that efficiency in verification process has shortened long delays before approval of right contractors. these findings are similar to Hai (2002) who conducted a study in which he acknowledged the comprehensive implementation of a construction regulation system since 1988 in China in the construction industry.

In regard to respondent's opinion on how regulation activities influence implementation of road projects the respondents said that they create close supervision which assist in completing the project on time, they create good valuation, and ensure good coordination between the government and the residents, ensure that the projects are done and ensures safety of both workers and the public. Further concerning other regulation activities that influence implementation of road projects in Machakos County, the respondents indicated close supervision, good valuation, and good coordination between the government and the residents and procurement regulations. These findings are similar to Hill (2015) whose study suggested that a new trend should be considered in which there is virtual regulations.

### **Project Beneficiary Participation**

Finally concerning project beneficiary participation the study found that it positively and significantly influences the implementation of road projects in Machakos County. The study found that projects with high acceptability are completed with the required time limit, on the fact that employment of local community has accelerated project implementation in Machakos county, on the fact that decision making process takes into consideration the needs of the vulnerable in the society and on the fact that involving all project beneficiaries in decision making has made it easy to implement road projects. These are in line with Raza (2016) who claims that in numerous areas, projects have not been implemented due to public dismissal. For instance in, Lahore a water and sanitation project of supplying filtered canal water to the citizens was rejected by the Punjab irrigation Department, a major stakeholder in the project.

The study revealed that project acceptability has to do with the extent to which the local community has been involved and that most of the road projects have not created employment opportunities for the local community. These correspond to Robson (2010) who defined project acceptability as the pre-established standards or requirements a project must meet.

## **CONCLUSIONS**

### **Project Financier's Activities**

Concerning project financier's activities the study concluded that it positively and significantly influenced the implementation of road projects in Machakos County. The study deduced that there is sufficient budget allocation for rural road projects, that budgetary allocation policy provides for allocation of funds adequate enough to complete projects, that accessibility process of project funds is efficient and that contractors are assured of payment of their works after completion. The study deduced that project funds are not availed in good time to ensure no delays in the implementation , that procedures for accessible project fund have not been simplified to enhance efficiency and that theywere not constantly provided with update reports on utilization of funds for various rural road projects.

### **Oversight Activities**

Further in regard to oversight activities, the study concluded that it positively and significantly influenced implementation of road projects in Machakos County. The study deduced that there is efficiency in operating environment as results of approvals and appraisals by KERRA and that enhancing awareness on industry regulations and environment have influenced implementation of road projects. The study also deduced that that oversight activities affected implementation of rural road projects in Machakos, that timely directions by project managers determine how fast a project will be implemented and that there is good working relationship between the contractors and government oversight authorities.

### **Regulation Activities**

The study also concluded that that regulation activities on the influenced of implementation of road project in Machakos County positively. The study deduced that that road project works by qualified contractors has ensured delivery of quality road projects, that continuous inspection of projects has ensured that quality is not compromised and that contractor classification has facilitated easy identification and prequalification of contractors for various jobs. The study deduced that regulatory activities fairly influenced implementation of rural road projects in Machakos county and that regulation in road projects had not ensured that there is operational consensus between all the stakeholders and that efficiency in verification process has shortened long delays before approval of right contractors.

### **Project Beneficiary Participation**

Finally concerning project beneficiary participation the study concluded that it positively and significantly influenced the implementation of road projects in Machakos County. The study deduced that projects with high acceptability are completed with the required time limit, on the fact that employment of local community has accelerated project implementation in Machakos county, that decision making process takes into consideration the needs of the vulnerable in the society and that involving all project beneficiaries in decision making has made it easy to implement road projects. The study deduced that project acceptability has to do with the extent to which the local community has been fairly involved and deduced that most of the road projects have not created employment opportunities for the local community.

### **RECOMMENDATIONS**

Concerning project financier's activities the study found that project funds are not availed in good time to ensure no delays in the implementation and that procedures for accessible project fund have not been simplified to enhance efficiency. The study therefore recommends that the government should ensure that the funds are availed to the contractors in good time to ensure that the projects are completed in good time and quality work delivered. This will give the contractors enough time to plan and assemble the required materials. The study also recommends that procedures for accessing a project for the contractors are simplified to ensure that the qualified contractors are awarded the projects.

In relation to oversight activities the study found that local leaders don't work closely with oversight authorities to ensure projects are effectively implemented and that optimum allocation of project resources fairly ensured project implementation yields maximum benefits. The study therefore recommends that the local authorities should be encouraged to work closely with the contractors to ensure that the community benefits from the roads projects being undertaken in their county. This will ensure that the residents are employed by the contractors and also provide job opportunities for the food vendors. The study also recommends that the contractors should be encouraged to ensure the funds allocated yield maximum benefits.

Further in regard to regulation activities, the study found that efficiency in verification process has not shortened long delays before approval of right contractors. Therefore the study recommends other ways of approving the right contractors should endorse to ensure that there are no delays when approving the qualified contractors. Finally, the study found that most of the road projects have not created employment opportunities for the local community since most of the contractors tend to come with their own workers. The study therefore recommends that the roads projects should be awarded only to the contractors who are willing to consider the residents for employment hence ensuring maximum benefit for community.

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