

MAKERERE



UNIVERSITY

**STAKEHOLDER COMMUNICATION STRATEGIES AND THE PERFORMANCE OF
ROAD CONSTRUCTION PROJECTS**

A STUDY OF SELECTED PROJECTS BY UGANDA NATIONAL ROADS

AUTHORITY (UNRA)

BY

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**RESEARCH DISSERTATION SUBMITTED TO MAKERERE UNIVERSITY
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PLAN A

MARCH, 2021

DECLARATION

I Wegoye Paul, declare that this work is a product of my own independent effort.
It has not been submitted anywhere for any award. Where it is indebted to the
work of others, due acknowledgments have been made.

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APPROVAL

This research report has been written under my close supervision and submitted to the School of Graduate Studies for the Award of Masters of Business Administration of Makerere University, with my approval as the University Supervisor.

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DEDICATION

I dedicate this work to my family and friends for all their moral and spiritual support.

May God richly bless a thousand folds and I will forever be grateful for your support.

ACKNOWLEDGEMENTS

I would like to express my heartfelt gratitude to the Almighty God who has given me the spirit of wisdom, guidance and protection in life to accomplish this education journey. To my supervisors,

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May the Almighty God reward you all abundantly?

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ABSTRACT

The study focused on examining the relationship between stakeholder communication strategies and the performance of road construction projects. A case of selected projects by Uganda National Roads Authority was considered. A cross sectional research study design was adopted. The study was conducted using a cross sectional research design. Data was collected using a self administered questionnaire on a sample of 127 road construction and maintenance projects as the unit of analysis and project managers and project officers as the unit of inquiry were chosen using simple random sampling procedure.

Data was analyzed using SPSS with a focus on descriptive statistics, Pearson correlation coefficient and regression analysis. The research results indicated that there is a significant and positive relationship between Information generation and project performance. A positive association between Information dissemination and project performance. A significant and positive relationship between disposition of project information and project performance. The findings also indicate that disposition of project information and Information generation were the only significant predictors of project performance.

The study recommended that there is need to ensure timely and appropriate generation, collection, dissemination, storage and ultimate disposition of project information, send and receive communication in the project 'language which is easily understandable, proper communication planning and proper information distribution where needed information should be made available. The study concluded that a deeper study should be carried out on stakeholder communication strategies on a local level and a comparative study on the same variables should be carried out in Non-Governmental projects.

CHAPTER ONE

INTRODUCTION

1.0 Introduction

This chapter contains the background to the study, statement of the problem, purpose of the study, research objectives, research questions and the conceptual framework.

1.1 Background to the study

Project performance has gained popularity as a distinct management concept used to drive not only business objectives, but also the economic development agenda of developing countries including Uganda (Ofori 2013). The success of projects plays a key role in achieving organization growth and development (Burke, 2013). When project management as a discipline emerged, experts embarked on putting across ways of measuring the performance of projects (Atkinson, 2010). Originally project managers used the triple constraints to measure project performance. Consequently, it became the rule of ^{thumb} in assessing project performance, with the common understanding being that a project's success is determined by time, cost and quality indicators (Shenharand, 2015).

Notwithstanding, numerous studies have been conducted where stakeholder communication strategies have been highlighted as playing a significant role in improving road construction projects (PMI, 2013; de Carvalho, 2013; Nangoli, 2010). Papke-Shields, Beise & Quan, (2010), note that stakeholder communication if not given enough attention will result in delayed completion of projects and cause budget overruns which will result in inadequate project performance. Through effective stakeholder communication strategies, all stakeholders of the project such as the client, project engineers and contractors among others are able to understand the goals, objectives and other important information thus reducing unnecessary delays in project execution

Studies carried out in Slovak Republic, Kosovo, Ethiopia and Tanzania with the main objective of examining the determinants of project performance in government funded projects indicate that these countries have experienced improved management, operation development and maintenance of their country's classified road network and this has been achieved through an efficient communication management system were by each group in the project is provided with a specific kind of information.

In Uganda, Mutebi (2013), emphasizes the fact that for projects to meet the stakeholder needs and expectations various stakeholder communication strategies have to be put in place. However despite huge investment and years of project management experience, many projects have been completed behind schedule and exceeded their allocated budget. This appears to be a common experience in public sector projects in Uganda. The Northern Bypass road project was to be completed by 2021, going by the Uganda National Roads Authority (UNRA) timelines, it will have taken a total of 17 years to construct, a record haul for Uganda's faltering project, particularly given its length. The first phase, where construction started in 2004 and was completed in 2009, cost Shs118 billion while the cost for the second phase - expansion into a four-lane high way - is in the range of Shs448 billion, up from Shs285 billion; almost three times the original cost. The completion date, which was initially set for 2017, was later revised to May 2019. It has now been pushed to July 2021 as major doubts still linger whether this will be met (The Office of the Auditor General of Government report, 2018).

The slow progress of expansion of the bypass second phase is as a result of constructing in urbanized areas, which means racing against existing traffic, exorbitant land prices, and relocation of utility services—water and electricity (PPDA Audit Report on UNRA, June 2018). This has been characterized by lack of timely communication to the various landowners and coordination among, say the concerned stakeholders, utility companies, security, and others. Various Stakeholder

communication strategies were supposed to bring the various project beneficiaries however failure to manage the communication system among these different stakeholders can result into delayed projects, poor quality output and budget overruns (Arinaitwe, 2016). These pose challenges to the completion of various projects. Therefore, it is upon this background that this research will be conducted. This study will employ stakeholder communication strategies as an explanatory variable for project performance to be backed by the social network theory (Granovetter, 1973) and the communication theory (Emory and Griffin, 1997).

1.2 Statement of the problem

Road transport is regarded as the primary infrastructure transporting over 95% of the country's goods and services (Ministry of Finance, Planning and Economic Development (MoFP&ED, 2017). For economic growth and development of Uganda, infrastructural development especially road transport is very crucial for the economic development of the country. Although this is the case, most road construction projects have failed to perform as expected. Roads have been characterized by delayed completion; supplementary budgets and majority do not meet the quality standards (Audit Report, 2016; 2019). Consequently, Uganda National Roads Authority has incurred additional legal costs in pursuance of the litigation cases raised against contractors and extra resources have been remitted as it is the case with Mbogo Road where additional UGX 56,725,464 on top of the UGX 2,356,736,000 was spent to complete the project and the second phase of the northern bypass where additional 448,000,000,000 from 258,000,000,000 was raised in order to complete the project. It is likely that the poor project performance among the road construction projects may be attributed to inadequate stakeholder communication strategies (PMI, 2013; de Carvalho; 2013 & Nangoli, 2010). It's against this background that a study should be carried out to examine the extent to which stakeholder communication strategies affects project performance.

1.3 Purpose of the study

This study examined the relationship between stakeholder communication strategies and project performance at Uganda National Roads Authority (UNRA).

1.4 Objectives of the study

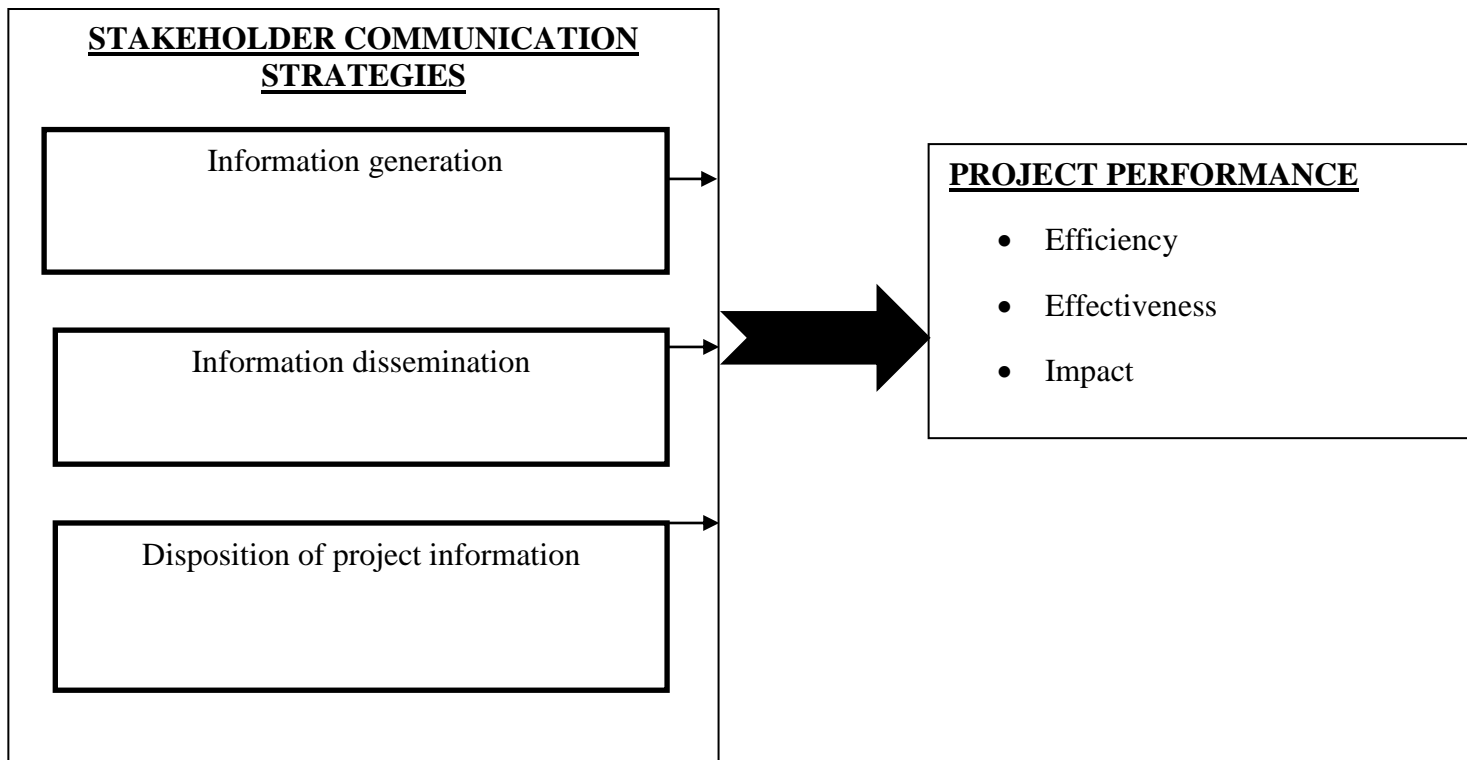
The objectives of the study were;

- i. To examine the relationship between Information generation and project performance
- ii. To establish the relationship between Information dissemination and project performance
- iii. To establish the relationship between Disposition of project information and project performance

1.5 Research questions

- i. What is the relationship between Information generation and project performance?
- ii. What is the relationship between Information dissemination and project performance?
- iii. What is the relationship between Disposition of project information and project performance?

Figure 1: Conceptual model



Source: (synthesized from literature review; Emory (1997), Craig, (1986), Gardiner et al., (2000) and Mitchel et al (1997).

1.6 Explanation of the conceptual framework

Communication theory by Emory (1997), confirms that the theory entails the principles of transmitting information and the methods by which it is delivered (as print or radio or television, etc.). It is an attempt to explain how and why humans communicate meaningfully with each other (Craig, 1986). This theory originates from a variety of different fields, including Psychology, Biology, and Philosophy, though the actual study of the nature of communication is a field in itself. Communication theory is generally devoted to providing an explanation of how, exactly, one individual is able to communicate meaning to another and the degree to which the speaker and the listener can understand each other (Marksoon, 1990).

Communication Theory attempts to document types of communication, and to optimize communications for the benefit of all. According to Karl (1990), the theory

stipulates that Communication is a two-way process in which participants not only exchange ideas, feelings and information but also create and share meaningful information for reaching mutual understanding. It is the exchange of ideas, thoughts, messages, or the like, by speech, signals or writing (Littlejohn, 2012). It is to express oneself in such a way that one is readily and clearly understood. It is a process of conveying information from the sender to the receiver with the use of the media in which the communicated information is understood.

According to Emory (1997), Project communication strategies and management includes the processes required to ensure timely and appropriate generation, collection, dissemination, storage, and ultimate disposition of project information. It provides the critical links among people, ideas, and information that are necessary for success. Everyone involved in the project must be prepared to send and receive communications in the project “language” and must understand how the communications they are involved in as individuals affect the project as a whole. It is an overview of the following major processes (Ramsing, 2009). According to the theory communication is the expression or exchange of information by speech, writing, gestures, conduct or electronic medium (Wiener, 1954).

System theory was developed by Ludwig and Berlanffy (1968), specifically the theory implies that the world can be understood in terms of complex interacting wholes that have inherent characteristics attributable to wholeness rather than properties of component parts. The wholeness in community water projects can bring about sustainability of the projects. This can be brought about by the interactions of various components of participation which include community participation in decision making; resource mobilization; and institutional collaboration

1.7 Scope of the study

1.7.1 Subject Scope

This study focused on stakeholder communication strategies and project performance. The researcher chose to use stakeholder communication strategies because communication management in projects in many ways is a proactive endeavor from management side to manage the expectations and requirements of all stakeholder groups involved in the project. Most of the problems in project performance derived from expert interviews indicated lack of communication or miscommunication issues.

1.7.2 Geographical scope

The study focused on the road construction projects by National Roads Authority (UNRA) in Uganda, because of the dismal project performance characterization of most road construction projects that were executed within the area (Audit Report, 2014; 2019).

1.8 Significance of the study

This study may be significant to a number of parties;

- i. Construction companies may base on the results to come up with policies and practices which are aimed at improving project communication strategies having ascertained their contribution to project performance. This may increase the project performance among subsequent road projects executed within the area.
- ii. Policy makers especially Urban Planning and Development, Uganda Builders and Engineers Association may use the results in making amendments to the current policies and guidelines for road construction companies intended to boost communication among projects, which will result into improved project performance.

- iii. The findings herein may be used by other researchers and academia as a source of reference in the subsequent studies conducted.
- iv. This study will provide more information to other students carrying out such related topics.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This section provides literature on stakeholder communication strategies and project performance.

2.1 Theoretical literature

The major theories that will guide the study will be the communication theory by Emory, (1997) confirms that the theory entails the principles of transmitting information and the methods by which it is delivered and the system theory was developed by Ludwig and Berlanffy (1968), specifically the theory implies that the world can be understood in terms of complex interacting wholes that have inherent characteristics attributable to wholeness rather than properties of component parts.

2.1.1 Communication theory

Communication Theory attempts to document types of communication, and to optimize communications for the benefit of all. According to Emory (1997), the theory stipulates that communication is a two-way process in which participants not only exchange ideas, feelings and information but also create and share meaningful information for reaching mutual understanding. It is the exchange of ideas, thoughts, messages, or the like, by speech, signals or writing (Littlejohn, 2012).

According to Emory (1997), Project communication strategies and management includes the processes required to ensure timely and appropriate generation, collection, dissemination, storage, and ultimate disposition of project information. It provides the critical links among people, ideas, and information that are necessary for success. Everyone involved in the project must be prepared to send and receive communications in the project “language” and must understand how the

communications they are involved in as individuals affect the project as a whole. It is an overview of the following major processes (Ramsing, 2009). According to the theory communication is the expression or exchange of information by speech, writing, gestures, conduct or electronic medium (Wiener, 1954). It is a process of passing information, ideas, facts, or opinions between two or more parties. It is the process by which an idea is brought to another's perception. The information that is so expressed or exchanged is also referred to as communication. It is a complex and dynamic process that allows organisms to exchange information by several methods.

2.1.2 System theory

System theory was developed by Ludwig and Berlanffy (1968), specifically the theory implies that the world can be understood in terms of complex interacting wholes that have inherent characteristics attributable to wholeness rather than properties of component parts. The wholeness in community water projects can bring about sustainability of the projects. This can be brought about by the interactions of various components of participation which include community participation in decision making; resource mobilization; and institutional collaboration. The systems approach is an external standard that measures effectiveness based on long-term growth or sustainability. Effective systems are characterized by a steady state that systems theorists call homeostasis in order to "avoid the static connotations of equilibrium and to bring out the dynamic, procession, potential-maintaining properties of basically unstable systems. Buckley (1967), p. 14. If an organization is able to maintain homeostasis, which includes not just survival but also growth, then it is effective. This perspective is broader and more comprehensive than the goal-attainment approach because it is not limited to measuring effectiveness as meeting goals determined by powerful internal coalitions that may or may not be propitious for the whole organization. Pfeffer and Salancik defined effectiveness as "how well an organization

is meeting the demands of the various groups and organizations that are concerned with its activities (Pfeffer and Salancik, 1978).

2.2 Project performance

From literature, what needs to be done to improve project performance has been echoed extremely (Chan et al, 2002). While this is the case, the concept of project performance is regarded as an abstract one as most academia interchangeably uses project success to mean project performance. Chan et al. (2002) indicates that project success is a varied concept which can be understood along its indicators of time, cost, health and safety, profitability and quality, technical performance, functionality, productivity, satisfaction and environmental sustainability, which are categorized into two; subjective and objective measures. Project performance terminology is used to explain the extent to which a project meets the project's overall performance attributes of time, cost and quality in addition to the extent to which the project meets owner's requirements, meets project's multiple goals and meets stakeholders' satisfaction (Chan et al, 2002). Hence project performance is an abstract concept and determining whether a project is successful is subjective and extremely complex (Parfitt & Sanvido, 1993; Chan, 2002). Takim et al. (2004) however noted that all projects are distinct in the overall objectives of the project which must be fulfilled. The extent to which these objectives are achieved defines whether the project has performed to or not. Subsequent literature has adopted aspects of cost, time and quality in evaluating project performance. For instance, Gaddis (1959) earlier noted that time, budget, and quality are the most important measures of project performance. The same constructs have also been adopted by recent studies (Shah & Naqvi, 2014; Cheong Yong & Emma Mustaffa, 2012). However, a diverse understanding of project performance has suggested that projects' ability to ensure health and safety, environmental sustainability and technical performance factors are

important (Cheong Yong & Emma Mustaffa, 2012). Therefore, it can be concluded that time, cost and quality indicators are significant in determining both the success and performance of a given project

2.3 Stakeholder communication strategies

According to Skitmore (2017), it is important to recognize that participation is a means to achieving improved development results, rather than an objective in itself. Ensuring participation requires effective communication, which creates an environment where stakeholders are able to acquire and share knowledge, develop understanding, enhance engagement, and take action (Akintoye, 2015). The appropriate stakeholder communication strategies, channels and media, clarity of messages (information), identification of receivers and senders of information, and the determination of an appropriate level of interaction between various actors and stakeholders can significantly contribute to building an environment for knowledge acquisition and sharing. Ultimately, when this process is done meaningfully, participation enhances ownership, which promotes accountability and transparency, and helps ensure equitable and sustainable distribution of project benefits (Gotzamani, 2017).

Consultation with stakeholder groups can be achieved by having strategic communication strategies between and among stakeholders at the national, subnational, and/or local levels (Olomolaiye, 2015). Experiences in project operations indicated diverse and variable results from consultations. A communication process that is purposive and transparent facilitates consultations that have contributed to project acceptance, while a process with varying degrees of interferences (i.e., factors that hinder clear reception of messages, including poor understanding of local traditions and perceptions) has led to resistance from stakeholders and, in some cases, discontinuance of project activities (McElroy, 2016).

2.4 Information generation and project performance

According to Irani (2017), Information is generated for use, primarily for social, economic, cultural development. During the process of generation of information new information is generated continuously. This entire activity is a continuous and never ending phenomenon. In this process generation, transfer and use, are the major activities. Sufficient information generation will allow for the proper management of a project while where there is insufficient information, management becomes challenging due to lack of a clear scenario (Ali and Anbari, 2014). In order to deal with the challenges of lack of information generation, project managers may be tempted to create roles within the organization which only duplicate roles and waste time, money and efforts (Lone, 2011). Conversely, when a project is inundated with too much information that has not been filtered and sorted properly, it leads to challenges in managing the project due to lack of direction (Robinson, 2017).

According to Donaldson and Preston (2015), project performance is directly linked to information generation and this is attributed to the fact that information provides the critical links among people, ideas and information that is necessary for success. Everyone involved in the project must be prepared to send and receive information in the project 'language' and must understand how the information they are involved in as individuals affects the project as a whole (PMBOK, 2017).

It is the role of upper management to ensure that relevant information is generated properly to enable the proper making of decisions (Tuman 2018). Consequently, the quality and the quantity of the information generated by management information systems determines the quality of the project (Wycliffe, 2015). The main causes of project failure include inadequate project generation which is a result of inadequate project information. According to Tillman (2015), an efficient PMIS produces information that helps ameliorate the how productive the employees and materials

used by the system are, ensure that resources are being used economically, increase the comprehension of how time and money is being used, serve as an early warning system for risks, enables the planning of resources and preventing loss of items through pilferage and fraud and in formulating incentive plans so as to motivate employees. Sem (2014), describes following key characteristics associated with useful information that includes: degree of accuracy with which the reality is represented, reliable, comprehensive, error-free, precise, clear, consistent, understandable by those who need them, available in time, economical enough to support the situation that warrants a decision (Chitkara,2017).

The decisions that are made by a project manager depend on the quality of the information provided by the management information system; when erroneous or faulty information is used in the decision-making in a project, these decisions are normally wrong and might have a negative effect in the results of the project (Swanson, 2014). It is therefore the role of a Project Management System to generate information that can be used by project management teams to store, keep, process and manage the resources that they have (Lee, 2011). It is therefore the quality of information created by the PMIS that defines if the system is of high quality or not; it is how accurate and timely the information is what determines the quality of the information (Lee, 2011).

How accurate, available, precise, current, correct, concise, consistent and right the information generated by a system that determines if the information collected by management information system is of a high quality or not. Project managers are susceptible to being overwhelmed by the amount of information available to them which might lead them to making poor decisions as a result of the inability to discern what information is relevant or not. Project Management Information Systems create relevant and correct information which enable them to run projects easily and accurately (Kim, 2017).

2.5 Information dissemination and project performance

Information dissemination is a core principle of project related performance (Orr, 2018). If information is to be used and empowering, it must be disseminated in a manner that best facilitates its reception. However, information is delivered in a multitude of manners and the challenge is to determine which method is most appropriate to the audience attempting to be reached (Akuley and Amenyenu, 2017). Knowing where people look for information is only half the battle for Extension communicators; but knowing where people find information is the other half (Pounds, 2015). Studies clearly show that clientele preferences do exist and may be quite different depending upon the audience being served. Considering the great variability among groups and indicated personal preferences, it is likely that no single delivery method is suitable for everyone (Richardson, 2015)

Information dissemination is necessary for maximizing profits and performance within an organization (Durugbo, 2014). Information dissemination is essential to an organization's ability to gain a competitive advantage (Donate, 2011). An organization that has the ability to make use of its collective information has a higher probability of increased innovativeness, efficiency, and effectiveness in the marketplace (Levin and Cross, 2004; Sighn, 2012). Companies that leverage all information available to them rather than subsets of data have a competitive edge, as it allows the company to gain more insight and make better decisions (Sighn, 2012). Knowledge sharing is essential for effective knowledge management and organizations are increasingly dependent upon effective knowledge management for gaining a competitive advantage (Chandra and Raman).

Promoting information dissemination has long been a challenge for organizations who rely on information for decision making (Cassimere, 2016). An organization's information creation, innovation, and competitiveness are hindered when employees

are not motivated to share information (Durugbo,2017).While organizations have implemented information dissemination management systems designed to facilitate information transfer within an organization, these organizations continue to face difficulty motivating employees to contribute information (Karahalios,2012). Recently, companies have begun to invest in collaborative social media systems to facilitate the information sharing process, yet such systems often result in a significant investment for an organization. As a result, organizations need to determine if the expense of purchasing and implementing a collaboration system is worth the investment and understand if it will be effective in spreading information. Extant studies show that relationships among individuals are critical for the development of an information transfer process (Zhang, 2015).

2.6 Disposition of project information and project performance

According to Ekanem and Singh (2017), disposition of project information is the process of creating, collecting, distributing, storing, retrieving, and the ultimate dissemination of project information in accordance to the communications management plan. The key benefit of this process is that it enables an efficient and effective communications flow between project stakeholders. According to Ruuska (2016), disposition of project information acts as a connecting factor that links the various stakeholders of the project together and also the project to its environment let alone uniting its activities at different levels of development. Bian (2017), adds that the strength of the linkage grows through a history of interactions in which members of a network develop friendship and trust. The above statement points to the fact that stronger relations in a network could be fostered through effective project communication overtime. Herkt (2017), affirms that the project manager's major responsibility is to build supportive social networks (collaborative relationships) among a diverse group of stakeholders. Dawes and Christakis (2009) maintain that in

social networks, some nodes develop more contacts (Higher Degree) than others and that the clustering coefficient (transitivity) also differs based on the level of interactions (communications) maintained.

Although Boddy (2012), suggest that efficient social networks are those in which relationships have been reinforced and are dependable, that is, members enjoy close relationship (strong ties) and therefore highly trust each other, Granovater (2013) maintains that weak ties should never be sidestepped in favor of concretizing strong ties. This is because the constant interaction in strong ties may with time bring in no new vital information (Granovater, 2013) which would have been cheaply sourced through tapping into the power lines of a variety of weakly linked social networks. These arguments seem to imply that the manager's role of disseminating information should extend to periphery players thereby stretching project scope as opposed to the project management best practice of delimiting scope (PMBOK Guide, 2010).

The quality of dispositional project information produced is a great determinant of project performance if the users of the PMIS are satisfied or not; therefore, the quality of the information produced is difficult to discern since it is also a measure of the satisfaction of the users. As a result it is difficult to measure the quality of the information generated by an IS, a scale to measure the quality of the information produced, while other scales have been developed using the previous literature that has been generated on the subject(Wixom & Watson, 2016).

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

This section presents the framework that was used in data collection and data analysis. It covers the research design, study population, sample design, sample size, sources of data, research instruments, measurement of variables and anticipated limitation of the study.

3.1 Research Design

This study adopted a cross sectional study design using a quantitative design meaning that data was collected at only one point in time. This design was justifiable given the fact that the study had limited time in which it was expected to be completed. The study adopted a quantitative research method in the research procedure.

3.2 Study Population

The study population comprised of a total of 127 road construction projects by National Roads Authority (UNRA) in Uganda. These consisted of 50 road construction projects and 77 road maintenance projects undertaken between the period 2010 and 2018 (UNRA Report, 2018).

3.3 Sample Size

The sample size constituted of 95 road construction and maintenance projects which were written down on small papers and mixed in a box and then picked in accordance with Krejcie and Morgan (1970) table of determining sample size. Simple random sampling procedure was used to select the sample and this gave an equal chance to each project in the sampling frame chosen. The unit of analysis were the road

construction projects. The unit of inquiry comprised of 2 project managers and 5 project officers to come up with a sample of 588 respondents. In every project 2 parties were given the questionnaire. These were chosen because they had interests in project performance.

3.4 Data Sources

Data was collected from primary sources in order for the researcher to get firsthand information. Primary data was collected using self-administered questionnaire.

3.5 Data Collection Methods and Instruments

A self-administered questionnaire was used to gather information from the respondents. The reason for opting for this instrument is because, it is simple to administer and gives respondents time to think about what they answer. This is expected to limit respondent's biasness because a questionnaire was given to the respondent to fill without interference therefore that the anticipated biasness expected during data collection process.

3.6 Validity and reliability of the Research Instruments

Validity referred to the extent to which questions in an instrument accurately measure the variables therein (Hair et al., 2003). In other words, validity is the accuracy and meaningfulness of inferences, which are based on the research results (Mugenda and Mugenda, 1999). The questionnaire was subjected to experts for face validity and theoretical content validity tests. Convergent validity was examined using the Average Variance Extracted (AVE) a minimum AVE value of 0.500 is recommended.

Table 1: Validity and reliability of the Research Instruments

	Composite Reliability Values	Content Validity Index	Average Variance Extracted
Stakeholder communication strategies	.770	.840	.627
Project performance	.879	.800	.708

Reliability of the study instrument according to Sekeran (2003), measures the consistent of the instrument in measuring what it is supposed to measure. The study questionnaire was pretested for its reliability on a sample of 30 respondents to examine individual questions as well from which adjustments was based on Composite Reliability values for which the minimum were 0.70 as suggested by nunally (1978).

3.7.1 Measurement of variables

A five point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree) was used to anchor the components of study variables that is Information generation, Information dissemination, disposition of project information and project performance measures. Information generation, Information dissemination and disposition of project information were used to measure stakeholder communication strategies and items from Emory (1997) and Craig, (1986) were used to construct the questionnaire.

Project performance was measured using efficiency, effectiveness and Impact (Gardiner et al., 2000). The study adopted 24 different statements, adopted from the previous work of (Lam et al., 2007) and (Banyenzaki, 2016) which were modified to suit the context in which they were studied. Some statements such as ‘*Project time expectations have been achieved, Effort has been undertaken to review fulfillment of project timelines, effort has been undertaken to compare the original project budget to the actual amount spent during implementation, we have usually evaluated the fulfillment of the project costs, project planning points have contributed to project*

success, our projects have always been within the prescribed quality, projects have consistently met our goals and Road users have always been satisfied with the outputs of the projects''. The reason for projects is to make a difference and usually the difference we're trying to make is to make some kind of result, especially in business, better an element of impact (Stacey,B,2015).Thus, the first project performance measure is impact which can be direct, bottom lineup or indirect.

These were subjected to a 5-point of 5=strongly agree, 4=Agree, 3=Somewhat Agree, 2=Disagree and 1=Strongly Disagree to enable respondents express the extent to which they agreed/disagreed with the statements.

3.8 Data collection, processing and analysis

The collected data was edited for incompleteness and inconsistency. The Statistical package for social scientists (SPSS) version 22.0 was used for data entry and analysis. Data was presented using diagrams, tables, charts and other forms of presentations. Pearson's correlation coefficient was used to establish the relationships between the study variables. Regression Analysis was used to determine the power of the explanatory variables.

3.9 Ethical Considerations

The study was approved by Makerere University Business School, requiring the researcher to obtain an introduction letter from Makerere University business school, which enabled him to obtain authorization from management of the pointed projects. Different departments were particularly informed of the nature of the study to be carried, the title, the purpose of the study, the reasons for the study. The names, telephone contacts and address of the research were provided. The respondents were to be informed of the duration of the study as well as the confidentiality of the information obtained.

CHAPTER FOUR

PRESENTATION AND INTERPRETATION OF FINDINGS

4.0 Introduction

These results were divided into two main sections. The first section being the background characteristics of the projects such as number of years the project has been in existence, type of project, source of funding for the projects and the current position held in the project while the second section consisted of results related to the research study objectives. For the inferential analysis, the study used the Pearson correlation to measure the degree of association between variables under consideration and the regression analysis to estimate the contribution of stakeholder communication strategies and project performance. The research study questions/objectives were;

- i. To examine the relationship between Information generation and project performance
- ii. To establish the relationship between Information dissemination and project performance
- iii. To establish the relationship between Disposition of project information and project performance.

4.1 Response rate

Out of the 127 projects which were targeted, the study was able to obtain results from only 84 projects giving a response rate of 66.2%. This according to Fowler (1984), this is an acceptable rate for a research survey.

4.2 Demographic characteristics of the projects

Respondents were asked to provide information regarding the characteristics of the projects, they are as below;

Table 2: Demographic characteristics of the projects

	Options	Frequency	Percentage (%)
How long has the project been in existence?	Less than 2 years	2	2.5
	2-5 years	35	41.6
	More than 5 years	47	55.9
Total		84	100.0
Geographical Location of the project	North	28	33.3
	Central	35	41.6
	South west	11	13.0
	Eastern	10	11.9
		84	100.0
Estimated budget	1.000.000.000/= - 5.000.000.000/=	5	5.9
	6.000.000.000/= - 10.000.000.000/=	10	11.9
	11.000.000.000/= - 15.000.000.000/=	44	52.3
	Above 15.000.000.000/=	25	29.7
		84	100.0
Donor name	Exim Bank/Gov. of Uganda	2	2.3
	Gov. of Uganda	14	16.6
	IDB/Gov. of Uganda	10	11.9
	BADEA/OFID and GOU	34	40.4
	AfDB/DFID/GoU	24	28.5
		84	100.0

Size of the project		
10-20 km	6	7.1
20-30km	10	11.9
30-40km	8	9.5
50-60km	14	16.6
Above 60 km	46	54.7
	84	100.0

Source: Primary data

Results in table 2 indicate that majority of the projects have been in existence for over 5 years with a percentage of 70.1%. This implies that the highest number of construction projects are mid-terms term projects since most of such projects are had a contract period of more than 5 years.

Results in table 2 indicate that majority of the projects geographically were Located in the central region with 41.6% and the northern part of Uganda at 33.3%.This implies that the highest number of projects were already constructed but due maintenance and the need to expand them has seen the rise in various within these regions.

Results in table 2 indicate that majority of the projects had estimated budgets ranging between 11.000.000.000/= -15.000.000.000/=.This implies that the projects need a large sum of resources and commitment from the funders hence the need for two or more sources of funding.

Results in table 2 indicate that majority of projects were being funded by more than one donor such which BADEA/OFID and GOU with 40.4% and AfDB/DFID/GoU with 28.5%.This implies that for a project to become successful there is a need of more one project donor to accomplish the various activities.

Regarding results in table 2 indicate that majority of the projects had a distance to be covered of above 60 kilometers with 54.7% and the least with 10-20 kilometers. This implies that a vast amount of resources are needed to accomplish the project.

4.3 Demographic characteristics of the Respondents

Table 3: Showing Gender

	Frequency	Percent	Cumulative Percent
Female	186	44.4	44.4
Male	233	55.6	100
Total	419	100	

Source: Primary Data

Findings from table above revealed that majority of respondents were male as represented 55.6% and female were 44.4%. This meant that the study was carried out from both sexes who gave their person opinions on the projects.

Table 4 Age Category of Respondents

	Frequency	Percent	Cumulative Percent
20-29 Years	120	28.6	28.6
30 – 39 Years	145	34.6	63.2
40 – 49 Years	126	30.1	93.3
50Years and above	28	6.7	100
Total	419	100	

Source: Primary Data

The findings from table 4 above indicated that biggest proportion of the respondents in this study was between 30-39 years of age, constituting 34.6%. This is followed by the age bracket of 40 – 49 Years (30.1%), 20-29 years constituted 28.6% and lastly 50 years and above 6.7%) respectively. The interpretation of the results from table 4 show that majority of the respondents in this study were young and energetic enough to answer the research questionnaire.

Table 5: Category of respondent

	Frequency	Percent	Cumulative Percent
Project officers	195	46.5	46.5
Project managers	224	53.5	100
Total	419	100	

Source: Primary Data

Based on the above table 5, it was revealed that the biggest proportion of the respondents in this study were project officers with 46.5% respectively. This is followed by the project managers with 53.5% respectively. The interpretation of the results from table 5 above was that the majority of the respondents were Project officers which imply that Project officers gave the required information about the category of the projects.

Table 6: Marital status of respondents

	Frequency	Percent	Cumulative Percent
Single	147	35.1	35.1
Married	183	43.7	78.8
Divorced	74	17.7	96.4
Separated	15	3.6	100
Total	419	100	

Source: Primary Data

The findings from the table 6 above show that, 147 respondents were single with 37.1%, 183 respondents were married with 43.7%, 74 respondents with 17.7% were divorced and separated respondents were 13 with 3.6%.

Table 7: Highest level of education

	Frequency	Percent	Cumulative Percent
Diploma	63	15	15
Bachelor Degree	189	45.1	60.1
Master's degree	105	25.1	85.2
Others (specify)	56	13.4	100
Total	419	100	

Source: Primary Data

The Results from table 7 above indicates that 63 respondents had diploma represented by 15.0%, 189 had bachelor with (45.1%), 105 had master's degree represented by 25.1% and 56 represented by 13.4% had other qualification like ACCA, CPA, CIPS and CIMA. The interpretation of the results from show that majority of the respondents had Bachelors, constituting a percentage of 45.1%. This also means that the majority of the respondent at least could read and understand the questions under the research questionnaire.

4.4 Descriptive Relationships between Variables

Relationships between the study variables were examined in this study using the Pearson (r) correlations coefficient. The Pearson correlation coefficient ranges between -1.000 and 1.00. A positive value for the Pearson correlations shows positive associations between the variables while a negative value for the same shows that the variables are negatively associated.

Table: 8 Pearson (r) correlations coefficient

	Mean	SD	1	2	3	4
Information generation -1	3.885	.815	1.000			
Information dissemination 2	3.603	.879	.657**	1.000		
Disposition of project information -3	4.050	.989	.525**	.534**	1.000	
Project performance-4	4.340	.655	.468**	.514**	.618**	1.000

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

Source: Primary data

4.4.1 The relationship between Information generation and project performance

The statistical test revealed a significant and positive correlation between Information generation and project performance ($r = .468^{**}$, $p < .01$); meaning that information generation is associated with project performance in construction projects. That is to say; when the various stakeholders in projects have the right information that is being generated they conduct themselves in a positive fashion such as being reactive towards most of the project activities which goes hand in hand with project performance.

4.4.2 The relationship between Information dissemination and project performance

The statistical test revealed a significant and positive correlation between Information dissemination and project performance ($r = .514^{**}$, $p < .01$); meaning that information dissemination is associated with project performance. The results show that once information dissemination values are enhanced within society, there is a concurrent positive trend in the performance of projects. That is to say; suitable information dissemination can lead to an improvement on project performance in construction projects.

4.4.3 The relationship between disposition of project information and project performance

The statistical test revealed a significant and positive correlation between disposition of project information and project performance ($r = .618^{**}$, $p < .05$); meaning that that the rightful disposition of project information to the various stakeholders will have a significant association on the performance of the project. That is to say; suitable disposition of project information can lead to an improvement in project performance.

4.5 Regression Analysis

This section presents the results of regression between stakeholder communication strategies and project performance. Regression has been used in this study to show the extent to which stakeholder communication strategies variable can predict the variations in project performance. The results on this analysis are presented in table 4.3 below;

Table: 9: Regression Analysis

Model Summary						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.496 ^a	.246	.228	.91580		
a. Predictors: (Constant), Information generation, Information dissemination, disposition of project information						
ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	33.395	3	11.132	13.273	.000 ^b
	Residual	102.319	122	.839		
	Total	135.714	125			
a. Dependent Variable: project performance						
b. Predictors: (Constant), Information generation, Information dissemination, disposition of project information						
Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.541	.803		3.163	.002
	Information generation	.239	.201	.149	1.190	.236
	Information dissemination	-.839	.239	-.404	-3.512	.001
	Disposition of project information	.653	.133	.446	4.921	.000
a. Dependent Variable: Project performance						

Source: Primary Data

In the model above, the regression between Information generation, Information dissemination, disposition of project information and project performance in road construction projects was tested. The results are shown in table 4.3, Information generation, Information dissemination, disposition of project information were used to project performance. Results indicate that stakeholder communication strategies predict project performance ($F = 13.273$, $P < 0.01$). The three variables explain 22.8 % of the variance in project performance (Adjusted R Square=.228, $p > 0.01$). This means that stakeholder communication strategies are an important determinant of project performance. Disposition of project information (Beta =.653) was the most significant predictor of project performance, followed by Information generation (Beta=.239) and last was Information dissemination with a negative beta value.

CHAPTER FIVE

DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

5.0 Introduction

The study sought to establish the relationship between stakeholder communication strategies and project performance at Uganda National Roads Authority (UNRA). The chapter provides the discussion, conclusions and recommendations derived from the findings of the study in chapter four presented in order of objectives.

5.1 Discussion

5.1.2 Relationship between Information generation and project performance

Findings from the correlation analysis confirm a significant positive relationship between Information generation and project performance. This implies that the quality of the information generated refers to the quality that project managers require from the outputs provided by the Management information system of their choice; the quality of the information produced is a measure of the outputs of the information system as opposed to a measure of its performance; the quality of the information produced by the system has a huge effect on the decision making process by the upper management of the organization (McLean, 2012).

Findings also confirmed that enough information generation will allow for the proper management of a project while there is insufficient information management becomes challenging due to lack of a clear scenario. In order to deal with the challenges of lack of information generation, project managers may be tempted to create roles within the organization which only duplicate roles and waste time, money and efforts (De Lone, 2011).

The study findings concurred with earlier observations made by (Kim, 2017), who noted that however accurate, available, precise, current, correct, concise, consistent and right the information generated by a system that determines if the information collected by management information system is of a high quality or not, Project managers are susceptible to being overwhelmed by the amount of information available to them which might lead them to making poor decisions as a result of the inability to discern what information is relevant or not. Project Management.

5.1.3 Relationship between Information dissemination and project performance

Statistical results indicate that there is a positive and significant relationship between Information dissemination and project performance. These findings are supported by extant findings by Berenbeim (2015), who stated that promoting information dissemination has long been a challenge for organizations who rely on information for decision making (Cassimere, 2016). An organization's information creation, innovation, and competitiveness are hindered when employees are not motivated to share information (Durugbo, 2017). These findings further support earlier findings by Kanungo (2011) who noted that while organizations have implemented information dissemination management systems designed to facilitate information transfer within an organization, these organizations continue to face difficulty motivating employees to contribute information (Karahalios, 2012).

Furthermore, these findings are also in line with the earlier observations made by Moustaghfir (2017), who stated that understanding relational ties is essential for the development of efficient dissemination of information. Tie strength is a relationship factor that has been used to measure social influence within a network. Moreover, tie strength's impact on information diffusion within public online social networks has been measured quantitatively by collecting data through digital communication tools (Petróczi, 2013). Therefore findings indicate that, there is a dearth of research on

measuring tie strength's impact on information diffusion within a collaborative social network. Collaborative networks are types of social networks that are formed by members who work together to achieve specific goal (Burgee, 2017).

5.1.4 Relationship between Disposition of project information and project performance

The study results indicate a strong significant positive relationship between project information and project performance. This implies that good disposition of project information results into greatly improved project performance. This finding is supported by Argyres (2015) and Teece (2016) who confirms that disposition of project information acts as a connecting factor that links the various stakeholders of the project together and also the project to its environment let alone uniting its activities at different levels of development. These findings are consistent with the works of Nooteboom (2016), who affirms that the project manager's major responsibility is to build supportive social networks (collaborative relationships) among a diverse group of stakeholders and maintaining that in social networks, some nodes develop more contacts (Higher Degree) than others and that the clustering coefficient (transitivity) also differs based on the level of interactions (communications) maintained.

This finding is supported by PMBOK Guide, (2010) which confirms that manager's role of disseminating information should extend to periphery players thereby stretching project scope as opposed to the project management best practice of delimiting scope. The quality of dispositional project information produced is a great determinant of project performance if the users of the PMIS are satisfied or not; therefore, the quality of the information produced is difficult to discern since it is also a measure of the satisfaction of the users.

These findings are in agreement with Williamson (2017) who reveals that the most of the information generated during the project provides a base for the decision-making process during project implementation and is used to create project plans, makes schedules, creating networking diagrams and projecting project trajectories.

5.2 Conclusion (s)

The researcher considered the following conclusions worth taking into account;

The study established that there was a positive relationship between Information generation and project performance, a positive association between Information dissemination and project performance and a significant positive relationship between disposition of project information and project performance.

This implies that in order to ensure that UNRA projects achieve the desired performance, there is need for better communication management strategies and high stakeholder involvement in the information generation processes. However, further analysis revealed that disposition of project information and information generation were the most significant predictors of project performance. Project managers need rise to both the opportunities and challenge that disposition of project information and information generation brings. There has to be deep understanding of these areas to help them navigate the murky waters.

5.3 Recommendations

Stakeholder communication strategies includes the processes required to ensure timely and appropriate generation, collection, dissemination, storage and ultimate disposition of project information. It provides the critical links among people, ideas and information that are necessary for success.

- i. Project managers should ensure there are various Information generation channels internally and externally through setting up platforms upon which team players within the project are free to receive and send information on time. Frequent meetings intended to give feedback and solicit options about the way forward for projects should be conducted as well during the execution of the project. These practices will enhance information generation and promote creativity and innovativeness within the team which is bound to boost project performance.
- ii. Project managers should ensure the right information is disseminated within the various project stakeholders in order to get concurrent positive trend in the performance of projects. That is to say; suitable information dissemination will lead to an improvement on project performance in construction project. In addition, clarifying goals and objectives also enables the team to know what their collective responsibility is and thus can adopt their own contribution towards achievement of success which results in to increased project performance.
- iii. Project managers should rightfully disposition project information to the various stakeholders which will have a significant association on the performance of the project. That is to say; suitable disposition of project information will lead to an improvement in project performance. Stakeholders should be informed about the objectives of the project and should be continuously notified about the progress of the project hence share their views with the project managers to allow reconciliation of interests.

5.4 Limitation of the study

- i. The study was carried out on a relatively smaller scope that is to say, with Uganda National Roads Authority projects and from project managers only within a shorter period of time being academic in nature.
- ii. The other limitation is that, there are many other factors that affect project performance other than stakeholder communication strategies. Research should also be carried out on the other factors.

5.5 Areas for Further Research

- i. Investigate the predicting variables for stakeholder communication strategies.
- ii. So far, there is a lot of contradiction regarding the conceptualization of project performance. Further researchers to investigate to establish the real dimensions of the concept
- iii. The relationship between project characteristics and project performance.
- iv. Longitudinal study on the relationship between stakeholder communication strategies and project performance.

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APPENDIX I

MAKERERE



UNIVERSITY

QUESTIONNAIRE FORM

I am a Makerere University student undertaking a research study on “stakeholder communication strategies and the performance of road construction projects. “Please respond as accurately and honestly as possible. Instructions: Please tick (✓) once the choice that suits your view.

In this section, kindly tick the response that most describes you.

SECTION A: CHARACTERISTICS OF THE PROJECTS (Please tick appropriately):

1. Number of years the project has been in existence

Less than 2 years	2-5 years	More than 5 years
1	2	3

2. Geographical Location of the project

North	Central	South west	Eastern
1	2		

3. Estimated budget

1.000.000.000/= - 5.000.000.000/=	6.000.000.000/= - 10.000.000.000/=	11.000.000.000/= - 15.000.000.000/=	Above 15.000.000.000/=
1	2	3	4

4. Donor name

Exim Bank/Gov. of Uganda	Gov. of Uganda	IDB/Gov. of Uganda	BADEA/OFID and GOU	AfDB/DFID/Go U
1	2			

SECTION B: CHARACTERISTICS OF THE RESPONDENTS

1. Gender:

Male	Female
1	2

2. Age Category

20-29 Years	30 – 39 Years	40 – 49 Years	50Years and above
1	2	3	4

3. Marital status:

Single	Married	Divorced	Separated	Others (specify)
1	2	3	4	5

4. Highest level of education

Diploma	Bachelor Degree	Master's degree	Others (specify)
1	2	3	4

SECTION C: STAKEHOLDER COMMUNICATION STRATEGIES

Please, Choose the best answer to respond to the following statements such that 1=Strongly Disagree, 2=Disagree, 3= Neither Agree nor Disagree, 4=Agree, 5= Strongly Agree

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
1	2	3	4	5

Information generation						
EL1	Projects teams are loyal to collecting necessary information for sharing with others	1	2	3	4	5
EL2	Work is regularly monitored with feedback being given to the stakeholders	1	2	3	4	5
EL3	We have formal reporting systems	1	2	3	4	5
EL4	Each project has a designed communication plan	1	2	3	4	5
EL5	There are technical planning committees in place to informs us of all changes	1	2	3	4	5
EL6	Team members are informed of their performance expectations	1	2	3	4	5
Information dissemination						
RPT1	Project stakeholders get their necessary information in a timely manner	1	2	3	4	5
RPT2	Efforts are made for appropriate information to reach the intended targets in a particular time.	1	2	3	4	5
RPT3	Specific and appropriate modes of communication are used for particular stakeholders.	1	2	3	4	5
RPT4	A considerable amount of time is spent on communicating to stakeholders.	1	2	3	4	5
RPT 5	We do prepare reports to be reviewed by team members	1	2	3	4	5
RPT6	Project members are given chance to give their views when reviewing project scope	1	2	3	4	5

Disposition of project information						
OA1	project team members have the opportunity to give their perceptions during meeting	1	2	3	4	5
OA2	Individual employee competencies expectations are communicated to all members	1	2	3	4	5
OA3	Standard operating procedures are disseminated to all project	1	2	3	4	5

	implementing members					
OA4	The organizational structure enables sharing of vital information	1	2	3	4	5
OA5	work processes are communicated to everyone involved in the project	1	2	3	4	5
OA6	Information needs of the different stakeholders are determined during project planning.	1	2	3	4	5

SECTION: D PROJECT PERFORMANCE

Please, Choose the best answer to respond to the following statements such that 1=Strongly Disagree, 2=Disagree, 3= Neither Agree nor Disagree, 4=Agree, 5= Strongly Agree

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
1	2	3	4	5

Effectiveness						
PS1	Project time expectations have been achieved	1	2	3	4	5
PS2	Effort has been undertaken to review fulfillment of project timelines	1	2	3	4	5
PS3	We have evaluated the fulfillment of project time parameters	1	2	3	4	5
PS4	We have always completed projects on time.	1	2	3	4	5
PS5	Our projects have always been ahead of schedule.	1	2	3	4	5
PS6	We have cared out various activities with the specified timeframes	1	2	3	4	5
Efficiency						
PL1	The roads meet the quality standards that were originally specified.	1	2	3	4	5
PL2	The constructed roads conform to earlier project designs	1	2	3	4	5
PL3	We have outstanding claims on some of the completed road projects	1	2	3	4	5
PL4	Some road projects have been fully completed during defect liability period	1	2	3	4	5
PL5	The projects costs estimations have always been with budget	1	2	3	4	5
PL6	Completed roads need repairs earlier than planned which is an extra cost	1	2	3	4	5

Impact						
PQ1	project planning points have contributed to project success	1	2	3	4	5
PQ2	Our projects have always been within the prescribed quality.	1	2	3	4	5
PQ3	All the important points on contract management have contributed to project failures	1	2	3	4	5
PQ4	The recently completed road projects have meant safety concerns for the residents	1	2	3	4	5
PQ5	The evaluation of completed road projects has had environmental impact issues	1	2	3	4	5
PQ6	The recently completed road projects have had economic impacts to the society	1	2	3	4	5

END



Uganda National Roads Authority

PROJECTS STATUS REPORT FOR DECEMBER 2019

JANUARY 2019

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No	Subject of Procurement	Directorate	Status
	Stations Under Framework Contracts. Lot 17 (1): Mbale Station		General on th 11th December 2018 pending approval.
4	Maintenance of Unpaved Roads for 22 UNRA Stations Under Framework Contracts. Lot 17 (2): Mbale Station	Road Maintenance	The Draft Contract were submitted to Solicitor General on th 11th December 2018 pending approval.
5	Maintenance of Unpaved Roads for 22 UNRA Stations Under Framework Contracts. Lot 23: Kitgum Station	Road Maintenance	The Draft Contract were submitted to Solicitor General on th 11th December 2018 pending approval.
6	Phase (2) Mechanised Maintenance of Unpaved Roads for 18 UNRA Stations Under Framework Contracts for 3 years. Lot 01: Ibanda Station 1	Road Maintenance	The bids closed on the 14th November 2018 and the evaluation exercise is still on going.
7	Phase (2) Mechanised Maintenance of Unpaved Roads for 18 UNRA Stations Under Framework Contracts for 3 years. Lot 02: Ibanda Station 2	Road Maintenance	The bids closed on the 14th November 2018 and the evaluation exercise is still on going.
8	Phase (2) Mechanised Maintenance of Unpaved Roads for 18 UNRA Stations Under Framework Contracts for 3 years. Lot 03: Jinja Station 1	Road Maintenance	The bids closed on the 14th November 2018 and the evaluation exercise is still on going.
9	Phase (2) Mechanised Maintenance of Unpaved Roads for 18 UNRA Stations Under Framework Contracts for 3 years. Lot 04: Jinja Station 2	Road Maintenance	The bids closed on the 14th November 2018 and the evaluation exercise is still on going.

10	Phase (2) Mechanised Maintenance of Unpaved Roads for 18 UNRA Stations Under Framework Contracts for 3 years. Lot 05: Mpigi Station	Road Maintenance	The bids closed on the 14th November 2018 and the evaluation exercise is still on going.
11	Phase (2) Mechanised Maintenance of Unpaved Roads for 18 UNRA Stations Under Framework Contracts for 3 years. Lot 06: Masaka Station 1	Road Maintenance	The bids closed on the 14th November 2018 and the evaluation exercise is still on going.
12	Phase (2) Mechanised Maintenance of Unpaved Roads for 18 UNRA Stations Under Framework Contracts for 3 years. Lot 07: Masaka Station 2	Road Maintenance	The bids closed on the 14th November 2018 and the evaluation exercise is still on going.
13	Phase (2) Mechanised Maintenance of Unpaved Roads for 18 UNRA Stations Under Framework Contracts for 3 years. Lot 08: Kabale Station	Road Maintenance	The bids closed on the 14th November 2018 and the evaluation exercise is still on going.
14	Phase (2) Mechanised Maintenance of Unpaved Roads for 18 UNRA Stations Under Framework Contracts for 3 years. Lot 09: Tororo Station	Road Maintenance	The bids closed on the 14th November 2018 and the evaluation exercise is still on going.
15	Phase (2) Mechanised Maintenance of Unpaved Roads for 18 UNRA Stations Under Framework	Road Maintenance	The bids closed on the 14th November 2018 and the evaluation exercise is still on going.

No	Subject of Procurement	Directorate	Status
	Contracts for 3 years. Lot 10: Soroti Station 1		
16	Phase (2) Mechanised Maintenance of Unpaved Roads for 18 UNRA Stations Under Framework Contracts for 3 years. Lot 11: Soroti Station 2	Road Maintenance	The bids closed on the 14th November 2018 and the evaluation exercise is still on going.
17	Phase (2) Mechanised Maintenance of Unpaved Roads for 18 UNRA Stations Under Framework Contracts for 3 years. Lot 12: Moroto Station	Road Maintenance	The bids closed on the 14th November 2018 and the evaluation exercise is still on going.
18	Phase (2) Mechanised Maintenance of Unpaved Roads for 18 UNRA Stations Under Framework Contracts for 3 years. Lot 13: Kampala Station	Road Maintenance	The bids closed on the 14th November 2018 and the evaluation exercise is still on going.
19	Phase (2) Mechanised Maintenance of Unpaved Roads for 18 UNRA Stations Under Framework Contracts for 3 years. Lot 14: Lira Station	Road Maintenance	The bids closed on the 14th November 2018 and the evaluation exercise is still on going.
20	Phase (2) Mechanised Maintenance of Unpaved Roads for 18 UNRA Stations Under Framework Contracts for 3 years. Lot 15: Kitgum Station 1	Road Maintenance	The bids closed on the 14th November 2018 and the evaluation exercise is still on going.
21	Phase (2) Mechanised Maintenance of Unpaved Roads for 18 UNRA Stations Under Framework Contracts for 3 years. Lot 16: Kitgum Station 2	Road Maintenance	The bids closed on the 14th November 2018 and the evaluation exercise is still on going.
22	Phase (2) Mechanised Maintenance of Unpaved Roads for 18 UNRA Stations Under Framework Contracts for 3 years. Lot 17: Moyo Station 1	Road Maintenance	The bids closed on the 14th November 2018 and the evaluation exercise is still on going.
23	Phase (2) Mechanised Maintenance of Unpaved Roads for 18 UNRA Stations Under Framework Contracts for 3 years. Lot 18: Moyo Station 2	Road Maintenance	The bids closed on the 14th November 2018 and the evaluation exercise is still on going.

24	Phase (2) Mechanised Maintenance of Unpaved Roads for 18 UNRA Stations Under Framework Contracts for 3 years. Lot 19: Mubende Station	Road Maintenance	The bids closed on the 14th November 2018 and the evaluation exercise is still on going.
25	Phase (2) Mechanised Maintenance of Unpaved Roads for 18 UNRA Stations Under Framework Contracts for 3 years. Lot 20: Arua Station	Road Maintenance	The bids closed on the 14th November 2018 and the evaluation exercise is still on going.
26	Phase (2) Mechanised Maintenance of Unpaved Roads for 18 UNRA Stations Under Framework Contracts for 3 years. Lot 21: Gulu Station	Road Maintenance	The bids closed on the 14th November 2018 and the evaluation exercise is still on going.
27	Phase (2) Mechanised Maintenance of Unpaved Roads for 18 UNRA Stations Under Framework Contracts for 3 years. Lot 22: Kotido Station	Road Maintenance	The bids closed on the 14th November 2018 and the evaluation exercise is still on going.

No	Subject of Procurement	Directorate	Status
28	Phase (2) Mechanised Maintenance of Unpaved Roads for 18 UNRA Stations Under Framework Contracts for 3 years. Lot 23: Mbale Station 1	Road Maintenance	The bids closed on the 14th November 2018 and the evaluation exercise is still on going.
29	Phase (2) Mechanised Maintenance of Unpaved Roads for 18 UNRA Stations Under Framework Contracts for 3 years. Lot 24: Mbale Station 2	Road Maintenance	The bids closed on the 14th November 2018 and the evaluation exercise is still on going.
30	Phase (2) Mechanised Maintenance of Unpaved Roads for 18 UNRA Stations Under Framework Contracts for 3 years. Lot 25:Luwero Station	Road Maintenance	The bids closed on the 14th November 2018 and the evaluation exercise is still on going.
31	Framework Contract of Three (03) years for Routine Maintenance Works for Lot 1: Kibuye – Zana, Zana – Airport And Nakiwogo Ferry Access Section (45 Km) Under Kampala Station.	Road Maintenance	The bids closed on the 11th December 2018 and the Evaluation reports are ready for submission to CC however pending verification of the bidder's Tax Income Returns from URA.
32	Framework Contract of Three (03) years for Routine Maintenance Works for Lot 2: Seeta – Namugongo, Silver Springs – Bweyogerere Section, Bweyogerere – Busega Section, Seeta – Namilyango Section, Kireka – Namugongo, Nambole Circular Section, Bweyogerere – Bukasa Section (33.4km) Under Kampala Station	Road Maintenance	The bids closed on the 11th December 2018 and the Evaluation reports are ready for submission to CC however pending verification of the bidder's Tax Income Returns from URA.

33	Term manual maintenance Works on Kampala Selected Roads under a framework contract for three years	Road Maintenance	30-Jun-19
34	Term manual maintenance Works on Kampala Selected Roads under a framework contract for three years	Road Maintenance	30-Jun-19
35	Drainage Improvement Works for Nalwekomba, kiko 1 and Kiko 2 Swamp Crossings	Road Maintenance	Letter of Notification of Award was issued to the Contractor on 10-Dec-2018.
36	Reconstruction of Washed out and failed bridges in Northern Uganda under Design and Build; Awoo bridge	Roads and Bridges Development	Pending submission of the Performance Security to sign the contract
37	Reconstruction of Washed out and failed bridges in Northern Ugand under Design and Build; Enyau Bridge	Roads and Bridges Development	Contract signed on 23-Aug-2018
38	Reconstruction of Washed out and failed bridges in Northern Uganda under Design and Build; Aji and Ora Bridges	Roads and Bridges Development	Contract signed

No	Subject of Procurement	Directorate	Status
39	Civil Works for Upgrading of Kyamate Access Roads (2.5Km)	Roads and Bridges Development	Under Evaluation
40	Design and Build Contractor to Develop Ferry Landing Sites for BKK Ferry on Lake Kyoga	Road Infrastructure Protection	Due diligence report submitted to DPDU on 24-Dec-2018.
41	Civil Works for the Upgrading of Mpigi-Kanoni Road from gravel to Paved Standard - 64 Km	Roads and Bridges Development	Addendum Signed and Issued
42	Construction of the New Mbarara-Bypass and Reconstruction of of the existing Mbarara-Ntungamo Section of the Northern Corridor Route	Roads and Bridges Development	Contract signed on 11th October 2018
43	Civil Works for the upgrading of Selected Town Roads (20.2Km) in Mbarara Municipality from Gravel to Paved Bituminous Standard	Corporate Services	Bids close on 18/02/2019
44	Design and Build of Emergency Contractor to develop an Alternative Ferry Landing Site at Wanseko	Road Infrastructure Protection	Contract signed
45	Procurement of a Design and Build Contractor to Develop Ferry Landing Sites for Sigulu Ferry on Lake Victoria	Road Infrastructure Protection	Draft contract at SG for approval. Due diligence also completed

46	Civil Works for Construction of Busega-Mpigi Expressway	Roads and Bridges Development	No objection received from the bank
47	1. Operation and Maintenance of the Kampala-Entebbe Expressway Project (51.4 km).	Network Planning and Engineering	Under evaluation until 24th December 2018
48	Spotted Emergency Repair of Spear Motor Junction – Seeta Section (9 Km) Along Kampala – Mukono Road	Road Maintenance	Bids received on 21st December 2018. Evaluations to kick-start
49	Lot 1: Emergency Design and Build of 4 Strategic Bridges in West Nile Sub Region; Ora 1, Ora 2, Awa and Olemika on Pakwach-Inde-Ocoko Road	Roads and Bridges Development	Contract signed
50	Lot 2- Design and Build of Nariamabune Bridge Including 2km Access Road	Roads and Bridges Development	Contract signed
51	(Lot 3): Kagandi Bridge on Kagandi Natete-Busanza-Mpaka Road and Dungulwa on Kinyamaseke-Kisinga-Kyarumba-Kibirizi Road	Roads and Bridges Development	Contract signed
52	Package 5 Critical Oil Roads: Design and Build of Masindi- Biiso Road Upgrading Project (54km)	Roads and Bridges Development	Financial Bids opened on 15th August 2018. Evaluation of Financial bids to be resubmitted on 16th

No	Subject of Procurement	Directorate	Status
	Kabale-Kiziranfumbi, Hohwa-Nyairongo-Kyarushesha-Butole and Kaseeta-Lwera Road Upgrading Project (68km)		January 2019
53	Package 4 Critical Oil Roads: Design and Build for the Upgrading OF LUSALIRA-NKONGE-NTUSI (55KM) to Lumegere-Ssembabule and Kyotera-Rakai Road Upgrading Project (60km) ROAD FROM GRAVEL TO PAVED (BITUMEN) STANDARD	Roads and Bridges Development	Market reassessment being done by user department. Awaiting market reassessment report.
54	Routine Maintenance of Kampala Express Way	Road Maintenance	Contract signed on 9th November 2018
55	Supply and lay tack coat and asphalt concrete for Kyenjojo-Fortportal road	Roads and Bridges Development	Evaluation report submitted to CC on 27th December 2018
56	Operation and maintenance of the Kampala Entebbe Expressway project 51.4km	Network Planning and Engineering	Under evaluation until 24h December 2018
57	PERIODIC MAINTENANCE FOR UNPAVED NATIONAL ROADS	Road Maintenance	Bidding document submitted to CC for approval on 20/09/2018
58	KAMPALA FLYOVER CONSTRUCTION AND ROAD UPGRADING PROJECT: Lot-1 (Package 1: Clock Tower Flyover & Package 2: Nsambya - Mukwano Road)	Roads and Bridges Development	Contract signed on 17/09/2018

59	Construction of Strategic Bridges on the National Road Network: Lot 1: Cheptui, Chololo and Kibimba	Roads and Bridges Development	Contract document approved by CC on 28_Dec, 2018
60	Construction of Strategic Bridges on the National Road Network: Lot 3: Alla (Anzuiu) Gazi (Rhino Camp), Aca (Rhino Camp)	Roads and Bridges Development	Contract document approved by CC on 28_Dec, 2018
61	Construction of Strategic Bridges on the National Road Network: Lot 2: Design and Build of 2 Strategic Bridges-; Jure Bridge on Atiak-Adjumani-Moyo- Yumbe-Manibe Road & Amou Bridge on Laropi-Palorinya-Obongi Road, in (Moyo DLG).	Roads and Bridges Development	Contract document approved by CC on 28_Dec, 2018
62	Civil Works for Luwero-Butalangu road 30Km	Roads and Bridges Development	The bidding process was cancelled on the guidance of BADEA to first procure the design review and supervision consultant.
63	Civil Works for Upgrading of the Masaka– Bukakata Road (41km) from Gravel to Paved	Roads and Bridges Development	Contract signed on 17th September 2018

APPENDIX III: TABLE FOR DETERMINING SAMPLE SIZE N

Table 3.1									
<i>Table for Determining Sample Size of a Known Population</i>									
N	S	N	S	N	S	N	S	N	S
10	10	100	80	280	162	800	260	2800	338
15	14	110	86	290	165	850	265	3000	341
20	19	120	92	300	169	900	269	3500	346
25	24	130	97	320	175	950	274	4000	351
30	28	140	103	340	181	1000	278	4500	354
35	32	150	108	360	186	1100	285	5000	357
40	36	160	113	380	191	1200	291	6000	361
45	40	170	118	400	196	1300	297	7000	364
50	44	180	123	420	201	1400	302	8000	367
55	48	190	127	440	205	1500	306	9000	368
60	52	200	132	460	210	1600	310	10000	370
65	56	210	136	480	214	1700	313	15000	375
70	59	220	140	500	217	1800	317	20000	377
75	63	230	144	550	226	1900	320	30000	379
80	66	240	148	600	234	2000	322	40000	380
85	70	250	152	650	242	2200	327	50000	381
90	73	260	155	700	248	2400	331	75000	382
95	76	270	159	750	254	2600	335	1000000	384
<i>Note: N is Population Size; S is Sample Size</i>					<i>Source: Krejcie & Morgan, 1970</i>				

(Source.Krejcie and Morgan (1970 as cited by Amin, 2005)

Note-N is population Size

S is sample Size.