

## **Influence of Internal Stakeholder Participation on Performance of Technical Projects at Rift Valley Railways Limited**

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**Abstract:** Rail has a pivotal role in delivering a competitive and environmentally-friendly transport system, growing the economy, enhancing personal mobility and supporting social cohesion. However the performance of projects at the Rift Valley Railways continues to face challenges. It is due to these challenges in performance of technical projects at the rift valley railways that the current study investigated the influence of stakeholder participation on performance of technical projects at rift valley railways. The study specifically sought to establish the influence of stakeholder participation in project identification, project planning, project implementation and project monitoring and evaluation on performance of rift valley railways technical projects. The target population was all the employees of Rift valley railways. The study concluded that only stakeholder participation in project identification, implementation and monitoring and evaluation are positively and significantly related to performance of technical projects at RVRK implying that a unit increase in any of the factors leads to an improvement in performance of technical projects at RVRK. The findings that involvement of stakeholders in project planning, identification, implementation and monitoring and evaluation explains 66.5% led to the conclusion that stakeholders should continuously be involved in technical projects planning, identification, monitoring and evaluation as well as implementation. In as far as identification is concerned, the stakeholders should be involved in development of feasibility plans, problem analysis, appointment of project teams, carrying out project prioritization and development of terms of reference. In planning, the stakeholders should be involved in development of communication plan, development of work break down structure, development of change management strategies to be followed when implementing technical projects, development of resource accumulation mechanisms and development of quality plans for the technical projects. The study also recommends that stakeholders should be involved in project implementation activities like development of technical projects work plan, development and approving of technical projects budgets, evaluation of technical projects risks, evaluation of technical projects costs and drawing of clarity of performance standards required during implementation of technical projects at RVRK since their involvement at this phase is positively and significantly related to performance of technical projects.

**Keywords:** *Project identification, Project planning, Project implementation, Project monitoring and evaluation, Performance of rift valley railways technical projects*

## Introduction

Governments and institutions are faced with an increasing need to develop and maintain infrastructure. Growing populations bring about a host of challenges such as increasing urbanization, rehabilitation requirements of aging infrastructure, the need to expand networks to new populations, and the goal of reaching previously unserved or under-served areas (Alinaitwe & Ayesiga, 2013; Broadbent & Laughlin, 2009). This therefore means that, development of technical projects mostly dealing with mechanical, civil, electrical engineering and information technology are a day to day activity. Organizations can no longer choose if they want to engage with stakeholders or not; the only decision they need to take is when and how successfully to engage (Debra et al. 2007). Stakeholder engagement is premised on the notion that ‘those groups who can affect or are affected by the achievements of an organization’s purpose’ should be given the opportunity to comment and input into the development of decisions that affect them. In today’s society, if they are not actively sought out, sooner or later they may demand to be consulted (Meredith, Jack, Samuel & Mantel, 2000). Situations arise when organizations do not actively engage but are forced to do so by the demands of society as a result of a crisis situation. In response, organizations employ crisis management techniques, and are often forced into a defensive dialogue with stakeholders, leading to a significant and long lasting loss of reputation (Debra *et al.* 2007).

Today, the term stakeholder engagement is emerging as a means of describing a broader, more inclusive, and continuous process between a company and those potentially impacted that encompasses a range of activities and approaches, and spans the entire life of a project (IFC, 2007). This definition encompasses the entire process of stakeholder management in any project management. Stakeholder engagement takes into account the varying perspectives, priorities, and limitations of different stakeholders (Gladwell, 2000). The practitioners in stakeholder engagement are often businesses, non-governmental organizations (NGOs), labor organizations, trade and industry organizations, governments, and financial institutions (Dagmar, 2001). The organisation most often initiates open, two way dialogue seeking understanding and solutions to issues of mutual concern. Stakeholder engagement occurs when an organisation wants to consider the views and involvement of someone or some group in making and implementing a business decision. Stakeholder engagement must occur when an organization truly wants input from groups that will be affected by the company's decision (Campbell and Marshall, 2002).

Volker (2012) argues that many of the issues facing development today can’t be tackled by one agency or organization alone. They are complex and require multiple actors such as donor who finance projects, local authorities who have authority over project areas and local actors who best understand the local interests and can assist in empowering local communities (Parker & Skytta, 2000). The absence of integration of all these stakeholders and shared responsibility in implementation may spoil the project and limit its performance (Volker, 2012). This emphasizes on the need to have stakeholders participating in various stages of project management

## **Statement of the Problem**

RVRK is in the middle of a high capital investment program of about USD 287 million targeted towards rail modernization and efficiency to increase revenue and reduce operational expenses. However, the performance of projects at RVRK continues to face challenges (Nyalwal, 2013). Ngure (2013) also agrees that for the last three decades, many projects have been in existence in Kenya, with very huge sum of money invested both from donors and from tax payers but the completion rate of the projects are still low. Project performance challenges cuts across all industries. A survey by Miller and Lessard (2001) indicated that close to 40% of large engineering projects researched on a worldwide basis experienced serious performance problems with \$985 million average cost. Statistics from the republic of Kenya report show that KENHA has been experiencing cost overruns in its Roads projects. For instance, in the construction of Thika Super Highway, the cost escalated from 26.44 billion to 34.45 billion (World Bank, 2014). In addition, the initial deadline of the Thika super highway project was July 2011, which was later revised to July 2013. Further, the sewerage system in Lot1-RD 0530 of Thika superhighway project was changed after the construction of the road (Nyandika & Ngugi, 2014). However, statistics reveals that out of 50 youth projects funded by YEDF since the year 2007, only 25% of the projects are operational while 75% are non- operational (YEDF, 2012). The high failure rates may be attributed to limited application of project cycle management (PCM) model ( Waithera & Wanyoike, 2015).

In the last five years several high investment projects have been initiated and implemented by RVRK which are geared towards improving efficiency and safety in rail transport by modernizing the already existing railway government assets (RVRK Report, 2015). These projects are highly technical projects in the areas of mechanical, electrical, civil engineering and information technology. Some of these projects though have been completed and are functional and some were faced with challenges in their implementation. Challenges encountered ranges from time delays, quality issues, specifications, scope and budget issues. The importance of stakeholder participation in project success cannot be under estimated and need stakeholder participation as suggested by Volker (2012) since he notes that the absence of integration of stakeholders and shared responsibility in implementation may spoil the project and limit its performance. Could this be the case for technical projects at the rift valley railways in Kenya?

The failure of projects at the rift valley railways as presented by Ngure (2013) and (Nyalwal, 2013) can be attributed to many factors, but the current study will seek to investigate the role of stakeholder participation in the four main phases of project management. This study is further motivated by existence of research gaps from the previous studies conducted in the area. Previous studies that have focused on stakeholder participation and performance of projects have indicated conceptual, contextual and methodological research gaps. Furthermore, the studies did not directly look at the transport sector portraying a difference in context thus presenting a contextual research gap. Studies conducted by Adan (2012) as well as Kinyoda (2009) focused on a different context from the current study since the current study will focus on the transport sector, specifically the railway related technical projects. Motivated by these research gaps, the current study sought to investigate the influence of stakeholder participation on performance of technical projects at rift valley railways Limited in Kenya.

## **Research Objectives**

- i. To establish the influence of stakeholder participation in project identification phase on performance of Rift valley railways Ltd technical projects.
- ii. To analyse the influence of stakeholder participation in project planning phase on performance of Rift valley railways Ltd technical projects.
- iii. To determine the influence of stakeholder participation in project implementation phase on performance of Rift valley railways Ltd technical projects.
- iv. To establish the influence of stakeholder participation in project monitoring and evaluation phase on performance of Rift valley railways Ltd technical projects.

## **Literature Review**

### **Theoretical Framework**

#### **Stakeholders Theory**

The stakeholder theory is a theory of organizational management and business ethics that addresses morals and values in managing an organization. It identifies and models the groups which are stakeholders of a project, and both describes and recommends methods by which management can give due regard to the interests of those groups. In short, it attempts to address the "Principle of Who or What Really Counts (Freeman, 1984). The stakeholder view of strategy is an instrumental theory of the technical projects, integrating both the resource-based view as well as the market-based view, and adding a socio-political level. This view of the firm is used to define the specific stakeholders of a technical project of stakeholder identification as well as examine the conditions under which these parties should be treated as stakeholders. The importance of stakeholders from a strategy development and service planning perspective is well acknowledged (Ackermann & Eden, 2001). Still, the role of stakeholders and performance measurement has been little discussed. The issue of who is seen as the end user of the performance measurement information generated has received little attention and yet, particularly in the public sector especially in technical projects, is of critical importance

#### **Structural Functionalism Theory**

According to this theory, formal organizations consist of many groupings of different individuals, all working together harmoniously to achieve a common goal. It argues that most organizations are large and complex social units consisting of many interacting sub-units which are sometimes in harmony but more often than not they are in diametric opposition to each other. Functionalism is concerned with the concept of order, formal work in organizations and in how order seems to prevail in both systems and societies irrespective of the changes in personnel which constantly takes place (Talcott, 1991).

The theory seeks to understand the relationship between the parts and the whole system in an organization in particular and identify how stability is for the most part achieved. Structural functionalism further advocates for an analysis of the perceived conflicts of interests evident amongst groups of workers. However, it is crucial to take into account the involvement for participation by each stakeholder and the different interest towards achievement of certain goal (Carr & Capey, 1982). The theory thus appropriately explains the project managers must consider it important in bringing the other parties together into building a cohesive and a goal oriented system that pull together towards achieving goals and how to manage both conflicts and excitements.

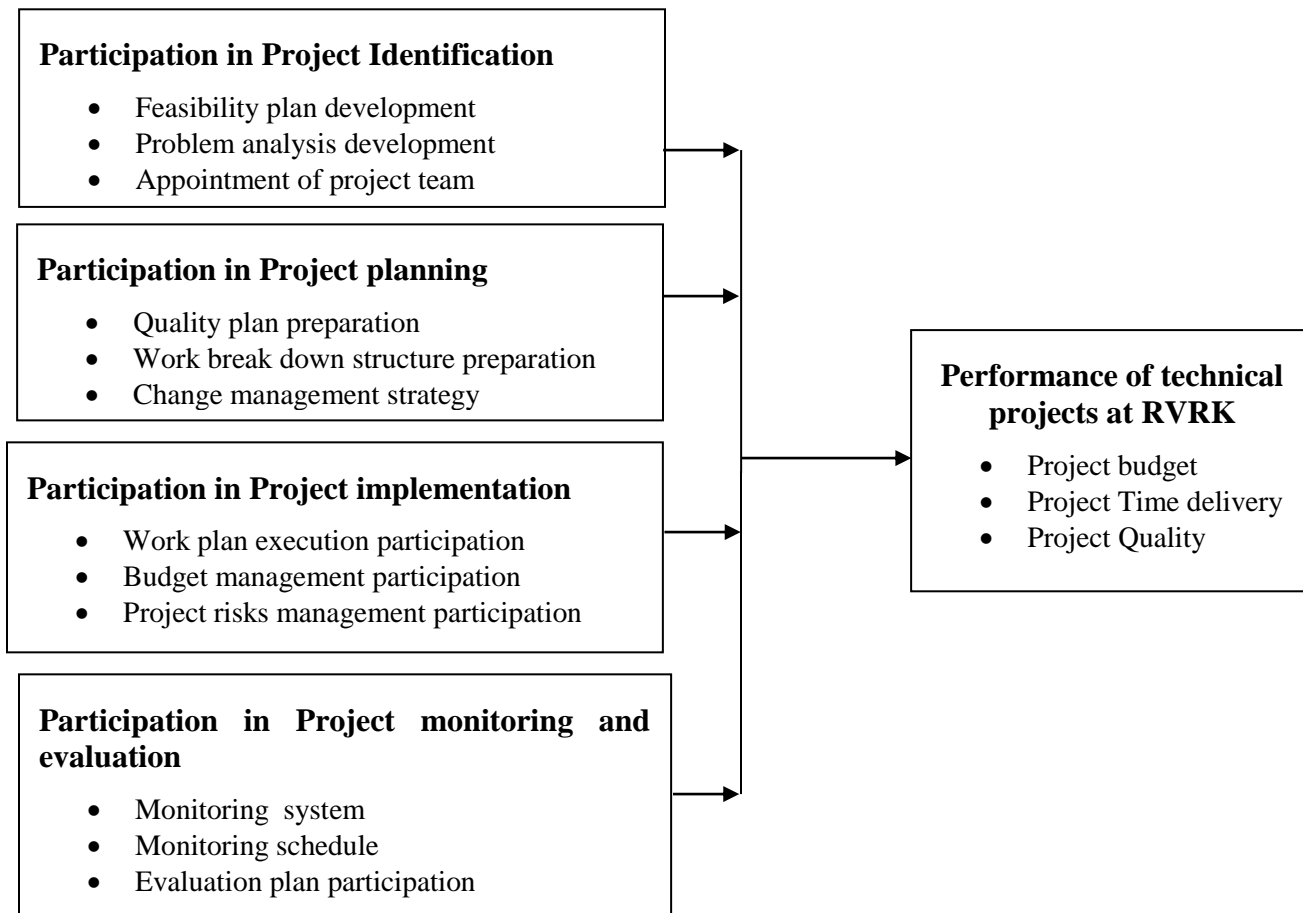
### **The McKinsey 7S Framework Theory**

The McKinsey 7S Framework is a management model developed by Robert and Tom (1980) as a strategic vision for groups, to include businesses, business units, and teams. The seven Ss are Strategy which is the plan devised to maintain and build competitive advantage, Structure which is the way the organization is structured and who reports to whom, Systems which are the daily activities and procedures that staff members engage in to get the job done , Shared Values which are the core values of the company that are evidenced in the corporate culture and the general work ethic , Style which shows the style of leadership adopted , Staff which are the employees and their general capabilities and Skills which are the actual skills and competencies of the employees working for the company and strategy employed by the organization to achieve its set goals and objectives. According to the model, for an organization to perform well, these seven elements need to be aligned and mutually reinforcing. The model is hence used to identify the needs that should be realigned to improve performance or to maintain it when an organization is incorporating changes. Examples of the changes can be restructuring, implementation of new processes, merging, introduction of new systems and changing leadership (Robert & Tom, 1980).

### **Novelty, Complexity, Technology and Pace (NTCP) “Diamond” Model**

Shenhar and Dvir (1996) developed a typological theory of project management and a three dimensional framework for analysis, called the UCP – for Certainty, Complexity, and Pace. In 2001, their research had also shown how the theory could be applied to the practicing organization, offering that different project management styles should be associated with different types of projects. Shenhar and Dvir extended the concept of classical contingency theory to project management by suggesting that a few NASA accidents may have been caused by inherently wrong project management style that may have led to an oversight. Recently, Shenhar and Dvir (2007) suggested a more refined model consisting of novelty, complexity, technology, and pace – the NTCP “Diamond” Model. This goes to show that various frameworks and methodologies match to different projects and may lead to different project outcomes depending on their adoption, which will ultimately influence the success or failure of a project. This theory provides a framework of analyzing and evaluating a project making it best suited to project monitoring and evaluation. The diamond model helps in understanding the nature of projects, diagnose the gaps between the current capabilities and what is needed to make the project a success.

## Conceptual Framework



**Figure 1: Conceptual Framework**

## Research Methodology

This study employed descriptive research design. The choice of the research design is because of the need to describe the present situation regarding performance of Rift valley railways Ltd technical projects since the research design was suitable for answering the what, which and when questions. The target study population studied is the technical projects of RVRK. The employees who were or are involved in the technical project implementation were selected for data collection. According to the HRM report (2014), Rift valley railways had 2100 employees at all levels of management and junior level, but this study only targeted internal stake holders which are the employees that were involved in technical projects either as initiators, planners, implementers and users. The study used the Fisher (1983) formula to come up with a sample size.



Purposive random sampling was then used to select the respondents for data collection. The study sampled 96 respondents who are the project stakeholders of RVRK. These respondents were drawn from the projects implemented by RVRK. The study used quantitative primary data gathered by use of structured questions. Descriptive statistics, which includes the mean score, standard deviation and frequency distribution, enabled the researcher to meaningfully describe the distribution of measurement. Regression analysis was used for evaluating the multiple independent variables under investigation; correlation model was also used by use of Pearson Product Moment correlation coefficient where the magnitude of the correlation coefficient indicates the strength of the association of the variables under study. Tests were conducted at 95% confidence level. The regression took the following form:

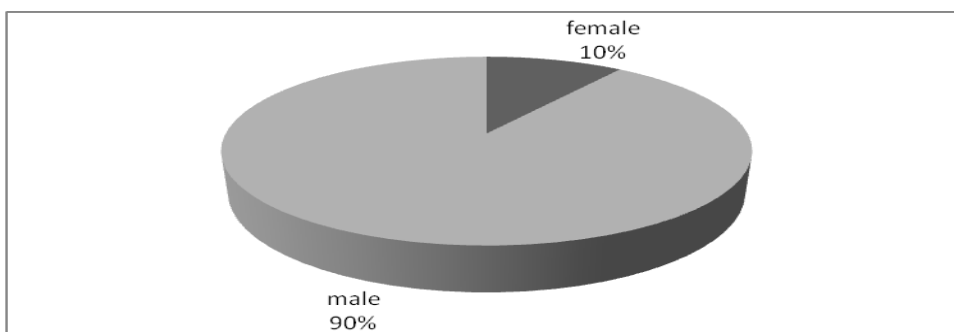
$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + e$ , Where: Y = Performance of technical projects at Rift valley railways Ltd,  $X_1$  = Stakeholder participation in Project identification,  $X_2$  = Stakeholder participation in Project planning,  $X_3$  = Stakeholder participation in Project implementation,  $X_4$  = Stakeholder participation in Project monitoring and evaluation,  $e$ =Error term and  $\alpha$ = constant AND  $\beta$ =coefficient of independent variables

## Results

### Demographic Characteristics

#### Gender Composition of Respondents

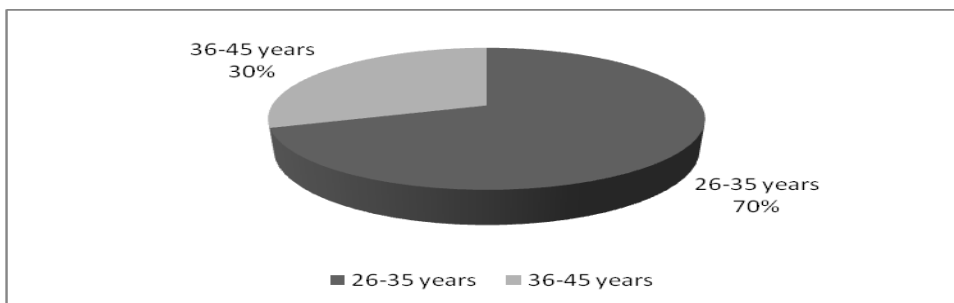
The respondents were asked to indicate their gender. Results reveal that a majority of the respondents, 90% were male while 10% were female. The results implied that RVRK had more male employees than female employees participating in technical projects. The findings are as presented in Figure 2.



**Figure 2: Gender Composition of Respondents**

### Age bracket of Respondents

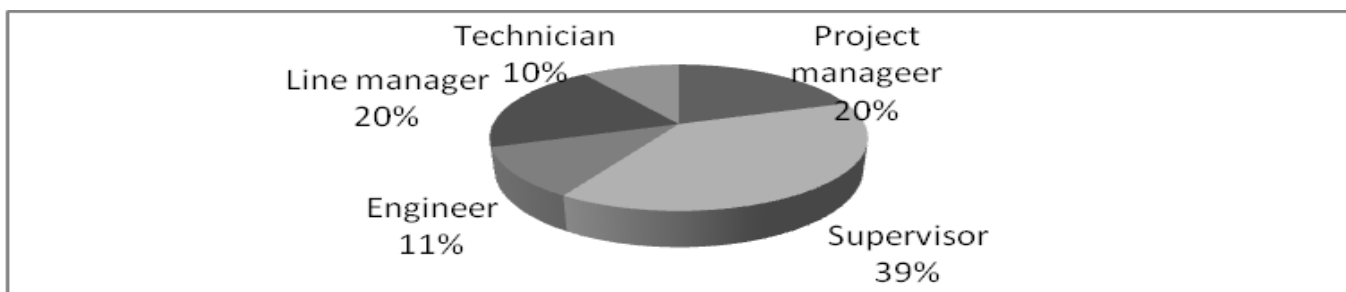
The respondents were also asked to indicate their age bracket. Results in Figure 3 reveal that majority, 70%, of the respondents were aged between 26 and 35 years while those aged between 36 and 45 years were only 30%. This implies that majority of the internal stakeholders at RVRK involved in technical projects were aged between 26 and 35 years of age.



**Figure 3:** Age bracket of Respondents

### Position

The respondents were asked to indicate their position at RVRK. Results in Figure 4.3 reveal that 39% of the participants worked as supervisors, 20% worked as project manager, 20% worked as line manager, 11% worked as engineer and only 10% worked as technicians. Generally, the respondents were varied hence the information given was varied across people of different positions within RVRK.

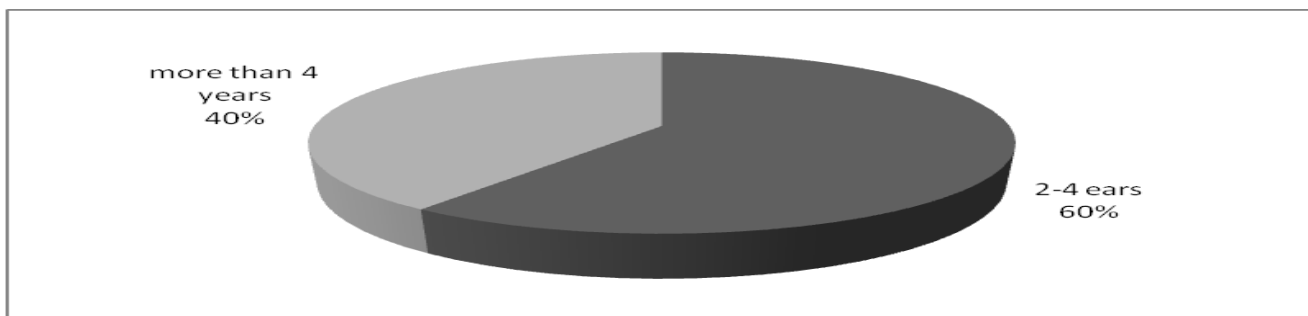


**Figure 4:** Position



## Work Experience

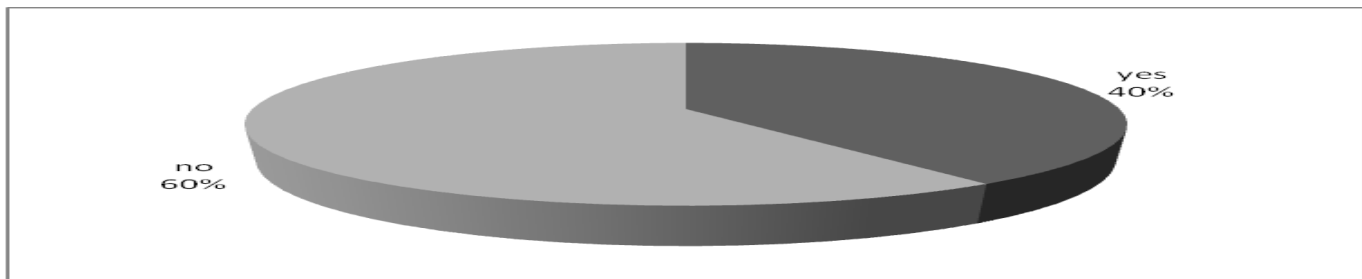
The respondents were asked to indicate how long they had worked with the Rift Valley Railways. Results in Figure 4.4 reveal that majority, 60% of the respondents had worked with the RVRK for 2 to 4 years while 40% had worked with RVRK for more than 4 years. The implication is that the respondents had enough experience to be able to answer questions on technical projects. Furthermore, the results indicate that the rate of turnover at RVRK was low.



**Figure 5: Work experience**

## Stakeholder Participation in Project Identification

The first objective of the study was to establish the influence of internal stakeholder participation in project identification on performance of rift valley railways technical projects. The respondents were asked to indicate whether the management involves stakeholders in technical project identification. The findings indicated that 60% of the respondents indicated that the management does not involve stakeholders in project identification. Only 40% agreed with the statement. This justifies the research problem. Asuming (2001) argues that many reasons have been suggested for poor performance of projects in Africa but possibly the most important has been lack of sufficient involvement of the stakeholders in identification, planning, implementation and the administrative phase of the projects. According to the argument by Nijkamp *et al.* (2002) that the identification processes determines the nature and scope of the project and that if this stage is not performed well, it is unlikely that the project will be successful in meeting the community needs, technical projects at RVRK does not fully involve stakeholders at the identification stage and this can explain some of the challenges experienced in some projects. The results are presented in Figure 6.



**Figure 6: Involvement of Stakeholders in Project Identification**

### Descriptive Analysis of Stakeholders Participation in Project Identification

The respondents were requested to indicate their agreement or disagreement with statements concerning stakeholder participation in project identification. The statements were on a scale of 1 to 5 where 1 was strongly disagree, 2 was disagree, 3 was neutral, 4 was agree and 5 was strongly agree. The results indicate that 20.0% of the respondents agree that the management of RVRK involves the stakeholders in development of feasibility plans, 20.0% agree that during project identification phase, stakeholders are involved in problem analysis while 30.0% agree that the management of RVRK involves the stakeholders in appointment of project teams. Those who agreed that the management of RVRK involves the stakeholders in carrying out project prioritization were 20.0% and those who agreed that the stakeholders are involved in development of terms of reference were 10.0%.

The overall mean score of 2.56 indicated that slightly majority of the respondents were neutral on statements on involvement of stakeholders in project identification while a standard deviation of 1.06 indicated a small variation in the responses. This is an indication that the involvement of stakeholders in project identification is very low at RVRK. This findings indicate that, some of the areas that encompass project identification for instance: analyzing the needs/requirements in measurable goals, reviewing of the current operations, financial analysis of the costs and benefits including a budget, Stakeholder analysis, including users, and support personnel for the project, Project charter including costs, tasks, deliverables, and schedule (Albert, 2004) are conducted at RVRK though with little involvement of stakeholders. The results are as presented in Table 1.

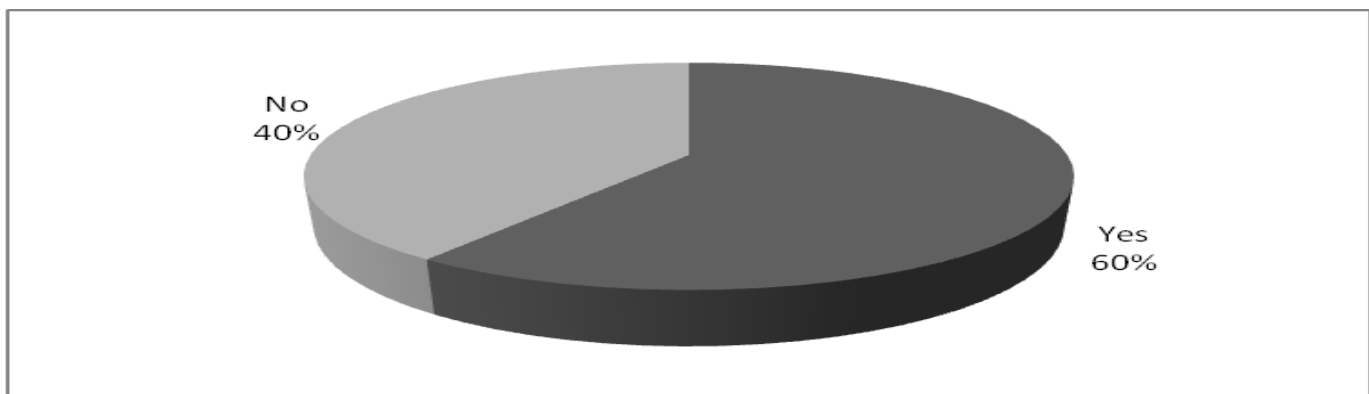
**Table 1: Stakeholder participation in Project identification**

Statement	1	2	3	4	5	Mean	Standard Deviation
The management of RVRK involves the stakeholders in development of feasibility plans	20.00%	50.00%	10.00%	10.00%	10.00%	2.40	1.21
During project identification phase, stakeholders are involved in problem analysis	10.00%	60.00%	10.00%	10.00%	10.00%	2.50	1.13
The management of RVRK involves the stakeholders in appointment of project teams	10.00%	40.00%	20.00%	30.00%	0.00%	2.70	1.01
The management of RVRK involves the	10.00%	50.00%	20.00%	20.00%	0.00%		0.93

Statement	1	2	3	4	5	Mean	Standard Deviation
stakeholders in carrying out project prioritization						2.50	
The stakeholders are involved in development of terms of reference	0.00%	60.00%	20.00%	10.00%	10.00%	2.70	1.01
Average						2.56	1.06

### Stakeholder participation in project Planning

The second objective of the study was to establish the influence of stakeholder participation in project planning on performance of rift valley railways technical projects. The respondents were asked to indicate whether the management involves stakeholders in technical project planning. The findings indicated that 60% of the respondents agreed that there is involvement of stakeholders in project planning. 40% disagreed with the statement. The findings imply that at the planning stage, stakeholders are involved but at the identification stage, few stakeholders are involved. The results are presented in Figure 7.



**Figure 7: Involvement of Stakeholders in Project planning**

### Descriptive analysis of Stakeholder participation in project Planning

The respondents were requested to indicate their agreement or disagreement with statements concerning stakeholder participation in project planning. The statements were on a scale of 1 to 5 where 1 was strongly disagree, 2 was disagree, 3 was neutral, 4 was agree and 5 was strongly agree. The results are as presented in Table 2.

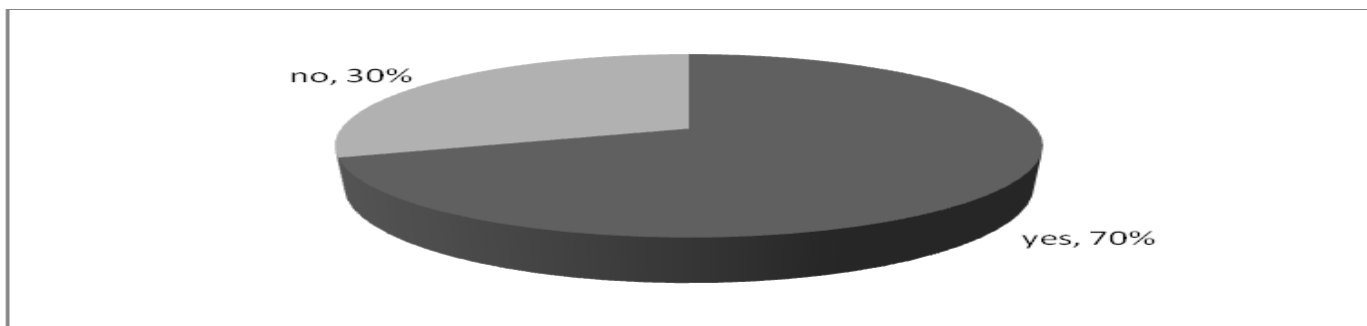
**Table 2: Stakeholder participation in project Planning**

Statement	1	2	3	4	5	Mean	Standard Deviation
The management of RVRK involves the stakeholders in development of communication plan	0.00%	20.00%	40.00%	40.00%	0.00%	3.20	0.75
The stakeholders are involved in development of work break down structure	0.00%	50.00%	10.00%	20.00%	20.00%	3.10	1.23
The management of RVRK involves the stakeholders in development of change management strategies to be followed when implementing technical projects	0.00%	50.00%	10.00%	40.00%	0.00%	2.90	0.95
The stakeholders are involved in development of resource accumulation mechanisms for the technical projects	0.00%	30.00%	10.00%	50.00%	10.00%	3.40	1.03
The stakeholders are involved in development of quality plans for the technical projects	10.00%	20.00%	20.00%	40.00%	10.00%	3.20	1.17
<b>Average</b>						<b>3.16</b>	<b>1.03</b>

### Stakeholder participation in project Implementation

The third objective of the study was to establish the influence of stakeholder participation in project implementation on performance of rift valley railways technical projects. The respondents were asked to indicate whether the management involves stakeholders in technical project implementation. The study findings indicated that only 40.0% of the respondents agreed that the management of RVRK involves the stakeholders in development of communication plan, 40.0% on the other hand agreed that the stakeholders are involved in development of work break down structure while 40.0% agreed that the management of RVRK involves the stakeholders in development of change management strategies to be followed when implementing technical projects.

Those who agreed that the stakeholders are involved in development of resource accumulation mechanisms for the technical projects were 60.0% and those who agreed that the stakeholders are involved in the development of quality plans of technical projects are 50%. The overall mean score of 3.16 implies that majority of the respondents were neutral on most statements of stakeholder participation in project planning. The standard deviation of 1.03 indicated that there was a small variation in the responses on statements concerning stakeholder participation in project planning. The findings agree with the argument by Gitonga (2010) that project planning details to the project definitions in terms of resources, time, cost, and scope and quality plan schedules. These activities are carried out at RVRK with stakeholder involvement. The findings indicated that 70% of the respondents agreed that stakeholders are involved in technical project implementation while 30% disagreed with the statement. The results are presented in Figure 8.



**Figure 8: Involvement of Stakeholders in Project Implementation**

#### **Descriptive analysis of Stakeholder participation in project Implementation**

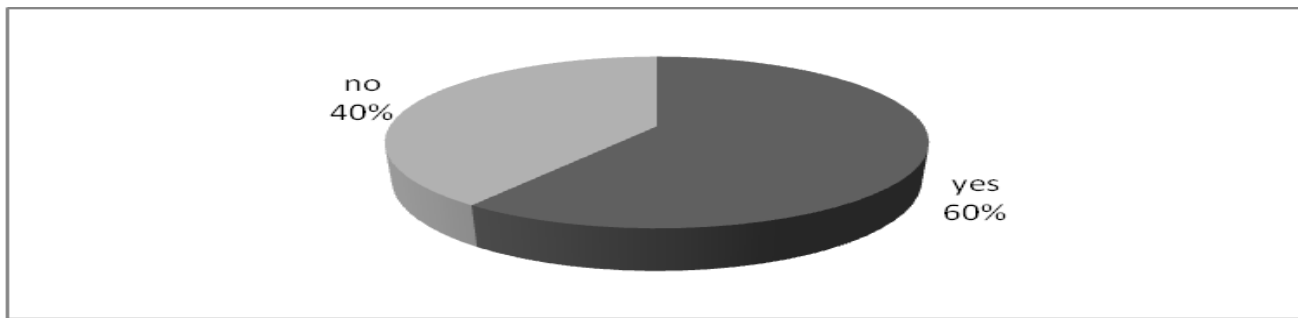
The respondents were requested to indicate their agreement or disagreement with statements concerning stakeholder participation in project implementation. The statements were on a scale of 1 to 5 where 1 was strongly disagree, 2 was disagree, 3 was neutral, 4 was agree and 5 was strongly agree. The study findings indicated that only 60.0% of the respondents agreed that the stakeholders are involved in development of technical projects work plan, 30.0% on the other hand agreed that The management of RVRK involves the stakeholders in development and approving of technical projects budgets while 50.0% agreed that the stakeholders are involved in evaluation of technical projects risks. Those who agreed that the stakeholders are involved in evaluation of technical projects costs were 10.0% and those who agreed that the stakeholders are involved in drawing of clarity of performance standards required during implementation of technical projects at RVRK were 40.0%. The overall mean score of 3.12 implies that majority of the respondents neither agreed nor disagreed with the statements on stakeholder participation in project implementation. The standard deviation of 0.78 indicated that there was a small variation in the responses on statements concerning stakeholder participation in project implementation. The results are as presented in Table 3.

**Table 3: Stakeholder participation in project Implementation**

Statement	1	2	3	4	5	Mean	Std Dev
The stakeholders are involved in development of technical projects work plan	0.00%	10.0%	30.0%	60.0%	0.00%	3.50	0.68
The management of RVRK involves the stakeholders in development and approving of technical projects budgets	0.00%	10.0%	60.0%	30.0%	0.00%	3.20	0.60
The stakeholders are involved in evaluation of technical projects risks	0.00%	40.0%	10.0%	50.0%	0.00%	3.10	0.95
The stakeholders are involved in evaluation of technical projects costs	0.00%	40.0%	50.0%	10.0%	0.00%	2.70	0.64
The stakeholders are involved in drawing of clarity of performance standards required during implementation of technical projects at RVRK	0.00%	40.00%	20.0%	30.0%	10.0%	3.10	1.05
<b>Average</b>						<b>3.12</b>	<b>0.78</b>

### Stakeholder participation in project Monitoring and evaluation

The fourth objective of the study was to establish the influence of stakeholder participation in project monitoring and evaluation on performance of rift valley railways technical projects. The respondents were asked to indicate whether the management involves stakeholders in technical project monitoring and evaluation. The findings indicated that 60% of the respondents agreed that management involve stakeholders in project monitoring and evaluation. 40% disagreed with the statement. The results are presented in Figure 9.



**Figure 9: Involvement of Stakeholders in Project monitoring and evaluation**

#### Descriptive analysis of Stakeholder participation in monitoring and evaluation

The respondents were requested to indicate their agreement or disagreement with statements concerning stakeholder participation in project monitoring and evaluation. The statements were on a scale of 1 to 5 where 1 was strongly disagree, 2 was disagree, 3 was neutral, 4 was agree and 5 was strongly agree. The study findings indicated that only 40.0% of the respondents agreed that the management of RVRK involves the stakeholders in development of monitoring systems to monitor the progress of technical projects, 40.0% on the other hand agreed the stakeholders are involved in development of monitoring schedules to monitor the progress of technical projects while 50.0% agreed that the stakeholders are involved in development of evaluation plan to evaluate the progress of technical projects. Those who agreed the stakeholders are involved in development of monitoring techniques to monitor the progress of technical projects were 40.0% and those who agreed that The stakeholders are involved in identification of performance gaps were 40.0%. The overall mean score of 3.14 implies that majority of the respondents neither agreed nor disagreed with the statements on stakeholder participation in project monitoring and evaluation. The standard deviation of 1.19 indicated that there was a small variation in the responses on statements concerning stakeholder participation in project monitoring and evaluation. The results are as presented in Table 4.

**Table 4: Stakeholder participation in project monitoring and evaluation**

Statement	1	2	3	4	5	Mean	Std Dev
The management of RVRK involves the stakeholders in development of monitoring systems to monitor the progress of technical projects	0.00%	40.0%	20.0%	20.0%	20.0%	3.20	1.17
The stakeholders are involved in development of monitoring schedules to monitor the progress of technical projects	0.00%	50.0%	10.0%	20.0%	20.0%	3.10	1.23
The stakeholders are involved in development of evaluation plan to evaluate the progress of technical	0.00%	40.0%	10.0%	40.0%	10.0%	3.20	1.08



projects.

The stakeholders are involved in development of monitoring techniques to monitor the progress of technical projects.

0.00% 40.0% 20.0% 20.0% 20.0% 3.20 1.17

The stakeholders are involved in identification of performance gaps.

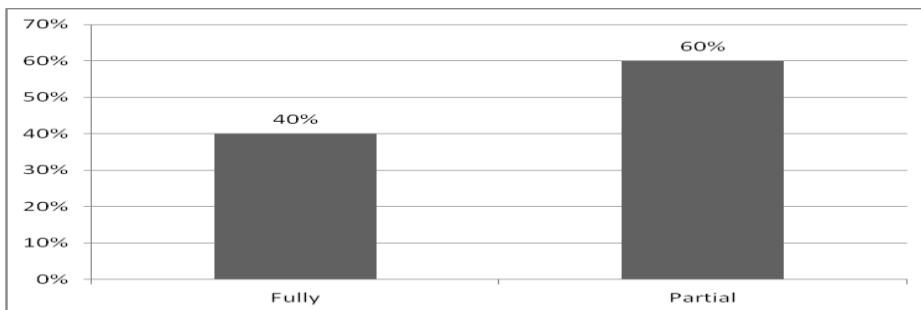
0.00% 60.0% 0.00% 20.0% 20.0% 3.00 1.27

**Average**

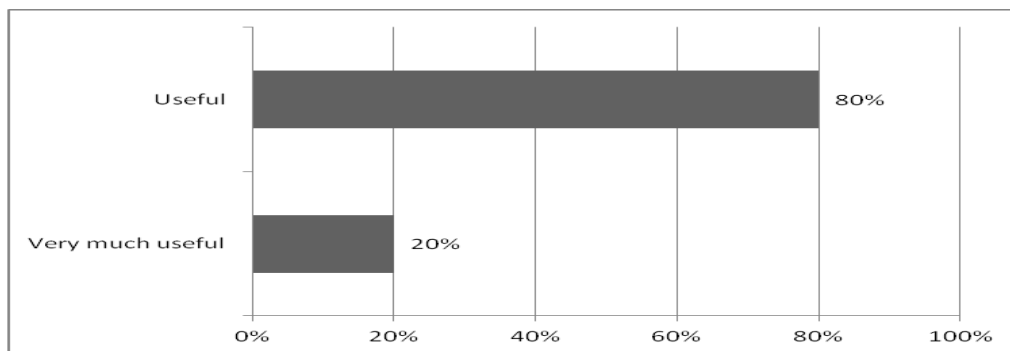
**3.14 1.19**

### Performance of Technical Projects at RVRK

The study sought to establish the extend of completion of projects at RVRK in the last five years. The study findings indicated that majority of the respondents, 60%, revealed that projects are partially completed while only 40% indicated that technical projects at RVRK are fully completed within the time frame. This justifies the research problem that technical projects at RVRK perform poorly. The performance of projects at the Rift Valley Railways continues to face challenges (Nyalwal, 2013). The results are presented in Figure 10. The study further investigated the usefulness of the completed technical projects at RVRK. The study findings indicated that majority of the respondents, 80%, revealed that completed projects are useful while only 20% indicated that completed projects at RVRK are very much useful. The results imply that the completed technical projects are used to achieve their intended purpose and don't become dormant. The results are as presented in Figure 11.



**Figure 10: Extend of completion of technical projects at RVRK**



**Figure 11: Extent of completion of technical projects at RVRK**

### Correlation Analysis

Correlation analysis was conducted to establish the association between the study variables. A correlation matrix was used to indicate the correlation coefficients. Multicollinearity was also tested. The findings of the study indicates that involvement of the stakeholders in project identification was positively and significantly associated with performance of technical projects at the RVRK ( $R=0.768$ ,  $P\text{-Value} = 0.000$ ). This implied that the more the stakeholders are involved in technical project identification, the better the performance of the technical projects. The findings agree with Kinyoda (2009) who did a study on the level of participation in project identification and selection by constituents of Makadara CDF and revealed that it led to better performance of the projects in regard to high completion rate. Secondly, the finding indicates that involvement of stakeholders in project planning was positively and significantly associated with performance of technical project at the RVRK ( $R=0.427$ ,  $P\text{-Value} = 0.000$ ). This denotes that the more stakeholders are involved in technical project planning, the better the performance of that project. The findings agree with the results of a study by Mukunga (2012) which indicated that low level of community participation in Identification, Planning, Implementation and Monitoring of the Kiserian Dam project affected performance of the project.

The result also indicates that there is a positive and significant correlation between involvements of stakeholders in project implementation and performance of technical project at the RVRK ( $R=0.342$ ,  $P\text{-Value} = 0.002$ ). This implied that the more the stakeholders are involved in technical project implementation, the better the performance of the technical projects. The findings of the study agrees with the findings of a study by Adan (2012) conducted on the influence of stakeholders' role on performance of constituencies' development fund projects at Isiolo North Constituency, Kenya and established that CDFC, PMC and government officials' participation in project implementation contributed most to project performance. Finally, the finding of the study indicated that the involvement of stakeholders in monitoring and evaluation of technical project was positively and significantly associated with performance of the technical project at the RVRK ( $R=0.469$ ,  $P\text{-Value} = 0.000$ ). This implied that the more the stakeholders are involved in technical project monitoring and evaluation, the better the performance of the technical projects. The results are as presented in Table 5.

**Table 5: Correlation analysis**

		Identification	Planning	Implementation	Monitoring and evaluation
Identification	Pearson Correlation	1			
Planning	Pearson Correlation	.646**	1		
Implementation	Pearson Correlation	.542**	.659**	1	
Monitoring and evaluation	Pearson Correlation	.794**	.681**	.815**	1
Performance	Pearson Correlation	.768**	.427**	.342**	.469**
	Sig. (2-tailed)	0.000	0.000	0.002	0.000

\*\* Correlation is significant at the 0.01 level (2-tailed).

### Regression Analysis

The general objective of the study was to determine the influence of stakeholder participation on performance of technical projects at rift valley railways. The study used an ordinary least square regression model to achieve this. The results for the model summary are presented in Table 6. The study findings in Table 6 indicate that the four factors (stakeholder participation in project planning, identification, implementation and monitoring and evaluation) explain 66.5% of the changes in the performance of technical projects at RVRK as indicated by an R square of 0.665. The findings also indicate that the four factors are jointly positively associated with the performance of technical projects as indicated by an R of 0.816. Furthermore, the findings showed that the F statistic was significant at 5% level of significance ( $F = 37.23$ ,  $p = 0.000$ ) implying that the model fit well. The results for model coefficients are as presented in Table 7. Regression of coefficients results in Table 7 shows that stakeholder participation in technical project identification and performance of technical projects at RVRK were positively and significantly related ( $B = 0.934$ ,  $p = 0.000$ ).

The findings imply that the higher the frequency of stakeholder participation in technical projects identification, the better the performance of those technical projects. A unit change in the frequency of participation of stakeholders in technical projects identification leads to a 0.934 unit change in the performance of technical projects at RVRK. The findings are in line with the findings of a study by Mochiemo (2007) did a study on the contribution of the community in successful completion of CDF projects in Kitutu Chache constituency Kisii central District and found that the government NGO's, CDF and any other body which would like to start a project in a community should involve and encourage contributions of the community from the initial identification of a project to end and ensure successful completion and sustainability. The findings also agree

with the argument by Garin *et al.* (2002) that failure of involvement of stakeholders to the projects plans may lead to difficulty in implementation.

Secondly, the findings indicate that stakeholder involvement in project implementation and performance of technical projects have positive and significant relationship ( $B=0.392$ ,  $p=0.035$ ). This implies that the higher the stakeholder involvement in project implementation, the better the performance of the project. A unit change in the frequency of stakeholder involvement in project implementation results to a 0.392 unit change in the performance of technical projects at RVRK. The results agree with the findings of a study by Maina (2013) conducted on the influence of stakeholders' participation on the success of the economic stimulus programme in Nakuru County and revealed a positive relationship between stakeholder participation in project identification and selection, participation in project planning, participation in project implementation and participation in project monitoring and evaluation and success of the Economic Stimulus Programmes. The findings also show that stakeholder involvement in technical project monitoring and evaluation and performance of technical project at RVRK were positively and significantly related ( $B=0.420$ ,  $p=0.000$ ). The findings imply that the higher the frequency of stakeholder participation in technical projects monitoring and evaluation, the better the performance of those technical projects. A unit change in the frequency of participation of stakeholders in technical projects monitoring and evaluation leads to a 0.420 unit change in the performance of technical projects at RVRK. The findings agree with the findings of a study by Kairu (2010) that effective M & E of projects plays a role in successful implementation of the CDF projects.

The regression model indicates that only stakeholder participation in project identification, implementation and Monitoring and evaluation can be used to predict technical performance of the projects at RVRK. An improvement in each of the variables leads to an improvement in the performance of technical projects all other factors held constant.

**Table 6: Model Summary**

R	R Square	Adjusted R Square	Std. Error of the Estimate	F	Sig.
0.816	0.665	0.647	0.43720	37.23	.000

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**Table 7: Model Coefficients**

	B	Std. Error	t	Sig.
(Constant)	0.482	0.376	1.283	0.203
Identification	0.934	0.097	9.605	0.000
Planning	0.073	0.087	0.833	0.407
Implementation	0.392	0.182	2.15	0.035
Monitoring and Evaluation	0.42	0.111	3.786	0.000

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## **Conclusions**

The study concludes that the four factors (stakeholder participation in project planning, identification, implementation and monitoring and evaluation) explain 66.5% of the changes in the performance of technical projects at RVRK. The study also concludes that the four factors (stakeholder participation in project planning, identification, implementation and monitoring and evaluation) are positively and significantly associated with performance of technical projects at RVRK indicating that an improvement in any of the factors is associated with an improvement of technical projects at RVRK. Another conclusion made by the study is that only stakeholder participation in project identification, implementation and monitoring and evaluation are positively and significantly related to performance of technical projects at RVRK implying that a unit increase in any of the factors leads to an improvement in performance of technical projects at RVRK.

## **Recommendations of the Study**

The findings that involvement of stakeholders in project planning, identification, implementation and monitoring and evaluation explains 66.5% led to the conclusion that stakeholders should continuously be involved in technical projects planning, identification, monitoring and evaluation as well as implementation. In as far as identification is concerned, the stakeholders should be involved in development of feasibility plans, problem analysis, appointment of project teams, carrying out project prioritization and development of terms of reference. In planning, the stakeholders should be involved in development of communication plan, development of work break down structure, development of change management strategies to be followed when implementing technical projects, development of resource accumulation mechanisms and development of quality plans for the technical projects.

The study also recommends that stakeholders should be involved in project implementation activities like development of technical projects work plan, development and approving of technical projects budgets, evaluation of technical projects risks, evaluation of technical projects costs and drawing of clarity of performance standards required during implementation of technical projects at RVRK since their involvement at this phase is positively and significantly related to performance of technical projects. Lastly, the study recommends that stakeholders should be involved in project implementation activities like development of monitoring systems to monitor the progress of technical projects, development of monitoring schedules to monitor the progress of technical projects, development of evaluation plan to evaluate the progress of technical projects, development of monitoring techniques to monitor the progress of technical projects and identification of performance gaps.

### Conflict of Interest

No potential conflict of interest was reported by the authors.

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