

# STAKEHOLDER PARTICIPATION AND EFFECTIVENESS OF MONITORING AND EVALUATION SYSTEMS AMONG ROAD SAFETY PROJECTS IN KENYA

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**Abstract:** The general objective of this study was to establish the influence of stakeholder participation as a predictor of the effectiveness of monitoring and evaluation systems among road safety projects in Kenya. Specifically the study sought to determine the influence of stakeholder decision-making and stakeholder consultation on the performance of monitoring and evaluation systems among road safety projects in Kenya. The study adopted a mixed method research design. The population for the study comprised 800 staff at the National Transport and Safety Authority (NTSA) and those at the Kenya National Highways Authority (KeNHA). A stratified sampling technique was applied to determine participants from each population category. Nassiuma sampling formula was used to establish a sample size of 190 respondent. Data was collected by use of semi-structured questionnaires as the data collection tools. Descriptive and inferential analysis was conducted with the aid of SPSS software. All the study variables stakeholder decision making; stakeholder consultation, were found to have effect on effectiveness of monitoring and evaluation systems of project as depicted by the various responses from the respondents that were presented in the descriptive statistics analysis with the mean and standard deviations. The regression coefficient was found to be significant in all variables. This coefficient meant that a unit increase in stakeholder decision making, stakeholder consultation, would cause the rate of effectiveness of monitoring and evaluation systems of project to increase. Based on the finding the study concluded that stakeholder decision making and stakeholder consultations were key factors that determine effectiveness of monitoring and evaluation systems of project. The study recommended various stakeholders in the construction industry to focus on implementation stakeholder decision making stakeholder consultation, for effectiveness of monitoring and evaluation systems of project.

**Keywords:** Stakeholder decision-making, Stakeholder consultation, performance of monitoring and evaluation systems.

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## 1. INTRODUCTION

For many years, the root cause of road accidents has been mainly attributed to road users while there are other contributing factors like road design, enforcement, and road user attitudes (World Bank, 2020). Because of this problem, it has led to a holistic kind of thinking: coming up with projects that can help to reduce all forms of road accidents – road safety projects. This continues to drive much interest in stakeholder participation in road safety projects (Selvik, Elvik, & Abrahamsen, 2020).

Multiple projects fail due to a lack of clarity and intended outcome (Alami, 2016). Therefore, there is a consensus among project professionals that the ability to initiate monitoring and evaluation (M&E) systems is significant for project performance (Kariuki & Reddy, 2017). Monitoring is the continuous activity to track down work progress about planned and progress activities. Evaluation is a timely activity which gets its input partly from continuous observation and provides accomplishments overview of up-to-date performance (Masuku & Ijeoma, 2015).

M&E system is a key determinant as to whether a project was deemed successful or not. It is a form of accountability tool to assess the success or failure of a project and the foundation for effective management (Meredith, Shafer, & Mantel Jr, 2017). Mulandi (2013) points to the gap in the design of M&E systems in generating information during the M&E process, hence, affecting the use of this information in future designs. This makes it necessary for there to be further research to establish the influence of stakeholder participation on the performance of M&E systems of road safety projects.

Additionally, previous Sub-Saharan Africa studies reported that constraint issues like lack of transparency and inaccessibility of project information affect project M&E and performance (Ahenkan, Bawole & Domfer, 2013). As a result, these studies call for effective participatory M&E systems to provide collaboration and enhance information dissemination (Alfred, 2015). In Ghana, Sulemana et al., (2018) suggested that allowing stakeholders to participate in M&E is a better way to increase project performance.

Though Kajaga et al., (2016) also stated that stakeholder participation in M&E activities increases project sustainability in Uganda, other studies across countries like Tanzania established that stakeholder participation is usually high during the introduction stage and lower during the M&E stage (Manumbu, 2020). Subsequently, in Ethiopia, findings reported low stakeholder participation in M&E processes as well as reduced M&E system use to enhance project performance (Wolde, 2019).

Wamugu and Ogollah (2017) and Mburu (2018) established average stakeholder participation in M&E processes in Kenya. Further, these studies postulate that there is a need for various projects to increase the level of stakeholder participation in M&E to achieve sustainable project performance. In line with this recommendation, this study aims to provide additional coherent information about the significance of stakeholder participation in M&E systems to improve project performance.

Stakeholder decision-making may take the form of information sharing and deliberating on important decisions to improve performance (OECD, 2015). It is a meaningful way of formulating and executing good policy. Participation, thus, provides individuals with platforms to give their views regarding the project activities as well as the need to develop effective M&E systems. Evidence suggests that participation is more likely to enhance the quality of project decisions (Manumbu, 2020).

M&E is an indispensable tool that ensures the major objectives and goals of projects are achieved (Kariuki & Reddy, 2017). The timely implementation of projects is solely dependent on the M&E systems set in place (Crawley, 2017). According to Intrac for Civil Society (2019), M&E System refers to a project information tool that includes all activities undertaken during or after the project. Technically, M&E systems contain every stage of project activities including initial strategy and objective formulation, and project indicators through to the evaluation of the project itself.

Road transport is an essential part of everyday life. Every aspect of life be it social, economic, or political endeavors are all dependent on a reliable and safe transport network and system. However, road accidents and injuries are said to be one of the leading causes of death in the world. According to the World Health Organization report, about 1.3 million people die on the world's roads and 20 - 50 million are injured every year (Goniewicz, Goniewicz, Pawłowski, & Fiedor, 2016). Accidents have been ranked as the 9<sup>th</sup> cause of death globally (Manyara, 2016) and if nothing was done by the year 2021, it is estimated to be among the top 5 causes of death globally (WHO, 2015).

Although Kenya has implemented several safety features and rules in the country e.g., seat-belt use, speed limits, and alcohol to help reduce the number of accidents, these measures have had very little effect as the number of deaths on the roads keeps increasing. With every passing year, comes the challenge of an increase in traffic collisions. This has been an upward trend in Kenya with specific spikes in numbers during the festive seasons. As an area of interest for the government, parastatals (NTSA, KURA, KeNHA), and the NGOs, there has been little improvement in reducing the number of fatalities on our roads.

M&E tactics have been employed before in government-run projects. For example, the 2004 Michuki regulated requirements that governed the operation of public service vehicles (PSV) commonly referred to as Matatus empowerment campaigns, appealed directly to passengers to monitor the drivers' behavior (Edwards, Johnson, & Weil, 2016). All these were aimed at creating effective M&E systems for projects, but they have proved not to be effective in the long run as road accidents are still a leading cause of death today.

## 1.2 Statement of the Problem

The goal of Kenya's Vision 2030 is to transform Kenya into a newly industrialized and middle-income country that provides high quality of life to its citizens in a clean and secure environment (Macharia, 2019). This means that creating safer environments and safer roads for the citizens is a key priority to achieve Vision 2030. The increased number of fatalities on

Kenya's roads every year probes the need for more advanced and all-rounded methods of preventing or reducing road accidents. Globally, the majority of road traffic crashes occur in LMICs. This results in 82% of the world's population being susceptible to the risk of road traffic accidents and crashes (WHO, 2015).

Stakeholder participation creates a seamless M&E system that in the end guarantees project performance. M&E system itself creates a culture of transparency, increases accountability, information dissemination, and project credibility (Sequeira & Warner, 2007). Consequently, countries experience distinct challenges when it comes to road accidents and the implementation of M&E systems (Null, 2012). However, a major barrier to improving this situation is a lack of understanding of the situation itself because of insufficient information as well as gaps in the M&E systems and processes in road safety projects (World Bank, 2020). Findings reveal that 35-60% of road projects launched in Kenya usually face cost overruns and are not completed as per their stipulated schedules (Ong'ondo, 2019).

Several studies have been carried out in Kenya to illustrate the significance of involving stakeholders through M&E systems on road projects like KENHA (Nyandika & Ngugi, 2014). This study, nevertheless, does not entirely focus on addressing how stakeholder participation influences the performance of M&E systems of road safety projects. The current study aims to fill the existing gap and to describe how M&E systems that encompass all project activities improve road safety project performance.

### 1.3 Objective of the Study

The general objective of this study is: To establish the influence of stakeholder participation on effectiveness of monitoring and evaluation systems among road safety projects in Kenya.

#### 1.3.1 Specific Objectives

- i) To assess the influence of stakeholder decision-making on effectiveness of monitoring and evaluation systems among road safety projects in Kenya.
- ii) To evaluate the influence of stakeholder consultation on effectiveness of monitoring and evaluation systems among road safety projects in Kenya.

## 2. LITERATURE REVIEW

### 2.1 Theoretical Framework

According to Larson and Sarmiento Barletti (2020), stakeholders are people or organizations that are actively involved in a project and whose interests may be negatively or positively influenced by the project. The stakeholder theory by Freeman (1984) highlights how the operations and achievement of organizational/project goals and objectives are critically dependent on stakeholder management and engagement. The theory argues that apart from an organization's leadership team, other players such as local communities, employees, financiers/donors, and beneficiaries have an equal standing/opinion when it comes to the execution of activities towards the common goal; none is superior. He also states that projects or project managers should maximize stakeholders' interests if the project or program is to be implemented successfully.

Stakeholder theory runs on the view of the larger picture and not that which is curtailed to only fit the needs of the owners. The foundation is to create synchrony among all the other stakeholders such that the results from the project can impact the general society, influence policy change, and create a seamless monitoring and evaluation system (Mainardes, Alves, & Raposo, 2011).

### 2.2 Empirical Review

According to Lenssen et al., (2010), every project manager needs to identify project stakeholders and determine their needs and expectations of the project. A stakeholder is someone that is involved in your project or has a vested interest in the outcome, be it success or failure. Knowing who your stakeholders are is important and the process begins by developing healthy relationships. They help decide on issues from the beginning, during the planning, and at the execution of the project. Therefore, stakeholders should understand how the project functions, including the project scope, milestones, and goals (Clegg, 2013).

Stakeholders should be defined as both subjects and objects in a project (Dağlı, 2018). They are objects if they pose a threat that which a project ought to deal with and as subjects in the matter of opportunities, they can promote to improve project success. Stakeholder management is one of the factors that increase the success rate of the project (Meredith, Mantel Jr, & Shafer, 2017). The Organization of Economic Development (OECD) proposed a six-level stakeholder engagement typology

clearly outlining the deliberations at each stage. This typology helps in planning stakeholder engagement activities and clearly outlines that some of the factors that contribute to successful stakeholder engagement are communication, consultation, participation, representation, partnership, and decision-making (OECD, 2017).

Every project that involves stakeholders in the decision-making processes stands at a better chance of success than one that does not. A community reconstruction project implemented by the International Rescue Committee in Liberia cements this point. The project was a success as it was able to incorporate every member of the community in the decision-making processes. Cohesion between the leadership and community members (who are the stakeholders), contributed to a higher success rate of the project (Fearon, Humphreys, & Weinstein, 2011).

Having a clear and defined decision-making process helps in balancing conflicting priorities among the different stakeholders that are involved in a project (Dowling, Ruiz-Mercado, & Zavala, 2016). The need to consider the different perspectives of the stakeholders is also important as it allows in balancing out the proposing and opposing opinions and at the end of the day agreeing to one view that was beneficial to all and not leave one group of stakeholders conflicted.

Stakeholder consultation is a key factor in the monitoring and evaluation systems of a project; a key mechanism in impact assessment (Tamburrini, Gilhuly, & Harris-Roxas, 2011). It is appropriate when project managers need to gather information to build an understanding of the project context and understand the concerns and expectations of stakeholders (OECD, 2017). Consultation is an important element and should be considered in all the project phases from inception to project close. Stakeholder consultation processes involve the identification of the variables that are to be implemented in the given system as well as a cause-and-effect relationship that will create a seamless working project (Baron & Jantunen, 2004).

A study on offshore wind-farms and fisheries in the UK indicated that the project would have been a success if the stakeholder consultation processes were extensive hence giving the fishers a better bargaining power. The study also highlighted that the consultation processes could also be viewed as positive or negative depending on the stakeholders' viewpoint (Gray, Haggett, & Bell, 2005). One key factor that tends to drive stakeholder or public participation is to enhance the quality and sustainability of projects through increased transparency while at the same time reducing chances of rejection or stakeholder opposition (Rawson & Hooper, 2012) Stakeholder consultation processes should involve both internal and external stakeholders who are party to the success of the project. A study on the establishment of a sustainable urban supply chain attributed its successful implementation to the presence of a well-structured consultation process that involved all the relevant stakeholders (Graham, et al., 2015). Rawson & Hooper (2012) also bring out a key factor to stakeholder consultation. Their study on airport planning revealed that they did their due diligence when it came to consultation requirements however their approach failed to fully incorporate stakeholder consultation and engagement processes hence rendering their project null and void.

### 2.3 Conceptual Framework

#### Independent variables

#### Dependent variable

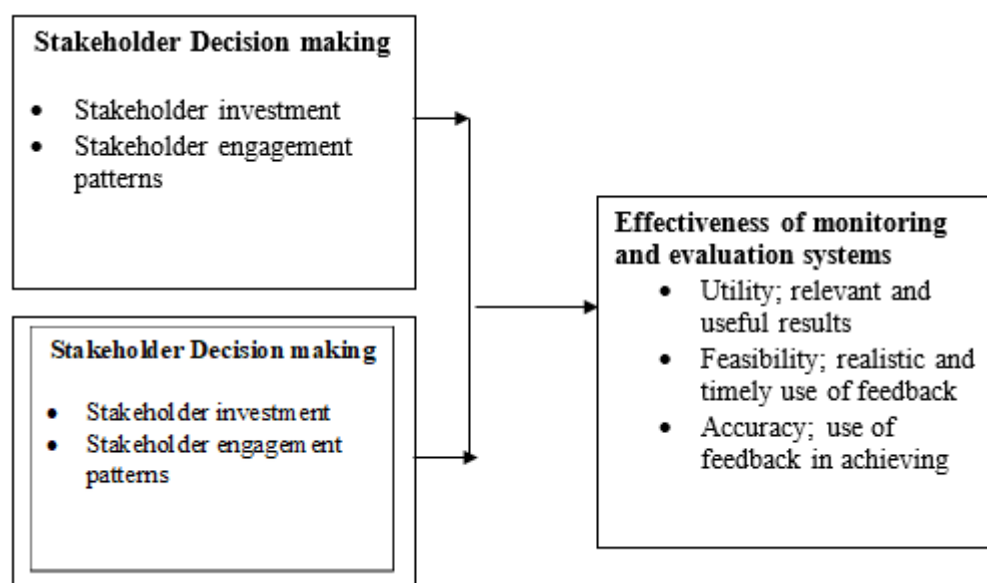


Figure 1: Conceptual Framework

### 3. RESEARCH METHODOLOGY

The study adopted a cross-sectional research method and a descriptive research design. Cross-sectional research is a type of observational study that collects data from a group of people at a single point in time (Kothari, 2012). The use of descriptive design in this study facilitated the researcher to vividly describe the characteristics of the participants and nature of their responses to the research questions (Given, 2007). The target population for the study was staff at the National Transport and Safety Authority (NTSA) and those at the Kenya National Highways Authority (KeNHA). A total of 800 staff from the two institutions were considered as the target population.

A sample is based on several outcomes to fulfill the requirement of efficient representation, reliability and flexibility (Kothari; 2012). The study adopted Simple random sampling to determine the sampling frame. According to Mugenda and Mugenda, (2013), the importance of using simple random sampling is that it helps ensure that samples are unbiased and representative of the population being studied. The study adopted Nassiuma (2000) sampling formula:  $n = Nc / (c + (N - 1) e)$  to come up with a sample size of 190 respondents where the two agencies contributed equal number of the respondents.

The valid sample size of the study was 190 respondents as shown below. This represents approximately 23.75% of the accessible population which is way above the generally recommended 10% of the accessible population in descriptive examinations (Mugenda & Mugenda, 2013). A stratified sampling technique will then be used to determine participants from each population category (strata) in the study.

**Table 1: Sample Size**

| Organization                     | Population | Stratified % | Sample size |
|----------------------------------|------------|--------------|-------------|
| NTSA general staff and managers  | 400        | 0.2375       | 95          |
| KeNHA general staff and managers | 400        | 0.2375       | 95          |
| Total                            | 800        |              | 190         |

The study used primary quantitative data that was gathered using semi-structured questionnaires as the data collection tools hence qualitative in nature. A questionnaire tool was preferred due to its simplicity to interpret the research objectives into specific questions or measures and answers for every question involved in the study. The data collection procedure was through a self-administered online questionnaire survey.

The data collected was first cleaned by checking for completeness and errors in the entries. The data was then coded and categorized to ensure that analysis and derived conclusions from the data are meaningful. It will then analyzed with the aid of the Statistical Program for Social Sciences (SPSS) v. 25.0 software. The mean and standard deviation was used to explain the descriptive statistics analysis whereas correlation and regression were used to explain the inferential analysis.

### 4. RESULTS AND DISCUSSIONS

#### 4.1 Response Rate

**Table 2: Response Rate**

| Response rate | Frequency | Percentage |
|---------------|-----------|------------|
| Responded     | 152       | 80         |
| Not Responded | 38        | 20         |
| Total         | 190       | 100        |

Table 2 presents the results on the response rate of the respondents. The results show that out of 190 questionnaires 152 were returned since. These results show that 80 percent of the questionnaires were returned. The remaining 20 percent were not recovered from the respondents. The interpretation was that the response rate was adequate for further analysis. This response rate was appropriate since Kothari (2011) argued that 50% response rate is adequate, 60% good and above 70% rated as appropriate for analysis



#### 4.2 Descriptive

**Table 3: Stakeholder Decision Making**

| Decision making Statement   | SD%  | D%   | MA%  | A%   | SA%  | Mean | SD    |
|---|------|------|------|------|------|------|-------|
| Decision-making processes for road safety projects is transparent and well communicated to stakeholders               | 5.3  | 21.1 | 5.3  | 31.6 | 36.8 | 3.74 | 1.327 |
| Frequent stakeholder engagements/meetings and patterns result in efficient M&E systems.                               | 5.3  | 5.3  | 10.5 | 36.8 | 42.1 | 4.05 | 1.129 |
| Stakeholders are heavily invested and have adequate buy-in for the M&E system within your organization be successful. | 31.6 | 15.8 | 10.5 | 15.8 | 26.3 | 3.89 | 1.663 |
| Management plays a critical role towards the effectiveness of the M&E system within your organization.                | 10.5 | 15.8 | 31.6 | 42.1 | 10.5 | 4.05 | 1.026 |
| Your organization has an effective M&E system because it heavily invests in stakeholder engagement.                   | 10.5 | 15.8 | 0    | 21.1 | 52.6 | 3.89 | 1.487 |
| Decisions made for road safety projects are based on the discussions during the planning meetings                     | 5.3  | 5.3  | 15.8 | 26.3 | 47.4 | 4.05 | 1.177 |
| There is collaborative decision-making processes when projects are launched   | 10.5 | 15.8 | 10.5 | 21.1 | 42.1 | 3.68 | 1.454 |
| You are involved in the decision-making processes and implementation of projects                                      | 5.3  | 5.3  | 26.3 | 26.3 | 36.8 | 3.84 | 1.167 |

Table 3, presents the results on the Stakeholder decision making. To get information on the first independent variable, several statements regarding stakeholder decision making were asked and the respondents required providing feedback in likert scale of 1 to 5. 1= being Strongly disagree, 2= Disagree, 3= Moderately agree, 4= Agree = 3, 5= being Strongly Agree =5. The results show that, “Decision-making processes for road safety projects is transparent and well communicated to stakeholders” those who disagree were 26.4% those who agree were 68.4%. “Frequent stakeholder meetings and patterns result in efficient M&E systems” those who disagree were 10.6% those who agree were 78.9%. “Stakeholders are heavily invested and have adequate buy-in for the M&E system within your organization be successful” those who disagree were 47.4% those who agree 42.1%. “Management plays a critical role towards the effectiveness of the M&E system within your organization” those who disagree were 25.5% those who agree were 52.6%. “Your organization has an effective M&E system because it heavily invests in stakeholder engagement” those who disagree 26.3% those who agree 73.7%. “Decisions made for road safety projects are based on the discussions during the planning meetings” those who disagree 10.6% those who agree 73.7%.”There is collaborative decision-making processes when projects are launched” those who disagree 26.3% those who agree 63.2% and “You are involved in the decision-making processes and implementation of projects” those who disagree 10.6% those who agree 63.1%. All the mean were over and above 3 which implied that the respondents were in agreement with the various questions asked regarding stakeholder decisions making. The standard deviation was low with minimal variation which implied that the respondents were almost the same opinion.

**Table 4: Stakeholder Consultation**

| Stakeholder Consultation   | SD%  | D%   | MA%  | A%   | SA%  | Mean | SD    |
|--|------|------|------|------|------|------|-------|
| I participate in project initiation meetings   | 26.3 | 5.3  | 0    | 15.8 | 52.6 | 3.63 | 1.770 |
| I am involved in the presentation of reports to external stakeholders                            | 21.1 | 10.5 | 0    | 26.3 | 42.1 | 3.58 | 1.644 |
| The monitoring and evaluation systems for projects are in line with the ideas consulted from you | 0    | 5.3  | 10.5 | 47.4 | 36.8 | 4.16 | 0.834 |
| I participated in setting timelines for tracking milestones of the projects                      | 0    | 5.3  | 10.5 | 26.3 | 57.9 | 4.37 | 0.895 |
| The feedback channels for both internal and external stakeholders are seamless and efficient     | 15.8 | 10.5 | 15.8 | 31.6 | 26.3 | 3.42 | 1.427 |

|  |      |      |      |      |      |        |         |
|--|------|------|------|------|------|--------|---------|
| Stakeholder consultation process is effective in enhancing the overall quality and outcomes of projects                  | 10.5 | 0    | 10.5 | 31.6 | 47.4 | 4.05   | 1.268   |
| Comprehensive stakeholder engagement processes are implemented during the planning phases of projects and M&E processes. | 10.5 | 10.5 | 31.6 | 36.8 | 10.5 | 3.26   | 1.147   |
| Consultation is taken as the leading item in the project development process   | 10.5 | 0    | 26.3 | 26.3 | 36.8 | 3.7895 | 1.27275 |

Table 4, presents the results on the stakeholder consultation. To get information on the first independent variable, several statements regarding stakeholder consultation were asked and the respondents required providing feedback in likert scale of 1 to 5. 1= being Strongly disagree, 2= being Disagree, 3= being Moderately agree, 4= being Agree=3, 5= being strongly Agree=5. The results show that, I participate in project initiation meetings those who disagreed 31.6 %those who agreed 68.4%. I am involved in the presentation of reports to external stakeholders those who those who disagreed 31.6% those who agreed 68.4. The monitoring and evaluation systems for projects are in line with the ideas consulted from you those who disagreed 5.3% those who agreed 84.2%. I participated in setting timelines for tracking milestones of the projects those who disagreed 5.3% those who agree 84.2%.The feedback channels for both internal and external stakeholders are seamless and efficient those who disagreed 26.3% those who agreed 57.9%. Stakeholder consultation process is effective in enhancing the overall quality and outcomes of projects disagree 10.5% those who agree 79%. Comprehensive stakeholder engagement processes are implemented during the planning phases of projects and M&E processes those who disagreed 21% those who agreed 47.3% and Consultation is taken as the leading item in the project development process those who disagreed 10.5% those who agreed 63.1%. All the mean were over and above 3 which implied that the respondents were in agreement with the various questions asked regarding stakeholder consultation. The standard deviation was low with minimal variation which implied that the respondents were almost the same opinion.

**Table 5: Efficiency of Monitoring and & Evaluation Systems**

| Statement   | SD%  | D%   | MA%  | A%   | SA%  | Mean | SD    |
|---|------|------|------|------|------|------|-------|
| M&E activities are implemented within the scheduled time.   | 15.8 | 5.3  | 21.1 | 26.3 | 31.6 | 3.53 | 1.429 |
| M&E systems allows for implementation of feedback given to the management                                     | 15.8 | 15.8 | 5.3  | 15.8 | 47.4 | 3.63 | 1.606 |
| Results and findings from M&E are relevant and useful   | 21.1 | 10.5 | 15.8 | 31.6 | 21.1 | 3.21 | 1.475 |
| The M&E objectives that are set are always achieved   | 15.8 | 5.3  | 15.8 | 26.3 | 36.8 | 3.63 | 1.461 |
| M&E systems allows for effective use of feedback to effectively implement set objectives                      | 15.8 | 5.3  | 26.3 | 36.8 | 15.8 | 3.32 | 1.293 |
| M&E responsibilities are clearly outlined and effectively communicated  | 15.8 | 10.5 | 15.8 | 26.3 | 31.6 | 3.47 | 1.467 |
| Having M&E systems in your organization creates an avenue to incorporate feedback from relevant stakeholders. | 10.5 | 15.8 | 21.1 | 26.3 | 26.3 | 3.42 | 1.346 |

Table 5, presents the results on the monitoring and & evaluation systems. To get information on the first independent variable, several statements regarding monitoring and & evaluation systems were asked and the respondents required providing feedback in likert scale of 1 to 5. 1 = strongly disagree, 2= disagree, 3= moderately agree, 4= being agree, 5 being strongly agree. The results show that; M&E activities are implemented within the scheduled time those who disagree 21.1% those who agree 57.9%. M&E systems allow for implementation of feedback given to the management those who disagree 31.6% those who agree 63.2%. Results and findings from M&E are relevant and useful those who disagree 31.6% those who agree 52.7%. The M&E objectives that are set are always achieved 21.1% agree 63.1. M&E systems allow for effective use of feedback to effectively implement set objectives 21.1% those who agree 52.6%. M&E responsibilities are clearly outlined and effectively communicated those who disagree 26.3% those who agree 57.9% and having M&E systems in your organization creates an avenue to incorporate feedback from relevant stakeholders those who disagree 26.3% those who agree 52.6%. The interpretation was that the respondents were in agreement with the various questions asked regarding stakeholder consultation. The standard deviation was low with minimal. variation which implied that the respondents were almost the same opinion.

### 4.3 Correlation Analysis

**Table 6: Correlation Analysis**

|  |             | Efficiency Of Monitoring and & Evaluation Systems | Stakeholder decision making | Stakeholder Consultation |
|--|-------------|---|-----------------------------|--------------------------|
| Efficiency Of Monitoring and & Evaluation System | correlation | 1   |                             |                          |
|  | p-value     |   |                             |                          |
| Stakeholder decision making                      | correlation | 0.724**   | 1                           |                          |
|  | p-value     | 0.000   |                             |                          |
| Stakeholder Consultation                         | correlation | 0.624**   | 0.211**                     | 1                        |
|  | p-value     | 0.000   | 0.000                       |                          |
|  | n           | 152   | 152                         | 152                      |

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

From table 6, it can be observed that the correlation between the independent variables and the dependent variable was high and positive at 0.724\*\*, 0.624\*\* for Stakeholder decision making and Stakeholder Consultation respectively. The correlation between Stakeholder decision making was found to be statistically significant. The correlation between Stakeholder Consultation was found to be statistically significant. The correlation between Stakeholder decision making the independent variables was low. The interpretation was that the level of multicollinearity between the independent variable was not very high which meant that the influence of each variable in the regression model could be isolated individually.

### 4.4 Regression Analysis

**Table 7: Model Summary**

| Model | R                 | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|-------------------|----------|-------------------|----------------------------|
|       | .783 <sup>a</sup> | .613     | .603              | .72721                     |

Table 7, presents the Fitting Statistics results for the study variables from the results it was observed that the explanatory power of the study variables was R Square 0.613 and Adjusted R Square 0.603 respectively. This implied that the two variables in the model explained up to 61.3% of variation on effectiveness of monitoring and evaluation systems among road safety projects in Kenya. The findings indicated that all the variables were statistically significant and thus all the were relevant and were retained for regression level. This therefore means that other stakeholder participation practices that influence on effectiveness of monitoring and evaluation systems among road safety projects in Kenya contributed to 0.387. The Analysis of Variance (ANOVA) was used to determine how well the model fits the data. The findings are presented in Table 8.

**Table 8: Analysis Of Variance**

|            | Sum of Squares | df  | Mean Square | F      | Sig.              |
|------------|----------------|-----|-------------|--------|-------------------|
| Regression | 123.266        | 4   | 30.816      | 58.272 | .000 <sup>a</sup> |
| Residual   | 77.739         | 147 | .529        |        |                   |
| Total      | 201.005        | 151 |             |        |                   |

a. Predictors: (Constant), stakeholders decision making, stakeholders consultation.

b. Dependent Variable: effectiveness of monitoring and Evaluation

Table 8 presents the ANOVA results for the study variables. A predictor value is termed to be statistically significant when it is less than 0.05 which is significant value. The F statistics is the regression mean square divided by the residual mean square. The model of this study was statistically significant in predicting stakeholders decision making and stakeholder consultation since the significance value of this study was 0.000 which is less than the significance value of 0.05.



**Table 9: Regression results**

| Variable                    | Beta  | Std. Error | t-statistic | p-value |
|-----------------------------|-------|------------|-------------|---------|
| (Constant)                  | 0.388 | 0.305      | 1.270       | 0.006   |
| Stakeholder decision making | 0.295 | 0.042      | 6.993       | 0.000   |
| Stakeholder Consultation    | 0.590 | 0.062      | 9.449       | 0.000   |

$$Y = 0.388 + 0.295X_1 + 0.590X_2 + \varepsilon$$

The multiple linear regression models reveal that all the independent variables have positive coefficient. The regression results indicate that there is a positive relationship between the dependent variable and independent variables.

The regression coefficient of stakeholder decision making was found to be 0.295. This value shows that holding other variables in the model constant, an increase in stakeholder decision making by one unit causes effectiveness of monitoring and evaluation systems on road safety projects in Kenya to increase by 0.295 units.

The regression coefficient of stakeholder consultation was found to be 0.590. This value shows that holding other variables in the model constant, an increase in stakeholder consultation by one unit causes effectiveness of monitoring and evaluation systems on road safety projects in Kenya to increase by 0.590 units.

## 5. FINDINGS AND CONCLUSIONS

The findings of the study revealed that all the variables had a positive significant effect on effectiveness of monitoring and evaluation systems of project. The descriptive analysis indicated that the all the mean were above 3 which implied that the respondents were in agreement with the various questions asked regarding the study variables. The standard deviation was low with minimal variation. The findings further revealed that stakeholder consultation had a higher influence on effectiveness of monitoring and evaluation systems on road safety projects in Kenya followed by stakeholder decision making.

Based on the findings, the study concluded that stakeholder decision-making and stakeholder consultation, have influence on effectiveness of monitoring and evaluation systems of project. The findings that, all the variables had a positive effect on effectiveness of monitoring and evaluation systems of project was a good indication that increase in stakeholder decision-making or increase in stakeholder consultation would cause an increase in effectiveness of monitoring and evaluation systems of project in the country. Since all the variables were found to have a statistically significant effect on effectiveness of monitoring and evaluation systems of project all the null hypothesis were rejected.

## 6. RECOMMENDATIONS

The study recommend project managers and the government should ensure proper stakeholder engagement in decision as well as proper stakeholders consultation in order to increase effectiveness of monitoring and evaluation systems of project. The study recommend all the variables be fully implemented to address the existing problem in projects implementation stage.

The study recommend future research should be directed towards identifying more variables that affect effectiveness of monitoring and evaluation systems of projects. From the regression model it was noted that the variables included were only able to explain R- Square 61.3% of the variation effectiveness of monitoring and evaluation systems of project. This study therefore recommends the improvement of this model by including more variables that are relevant in explaining the variation some of which have been mentioned above.

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