

AN EXAMINATION OF INSTITUTIONAL DETERMINANTS INFLUENCE ON IMPLEMENTATION OF ROAD REHABILITATION PROJECTS UNDERTAKEN BY KENYA NATIONAL HIGHWAYS AUTHORITY

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Abstract

Road network provides access to employment, health, education and social services. In making sure that the roads are safe for use, various countries across the world carries out road rehabilitation processes. However, the performance of the rehabilitation of the roads has been a challenge in Kenya. The general objective of the study was to examine the institutional determinants influence on implementation of rehabilitation of road projects undertaken by Kenya National Highways Authority. This was done by looking at the influence of four factors namely; funding, stakeholder management, monitoring and evaluation, and project execution on implementation of rehabilitation of road projects undertaken by Kenya National Highways Authority. A descriptive research design was used. The target population was all the on-going rehabilitation projects by Kenya National Highways Authority in Kenya and comprised of 23 project managers and 46 project assistant managers of the on-going rehabilitations projects by Kenya National Highways Authority in Kenya. A census approach was utilized thus the study had 69 respondents. Structured questionnaires was used for data collection. The study found that funding was positive and significant predictor (influencer) on the implementation of the rehabilitation project. In respect to funding aspects, the availability of funds was the indicator with the highest level of agreement amongst the respondents. Stakeholder management was found to be a positive and significant predictor of the implementation of the rehabilitation projects at KeNHA. The study further revealed that stakeholder communication had the highest influence on the implementation of rehabilitation projects at KeNHA. Monitoring aspects was found to have positive and significant influence on the implementation of the rehabilitation projects at KeNHA. The study found that having a workflow framework was the component within the monitoring aspects that had the highest influence on the implementation of rehabilitation projects at KeNHA. Finally, project execution has a positive and significant influence on the implementation of the rehabilitation projects at KeNHA. The KeNHA management should also place an emphasis on the stakeholder communication aspects in the implementation of the roads rehabilitation projects. Workflow frame was found to the highest influence amongst the monitoring aspects on the rehabilitation of roads projects. In this context, it should be emphasized amongst the management of KeNHA. Finally, allocation of resources should be emphasized by KeNHA management to achieve better performance in respect to implementation of roads rehabilitation projects.

Keywords: *Project Execution, Stakeholder Management*

I.INTRODUCTION

Roads are crucial in contributing to the development of economy and also attracting social benefits. Road network provides access to employment, health, education and social services. Development of roads has been attributed to eradication of poverty and opening up marginalized regions (Jeyakanthan & Jayawardane, 2012). Roads play a very crucial role in the movement of goods and passengers to and from short and long distances and therefore connecting farms, factories, fields and various markets across the country (Khisa, 2015). Due to connection between various markets and enabling business transaction to be carried between producers and consumers, the status of the road infrastructure has an influence on the country's Gross Domestic Product (GDP).

However, through continuous use of the roads, the condition of the roads become poor day by day. These roads develop potholes, bumps, deformations and other dangerous conditions

(Agorku, 2014). These conditions may also be brought about by natural events such as heavy rains, flooding and earthquakes, transportation of goods beyond the set limit, poor initial road construction and lack of regular road inspection and maintenance. Poor road conditions makes the roads unsafe for use and its usage can lead to accidents. In making sure that the roads are safe for use, various countries across the world carries out road rehabilitation processes.

Road rehabilitation refers to the resurfacing and restoration of road surfaces and entails structural enhancements or improving structural capacity in order to increase the service life of an already existing road rather than constructing a new road all together. Road rehabilitation can take any of the following forms according to the condition of the road to be rehabilitated; removing the bitumen seal, removing the road base, stabilizing the layers below, and then filling with new material that constitutes bitumen or stone. Other ways of rehabilitating the roads have been filling the potholes or leveling bump and deformed roads. Across the world, the rehabilitation projects have been faced by a number of challenges such as delayed period of projects completion and poor road rehabilitation works among others. These reasons include funding challenges, stakeholder management, monitoring and evaluation, and project execution problems.

The roads infrastructure in Kenya plays a vital role in diverse aspects of the economy including access to diverse utilities such as health care, and education institutions amongst others. The road network also facilitates movement of goods thus enabling access to market of the manufactured and produced goods hence improving on Kenya's GDP. The existence of road infrastructure is thus important to Kenya's achievement of diverse economic goals including vision 2030 and Sustainable Development Goals amongst others. However, continuous use of road, weather elements and the manner in which the roads is used leads to road damage characterized by pot holes, deformations and the wear out of the tarmac aspects thus inhibiting transportation aspects. This requires the roads to be rehabilitated in order to be usable again. Amongst the functions of Kenya National Highways Authority (KeNHA) is the rehabilitation of roads.

However, Kenya National Highways Authority (KeNHA) has been on the spot on the slow pace of road projects worth more than 50 billion Kenyan Shillings (KES), which has led to the agency paying contractors millions of shillings in interest. Amongst the challenges included varying the KES 4.5 billion rehabilitation of Kisumu-Kakamega road at 78.8 percent, contrary to the Public Procurement and Disposal Act of 2005. This implied that the project would cost the taxpayer in the region of KES 8 billion, almost double the contract sum assuming that no further variations are incurred. The auditor general also found that the KES 5 billion rehabilitation of Bachuma Gate-Maji ya Chumvi section of Mombasa road was going on at a slow rate. The project was awarded to China Dalian International Economic and Technical Corporation Group Company limited started in November 2014 to be completed within two years. However, a monthly progress report of June 2016 showed that the percentage of physical works completed was 20 percent with percentage of time elapsed at 79 percent, which may lead to escalation of costs in interest payments. This study seeks to examine the institutional determinants influencing the implementation of the rehabilitation of roads projects undertaken by KeNHA such as funding, stakeholder management, monitoring and evaluation and project execution. Several scholars have examined on the road rehabilitation and construction aspects. Hassan (2017) undertook a study that examined the evaluation of performance of donor funded road construction. On the other hand, Hirsi (2017) examined the factors influencing monitoring and evaluation of county government projects in Nairobi County. These studies have not

examined the determinants of implementation of road rehabilitation projects undertaken by Kenya National Highways Authority.

II.RESEARCH OBJECTIVES

- (i) To examine the influence of funding on implementation of roads rehabilitation projects undertaken by KeNHA
- (ii) To establish the influence of stakeholder management on implementation of roads rehabilitation projects undertaken by KeNHA
- (iii) To establish the influence of monitoring on implementation of roads rehabilitation projects undertaken by KeNHA
- (iv) To examine the influence of project execution on implementation of roads rehabilitation projects undertaken by KeNHA

III.RESEARCH HYPOTHESES

- (i) **H₀₁:** There is no statistically significant influence of funding on implementation of roads rehabilitation projects undertaken by KeNHA
- (ii) **H₀₂:** There is no statistically significant influence of stakeholder management on implementation of roads rehabilitation projects undertaken by KeNHA
- (iii) **H₀₃:** There is no statistically significant influence of monitoring on implementation of roads rehabilitation projects undertaken by KeNHA
- (iv) **H₀₄:** There is no statistically significant influence of project execution on implementation of roads rehabilitation projects undertaken by KeNHA

IV.LITERATURE REVIEW

Funding on the Implementation of Rehabilitation of Roads Projects

Project funding is crucial in determining the rate of project execution. Project funding refers to the allocation of financial resources to contractors, consultants, site engineers and other stakeholders in road rehabilitation projects in ensuring that all the financial needs in the projects are met (Mounde, 2017). Project funding relates to funds availability, adequacy, accessibility, frequency of disbursement and reliability. The availability of funds determines the rate in which a road project would be constructed. The availability of funds enables proper planning in project execution and also acts as a motivation factor to all stakeholders in project execution. In this regard, where there is availability for funds, road project is completed within the time scope of the project or even earlier (Shitsukane, 2018).

Another aspect of funding that affects the rate of project equation is adequacy of funds (Nianjun, 2014). In this regard, funds can be available but not adequate to finance the various aspects road construction projects. Adequacy if funds is measured by comparing the budget of the project and the available funds to be utilized by the projects. If the budget is equal to the available funds, then there is adequate funding and vice versa. Enough funds ensure that there is adequate materials and proper payment of contractors, consultants, engineers and other stakeholders which may fasten the implementation rate of road rehabilitation projects. Lack of enough funds be result to strikes by the contractors causing delay in implementation of projects or the project failing to be completed at all (Wambui, Ombui, Kagiri, Roads, & Kura, 2015).

Accessibility of funds has also been associated with the rate of implementation of road rehabilitation projects in diverse contents (Hassan, 2017). In respect to this, if the available funds is accessible at the time it is needed then the road rehabilitation project would unlikely

delay. Where the funds are accessible for use in running a road construction project, then it would imply that funds was available for use at the required time and that the product was completed in a timely manner (Mbithi, 2017).

Frequency of disbursement of funds in a road rehabilitation project can be a predictor of the rate of implementation of the project (Omari, 2018). Where there is undefined disbursement of funds towards road rehabilitation projects results into cash flows problems leading to delay in various phase of road rehabilitation. Cash flow problems results into delay in payment of contractors and other stakeholders. Cash flow problems also hinder planning in the road construction projects leading to delays implementation of the projects. On the other hand, if there is defined disbursement of funds in road in road rehabilitation projects, the projects was unlikely to delay due to lack of funding and also there was proper planning in project execution. This in return improve the implementation rate of the road rehabilitation projects (Kumi, 2016).

Reliability of source of funding can to a great extent affect the rate in which a project is completed. The reliability of the source of funding facilitates proper planning for road rehabilitation projects (Simon, 2017). Contractors in this context need to have reliable source of funding in order to ensure that there is smooth operations in the site. Lack of reliable source of funding has been associated with delays in projects because the project managers cannot with certainty know when the next funding was done. In this scenario, project managers cannot acquire items and materials on loan to finance various phases of project leading to delays in time of implementation of the projects (Mustefa, 2015).

Stakeholder Management on Implementation of Rehabilitation of Roads

Management of stakeholders is very important aspect in project management and can be used as a determinant of the rate in which a project can be completed. Stakeholder management refers to the process of controlling the participation and influence of all individuals and groups that have an impact to a project or are affected by the project to be executed (Nianjun, 2014). Stakeholders' management relates to stakeholders identification, stakeholder analysis, stakeholder engagements, stakeholder communication and stakeholder empowerment. Project managers needs to properly manage all stakeholders to avoid stakeholders conflicts and for maximum positive influence on implementation of road rehabilitation projects (Singh, 2015).

Stakeholder identification refers to the process of establishing who real stakeholders are, recognizing them and acknowledge their presence and impact to the project (Mounde, 2017). In so doing, project management team should carefully identify those individuals or groups that have an impact to the organization, or those individuals or groups that can be affected by the road rehabilitation projects. After identifying them, the stakeholders need to be recognized and acknowledged through diverse ways such as availing information about the indented project and consultation among other ways. When project stakeholders are identified and acknowledged, there is little conflict from the stakeholders and therefore minimal or no delays on project execution. When the real stakeholders are not identified, is likely that conflicts may arise at later stages of road rehabilitation projects leading to delays in project execution (Hassan, 2017).

Stakeholder analysis refers to the establishment of the influence of the stakeholders and their interest in the project to be executed (Singh, 2015). Project management team may carry feasibility studies to establish the needs of various stakeholders and what influence they might to the success of the road rehabilitation project. In this regard, the interest of stakeholders

whose influence to the success of the project is great are first prioritized before the interests for the stakeholders who are less influential to the success of the project. In this context, contractors are deemed to have the highest influence to the implementation of road rehabilitation projects. Therefore stakeholder analysis can determine the implementation rate of road rehabilitation projects (Diba, 2011).

Stakeholder engagements refers to the actual participation of stakeholders in different stages of project execution (Hassan, 2017). Different stakeholders are engage in different activities at different stages of project execution. Some stakeholders are involved at initial stages, others at planning stages, others in project execution stages and yet others at project closing stage. In this context, contractors, consultants, site/design engineers and staff at the Kenya National Highways Authority (KeNHA) perform different roles in road rehabilitation projects and therefore how well the different stakeholders are managed in terms of their input to the project is a determinant of the implementation rate of the project (Waweru, 2018).

Stakeholder communication refers to the act of availing information to stakeholders concerning the project to be implemented (Kirui, 2016). The information distribution channel, timeliness and value of information are crucial in determining the quality of communication and hence level of implementation of the information. Other aspects that may constitute effective communication are the frequency and amount of information disclosure. When stakeholders have complete information about the project to be executed, they are likely to perform to their level best in meeting the project objectives. Incomplete information disclosure to stakeholders may limit stakeholders' participation or result to adverse effects of stakeholders' participation such as stakeholders' conflicts leading to delay in project execution (Simon, 2017).

Another measure of stakeholder management is stakeholder empowerment. Stakeholder empowerment refers to the level in which stakeholders are motivated to participate in a project or the enhancement of the stakeholders' capacity to positively influence the project (Nianjun, 2014). Stakeholder empowerment may be done their regular training and also provision of information and guidelines in which they are expected to work within. Stakeholders who are empowered are likely to perform better than stakeholders who have no or little capacity to influence the project. Therefore, stakeholder empowerment can determine the rate in which road rehabilitation projects are completed (Mounde, 2017).

Monitoring on Implementation of Rehabilitation

Monitoring and evaluation refers to the process of tracking project outputs and comparing the outputs to the expected deliverables at a given time in project execution (Hassan, 2017). In construction industry, monitoring and evaluation have been measured in terms of clarity of measurability of achievement of project achievements, have effectiveness of monitoring and evaluation guidelines. Site visits and construction inspections have also been used as indicators of monitoring and evaluation of projects. Other measures of monitoring and evaluation in road construction projects include formulating project performance indicators, having a workflow framework, conducting formal surveys, carrying out stakeholder appraisal and cost-benefit and cost-effectiveness analysis (Kariuki, 2015).

Formulating performance indicators refers to the act of set out targets for various stakeholders in the road rehabilitation project to achieve at a specified time or stage of project execution. When there is no clear performance indicators, the stakeholders may not fully understand what is expected of them and therefore failing to deliver according to the set performance targets.

Poor performance indicators is associated with underperformance of employees. Performance indicators give direction of the project and communicate clearly on what needs to be done at each stage of project execution. Therefore, formulating performance indicate may determine whether or not road rehabilitation projects are completed in time (Hassan, 2017).

In undertaking a project, stakeholders needs to know what is expected of them. In doing so, there needs to be a workflow framework. Workflow framework makes sure that every activity is coordinated in a proper manner and that there duplication of roles. A workflow framework makes it possible to effectively supervise all the stakeholders and effectively allocate resources towards different activities in roads rehabilitation projects. In this context, where there is no proper workflow framework there is likely that the project will delay due to duplication of roles, improper utilization of resources and underperformance of employees (Luka, 2016).

Regular surveys may help in trucking the performance of road rehabilitation projects. Surveys may be conducted to establish whether or not the project is within the set goals. With regular surveys, project managers are able to take a corrective action in cases where the project deviates from the set goals. The corrective measures may be to increase the level of supervision, allocate more resources to certain activities, hire or fire some employees or even terminate a contract. This will therefore ensure that the project is executed during the set time frame and no unnecessary delays (Masita, 2013).

Similarly, stakeholder appraisal may be done as a monitoring and evaluation strategy by project managers. Stakeholder appraisal helps to detect non-performing stakeholders who may need to be laid-off as well as those stakeholders who are highly performing and may need to be motivated to perform even higher either through salary increase or award of tokens. Stakeholder appraisal may be a key determinant of the rate in which road rehabilitation project is completed (Nianjun, 2014).

Cost-benefit and cost-effectiveness analysis involves counter-checking the cost involved in the project against the benefits obtained from such expenditure as well as comparing the cost of carrying out a project and the effectiveness of the project. Frequent cost-benefit and cost-effectiveness analysis helps to ensure that there is proper utilization of funds. Where there is proper utilization of funds, the rate of implementation of road rehabilitation projects may be high. Lack of cost-benefit and cost-effectiveness analysis leads to embezzlement of funds making the road rehabilitation projects to delay or fail completely (Moleli, 2012).

Project Execution on Implementation of Rehabilitation of Roads

Project execution phase is the most crucial part in any project. Project that is well executed is able to gain value for stakeholders and profit to project owners (Kirui, 2016). Project execution refers to the process of accomplishing the tasks outlined in project plan and producing some sort of deliverables (Mkuni, 2016). At project execution stage, of importance is project development and this stages requires project managers to be informed on the project progress. Mangers of the project at this stage constantly follow all employees and other stakeholders to ensure the project is taking shape as planned (Masita, 2013). The major activities in project execution phase are development of project execution team, release of project resources, executing project management plans, managing all procurements, use of project tracking systems, assigning tasks to stakeholders, having meeting to discuss the status of the project, modifying projects plans if need be and updating stakeholders on the progress of the project (Wanyonyi, 2014).

In project execution developing a team that spearheads the execution process of the project is very crucial in determining the rate at which the project is completed. A competent team in executing project activities is very crucial in the rate of road rehabilitation projects. Competent team is able to utilize the available resources for the progress of the project and utilize their skills to move project from one stage to the other. A team that encourages all players towards achieving the set goals for road rehabilitation projects and therefore speeding up the rate of implementation of the project (Rambo, Muturi, & Ogweno, 2016).

Assigning resources at the time they are needed and in the correct activities is an accelerator of project execution while delays in resource allocation during project execution can delay the rate at which road rehabilitation projects are completed (Murimi, 2016). Some of the resources needs to be purchased as need arises and therefore proper management of procurements is needed in project execution. Proper management in procurement refers to making sure that there is time procurement of resources and at the right amounts and quality. Delays in procurement may result to delays in implementation of road rehabilitation projects as well (Moleli, 2012).

Executing project management plans is also critical to the success of the project and whereby partial in failure to proper execute the project management plans is a reason why road rehabilitations projects may delay in implementation. Monitoring and evaluation of project runs simultaneously with project execution and therefore at this stage, full implementation of tracking systems is very crucial. When the tracking systems are not put in place at all the activities of project execution, the road rehabilitation projects may delay in implementation and vice versa (Khisa, 2015). In project execution, several roles have to be executed simultaneously and therefore there needs to be proper assigning of tasks to various stakeholders. When there is proper assigning of stakeholders, it implies that different activities are properly done and at the right time leading to implementation of road rehabilitation projects at the stipulated time (Mounde, 2017).

Meeting with stakeholders to update them on what needs to be improved and also updating the stakeholders on the progress of the project can be a good accelerator to the project success. Lack of stakeholders' meeting may lead to conflict between different stakeholders and therefore leading to delay in project execution (Matembo, 2016). Stakeholders' meeting and project monitoring and evaluation in project execution stage may lead to modification of project plans according to issues arising from project execution. Proper modification of the project plans to meet the set project goal may speed up the rate at which the project is executed and vice versa (Njenga, 2014).

V.RESEARCH METHODOLOGY

This study used a descriptive research design to identify the relationship among the study's variables. The target population of the study was all the on-going rehabilitation projects by KeNHA in Kenya. Census approach was used for the purposes of sampling. The structured questionnaires was used for data collection.

VI.RESEARCH FINDINGS AND DISCUSSIONS

The regression analysis with project execution, stakeholder management, funding and monitoring and evaluation as predictors and implementation of road rehabilitation projects as the dependent variables. The regression was undertaken with a view of finding out the influence

of project execution, stakeholder management, funding and monitoring and evaluation on implementation of road rehabilitation projects. The results were presented through three tables that is Table 1, Table 2, and Table 3 that presented model summary, ANOVA, and regression coefficients results respectively. Table 1 presented results for the correlation coefficients and coefficients of determination that is R and R square respectively.

Table 1; Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.857 ^a	.735	.716	.68111

a. Predictors: (Constant), Project Execution, Stakeholder Management, Funding, Monitoring

Table 1 revealed that the scores for correlation coefficients and coefficient of determination stood at 0.857 and 0.735 respectively. According to Singh (2006), the correlation coefficient provides the correlation between the predicted and observed values of the dependent variable. In this context, the correlation coefficient provides the correlation between the observed and predicted values of the rehabilitation of projects. The results revealed that the correlation coefficient was positive indicating a positive correlation between the observed and predicted values of the rehabilitation of projects. This result is critical as it shows that an increase in observed values of rehabilitation of projects is associated with an increase in predicted values of the rehabilitation of projects. This was due to a positive correlation coefficient as argued by (Creswell, 2014). The coefficient of determination was also calculated to find the percentage of variance in the implementation of rehabilitation projects that is attributable to the independent variables. The coefficient of determination of 0.735 indicates that project execution, stakeholder management, funding and monitoring and evaluation influenced implementation of rehabilitation projects account for up to 73.5% of the variance in the implementation of rehabilitation projects. This would imply that it is only 26.5% of the variance in implementation of rehabilitation projects that is not due to factors considered in this model.

The f statistics of the regression model was calculated and results presented in Table 2. The f statistics are used to calculate on whether the regression model is good fit for data. This would imply that it has predictive power on the dependent variable. This was tested at 5% level of significance implying that a p value of less than 5% (0.05) would lead to a conclusion that the model has predictive capability on the dependent variable (Fienberg & Linden, 2012). The achieved p value for the study was 0.000. Since p value was less than chosen level of significance at 5% then a conclusion was made that the regression model was a good fit for data. Therefore, the study proceeded to examine the regression coefficients.

Table 2:ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	71.912	4	17.978	38.753	.000 ^b
	Residual	25.979	56	.464		
	Total	97.891	60			

a. Dependent Variable: Rehabilitation

b. Predictors: (Constant), Project Execution, Stakeholder Management, Funding, Monitoring

The regression coefficients and their associated p values were examined and the results provided in Table 2. The regression coefficients were used to examine the predictive influence of the specific independent variables on the dependent variable. The p values on the other hand were used for the purposes of testing the hypothesis on whether there was significant influence of the specific independent variable on dependent variable.

Table 3:Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-.195	1.538		-.127	.900
1 Funding	.273	.048	.408	5.706	.000
Stakeholder Management	.265	.047	.425	5.651	.000
Monitoring	.232	.046	.381	5.056	.000
Project Execution	.231	.047	.344	4.878	.000

a. Dependent Variable: Rehabilitation

The results of the regression coefficients presented in Table 3 were used for the purposes of creation of a regression equation as provided below;

$$Y = -0.195 + 0.273X_1 + 0.265X_2 + 0.232X_3 + 0.231X_4 + 0.68111$$

Whereby; Y represents Implementation of Rehabilitation of Roads Projects

X₁, X₂, X₃, X₄ represents Funding, Stakeholder Management, Monitoring and Evaluation, and Project Execution, respectively.

The results for the influence of funding showed in Table 3 indicated that the variable had a regression coefficient of 0.273 and a p value of 0.000. The regression coefficient of funding was positive implying a positive predictive capability of funding on implementation of rehabilitation of road projects. This achieved positive predictive capacity of funding on project implementation is consistent with other available literature. Amongst studies that have documented this positive predictive capacity included Anunda (2016), Mawutor (2013) and Wambui et al., (2015). The achieved score of 0.273 implies that a unit increase of funding would lead to a 0.273 increase in the performance of implementation of roads projects. On the other hand, the achieved p value for funding was used for the purposes of testing the following research hypothesis;

H₀₁: There is no statistically significant influence of funding on implementation of roads rehabilitation projects undertaken by KeNHA.

The hypothesis testing was undertaken at a 5% level of significance implying that a p value of less than 5% (0.05) would lead to a rejection of the null hypothesis (Fienberg & Linden, 2009). The achieved p value of 0.000 being less than 0.05 led to the rejection of the null hypothesis (H₀₁). This implied that there was a statistically significant relationship between funding and implementation of road rehabilitation projects.

In respect to the influence of stakeholder management on the implementation of roads rehabilitation projects, a regression coefficient of 0.265 and a p value of 0.000 was achieved. The regression coefficient of stakeholder management being positive indicated that stakeholder

management was a positive predictor of implementation of rehabilitation of roads project. The importance of stakeholder management and its role in project implementation has been found by other project management scholars in their empirical results. These scholars include Heravi, Coffey, & Trigunarsyah (2015), Nauman (2016) and Pamela (2015). The regression coefficient of 0.265 indicated a unit increase in stakeholder management is associated with a 0.265 increase in implementation of roads projects. The p value was used for the purposes of testing the following research hypothesis;

H₀₂: There is no statistically significant influence of stakeholder management on implementation of roads rehabilitation projects undertaken by KeNHA

The hypothesis testing was undertaken at a 5% level of significance implying that a p value of less than 5% (0.05) would lead to a rejection of the null hypothesis (Fienberg & Linden, 2009). The achieved p value of 0.000 being less than 0.05 led to the rejection of the null hypothesis (H₀₂). This implied that there was a statistically significant relationship between stakeholder management and implementation of road rehabilitation projects.

The results of Table 3 indicates that the achieved regression coefficients for monitoring and evaluation stood at 0.232 while the p value stood at 0.000. The achieved positive regression coefficient indicates presence of a positive predictive capacity of monitoring and evaluation on the implementation of roads rehabilitation projects. The positive predictive capacity of monitoring and evaluation on project implementation is consistent with other studies such as those undertaken by Agutu (2014), Njeru (2018) and Shihemi (2016). The regression coefficient of 0.232 indicates that a unit increase in monitoring and evaluation leads to a 0.232 increase in implementation of roads rehabilitation projects. The achieved p values results are used to test the below stated null hypothesis (H₀₃) aspects;

H₀₃: There is no statistically significant influence of monitoring on implementation of roads rehabilitation projects undertaken by KeNHA

The hypothesis testing was undertaken at a 5% level of significance implying that a p value of less than 5% (0.05) would lead to a rejection of the null hypothesis (Fienberg & Linden, 2009). The achieved p value of 0.000 being less than 0.05 led to the rejection of the null hypothesis (H₀₃). This implied that there was a statistically significant relationship between monitoring and evaluation and implementation of road rehabilitation projects.

In respect to the influence of project execution aspects on implementation of roads rehabilitation, the results of Table 3 revealed that the achieved regression coefficient for the metric include a regression coefficient of 0.231 and a p value of 0.000. The positive regression coefficient of project execution indicated that it had a positive predictive capacity on the implementation of roads rehabilitation projects. The p value was used for the purposes of testing the below stated research hypothesis (H₀₄) aspects;

H₀₄: There is no statistically significant influence of project execution on implementation of roads rehabilitation projects undertaken by KeNHA

The hypothesis testing was undertaken at a 5% level of significance implying that a p value of less than 5% (0.05) would lead to a rejection of the null hypothesis (Fienberg & Linden, 2009). The achieved p value of 0.000 being less than 0.05 led to the rejection of the null hypothesis

(H₀₄). This implied that there was a statistically significant relationship between project execution and implementation of road rehabilitation projects.

VII.CONCLUSION

In a holistic manner, the study found that Project Execution, Stakeholder Management, Funding, and Monitoring aspects are associated with a positive influence on the implementation of the rehabilitation of roads projects.

The study found that funding was positive and significant predictor (influencer) on the implementation of the rehabilitation project. In respect to funding aspects, the availability of funds was the indicator with the highest level of agreement amongst the respondents.

Stakeholder management was found to be a positive and significant predictor of the implementation of the rehabilitation projects at KeNHA. The study further revealed that stakeholder communication had the highest influence on the implementation of rehabilitation projects at KeNHA.

Monitoring aspects was found to have positive and significant influence on the implementation of the rehabilitation projects at KeNHA. The study found that having a workflow framework was the component within the monitoring aspects that had the highest influence on the implementation of rehabilitation projects at KeNHA.

Finally, project execution has a positive and significant influence on the implementation of the rehabilitation projects at KeNHA. The study further revealed that allocation of resources to different activities was the metric with the highest influence on the implementation of rehabilitation projects at KeNHA.

VIII.RECOMMENDATIONS

The study makes the following recommendations. In respect to funding aspects of the project, the management of KeNHA should play attention to funds availability to aid in implementation of roads rehabilitation project at KeNHA.

The KeNHA management should also place an emphasis on the stakeholder communication aspects in the implementation of the roads rehabilitation projects.

Workflow frame was found to the highest influence amongst the monitoring aspects on the rehabilitation of roads projects. In this context, it should be emphasized amongst the management of KeNHA.

Finally, allocation of resources should be emphasized by KeNHA management to achieve better performance in respect to implementation of roads rehabilitation projects.

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