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MAKERERE UNIVERSITY BUSINESS SCHOOL

**ELECTRONIC ENGAGEMENT STRATEGY, SERVICE QUALITY AND
STAKEHOLDER SATISFACTION: A CASE OF UNRA ROAD CONSTRUCTION
PROJECTS.**

BY

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PLAN A

OCTOBER, 2023

DECLARATION

I, **NIYIBIZI JAMES**, do declare to the best of my knowledge that this report is truly my original work and has never been submitted to Makerere University or any other institution of learning for any award.

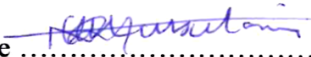
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APPROVAL

This is to certify that this work was done under our supervision and is now ready to be submitted to the Faculty of Graduate Studies and Research of Makerere University Business School, as a fulfilment of the requirement for the award of a Master of Business Administration of Makerere University.

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List of acronyms

C V I	Content Validity Index
EES	Electronic Engagement Strategy
ED	Executive Director
FGSR	Faculty of Graduate Studies and Research
GIS	Geographical Information Based System
IGG	Inspector General of Government
IT	Information Technology
MUBS	Makerere University Business School
OAG	Auditor General of Government
PAP	Project Affected Persons
RAFU	Road Agency Formation Unit
RAP	Resettlement Action Plan
RF	Road Fund
ROWMIS	Right of Way Management Information System
SERVQUAL	Service Quality
SHS	Stakeholder Satisfaction
UNRA	Uganda National Roads Authority
UNDESA	United Nations Department of Social and Economic Affairs
VIF	Variance Inflation Factor

CHAPTER ONE

INTRODUCTION

1.0 Overview

This chapter consists of the background of the study, statement of the problem, purpose and objectives of the study, research questions, scope and significance of the study as well as the conceptual framework.

1.1 Background to the Study

The global information technology and communication explosion dating back three decades has attracted increasing use of electronic platforms to engage with both internal and external stakeholder in the delivery of the organisational mandates in both the private and public sectors (Yadav & Singh, 2012; Al-Hawary & Al-Smeran, 2016). In the private sector the trend has been to develop tailor-made software and associated communication networks either spanning the entire organisations or functional units of finance, accounts, human resources, inventory, records and marketing all aimed at enhancing customer satisfaction in line with service quality (Yadav & Singh, 2012), while in the public sector and not for profit entities as well as profit driven entities, electronic platforms have emerged as part of the wider e-governance strategy that enhances service delivery, develop a knowledge-based society and economy, and also pursue other high-value public policy goals.(Yap, Ahmad Mason & Newaz, 2017,). In the regional platform, the East African community in this case uses ASYCUDA as a computerised system that countries use in the management of Customs operations.

Therefore, in the public sector, electronic engagement strategy has the potential to strengthen both citizens –to- government and or agency relationships, image, approval and overall satisfaction with public service delivery (Mutula, 2014; Byrne, M. (2019). Because of its positive outcomes, public entities have adopted electronic engagement as part of their public

service delivery strategy. This has called for investment in electronic engagement platforms and technologies encompassing web-based applications, micro-sites and mobile applications (Luna-Reyes & Gil-Garcia, 2014; Katsonis & Botros, 2015; Mastoi, et al., 2016;).

Consequently, in an effort to satisfy stakeholders in the delivery of its mandate “*to efficiently develop and maintain a safe and sustainable National Road network for the economic development of Uganda*”, Uganda National Roads Authority (UNRA) adopted an electronic engagement strategy for stakeholders within its public relations strategy. As such, UNRA acquired the Right of Way Management Information System (ROWMIS) that is the Geographical Information Based System (GIS) that enhances planning, preparation, implementation and monitoring of Resettlement Action Plan (RAP) process. The system includes a databank to facilitate data collection, storage, display and analysis as well as a web grievance portal for the public to submit their grievances regarding different road projects. However, an audit by the Office of the Auditor General of Government (OAG, 2017) revealed that the system had not been fully embraced and adopted for use in land acquisition with only 3 projects using the system namely Kampala - Jinja Express way, Kampala flyover and the Southern bypass.

In addition, a review of external stakeholder satisfaction levels revealed dissatisfaction due to unknown compensation criteria, undervalued compensations, delayed compensation and non-compensation among Project Affected Persons (PAPs) in regard road construction projects such as the Kashenyi-Mitooma, Mbale-Bubulo-Lwakhakha road works, Entebbe Express Way, Kampala Southern Express Ways projects to mention but few (OAG, 2016, 17,18). Most of these stakeholders affected are the PAPs, road users, suppliers, Government institutions, contractors to mention but a few. UNRA has also been rated as one of the highly corrupt government entities (16th out of 100) to the disappointment of the citizens .A

comission of Inquiry of 2015 into the Uganda National Roads Authority by Lady Justice Catherine Bamugemereire also revealed that Uganda Shillings 9 trillion had been used by UNRA to construct 1,500km of roads in 7 years which funds were enough to construct at least 5,147km. However, in 2016, UNRA took on a strategic direction putting emphasis on the use of ICTs in its operations and relations with many changes occurring in Information Technology, more so to the tools of communication. Thus, the need to assess the impact of these changes in relation to electronic engagement strategy and service quality on stakeholder satisfaction.

1.2 Statement of the Problem

In the current global economy driven by IT, organizations have to strive to stay afloat and therefore employ different techniques to leave their stakeholders satisfied (Mary & Leslie, 2011). Despite the fact that UNRA adopted e-engagement strategy for its stakeholders through social media platforms and website interactions, it has continued to face persistent compensation complaints by PAPs and poor public ratings as a corrupt institution (UNRA report, 2016). If this situation is not addressed, UNRA is likely to have its stakeholder's dissatisfied hence losing trust of the public, donors and development partners.

Although there are some studies linking electronic engagement strategy and service quality (Faraj and Bin 2018) and many studies on the relationship between service quality and stakeholder satisfaction (Sulieman, 2017), studies on the direct relationship between electronic engagement strategy and stakeholder satisfaction are still few to effectively inform public policy especially in the developing country context such as Uganda (Athmay, 2013; Malik et al., 2016). Therefore, this study has endeavored to close that knowledge gap and create a platform to guide on achievement of stakeholder satisfaction with public services.

1.3 Purpose of the study

The purpose of the study was to examine the relationship between electronic engagement strategy, service quality and stakeholder satisfaction with UNRA road construction projects.

1.4 Objective of the study

- i. To examine the relationship between electronic engagement strategy and stakeholder satisfaction with UNRA road construction projects.
- ii. To examine the relationship between service quality and stakeholder satisfaction with UNRA construction projects.
- iii. To establish the relationship between electronic engagement and service quality with UNRA road construction projects.
- iv. To establish the combined contribution of electronic engagement and service quality to the change in stakeholder satisfaction with UNRA construction projects.
- v. To establish the mediating effect of service quality on the relationship between electronic engagement strategy and stakeholder satisfaction with UNRA construction projects.

1.5 Research Questions

- i. What is the relationship between electronic engagement strategy and stakeholder satisfaction with UNRA road construction projects.
- ii. What is the relationship between service quality and stakeholder satisfaction with UNRA construction projects.
- iii. What is the relationship between electronic engagement and service quality with UNRA road construction projects?
- vi. What is the combined contribution of electronic engagement and service quality to the change in stakeholder satisfaction with UNRA construction projects?

- vii. What is the mediating effect of service quality on the relationship between electronic engagement strategy and stakeholder satisfaction with UNRA construction projects.

1.6 Scope of the Study

1.6.1 Subject Scope

The study concentrated on examining the relationship between electronic engagement strategy, service quality and stakeholders' satisfaction.

1.6.2 Geographical Scope

The scope of the study centred on projects within central region where stakeholders were most affected by the Road projects under UNRA in Uganda.

1.6.3 Time scope

The study took 3 months from the date of commencement of the study.

1.7 Significance of the study

- i. To the management of UNRA, the study evaluates the effectiveness of the electronic engagement practices in UNRA and develop policy recommendations for increased use of electronic engagement strategy to enhance quality of service delivery and enable stakeholder satisfaction in the roads sector.
- ii. To the management of public relations and media services unit, the study provides managerial interventions for enhanced management of the unit specifically on use of electronic engagement strategy and attainment of their support function outputs in road construction. Knowing the internal and stakeholders' perceptions of the electronic engagement services would help the unit to design effective electronic engagement strategy.
- iii. To the academia, the findings of the study addresses knowledge gaps on the relationship between electronic engagement strategy, service quality, and stakeholder satisfaction in construction projects.

1.8 Conceptual framework

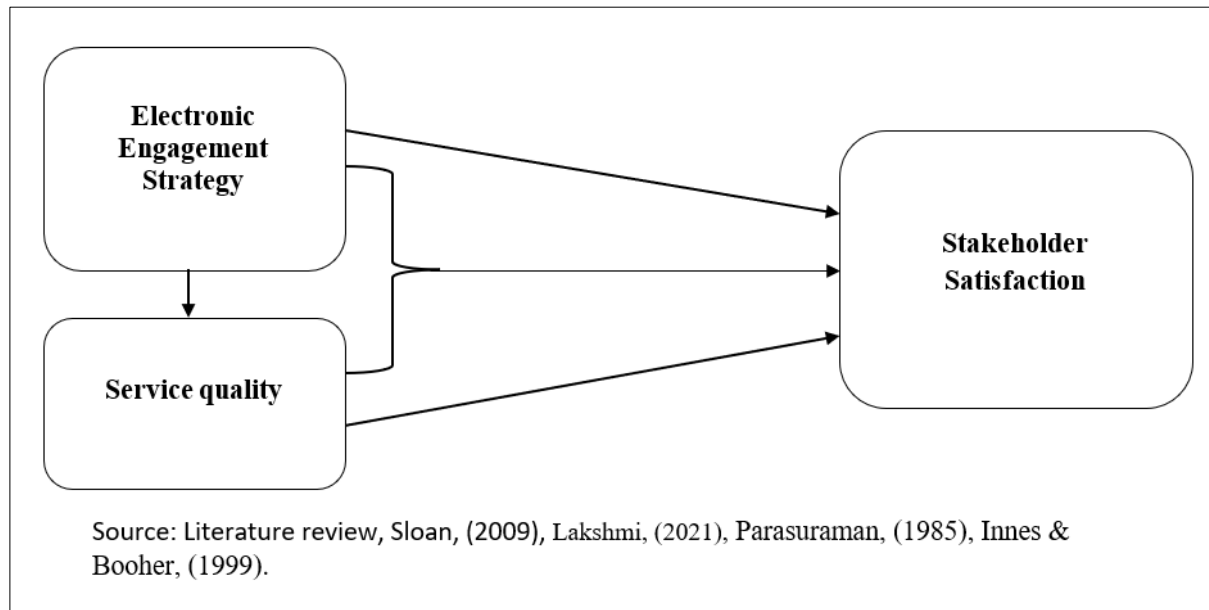


Figure 1 Conceptual framework

The conceptual model shows that; electronic engagement strategy is directly linked to stakeholder satisfaction just as perceived service quality is linked to stakeholder satisfaction (Sloan ,2009). The model shows that quality of service may mediate the relationship between electronic engagement strategy and stakeholder satisfaction.

In drawing to a close of this chapter, it should be noted that since this research study was focused on presenting the relationship between electronic engagement strategy, service quality and stakeholder satisfaction with UNRA road construction projects, it boosts the evaluation of the effectiveness of electronic engagement practices ,provide managerial interventions for enhanced management ,specifically on use of electronic engagement strategy and attainment of their support function outputs in road construction activities addresses knowledge gaps on the relationship between electronic engagement strategy, service quality, and stakeholder satisfaction in construction projects.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter reviews the related literature on the study variables as put forward by different researchers and scholars. It further looks at the concept of electronic engagements strategy, service quality and internal/ stakeholder satisfaction.

2.1 Stakeholder satisfaction

Stakeholders are groups of people or persons who are indirectly or directly affected by projects and those who have interest in the project as well as the capacity to influence its outcomes either negatively or positively (Dess et al., 2012). Stakeholder engagement is defined as the practice whereby an organisation agrees to positively involve stakeholders in its activities. Stakeholders can be categorized in two groups that are secondary and primary stakeholders (Flagestad, 2011). The primary stakeholders include beneficiaries of an intervention who are directly affected by it either positively or negatively. Examples of primary beneficiaries are community members (community-based organizations and individuals) in the area of the program/project, particularly the marginalized and poor people who have been traditionally excluded from participating in efforts of development (PMI, 2010). Secondary stakeholders include those who are indirectly affected or influence development interventions. Examples include line ministry project staff, borrowing governments, implementing agencies, civil society organisations the local government and private sector firms among others (Bourne, 2016). Stakeholders include all members of the project team as well as all interested entities that are internal or external to the organization. The project team identifies internal and external, positive and negative, and performing and advising stakeholders. It should be noted that effective communication with stakeholders eliminates a negative climate which may arise between an organisation and its stakeholders

and at the same time, enable the community to understand the organisation better. Furthermore, the organisation can develop better strategic managerial capabilities through electronic engagements with the stakeholders, and perform activities in the same line with the expectations and requests of the stakeholders (Jonker & Foster, 2002). A point to note is that the success of any organisation relies on the satisfaction of its stake holders. In the event that a product or service falls short of the expectations, the stakeholder gets dissatisfied (Satyendra, 2020).

Therefore, for an organisation to achieve stakeholder satisfaction, there is need to have a channel in which an organisation can engage stakeholders so as to get means of satisfying their needs which are indicated through their participation in, disclosures, adaptation, stewardship, and perceived performance. Drawing from Payne and Frow (2013), the resource-based theory states that organizations employing different electronic engagement tools and channels are better positioned to satisfy the needs and preferences of stakeholders. It should be noted that service quality and the electronic engagement strategy influence stakeholder satisfaction (Abdul H., 2018) and hence calls for an electronic engagement strategy as it is easy to use in the current global trend.

2.1.1 Disclosures

A stakeholder is definitely satisfied if he feels comfortable sharing the good news of any business with his colleagues instead of badmouthing it (Alex L,2020). Once a stakeholder is happy, they tend to disclose their experience of a service, product to close associates as well as anyone who cares to listen. This would not be the case of dissatisfied customers as some would rather not even talk about it (Thomas O. & Earl S., 1995).

2.1.2 Adaptation

Strategies for limiting, coping with, and maximizing the effects is adaptation. Stakeholders once satisfied, they will mostly create value for the organisation through living within the means and capacity of the organisation (Cecilia C. & Kate L. 1995). This comes inform of positive reviews, physical face to face feedback, increase in number of followers on social media and mentions on such platforms such as twitter, Instagram which creates a big mileage for the organisation as stakeholders adapt to the systems and processes of an organisation (Alex L, 2020).

2.1.3 Stewardship

Stewardship is ownership and the careful and responsible management of something entrusted to one's care (Alan R. 2012). Satisfied stakeholders will safeguard what they have however much they don't own the service personally.

2.1.4 Perceived Performance.

There are four levels of stakeholder satisfaction that stand as a testament to glorying customer success as pointed out by Lakshmi, (2019). Meet Stakeholder expectations
Surpassing Stakeholder expectation delighting your stakeholders amazing your Stakeholder.

i) Meet Stakeholder expectations

Under this, the stakeholder expectations are met where the minimum, basic requirement, needs to sustain them are met.

ii) Surpassing Stakeholder expectation

For stakeholder expectations to be surpassed, the organization provides impromptu solutions, followed by regular feedback sessions giving an edge over competitors.

iii) Delighting your stakeholders

Stakeholders that experience things that give them pamper and attention, love, respect, and dedication become delighted. Not only did they see that their basic expectations have been met and surpassed, but the organisation has connected with them emotionally too.

- iv) **Amazing your customers.** This brings in a game to amaze stakeholders more than ever with significant tactics including launching a revamped version of a product as well as offering freebies to satisfy them way above what they can expect. Stake holders benefit by getting discounts, special promo codes, and employing loyalty programs where a personalized note while receiving regular customer feedback too is a good way to show them that you are listening and that their suggestions matter.

2.2 Electronic engagement strategy

Electronic engagement is defined as the interaction between people across a range of networks (Pauley, 2015). Electronic engagement is an important intervention as it goes a long way in shaping decisions related to such interactions. It is a continuous process that needs to be understood as running throughout the lifecycle of the intervention and beyond.

Stakeholder engagement in the recent years has become a very important recipe in identifying and responding to social and environmental performance issues faced by companies (Dyer and Singh, 1998, Frooman, 1999). As a result, electronic means of stakeholder engagement have been identified as one of the ways of attaining a quick two-way communication avenue. For example, why organisations need to go for electronic engagement is because of its ability to transmit information, quickly and cheaply, provide for a higher degree of involvement, as well as bringing on board active participation (Rowe and Gammack, 2004). Coviello, Milley, and Marcolin (2011) suggest that electronic engagement as an innovative technology-based activity has been considered as one of the main aspects that involves using the internet and

interactive gadgets such as phones, computers tools and equipment with necessary social media applications such as Facebook, Twitter among others.

To engage stakeholders, Sloan (2009) identified two engagement models of control and collaboration. The control model considers the stakeholders as a source of risk, in which the organization has to monitor, listen, and tell them about their activities and performance. In this model, there are few connections between the organization and stakeholders and stakeholders can provide limited cooperated change to the organizational strategy. The collaborative model on the other hand considers the stakeholders as a source of opportunities by collaborating, learning and building a partnership with them. In this model, stakeholders contribute effectively to the organization and make changes to the organizational strategy. In a comparison between the two models, he further concluded that the collaborative strategy provides valuable results for the organization economically, socially, and environmentally more than the control strategy. Additionally, González (2018) proposed a model “the stakeholder engagement spectrum” showing the role of the public in planning and decision making, and how much influence stakeholders have over planning or decision-making processes in an organisation. González further pointed out the levels an organisation goes through from control to collaboration i.e., from consultation, to involvement, collaboration and empower through partnerships and thus concurring with Sloan in relation to control and collaboration.

It should be pointed out that the major benefits of electronic engagement for the firms that adopt it are: increasing exposure to global markets (Laudon and Laudon, 2014), enhancing communication (Chaffey, 2013), and reducing transaction costs (Sandeep and Sing, 2008) due to the aggregation of buyers (customers) generated by the e-marketplace. According to Chaffey, Ellis-Chadwick, Mayer, and Johnston (2010), the performance of electronic

engagement pertains to financial benefits obtained from the management process responsible for identifying, anticipating and satisfying customer needs. Supported by Gilmore, Gallagher, and Henry (2010), the performance of electronic engagement is substantially linked to different technologies (for example. e-mail, databases, wireless) to fulfil existing and emerging customer needs and preferences. Electronic engagement is applicable and vital to organisations that have a big interaction with third parties and hence leads to standardization of products and prices as differences among competitors' products are reduced (Porter, 2008). Hence large firms whose aim is to encroach onto niche markets, which were traditionally serviced can take on electronic engagement.

Therefore, in conclusion electronic engagement strategy relates to creating and mediating dialogue between the firm and its stakeholders, providing and gathering information (information exchange) through internet and other interactive technologies (Coviello, and Johnston, 2007). The internet is the main electronic engagement tool that has been recognized as a key business resource and is increasingly being used and integrated into the firm's marketing activities.

2.2.0 Components of electronic engagement strategy.

The importance of engagement started way back using rudimentary means like physical engagements, letters and mail. However today much has changed to even determine the method of engagement. An organisation has to therefore choose whether to use the control or collaborate strategy.

2.2.1 Control based Engagement Strategy

Under this type of strategy on the one hand, organizations' reduced level of control over information about its products and brands bears the unavoidable risk of transparency (Kaplan and Haenlein 2010). Further, product-, brand- or firm-related conversations on technologies may occur not only between a firm's current or past customers, but may also include 'non-

paying customers' (Groeger et al. 2016); thus, rendering an added level of complexity in technologies-based interactions.

A look at the lower stage of the public engagement tool spectrum, one-way information flow exists, is either from the decision-makers to the interested parties or from the public and stakeholders to the decision-makers (Videira, Antunes, Santos, & Lobo, 2006). In this strategy there is no information flow from stakeholders to the decision makers. Furthermore, in the control strategy of engagement interactivity is one sided while determining the amount, quality and type of information sent across its stake holders (Hollebeek et al. 2016).

2.2.2 Collaborative based Engagement Strategy

The Collaborative engagement strategy is a method of having a two way communication where an institution and its stakeholders come together to engage in dialogue with an aim of achieving an intended purpose (Dona J.,Mina S., 2008).

Stakeholder interactions

Stakeholder interactions is the process used by an organisation to communicate and receive information from relevant stakeholders for a purpose to achieve accepted outcomes, (Deloitte, 2008).

The nature and dynamics of interactivity with and between stakeholders in organizations continue to evolve at a rapid pace (Ghazali et al. 2016; Hollebeek et al. 2016). Specifically, while these interactions are gaining prominence in terms of marketing and stakeholder satisfaction, relationship management, consumers are simultaneously acquiring increasing influence in the online sphere (Malthouse et al. 2013; Kaplan and Haenlein 2010; De Vries et al. 2012). Contemporary stakeholders, for instance, are highly likely to consider product or brand-related information provided by other stakeholders, rather than relying exclusively on marketing material (Hanna et al. 2011). At the same time, today's digital consumers expect

their preferences to be a center stage for the companies they choose to purchase from through collaborative and personalized interactions (Munnukka and Järvi 2014; Greenberg 2010). It has thus become crucial for companies to create a superior stakeholder experience, which can be leveraged by fostering enhanced electronic stakeholder engagement, and which, in turn, is expected to generate enhanced stakeholder satisfaction and hence loyalty (Brodie et al. 2013, 2011).

Furthermore, technologies have transformed the nature and practice of online communication into an extensive, two-way dialog among users, in some cases which may cover private and/or social topics and issues, as well as about companies' products, brands and services (Lehmkuhl and Jung 2013; Hollebeek and Chen 2014). Networked consumers no longer merely act as passive recipients of product, brand or firm-related information, but are enabled to create, modify and exchange their own, personalized content and applications through technologies (Kaplan and Haenlein 2010; Hollebeek and Brodie 2016). The adoption of technologies in stakeholder engagement poses both risks and opportunities for organizations (Munnukka and Järvi 2014).

On the other hand, the pervasiveness of adoption of technologies provides companies with new ways of interacting with consumers (Sasser et al. 2014). Leveraging trust among consumers, and tracking consumers' willingly shared product or brand-related views has the potential to significantly enhance consumer communications and relationships (Malthouse et al. 2013; Hollebeek et al. 2016). Adoption of technologies therefore complements traditional 'push' communications (e.g., e-mail newsletters; Choudhury and Harrigan 2014) with multi-directional communication, thus facilitating dialogue with consumers, including current and prospective customers. The multi-directional facet of adoption of technologies communications refers to technologies interactions not being limited to dialogue between the

company and a focal consumer exclusively- but instead, this may extend to include other consumers (e.g., those in a focal consumer's network; Meng et al. 2016).

Public involvement

According to Harry, (2010) public involvement is about engaging 'the public,' - which is defined here as any individual, group of individuals, organisation or institution that has an interest in, or is affected by, the outcome of a decision - in the policy process. Public involvement on the other hand is a more formal process that takes place within government ministries, departments and agencies. The United Nations Department of Social and Economic Affairs (UNDESA) distinguishes between public (or citizen) involvement and public (or citizen) participation by examining where the initiative originated, either within the institution or from the public (Harry, 2010).

Harrigan, (2014) states that public involvement involves Citizen engagement needs to be distinguished from more informal participatory approaches to policy development, also known as citizen participation, as the concept of engagement intentionally emphasizes an active, intentional partnership between citizens and decision makers which is promoted and conducted by government authorities, in contrast to actions taken by the sole initiative of citizens (Brodie et al. 2013). Public involvement aims at giving citizens spaces and tools to process and analyse information on policy alternatives and share with them a real stake in decision making process and in monitoring and evaluation.

There are five types of public engagement that include, consult, involve, collaborate, and empower (Sherry R. Arnstein, 2007). The level of public involvement increases towards the right of the table of the public engagement tool spectrum (Appendix iv). The public engagement tool spectrum moves from providing information to stakeholders towards making collaborative decisions with organizations. At the lower stage of the spectrum, one-

way information flow exists either from the decision-makers to the interested parties or from the public and stakeholders to the decision-makers (Videira, Antunes, Santos, & Lobo, 2006). At the remaining stages, the decision makers and the interested parties are involved in a two-way information flow by conducting consensus conferences or public hearings. The spectrum also identifies different tools that can be used to involve the public, ranging from providing fact sheets to conducting ballots and delegated decisions. The challenge for organisations is to identify the right level of participation suitable for their strategy based on the context and objectives of the participatory exercise (Videira et al., 2006) and the individuals and organisations to be involved (Head, 2007).

A possible strategy to improve companies' performances requires the involvement of stakeholders as complex actors endowed with relevant resources and knowledge to facilitate information exchange (Francesco Caputo, 2016).

Information exchange is a set of activities by which information is provided to others, either proactively or upon request, such that the information has an impact on another person's (or persons') image of the world and creates a shared, or mutually compatible working, understanding of the world' (Sonnenwald, 2006). Government entities and more so UNRA can use the collaborative approach to exchange information since it caters for inward and outward flow of information. In this case, the information gap is somehow filled.

Furthermore, the upward trend in competitiveness is sending organizations to discover new ways to improve their competitive advantage and their chances of survival (Francesco Caputo, 2016) Francesco further states that information sharing and communication strategies could offer an effective contribution to creating pre-conditions for stakeholder engagement. Corporate disclosure can have an impact on a companies' market value. Accordingly, the reflections on the possible role of information sharing and communication strategies as

drivers in creating pre-conditions for stakeholder engagement is evident which is important in the success of an organization (Miniace & Falter, 1996). Information exchange permits and solicits ideas, questions and suggestions from the stakeholders regarding the organization (Alexander 1985) which can drive it to a better strategy including change and engagement (Mattacks, 2011).

2.3 Service quality

Service quality is the discrepancy between customer perceptions of services rendered by a firm and their expectations about the firm offerings (Parasuraman, 1985). However, Lewis and Brooms (1983) give a different view when they explain service quality to be a measure of how well the service levels delivered matches the customers' expectation. This does not differ too much from the definition of Bowen and Chen (2011). In any service center, quality is a great issue. As a matter of fact, customers set the standards when they visit any service center for which if fulfilled, there is delivery of quality services and the reverse is true. Several determinants of service quality were being discussed by the earlier scholars of which customer's base upon these determinants to tell and judge the service quality provided to them. According to Bitner (1990), Parasuraman et al (1985) provided a list of ten determinants of service quality as a result of their group studies with service providers and customers. These determinants were; access, communication, competence, courtesy, credibility, reliability, responsiveness, security, understanding and tangibles. However, these ten determinants were later revised by Bowen and Chen (2011) to come down to what is called the five dimensions of service quality that include; assurance, empathy, reliability, responsiveness and tangibles.

It should however be noted that it's challenging to measure service quality because of its intangible nature such as inseparability, heterogeneity and perishability.

2.3.1 Tangibles

The tangibles involve the firms' representatives, physical facilities, materials, and equipment as well as communication materials. Furthermore, Physical environmental conditions appeared as clear evidence of the care and attention paid for the details offered by the service provider, related to the tangibility appearance of physical facilities, equipment, personnel, and written materials (Hart and Johnson, 2011).

2.3.2 Reliability

Reliability depends on handling customer service issues, performs the services right the first time; offers services on time, and maintain a record of error-free. Moreover, they define reliability as the most significant factor in conventional service (Hart and Johnson, 1999). Reliability also consists of the right order fulfillment; accurate records; accurate quote; right in the bill; Results are more accurate than commissions; keep the promise of service. More specifically, in a study by Parasuraman et al. (1985), SERVQUAL was applied to gather data in four different companies, including hotels, credit card companies, the company's maintenance services, and Long-Distance Phone Company of which he found high reliability in all four of these companies, with the possible exception of some of the values associated with significant dimensions. Finally, reliability is defined as the "ability to perform the promised service dependably and accurately" (Hart and Johnson, 2011).

2.3.3 Responsiveness

Responsiveness is defined as "the willingness to help customers and provide prompt service"(Parasuraman et al., 1988) while Johnston (1997) defines responsiveness as speed and timeliness of service delivery. This consists of processing speed and service capabilities to respond promptly to customer service requests, and wait a short and queuing time. More specifically, responsiveness is defined as the willingness or

readiness of employees to provide services. It contains the timeliness of service (Parasuraman et al., 1985). It also contains understanding the needs and requirements of the customer, easy operation time, individual attention provided by the staff, attention to the problem and customers' safety in their dealings, (Hopkins et al, 2015).

2.3.4 Empathy

Parasuraman et al. (1985) defined empathy as a caring and individual attention that the firm provides to its clients. It contains giving individual attention to employees who understand the needs of their customers and customer facilities during business hours. Furthermore, Hopkins et al. (2015), Priyo, et al. (2019) all demonstrate empathy in their research of private sector hotels, where an organization provides individual attention and easy operation time; give personal attention, and understand the specific needs of customers. Furthermore empathy contains approachability, sensitivity, and efforts to understand customer needs. Also, Johnston (1997) defined empathy as the ability to make customers feel welcome, especially by staff contacts. Additionally, the SERVQUAL model indicates that satisfaction is related to the size and direction of disconfirmation of a person's experience when he/she faces his/her initial expectation, (Smith & Houston, 2012).

2.3.5 Assurance

The assurance dimension in SERVQUAL refers to the knowledge and courtesy of employees and their ability to inspire trust and confidence (Parasuraman *et al.*, 1988) The inseparability of production and consumption and the co-production of services (Hopkins et al., 2015), implies that the people providing the service play a significant role and therefore the perceptions of the assurance dimension will influence the overall perceived performance of service quality.

2.4.1 The relationship between electronic engagement strategy and stakeholder satisfaction.

Stakeholder engagement is defined as the process of involving individuals and groups that either affect or are affected by the activities of the company (Sloan. 2009). Stakeholder engagement impacts how organizations develop new products and build strong supply chains, which yield a competitive advantage for them in order to satisfy their stake holders . To back this up, some studies have found out that the more the participation and engagement with customers the more there is an increase in customer satisfaction (Dabholkar & Sheng, 2012; Sashi, 2012).

On the other hand, Brodie *et al* (2010) found that adoption of electronic engagement is positively associated with marketing performance and more so on stakeholder satisfaction and retention. It is noted that effective electronic engagement can enable the firm to obtain competitive intelligence and organizational capabilities when such information is not readily available to facilitate effective marketing decisions for proper positioning in the industry (Asikhia, 2009). This positioning in the market and public participation and engagement in the end creates value engagements that create satisfaction in the long run.

Further, the literature suggests that stakeholder engagement by organizations contributes to their satisfaction (Chi & Qu, 2008; Chung & Petrick, 2013; Selin & Myers, 1998; Sloan, 2009; Strong et al., 2001).

2.4.2. The relationship between service quality and stakeholder satisfaction

In an increasingly competitive environment, service quality is an essential strategy for success and survival which has attracted increased attention in the past 20 years (Ismail et al., 2016).

Defining service quality is not as simple as defining product quality because of the nature of services. Parasuraman et al. (2015) have developed service quality measurement tool

(SERVQUAL) and defined service quality as the gap between stakeholder's expectation and perception based on five dimensions. They further define consumer's perception of service quality as a function of the difference between expectations about the performance of a general class of service providers and assessment of the actual performance of a specific firm within that class.

Stakeholder's satisfaction and service quality remains a critical issue in most service industries, and are even more important for financial service providers that offer generally undifferentiated products. For example, in the insurance industry, the major approach to differentiation and the principal means by which one insurer can distinguish itself from another is service before and after the sale of the policy (Stafford and Wells, 2016). Service quality has become an essential part of organizational success due to increased stakeholder's expectations and customization of services in many markets.

Thus, companies need to pay keen attention to their stakeholders and must understand their stakeholder's needs and wants so as to meet or exceed their expectations.

In fact, even the definition of service quality is changing, good service quality used to mean that the output was made to conform to the specifications set by the process designers. Today, the concept of service quality is evolving to mean uniformity of the service output around an ideal (target) value determined by the stakeholders.

Regarding the relationship between stakeholder's satisfaction and service quality, Oliver (2013) first suggested that service quality would be antecedent to stakeholder's satisfaction regardless of whether these constructs were cumulative or transaction-specific. Other researchers have been more precise about the meaning and measurements of satisfaction and service quality. Satisfaction and service quality have certain things in common, but satisfaction generally is a broader concept, whereas service quality focuses specifically on dimensions of service (Wilson et al., 2018). Service quality is a focused evaluation that

reflects the stakeholder perception of reliability, assurance, responsiveness, empathy and tangibility while satisfaction is more inclusive and it is influenced by perceptions of service quality, product price and quality, also situational factors and personal factors. Service quality has a strong correlation with stakeholder's satisfaction, financial performance, manufacturing costs, stakeholder's retention, stakeholder's loyalty, and the success of marketing strategy (Cronin et al., 2010). Organizations operating within the service sector consider service quality to be a strategic component of their marketing plan (Spathiset al., 2014). Through service quality, organizations can reach a higher level of service quality, a higher level of stakeholder's satisfaction, and can maintain a constant competitive advantage (Meuteret al., 2010).

2.4.3 The relationship between electronic engagement strategy and service quality

An increasing number of companies have realized the power of the Internet, for instance, it is cost-effective, timesaving and allows direct interactions with customers, and by utilizing its power, companies stand to gain profits and as well use it as knowledge management and product/service innovation tool to enhance quality (Farag and Bin 2018). As such, electronic engagement can play a constructive role in business development. Specifically, it can enable an electronic transaction performance analysis by companies and customers through computer networks (Cronin, 1994). To customers, the potential benefit from electronic engagement can be huge. Web services are convenient and time saving; customers can easily compare prices, product features and as well provide feedback across suppliers. In other words, suppliers are able to deliver material goods, offline services, and digital contents to customers via the Internet at any time and any place (Collis, Bane, & Bradley 1997; Rust & Oliver 2000). Through this approach, companies can spread their brand to reach global users and enlarge their user scale. Other studies in the banking sector indicate that service quality is

a crucial factor in determining the competitive position, and achieving customer satisfaction (Al-Hawary, 2013).

2.4.3 The mediating role of service quality in the relationship between electronic engagement strategy and stakeholder satisfaction

Several studies have tried to discover the mediating role of service quality in the context of electronic engagement. Some researchers put it that a well-executed electronic engagement strategy can improve service quality, thereby increasing stakeholder satisfaction (Teixeira et al., 2012). In the global set up today, electronic platforms serve as critical touchpoints where stakeholders interact with organizations and form perceptions of service quality. These perceptions can significantly influence stakeholder satisfaction (Gummerus, Liljander, Weman, Pihlström, & Helm, 2012). One can therefore state that if the relationship between electronic engagement strategy and stakeholder satisfaction is significant and the relationship between electronic engagement and stakeholder satisfaction is reduced when service quality is included, then there is mediation.

2.5 Chapter conclusion

Based on the literature review, it is worth to note that stakeholder's satisfaction has for long been recognized as playing a crucial role for success and survival in today's competitive market. This however cannot be achieved without the backing of an electronic engagement strategy (Sloan, 2009).

CHAPTER THREE

METHODOLOGY

3.0 Introduction

This section presents the methodological strategy that was used to obtain information necessary achieve the study objectives and answer the research questions. It presents the research design, study and target population, sampling method, data collection methods and instrument, data analysis, measurement of study variables as well as the limitations encountered during the study.

3.1 Research Design

The study used a cross sectional quantitative survey design with a quantitative approach to data collection and analysis. The quantitative approach was adopted with the aim of establishing the relationship between the study variables as well as to determine the mediating and combined effect of the independent variables on the dependent variable. The choice of the cross-sectional survey design was justified by the view that the relationship between the variables was examined through a one-off data collection exercise not to be repeated (Creswell, 2015).

3.2 Study Population

Between the years 2008 when UNRA was formed to 2020, UNRA projects stood at 218 (UNRA Annual report, 2020). This study however considered ongoing National Road projects within the Central Region being a total 116 Road projects as the study population of which the unit of analysis in this case was UNRA construction projects, while the unit of inquiry were the individuals' stakeholders such as road users, contractors, employees of UNRA and Project affected persons.

3.3 Sampling techniques and procedure

To avoid un-guided generalization, a sample was taken from the total population. Amin (2005) suggested that sampling is important in selecting elements from a population in such a way that the sample elements selected represent the population. The study used a purposive sampling technique to select the road projects in the central region while systematic sampling with as used for the case of PAPs, Project staff, and contractors with the exception of stakeholders. This is because the road users are the majority and hence this was representative. The sampling frame used was the road projects between 2008 and 2020 report. This is because of factors like the cost implication, time, language barrier and the quality of respondent of which any other method would not easily achieve this.

3.4 Sample Size Determination and Selection.

In research, it is believed that if the sample is carefully obtained, it is then possible to generalize the results to the whole population as suggested by Amin (2005). The researcher adopted purposive sampling to select a total of 48 road projects from 116 projects from the central region which comprised twenty-four districts with ongoing road construction projects with traceable PAPs in ROWMIS. This represents 53% of the ongoing projects in central region. Thus, on average, 2 projects were selected per district. The study also considered only upgrading, rehabilitation and low volume roads. These selected road projects were selected because they had a high volume of traffic compared to other regions. It should be noted that the respondents had certain traits and features or interests such as being compatible with the English Language and were experienced, knowledgeable and familiar with road construction. The selected projects were representative of the total road projects country wide because the challenges experienced by stakeholders are usually similar and the processes still are usually the same. In addition, the staff involved carry out related activities across the road construction network. The sample of 48 projects was also used because of limited time within

which the study had to be completed. The table in appendix. I shows ongoing projects, their length in kilometers, type of road works ongoing as well as the number of PAPs in the central region.

At the unit of inquiry, the sample size was determined using the Krejcie and Morgan table 1970. At the unit of analysis, the sample size of 384 respondents out of the 9.6 million stakeholders as shown in table 1 was determined using the Krejcie and Morgan table 1970 of sample size determination.

Using stratified sampling method, we considered road users as the main stakeholders and informants since they were the majority and were believed to be more objective in their responses and hence, they comprised 50% of the total sample and the rest of the categories of stakeholders were equally shared the remaining 50% of the sample. Specifically, each project had 4 road users, 1 PAP, 1 UNRA staff on the project, 1, 1 contractor staff on the project, 1UNRA staff at station in charge of the project responded per project which resulted into 8 respondents per project and overall, 384 respondents were selected to participate in the study.

Table 2 Respondent selection, Sample size determination

SN	Category of respondents (a)	Population Size (b)	Sample Proportion (c)	Subsamples (C)x384
1.	Number of PAPs	90,052	12.5%	48
2.	Contractors	116	12.5%	48
3	UNRA Staff on Projects	2320	12.5%	48
4	Road Users	9,529,227	50%	193
5	UNRA Staff stations	1,391	12.5%	48
	Total	9,623,106	100%	384

Source: Road user satisfaction survey, URF (2019), UNRA Annual Performance report 2019/20.

3.5 Data Sources

3.5.1 Primary Data

Primary data was gathered from the management and employees of Uganda National Roads Authority (UNRA), PAPs, contractors as well as road users using questionnaires where all the issues on the questionnaire were addressed. Furthermore, the researcher also obtained information from internal and stakeholders through questionnaires which include road users, and stakeholders living near these road projects. The researcher designed the questionnaires which was distributed over to the respondents on a one-to-one basis as well as online means, ensuring that all the questionnaires were be fully filled to give clear information that enhanced quality data for the research.

3.5.2 Secondary Data

Secondary data collection was conducted by collecting information from a diverse source of documents and electronically stored information. This helped to provide the already existing data that facilitated the study through literature review.

3.6 Data Collection Methods

3.6.1.1 Questionnaire

Closed ended structured questionnaires were chosen because of their ability to reduce any bias and the collection of authentic data important for data analysis. These Questionnaires were given to the sampled to provide data that was used in testing the effect of electronic engagement, service quality and internal/ stakeholder Satisfaction, of Uganda National Roads Authority (UNRA). Both physical and online questionnaires were deployed. Several sites such as survey monkey, survey planet, super survey qualtrics were considered though survey planet was deployed because of its affordability.

3.7 Measurement of variables

The independent variables, electronic engagement strategy and service quality, were measured on a 5-point Likert Scale, 1= strongly disagree, through to 5 = strongly agree. Also, the dependent variables, stakeholder satisfaction, was used and applied to a five-point Likert scale ranging from strongly agree (5), Agree (4), Not sure (3), Disagree (2) to strongly disagree (1). We used the 5-point Likert scale because of its ease of use and ability to reduce question on item non-response. where respondents only need to choose one option on a scale from strongly agree to strongly disagree. Additionally, a 5-point Likert scale offers a balanced number of response options which helps in reducing response bias by giving a midpoint which allows respondents to express a lack of opinion or neutrality, which can be important in some cases. Furthermore the 5-point Likert scale produces ordinal data, which is easier to analyze than nominal data which at times entails a "yes/no" response. In the evaluation of the electronic engagement strategy, we were able to discover whether its control or collaborative based. We were also able to identify the level of control or collaboration ranging from: inform, consult, involve, and collaborate or empowerment (Lakshmi, 2021). The measurement of quality was based on indicators such as Tangibility (Parasuraman, 1985), where physical facilities, equipment and appearance were measured. Reliability by the organization should be witnessed by the ability to perform and deliver the promised service dependently and accurately. Another indicator of service quality was responsiveness of the employees of UNRA and their level of willingness to help stakeholders while providing prompt service. Assurance as another indicator that was measured through the knowledge, courtesy and the ability of UNRA employees to inspire trust and confidence. Lastly empathy come out (Innes & Booher, 1999) inform of individualized attention the organization gives to its stake holders. Stakeholder satisfaction was measured by the presence of disclosures, adaptation, stewardship, and perceived performance of quality aspects

(Goodenough et al., 2018). In relation to disclosures, stakeholders always love being timely in the know. This makes them feel satisfied as they are aware of every step of the organization though it may not be necessarily so. In regards to adaptation, based on the information being relayed by the organization to the stakeholders, they learn to adapt to the changes which the organization makes even when they may not favor them, they feel satisfied. Stewardship was manifested through functional participation (Alfonso P, 2009), where teams are formed to meet predetermined objectives. Stakeholders here feel responsible for the outcomes of the project. Perceived performance of quality aspects of the projects was also part of the indicators of stakeholder satisfaction. (Elizandra S.,2017).

Table 3 - Summary of the Measurement of main study variables

Variable	Measure		Source/ Author, Year
Electronic Engagement Strategy	Control		(Lakshmi, 2021).
	Collaborative		
Service quality	Tangibility	Physical facilities	(Parasuraman, 1985).
		Equipment	
		Appearance	
	Reliability	Performance	
		Delivery	
		Dependent	
		Accurate	
	Responsiveness	Willingness to help	(Innes & Booher, 1999)
		Prompt service	
	Empathy	Attention the organization gives	
	Assurance	Knowledge	
		Courtesy	
		Inspires trust	
		Confidence	
Measurement of stakeholder satisfaction	Disclosures		Goodenough et al., 2018.
	Adaptation		
	Stewardship		(Alfonso P, 2009).
	Perceived performance	i) Meet Stakeholder expectations	

	ii) Surpassing Stakeholder expectation	(Elizandra S.,2017).
	iii) Delighting your stakeholders	
	iv) Amazing your customers	

3.8 Validity and Reliability

3.8.1 Validity

Validity is important in determining whether the statements in the questionnaire instrument and interview manuals are relevant to the study, content and construct. Validity was ascertained by help of academic experts, management team of UNRA, Public relation team, IT, UNRA management team and Project affected persons (PAPS). According to Amin (2004), validity can be assured by use of the content validity index (C.V.I) where (for both the interviews and questionnaires):

$$C V I = \frac{\text{Agreed items by all judges as suitable}}{\text{Total number of items being judged}}$$

The result should be higher than 0.7, for both questionnaire and interviews if the statements in the questionnaire and interviews are to be considered valid for research. The The researcher also consulted three experts specializing in electronic engagement strategies and project performance satisfaction strategies to evaluate the tool's validity. These experts assessed aspects such as clarity, relevance, length, and comprehensiveness to ensure accurate and complete content is presented. The findings from these three experts are outlined below;

Table 4: Results of the Content Validity Index (CVI) score

Variable	CVI score value
Expert I	0.85
Expert II	0.79
Expert III	0.86

Source: Primary data

The results from the contacted experts indicate that the CVI values closer to 1 which is an indication of high content validity and thus the tool was able to capture the required responses.

3.8.2 Reliability

Reliability aimed at testing on how reliable the instruments to the study were (i.e., ability of instrument to test for the same results over time). Furthermore, reliability aimed at assessing the extent to which the instrument yielded the same results on repeated trials (Carmines & Zeller, 1979). To ensure reliability, the researcher carried out a pilot study where 10 respondents were given questionnaires to rate themselves on the applicability of the instruments. Ten participants are considered appropriate (Ronan M, & Conroy, 2016). This was done before the final data was collected. These are presented under findings below.

Table 5 Reliability Results

Theme	No. of Items	Cronbach's Alpha
Electronic engagement strategy	13	0.892
Service Quality	22	0.866
Stakeholder Satisfaction	21	0.956

Source: Primary

The results above in table 4 show that Cronbach alpha values for electronic engagement strategy, Service Quality and Stakeholder Satisfaction are above 0.70. This means that there is internal consistency of the questions in answering the each of the themes mentioned above.

For establishment of consistency, Cronbach alpha values should be above 0.7 (Gerald F. Fiala, 1999). Exploratory data analysis was further done and the results are indicated in Appendix V.

3.9 Procedure of data collection

The researcher obtained an introductory letter from Makerere University Business School (MUBS) that was presented to Uganda National Roads Authority to allow the researcher conduct the research study. The researcher then presented the introductory letter as a formal permission to administer the research instruments and conduct the questionnaires to collect primary data.

3.10 Data Analysis

Data analysis is the process of bringing order, structure and meaning to the mass of information collected (Mugenda & Mugenda 2003, p.203). Data analysis brings the meaning of data, and how it can be used it to enhance business practices. Quantitative data analysis was used to address the objectives where Statistical software tool SPSS (Statistical Package for the Social Sciences) was used.

3.10.1 Quantitative Data Analysis

The collected data from the questionnaires was coded for accuracy, completeness and meaningfulness. Data was then tabulated and input in the Statistical Package for Social Scientists (SPSS) version 21.0. Descriptive statistics analysis was run to describe the sample characteristics of the study. Inferential statistics analysis was used to answer the research questions for this study. To examine the relationships between electronic engagement strategy and service quality, electronic engagement strategy and stakeholder satisfaction and the relationship between service quality and stakeholder satisfaction, the researcher used Pearson 's correlation analysis to test these relationships. To establish the impact of the independent variables on the dependent variable, a linear regression analysis was done where

by a scatter plot of the residuals against the fitted values, and it depicted no significant outlier while normality of distribution checked by a histogram, and well fitted the normal distribution curve. Furthermore, the researcher checked for collinearity and there was no evidence of collinearity in the data. Bivariate/simple linear regression analysis was conducted and variables with $p\text{-value} < 0.15$ were considered for multiple linear regression. Multiple regression analysis was used to assess the strength of the relationship between the dependent variable and independent variables as well as the importance of each of the variables to the relationship. It is also to examine the predictive potential of the independent variable (electronic engagement strategy) combined to the variations in the dependent variables (service quality and stakeholder satisfaction). Variables that had a P-value less than 0.05 were considered significantly associated with Stakeholder satisfaction.

Mediation can occur if the predictor variable accounts for some variance in the mediator variable which should also account for the variance in the criterion variable. In this study, we tested for the significance of the mediating effect of service quality in the relationship between Electronic Engagement Strategy and Stakeholder Satisfaction using the Sobel's test and this was conducted using Jose's Medigraph.

CHAPTER FOUR

ANALYSIS, PRESENTATION AND INTERPRETATION OF RESULTS

4.1 Introduction

This chapter covers the analysis, presentation and interpretation of the results according to the objectives of the study. The chapter is comprised of six sections; Section one presents the introduction, section two covers the response rate, section three deals with the background characteristics which include sex of the respondent, age of the respondent, level of education, marital status and level of engagement of with UNRA. Section four looks to analyze the study variables for answering each of the research objectives.

4.2 Response Rate

Out of a targeted sample of 384 respondents, 311 provided information, giving a response rate of 81%. Details of the responses are presented in the subsequent table (Table 5) below.

Table 6 The response rate

Target Sample	384	100%
Achieved target	311	81%
Declined	73	19%

4.3 Descriptive characteristics of respondents

The table 6 below shows the categories of respondents with their frequencies and percentages. As seen, the biggest number of respondents were the road users because the form the majority of stake holders represented by 54.7% of the respondents. These were followed by UNRA staff on projects (12.5%), contractors (11.6%), UNRA staff at stations (10.9%), and lastly PAPs (10.3%)

Table 7 Descriptive categorization of the responded stakeholders

Category of respondents (a)	Frequency	Percentage	Category
Number of PAPs	32	10.3%	External
Contractors	36	11.6%	External
UNRA Staff on Projects	39	12.5%	Internal
Road Users	170	54.7%	External
UNRA Staff stations	34	10.9%	Internal
Total	311	100%	

Source: Primary

The demographic characteristics of the respondents that were discussed include; sex of the respondent, age of the respondent, level of education, marital status and level of engagement with UNRA. Table 7 below shows the distribution of these characteristics.

Table 8 Distribution of the selected Background Information

Variable	Frequency N=311	Percentage (%)
Sex of a respondent		
Female	149	47.9
Male	162	52.1
Age of the respondent		
18-24	11	3.5
25-29	67	21.5
30-34	124	39.9
35-39	93	29.9
40+	16	5.1
Level of education		
<Secondary	5	1.6
Tertiary	70	22.5
Bachelors	228	73.3
Masters	7	2.3
PHD	1	0.3
Marital status		
Divorced	3	1.0
Married	165	53.1
Single	143	46.0
Frequency of engagement with UNRA		
Bi-Monthly	35	11.3
Bi-weekly	5	1.6
Daily	2	0.6
Monthly	187	60.1
Rarely	75	24.1
Weekly	7	2.3

Source: Primary

The results in Table 7 above indicates that out of the 311 respondents, slightly more than half were male (52.1 percent) with the rest being Females (47.9 percent). The study also revealed that most of the respondents were aged between 30-34 years (39.9 percent), with the least being those aged 18-24 years (3.5 percent). In determining the education level of the respondents out of the 311. The Majority bachelor's degree (73.3 percent) with just one PhD older among the respondents. With regard to the marital status, more than half of the number of the respondents (53.1 percent) were married while 46.2 percent were single. Engagements with UNRA were mostly done monthly (60.1 percent), followed by those who rarely engaged with UNRA (24.1%) with the daily engagement being the least at 0.6 percent.

4.4. Descriptive statistics of the observed variables.

The descriptive statistics of the study variables were presented in terms of mean, standard deviation, kurtosis and skewness (Table 8).

Table 9 Descriptive statistics of the observed data

Variable	N	Mean	Std. dev.	Min	Max	Kurtosis	Skewness
Electronic engagement Strategy	311	3.82	0.78	1.15	5.0	4.0	-1.11
Control	311	3.7	0.97	1.0	5.0	2.96	-0.9
Collaborative	311	3.89	0.81	1.13	5.0	3.96	-1.13
Service quality	311	3.66	0.61	1.41	4.86	3.69	-0.77
Tangibility	311	3.54	0.92	1.0	5.0	2.8	-0.75
Reliability	311	3.03	1.08	1.0	5.0	1.88	-0.08
Responsiveness	311	3.82	0.78	1.25	5.0	3.88	-0.88
Assurance	311	4.04	0.74	1.0	5.0	4.99	-1.16
Empathy	311	3.78	0.79	1.25	5.0	3.93	-1.04
Stakeholder satisfaction	311	3.2	0.96	1.0	4.95	2.2	-0.49
Disclosure	311	3.29	1.13	1.0	5.0	1.94	-0.45
Adaptation	311	3.14	1.09	1.0	5.0	1.94	-0.19
Stewardship	311	2.99	1.05	1.0	5.0	1.94	-0.05
Perceived performance	311	3.33	1.09	1.0	5.0	2.07	-0.45

As shown above (Table 8), in relation to the electronic engagement strategy, the collaborative approach scored a mean of 3.89, SD 0.81 against the control model which achieved a mean of 3.7, SD 0.97. This implies that respondents agreed more that the organisation employs more of the collaborative approach as compared to the control approach. In regards to service

quality, the results show that on average there was agreement among the respondents that the level of service quality on average is high (Grand Mean=3.66, S.D = 0.61). The results further showed that the respondents scored above average towards stakeholder satisfaction (Grand mean=3.20, SD 0.96). However, the mean score for stewardship was 2.99 and standard deviation 1.05. This shows that there was disagreement that there is some stakeholder satisfaction in regard to stewardship though it's above average. The results of kurtosis and skewness show no indication of non-normality.

4.5 Inferential Statistics

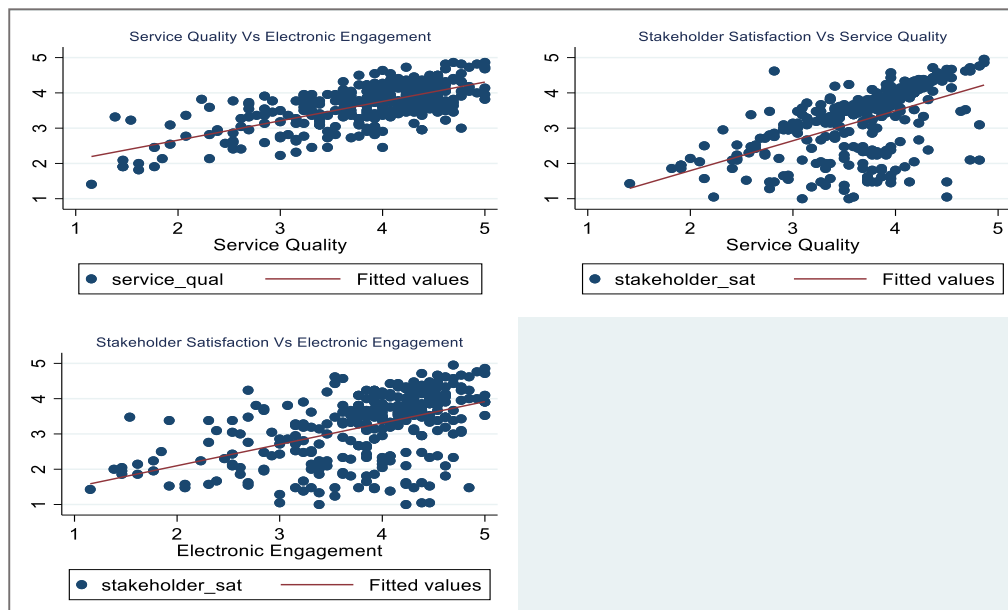
This section of the findings dealt with answering the research questions for this study. Correlation Analysis was carried out to establish the relationships between the study variables. Pearson (r) Correlations were used to test the direction and strength of relationships that are existing among the study variables which were; electronic engagement strategy, service quality, and Stakeholder satisfaction.

4.5.1 Scatter Plots

Scatter plots

A graphical representation for the relationships between the study variables was done to have an overview of the data before carrying out the statistical test. The graphs show an uphill pattern from left to right, an indication of positive relationship between the study variables. Results from the statistical tests are presented in chapter Figure 2 below.

Figure 2 Scatter plots showing the relationships between study variables



Source: Primary

4.5.2 Pearson Correlation Results.

The relationship between the study variables was carried out by using the Pearson correlation coefficient which are presented in Table 9 which shows the results of correlation analysis as well as Fig 2 showing the graphical presentation of the relationship between the study variables.

Table 10. Zero order correlation for the relationship between study variables

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Electronic engagement Strategy (1)	1													
Control (2)	0.857**	1												
Collaborative (3)	0.922**	0.591**	1											
Service quality (4)	0.702**	0.595**	0.652**	1										
Tangibility (5)	0.458**	0.333**	0.466**	0.738**	1									
Reliability (6)	0.299**	0.279**	0.258**	0.667**	0.387**	1								
Responsiveness (7)	0.512**	0.387**	0.512**	0.79**	0.446**	0.448**	1							
Assurance (8)	0.559**	0.474**	0.52**	0.706**	0.337**	0.222**	0.634**	1						
Empathy (9)	0.666**	0.624**	0.574**	0.615**	0.272**	0.194**	0.376**	0.436**	1					
Stakeholder satisfaction (10)	0.496**	0.478**	0.417**	0.542**	0.401**	0.511**	0.4**	0.159*	0.401**	1				
Disclosure (11)	0.597**	0.541**	0.527**	0.454**	0.312**	0.378**	0.275**	0.126*	0.476**	0.919**	1			
Adaptation (12)	0.319**	0.338**	0.246**	0.501**	0.639**	0.38**	0.285**	0.067	0.282**	0.819**	0.685**	1		
Stewardship (13)	0.351**	0.336**	0.297**	0.525**	0.297**	0.665**	0.444**	0.161*	0.25**	0.842**	0.654**	0.628**	1	
Perceived performance (14)	0.365**	0.38**	0.287**	0.429**	0.227**	0.388**	0.418**	0.196**	0.318**	0.883**	0.753**	0.616**	0.69**	1

****Correlation is significant at the 0.05 level (2-tailed).**

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

Source: Primary

The relationship between electronic engagement strategy and stakeholder satisfaction

The results in table 9 above indicate that there is a significant positive moderate relationship between electronic engagement strategy and stakeholder satisfaction ($r= 0.496$, $p<0.001$). This implies that when there is an improvement in electronic engagement strategy, stakeholder satisfaction will also increase while a decline in the electronic engagement strategy, it will lead to a decline in stakeholder satisfaction. The individual constructs of electronic engagement strategy, further showed that control ($r=0.857$; $p<0.001$) and collaborative ($r=0.922$; $p<0.001$) were positively associated with stakeholder satisfaction. This indicates both control and collaboration in EES should be emphasized.

The relationship between service quality and stakeholder satisfaction

Results in Table 9 above further indicated that there is a strong significant positive relationship between service quality and stakeholder satisfaction ($r= 0.542$, $p<0.001$). This implies that when there are improvements in service quality, stakeholder satisfaction will also increase while a decline in the service quality, will lead to a decline in stakeholder satisfaction. The individual constructs of service quality, further showed that tangibility ($r=0.738$; $p<0.001$), reliability ($r=0.667$; $p<0.001$), responsiveness ($r=0.79$; $p<0.001$), assurance ($r=0.706$; $p<0.001$) and empathy ($r=0.615$; $p<0.001$) were all positively associated with stakeholder satisfaction. This strong positive relationship is an indication of the power of these constructs in ensuring stakeholder satisfaction.

The relationship between electronic engagement strategy and service quality

Results in table 9 above indicate that there is a strong significant positive relationship between electronic engagement strategy and service quality ($r= 0.702$, $p<0.001$). This implies that when there are improvements in Electronic Engagement Strategy, service quality will also increase while a decline in the electronic engagement strategy, will lead to a decline in service quality. The results further show that there is a very strong relationship between

controls and empathy ($r=0.624$; $p<0.001$) and moderate positive relationships between electronic engagement strategy and assurance ($r=0.559$; $p<0.001$) and electronic engagement strategy and empathy ($r=0.666$; $p<0.001$). This means that managers and people looking at stakeholder satisfaction should emphasize assurance, empathy and responsiveness since they strong have a positive relationship on electronic engagement strategy.

4.5.3 Multiple Regression Analysis

In order to answer the fourth objective, multiple regression analysis was conducted to establish the variance in the dependent variables, stakeholder satisfaction caused by each independent variable electronic engagement strategy, as indicated in the conceptual framework. The results in the Table 10 below shows the shows the individual combined impact of the global variables of service quality, electronic engagement strategy and control variables towards Stakeholder satisfaction.

Table 11 Multiple Regression analysis results

Predictors	Regression Statistics					Collinearity Statistics	
	Unstandardized Coefficients (B)	Std Error	Standardized Coefficients (Beta)	t-statistic	P-value	Tolerance	VIF
Electronic engagement strategy	0.278**	0.081	0.227	3.443	0.001	0.507	1.971
Service Quality	0.598**	0.103	0.382	5.793	0.001	0.507	1.971
(Constant)	-0.047	0.276		-0.169	0.866	Durbin Watson	0.736
F-Statistic	72.4**						
R	0.565						
R ²	0.320						
Adjusted R ²	0.315						

Dependent Variable: Stakeholder satisfaction; **Significant at p -value <0.01 ; $N=311$

Results in Table 10 above indicate that the model was well specified and can significantly be used to predict the changes in Stakeholder satisfaction (F -statistic=72.4, p -value <0.001). A significant causal effect between electronic engagement strategy and Stakeholder satisfaction exists that is, a unit change in electronic engagement strategy on average brings about a 0.278 change in Stakeholder satisfaction ($\beta=0.278$, p -value ≤ 0.01). The results further indicate that service quality had the most significant casual effect on Stakeholder satisfaction ($\beta=0.598$, p -value ≤ 0.001), this means that a unit change in service quality on average brings about a

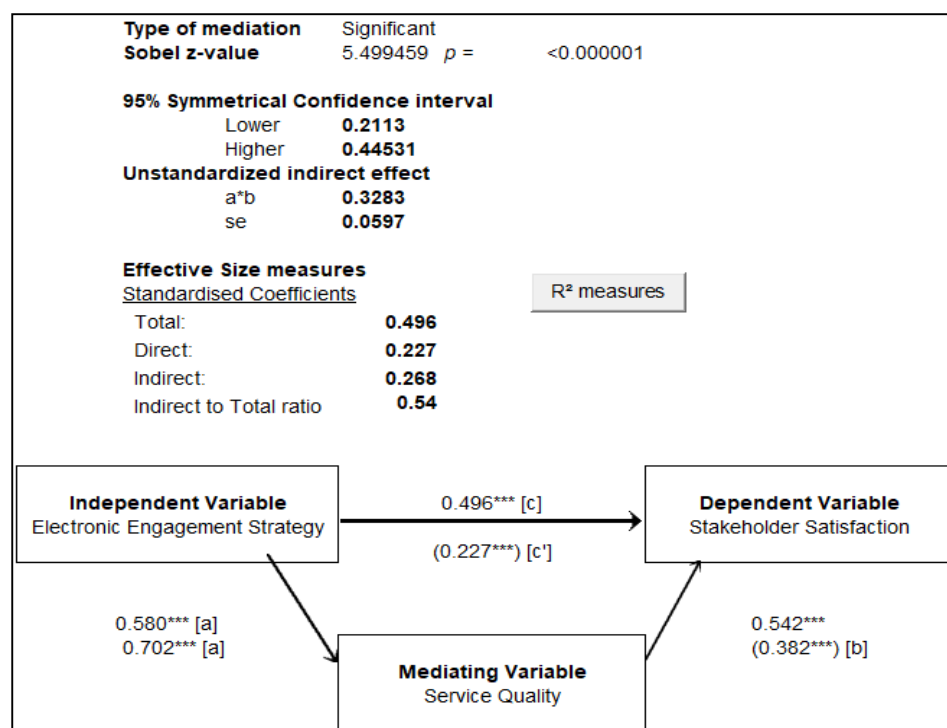
0.598 change in Stakeholder satisfaction. With regard to combined impact, service quality and electronic engagement strategy explain 31.5 percent of the total variation in Stakeholder satisfaction (Adjusted $R^2=0.315$). The values of Variance Inflation Factor (VIF) and Tolerance values are in the recommended thresholds (Tolerance <10 and $VIF>0.1$), which showed that there was no presence of multicollinearity between the independent variables (EES and SQ) the data. To further test the quality of our regression, we assessed the assumption of normality by plotting the residuals to see whether they are normally distributed. Both the normal probability plot and the histogram show no evidence of non-normality. Details Appendix V.

4.5.3 Testing for Mediation effect of Service Quality.

Mediation is believed to occur if the predictor variable accounts for a some variance in the mediator variable which should also account for the variance in the criterion variable. This means that the mediator variable carries the effect of the predictor variable onto the criterion variable. In this study we tested for the significance of the mediating effect of service quality in the relationship between Electronic Engagement Strategy and Stakeholder Satisfaction using the Sobel's test and this was conducted using Jose's Medigraph. According to the results in Fig 3, it was found that service quality mediates the relationship between electronic engagement strategy and Stakeholder Satisfaction (Sobel Z-value=5.5; P-value= <0.001), this supports the hypothesis that service quality mediates the relationship between electronic engagement strategy and Stakeholder Satisfaction. The results in Fig 3 further show that the effect of electronic engagement strategy on Stakeholder Satisfaction reduced from 0.496 to 0.227 due to mediation but still remained significant. This shows that there is a partial mediation. The model indicates that 26.8% of the effect of electronic engagement strategy to Stakeholder Satisfaction is through service quality while 22.7% is the direct effect of Electronic engagement strategy on stakeholder satisfaction. There are suggestions that if the

indirect effect is above 0.5, then it is full mediation. However, the mediation remains partial if the correlation coefficient between the predictor variable and outcome variable reduces but remains significant (Details Figure 3).

Figure 3 *Mediation effect of service quality in the relationship between electronic engagement strategy and Stakeholder Satisfaction.*



4.9 Summary of findings

In summary we can conclude that electronic engagement strategy and service quality are significant factors in predicting stakeholder satisfaction in the road construction industry.

The correlation results indicate that there is a strong positive relationship between service quality and stakeholder satisfaction, significant positive relationship between electronic engagement strategy and service quality and a significant positive relationship between electronic engagement strategy and stakeholder satisfaction. This calls for more emphasis on these variables if optimal stakeholder satisfaction is to be achieved. As for the case of the individual combined impact of the global variables of service quality, electronic engagement strategy and control variables towards Stakeholder satisfaction, multiple regression analysis

results service quality and electronic engagement strategy explain 31.5 percent of the total variation in Stakeholder satisfaction. This as well calls for emphasis on both electronic engagement strategy and service quality so as to achieve stakeholder satisfaction. It should also be noted that there is a mediating effect of service quality between electronic engagement strategy and stakeholder satisfaction.

CHAPTER FIVE

DISCUSSIONS, CONCLUSIONS, AND RECOMMENDATIONS

5.1 Introduction

The focus of this study was centred on investigating the relationship between the electronic engagement strategy, service quality and Stakeholder satisfaction with UNRA road construction projects. This chapter presents the discussion of findings, conclusions and recommendations observed and inferred from the data provided in chapter four in relation to the study objectives. This chapter is divided into five sections; the first section deals with the discussion, the second provides the conclusion, the third captures recommendations, the fourth section limitations and the last section presents suggestions for further research.

5.2 Discussion of Findings

Under this section the discussion of the findings is organized according to study objectives.

5.2.1 The relationship between electronic engagement strategy and stakeholder satisfaction used in UNRA construction projects.

The study revealed that there is a positive relationship between electronic engagement strategy and stakeholder satisfaction. This means that, improvement efforts the electronic engagement strategy have increased stakeholder satisfaction with UNRA products and services. In support of this finding are studies by Jonker & Foster (2002), that an organisation can develop better service quality and satisfaction through an appropriate electronic engagement strategy with its stake holders. In this view, adaptation happens when living within the means and capacity of the organization is attained (Cecilia C. & Kate L. 1995) and where individuals take care of the assets of the organization even when they don't own them. When an organisation takes on the collaborative approach, stakeholder stewardship in this regard will improve as ownership and the careful responsibility in the management of the organisational assets entrusted to one's care takes place (Alan R. 2012). This result is also

consistent with previous research carried out by d'Angella and Go (2009) and Selin and Myers' (1998) that as stakeholder engagement strategy improve, stakeholder satisfaction is bound to improve as well. It should be noted that given the results above, collaborative engagement strategy yields more stakeholder satisfaction. This is witnessed by attributes such as disclosures (Goodenough et al, 2018) where stakeholders are willing to talk positively about the organization to their colleagues instead of badmouthing it (Alex L,2020. Under perceived performance, the organization either meets, surpasses, delights or amazes its stakeholders (Lakshmi, 2021). It is therefore important that an organisation improves its electronic engagement strategy so as to improve on the stakeholder satisfaction and moves from an informative approach to empowerment hence revealing the full nature of engagement.

5.2.2 The relationship between service quality and stakeholder satisfaction.

The study revealed that there is a statistically strong positive relationship between service quality and stakeholder satisfaction. This implies that whenever there are improvements in service quality, stake holders will be satisfied. The study reveals that efforts by UNRA to improve service quality have yielded satisfaction among stakeholders. As quality improves indicators such as tangibility will be visible. This relates to the physical facilities, equipment, personnel, and written materials (Hart and Johnson, 2011). Furthermore, when reliability exists, stakeholders are satisfied since promised service is dependably and accurately delivered (Hart and Johnson, 2011). In agreement with Parasuraman et al, (1998), results in this case reveal that UNRA delivers as promised, provides right quality right the first time and keeps a track record of their services while inspiring trust and confidence among their stakeholders.

5.2.3 The relationship between electronic engagement strategy and Service quality with UNRA construction projects.

The study revealed that there is a significant positive relationship between electronic engagement strategy and service quality. This result means that whenever there is electronic engagement of stakeholders increases, stakeholders' perception of service quality improves. For Uganda National Roads Authority, electronic engagement is an important element of any planned stakeholder engagement strategy as it goes a long way in shaping results related to such interventions, as they would expect service quality to improve with improved electronic engagement strategies. Specifically, it can enable an electronic transaction performance analysis by companies and stakeholders through computer networks (Cronin, 1994; Harrington & Reed, 1996). Furthermore, other studies reveal that engagements are a crucial factor in determining the competitive position in achieving service quality (Amal A., 2015). Additionally, organizations operating within the service sector consider service quality to be a strategic component of their growth plan (Spathiset al., 2014). Therefore, with the right engagement strategy of moving from the informative approach to collaborative and better empowerment, open and improved communication channels lead to improved quality.

5.2.4 The contribution of electronic engagement and service quality to the change in stakeholder satisfaction with UNRA construction projects.

Having carried out a regression analysis on the variables, a significant causal effect between electronic engagement strategy and Stakeholder satisfaction exists that is, a unit change in electronic engagement strategy on average brings about a change in Stakeholder satisfaction .The results further indicate that service quality had the most significant casual effect on Stakeholder satisfaction, this means that a unit change in service quality on average brings about a change in Stakeholder satisfaction.

With regards to combined effect, electronic engagement strategy, service quality, together explained a significant percent of the total variation in Stakeholder satisfaction.

5.2.5 The mediation effect of service quality on the relationship between electronic engagement and stakeholder satisfaction with UNRA construction projects.

The study revealed that service quality partially mediates electronic engagement strategy and stakeholder satisfaction. In the testing for mediation, the results further show that the effect of electronic engagement strategy on Stakeholder Satisfaction reduced due to mediation but still remained significant. This shows that there is a partial mediation. The findings indicate that a bigger part of the effect of electronic engagement strategy on stakeholder satisfaction is channelled through service quality while a smaller part of the effect is the direct effect of electronic engagement strategy on stakeholder satisfaction.

5.3 Conclusion

In conclusion, the results according to the study have proved that when an organization deliberately engages its stakeholders through specific strategies, more so using electronic means, its stakeholders are satisfied. Additionally, when an organization deliberately engages its stakeholders electronically, service quality improves. Furthermore, it should be noted that service quality plays a very important role in stakeholder satisfaction where tangibles, reliability, responsiveness, empathy and assurance yield disclosures, adaptation perceived performance and stewardship. Also, a combined effort of electronic engagement strategy and service quality yields stakeholder satisfaction as per the multi-regression results.

Therefore, as per the study objectives it has been proven through the study that the relationship between electronic engagement strategy and stakeholder satisfaction with UNRA road construction projects exists. The study also confirmed the role of service quality on stakeholder satisfaction as well as establishing the relationship that electronic engagement strategy and service quality. Lastly the study sought to establish the combined contribution of

electronic engagement and service quality to the change in stakeholder satisfaction with UNRA construction projects. As per the study, results concluded that service quality has a moderating effect on electronic engagement and stakeholder satisfaction.

5.4 Recommendations

Based on the above conclusions, the researcher would like to put forward the following recommendations.

The study revealed that there is a positive relationship between electronic engagement strategy and stakeholder satisfaction. This implies that improved electronic engagement strategies leads to improved stakeholder satisfaction hence it is recommended that managers and policy makers should aim to adopt the collaborative strategy by informing and exchanging ideas with stakeholders timely and consistently so as to improve on stakeholder satisfaction. UNRA in this case should carry out electronic engagements in various forms from online platforms, television, radios and other digital platforms. This is in response to UNRA's persistent challenge of stakeholder's dissatisfaction in its course of service delivery as well as persistent compensation complaints by PAPs. The collaborative engagement strategy more so using the electronic approach should be the way to go. This will facilitate stakeholders in obtaining and as well offering of information to the organisation. In view of the results, UNRA mostly uses the collaboration strategy to a bigger extent when sharing information to its stakeholders. This is done given the various means of sharing like radio talk shows, Television programmes, as well as the website where access to information is readily available. Given the ranking from 1-5, where 1 represented Strongly disagree, 2 representing Disagree, 3 Not Sure, 4 Agree, and 5 representing Strongly Agree, the average score based on the findings, achieved a grand mean of 3.82 which is close to rank 4 which is Agree. This result of 3.82 indicates that the respondents agree that the organisation shares information with its stakeholders as well as enabling stakeholder to exchange ideas with the

organisation. It should also be noted that studies on electronic engagement strategy and stakeholder satisfaction in the public sector are still limited to inform policy and management in public service delivery in developing countries Uganda inclusive. However as per this study, there is no one single perfect approach to Electronic Engagement Strategy. An organisation should practice both control and collaboration in engaging stakeholders electronically, although the magnitude exercised of each approach may vary from one organisation to another. From the study if Control was the perfect electronic engagement strategy, the mean would be 3.0 and below. Likewise, if results indicated a mean above 4, then most likely UNRA would have a perfect approach to collaborative electronic engagement strategy. Given UNRA's background and challenges, the collaboration approach to electronic engagement strategy is more evident since a lot of information is shared multi-directionally across a range of electronic means. This means in many directions to and from, with feedback mechanisms unlike the control approach where information is unidirectional i.e., from the organisation to the stakeholders. This is evident in the statistics where results of electronic engagement strategy and stakeholder satisfaction revealed a positive relationship. As one of the objectives of the study, the relationship between service quality and stakeholder satisfaction was analysed and the study revealed that there is a statistically significant positive relationship between service quality and stakeholder satisfaction. UNRA should therefore continue the efforts to improve on its service quality since an increase in quality increases stakeholder satisfaction by ensuring the use of up-to-date equipment, ensuring that the roads and structures are appealing as well as providing prompt service existence of tangible items that are reliable.

As part of the study, it was an aim to establish the relationship between electronic engagement strategy and service quality with UNRA road construction projects. A positive relationship was established meaning that an increase in stakeholder engagement strategy

causes an increase in service quality. Managers and policy makers should put in place measures to ensure that the electronic engagement strategy is improved and incorporated if not in place through the use of social media platforms, engagement in radio and television talk shows while catering for feedback. Furthermore, a combined effort to improve both electronic engagement strategy and service quality significantly improves stakeholder satisfaction through improvement of engagement channels to cater for feedback systems while ensuring that these systems are reliable, and can offer assurance to stakeholders.

The mediating effect of service quality to the relationship between electronic engagement strategy and stakeholder satisfaction shows that service quality is very key while handling engagements as stakeholders are satisfied based on the on the quality of engagements.

5.5 Areas for further study

Basing on the study findings and gaps in knowledge, further studies are recommended in the following areas;

Further studies may be done on factors affecting stakeholder satisfaction other than electronic engagement strategy and service quality. This is because during the study, it was discovered that there are other factors affecting stakeholder satisfaction given the fact that the findings reveal that electronic engagement strategy and service quality together only explain 31% of the variance in stakeholder satisfaction.

There is also need for further research on stakeholder satisfaction with road upgrade projects, their challenges, success factors and their effects on PAPs.

Finally, it should be noted that the project characteristics were standardized during the sample selection. All the projects in the sample were ongoing road construction projects in the central region. Thus, no other project characteristics were considered in this study. However, it is recommended that future studies could bring out such characteristics and the variance they may cause in the dependent variable can also be tested.

5.6 Limitations of the study

The researcher faced the following limitations while conducting this research;

Some articles were not easily accessed in the process of downloading them as some of them were personalized and commercialised hence inaccessible. Non-response by some target respondents hampered the research as some employees failed to give some of the required data on either confidentiality grounds or suspicion issues. It should also be noted that some respondents were rude and hence did not want to have anything to do with the questionnaires. Network challenges were also experienced while administering the questionnaire online. Some of the questionnaires were sent through an online portal for data collection. At first some sites on loading data required a lot of money which was beyond the researcher's budget. It took long for the researcher to get a portal that was affordable. Some respondents wanted their data costs to be met by the researcher in order to respond to the online questionnaire.

6.0 REFERENCES

- Abdul Hak, Ade & Silvana, Tine & Rusmana, Agus & Muhtadi, Asep. (2018). *Using Electronic Media and Problems of Prophetic Communication Behavior at UIN Syarif Hidayatullah Jakarta*
- Akram, Muhammad & Malhotra, Neeru & Goraya, Muhammad & Shareef, Mahmud & Malik, Aneela & Lal, Banita. (2022). *User engagement on global social networks: Examining the roles of perceived brand globalness, identification and global identity. Technological Forecasting and Social Change*
- Alan R. (2012), *Using Psychological Ownership to Enhance Stewardship Behavior for Public Goods*
- Alex B. & Claire E., (2008)., *Understanding Customer Relationships*.
- Alexander C. (1985), How important are stakeholder relationships?
- Alhawary, S. & AL-SMERAN, W., (2017). *Impact of Electronic Service Quality on Customers Satisfaction of Islamic Banks in Jordan*.
- Amal A.,(2015)., *The Role Of Engagement On Stakeholder's Satisfaction With The Destination Marketing Organization's Performance*.
- Amin, M.E (2004). *Statistical inference for social science research*. Kampala, Makerere University.
- Anees-ur-Rehman, M., Wong, H.Y., Sultan, P. and Merrilees, B. (2018), "How brand-oriented strategy affects the financial performance of B2B SMEs", *Journal of Business & Industrial Marketing*
- Asikhia, Professor. (2009). *The Moderating Role of E-Marketing on the Consequences of Market Orientation in Nigerian Firms. International Journal of Business Information Systems*. 4. 243-269.
- Auditor General (2016,2017,2018), *Annual report*.
- Azman ISMAIL & Mohd Ridwan ABD RAZAK, (2016). "Effect Of Job Satisfaction On Organizational Commitment," *Management and Marketing Journal, University of Craiova, Faculty of Economics and Business Administration*.
- B. Cronin, K. Overfelt, K. Fouchereaux, T. Manzvanzvike, M. Cha, E. Sona. (1994),*The internet and competitive intelligence: A survey of current practice, International Journal of Information Management*.

- Babur H., (2018), *Evaluating Citizen E-Satisfaction From E-Government Services*.
- Baron & Kenny, (1986), *The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations*.
- Baumöl, U., Hollebeek, L. & Jung, R. Dynamics of customer interaction on social media platforms. *Electron Markets*
- Bettencourt, L. and Gwinner, K., (1996), *Customization of the Service Experience: The Role of the Frontline Employee*. International Journal of Services Industry Management.
- Boivin, A., L'Espérance, A., Gauvin, F.-P., Dumez, V., Macaulay, A. C., Lehoux, P., Abelson, J. (2018). *Patient and public engagement in research and health system decision making: A systematic review of evaluation tools*.
- Booher, David & Innes, Judith. (2003). *The Impact of Collaborative Planning on Governance Capacity*.
- Bourne, Lynda. (2016). *Targeted Communication: The Key to Effective Stakeholder Engagement*.
- Brodie, Roderick & Winklhofer, Heidi & Coviello, Nicole & Johnston, Wesley. (2007). *Is e-marketing coming of age? An examination of the penetration of e-marketing and firm performance*
- Byrne, M. (2019). *Increasing the impact of behaviour change intervention research: Is there a role for stakeholder engagement?*
- C. Lewis and B. Booms, (1983). “*The Marketing Aspects of Service Quality*,” In: Berry, L.L., Shostack, G. and Upah, G., Eds., *Emerging Perspectives in Service Marketing*
- Caputo, Francesco & Giudice, Manlio & Evangelista, Federica & Russo, Giuseppe. (2016). *Corporate disclosure and intellectual capital: The light side of information asymmetry*
- Carmines, E. G., & Zeller, R. A. (1979). *Reliability and validity assessment*.
- Carol A. Adams, Geoffrey R. Frost, (2006). *The internet change in corporate stakeholder engagement and communication strategies on social and environmental performance*.
- Castelnovo, Walter. (2013). *A stakeholder-based approach to Public Value*.

- Cayton H. (2004). *Patient and public involvement. Journal of Health Services Research & Policy.*
- Chaffey, D. and Smith, P.R. (2013). *E-Marketing Excellence: Planning and Optimizing Your Digital Marketing*
- Chaffey, Ellis-Chadwick, Mayer, and Johnston (2010). *Digital Marketing strategies*
- Chen, P. (2007). *Electronic Engagement: A Guide for Public Sector Managers.* ANU Press.
- Chi, C.G.-Q. and Qu, H. (2008). *Examining the Structural Relationships of Destination Image, Tourist Satisfaction and Destination Loyalty: An Integrated Approach. Tourism Management, 29, 624-636*
- Choudhury, Musfiq & Harrigan, Paul. (2014). *Customer Relationship Management: The integration of new technologies into customer relationship management.*
- Collis, Bane, & Bradley (1997). *New Service Development: Creating Memorable Experiences*
- Creswell, J. (2015). *Research Design: Qualitative, Quantitative and Mixed Methods Approaches.* Pearson Education Inc.
- Cronin Jr, J. J., Smith, J. S., Gleim, M. R., Ramirez, E., & Martinez, J. D. (2011). *Green marketing strategies: an examination of stakeholders and the opportunities they present. Journal of the Academy of Marketing Science, 39(1), 158-174*
- Dabholkar, Pratibha & Sheng, Xiaojing. (2012). *Consumer participation in using online recommendation agents: Effects on satisfaction, trust, and purchase intentions.*
- Delloit (2008/9). *Leadership and innovation in turbulent times. Sustainability Report*
- Durham E., Baker H., Smith M., Moore E. & Morgan V. (2014). *The Stakeholder Engagement Handbook. BiodivERsA, Paris (108 pp).*
- Dyer, Jeffrey & Singh, Harbir. (1998). *The Relational View: Cooperative Strategy and Sources of Interorganizational Competitive Advantage*
- Faraj Aldaihani, F.M., Bin Ali, N.A. (2018). *Effect of Electronic Customer Relationship Management on Electronic Service Quality Provided by the Commercial Banks in Kuwait, International Journal of Academic Research in Accounting, Finance and Management Sciences 8 (2): 143-154. <http://dx.doi.org/10.6007/IJARAFMS/v8-i2/4239>*
- Flagestad R. (2011). *Successful stakeholder management*
- Freeman, R.E., (1984): *Strategic Management: A Stakeholder Approach*, Boston, Pitman.

- FROOMAN, JEFF & Murrell, Audrey. (1999). *Stakeholder influence strategies*.
- Gaber, John. (2019). Building “*A Ladder of Citizen Participation*”: Sherry Arnstein, *Citizen Participation, and Model Cities*. *Journal of the American Planning Association*.
- Gene R. and Gammack G.(2004) *Electronic engagement Promise and perils of electronic public engagement*.
- Genovate, Maria Cecilia & Madrigal, D.V.. (2021). *Assessing Stakeholders' Satisfaction of a Catholic University Graduate School in the Philippines*. *Philippine Social Science*.
- Gerard F. Fiala (1999). *Reliability, Validity, and Comparability*
- Ghazali E., Nguyen B., Mutum D. S., Mohd-Any A. A. (2016). *Constructing online switching barriers: examining the effects of switching costs and alternative attractiveness on e-store loyalty in online pure-play retailers*
- Gilmore, A., Gallagher, D. and Henry, S. (2007) *E-marketing and SMEs: Operational Lessons for the Future*.
- Greenberg, Mark & Weissberg, Roger & O'Brien, Mary & Zins, Joseph & Fredericks, Linda & Resnik, Hank & Elias, Maurice. (2003). *Enhancing School-Based Prevention and Youth Development Through Coordinated Social, Emotional, and Academic Learning*.
- Gummerus, J., Liljander, V., Weman, E. and Pihlstrom, E. (2012) *Customer Engagement in a Facebook Brand Community*. *Management Research Review*.
- Haddon, Leslie (2011). *Domestication analysis, objects of study, and the centrality of technologies in everyday life*.
- Hanna et al. (2011), *Dynamics of customer interaction on social media platforms*
- Head, Brian. (2007). *Community Engagement: Participation on Whose Terms?*
- Henry H. & McCladdie Jr., (2017)., *A Case Study Focused on the Level of Satisfaction of Select Stakeholders*.
- Hilman, A.J., Keim, G.D., (2001), *Shareholder value, stakeholder management and social issues: Whats´ s the bottom line?* *Strategic Management Journal*, 22, 125-139.
- Hollebeek, Linda & Chen, Tom. (2014). *Exploring Positively-vs. Negatively-Valenced Brand Engagement*.
- http://www.scielo.org.za/scielo.php?script=sci_arttext&pid=S2077-72132021000200006

International Finance Corporation, *Stakeholder Engagement: A Good Practice Handbook for Companies Doing Business in Emerging Markets* (International Finance Corporation, Washington, DC, 2007).

January (2013), *The Importance of Stakeholder Engagement in Managing Corporate Reputations* *International Journal of Innovation and Sustainable Development*.

Jersone Tasso Moreira Silva, Luiz Antonio Antunes Teixeira, Karenina de Castro Tavares Senem Cruz, & Hugo Ferreira Braga. (2012). *service quality measurement of a beverage distributor company in the state of Minas Gerais*.

Jin Young Chung jchung@uwlax.edu & James F. Petrick (2013) *Measuring Attribute-Specific and Overall Satisfaction with Destination Experience, Asia Pacific*.

Johns Hopkins University (2015). *Service Quality and Customer Satisfaction, the SERVQUAL Model*.

Jones Thomas O., and Sasser W. Earl (1995), “*Why Satisfied Customers Defect,*” *Harvard Business Review*

Jonker, Jan & Foster, David. (2002). *Stakeholder excellence? Framing the evolution and complexity of a stakeholder perspective of the firm. Corporate Social Responsibility and Environmental Management*

Kaplan, A. M., & Haenlein, M. (2010). *Users of the world, unite! The challenges and opportunities of social media*.

Katsonis, Maria & Botros, Andrew. (2015). *Digital Government: A Primer and Professional Perspectives*.

Kular, Sandeep & Gatenby, Mark & Rees, Chris & Soane, Emma & Bailey, Catherine. (2008). *Employee Engagement*

Küpper, Torben & Jung, Reinhard & Lehmkuhl, Tobias & Wieneke, Alexander. (2014). *Features for Social customer relationship management, technology – An Organizational Perspective*.

Lars Groeger, Lara Moroko & Linda D. Hollebeek (2016) *Capturing value from non-paying consumers’ engagement behaviours: field evidence and development of a theoretical model*,

Laudon, Kenneth & Laudon, Jane & Elragal, Ahmed. (2013). *Management Information Systems: Managing the Digital Firm*

Lee, O.F. and Meuter, M.L. (2010), “*The adoption of technology orientation in healthcare delivery: Case study of a large-scale hospital and healthcare system's electronic*

health record", International Journal of Pharmaceutical and Healthcare Marketing

- lhawary, Sulieman & AL-SMERAN, Warda. (2017). *Impact of Electronic Service Quality on Customers Satisfaction of Islamic Banks in Jordan*.
- Loah, S. H. W., & Mulyadi, R. (2021b). *Pengaruh E-Service Quality Terhadap E Satisfaction pada Pengguna Aplikasi. Jurnal Sosial Dan Sains*
- Luna-Reyes, Luis & Gil-Garcia, J. Ramon. (2014). *Digital government transformation and internet portals: The co-evolution of technology, organizations, and institutions*.
- Luoma-aho, V. (2015). *Understanding Stakeholder Engagement: Faith-holders, Hateholders & Fakeholders*.
- Madichie, Nnamdi & Al Athmay, Alaa Aldin. (2013). *An initial assessment of e-governance and public sector marketing in the UAE. Int. J. of Business and Emerging Markets*
- Malthouse, E. C., Haenlein, M., Skiera, B., Wege, E., & Zhang, M. (2013). *Managing customer relationships in the social media era: introducing the social customer Relationship Mmanagement*.
- Mattacks, K. (2011). *Strategy in Practice*.
- Merisavo, M. and Raulas, M. (2004)., *The Impact of E-Mail Marketing on Brand Loyalty. Journal of Product and Brand Management*.
- Michael E. Porter (2008). *The five competitive forces that shape strategy*
- Miles, Morgan & Harrigan, Paul. (2014). *From e-CRM to s-CRM. Critical factors underpinning the social CRM activities of SMEs*.
- Miniace, J.N. and Falter, E. (1996), *"Communication: A key factor in strategy implementation*
- Mugenda, O.M. and Mugenda, A.G. (2003). *Research Methods, Quantitative and Qualitative Approaches*
- Munnukka, Juha & Järvi, Pentti. (2013). *Perceived risks and risk management of social media in an organizational context. Electronic Markets*.
- Mutula, S. (2012), *"E-Government Implementation Strategies and Best Practices: Implications for Sub-Saharan Africa"*.
- Neil J.,(2009)., *Stakeholder Engagement: A Road Map to Meaningful Engagement*.

- Parasuraman, A Parsu & Zeithaml, Valarie & Berry, Leonard. (1985). *A Conceptual Model of Service Quality and its Implication for Future Research (SERVQUAL)*.
- Parasuraman, A. (2000), *Technology Readiness Index (TRI): A Multiple-Item Scale to Measure Readiness to Embrace New Technologies*.
- Pauley, (2015). *What does the term 'Online Engagement' mean to your Construction Business?*
- Payne, A., & Frow, P. (2013). *Developing superior value propositions: A strategic marketing perspective. Industrial Marketing Management*
- Peter O., Florence T., (2015). *The role of engagement on stakeholder's satisfaction with the destination marketing organization's performance*.
- Priyo, J.S. & Mohamad, Bahtiar & Adetunji, Raji. (2019). *An examination of the effects of service quality and customer satisfaction on customer loyalty in the hotel industry. International Journal of Supply Chain Management*.
- Radhakrishnan, Lakshmi & Nair, Kiran. (2019). *Role of Leadership and Stakeholder Engagement in Creating Human Capital*
- Rhonda N. . Nese, Paul Meng, Sarah Breiner, Erin Chaparro & Robert Algozzine (2020) *Using stakeholder feedback to improve online professional development opportunities*.
- Ronán M. Conroy. (2016). *Sample size handbook A rough guide*
- Rosa , Gonzalez. (2018). *The Spectrum of Community Engagement to Ownership*
- Rowe, Gene & Gammack, John. (2004). *Promise and perils of electronic public engagement*.
- Rust, Roland & Oliver, Richard. (2000). *Should We Delight the Customer? Journal of the Academy of Marketing Science*.
- Sarquis, Aléssio & Hoeckesfeld, Lenoir & Favretto, Jacir & Cohen, Eric. (2019). *An analysis of the international scientific production on contemporary marketing practices*.
- Sashi, C.M.. (2012). *Customer engagement, buyer-seller relationships, and social media. Management Decision*.
- Sasser, S., Kilgour, M. and Hollebeek, L.D. (2014), "Marketing in an interactive world: the evolving nature of communication processes using social media.
- Sebina, Peter & Moahi, Kgomotso & Bwalya, Kelvin Joseph & Mutula, Stephen & Olasina, Gbolahan. (2014). *E-Government Strategies in Sub-Saharan Africa: Failures and Successes*

- Selin, S.W., & Myers, N.A. (1998). *Tourism Marketing Alliances: Member Satisfaction and Effectiveness Attributes of a Regional Initiative*. *Journal of Travel & Tourism Marketing*.
- Severgnini, Elizandra & Galdamez, Edwin & de Oliveira Moraes, Romildo. (2017). *Satisfaction And Contribution of Stakeholders from The Performance Prism.Model*. *Brazilian Business Review BBR*. 15. 10.15728/bbr.2018.15.2.2.
- Shorouk Mohamed Farag, Mohamed Aboudahr, Mua'azam Bin Mohamad (2018). *Strategic Leadership as a Mediating Variable between Organizational Climate and Quality Improvement in Higher Education*
- Skinner, C. (2010), "Innovation in the internet age", *Business Strategy Series*,
- Sloan, Pamela. (2009). *Redefining Stakeholder Engagement*. *Journal of Corporate Citizenship*.
- Soares, João & Limongi, Ricardo & Cohen, Eric. (2021). *Engagement in a social media: an analysis in higher education institutions*. *Online Information Review*.
- Sonnenwald, Diane. (2006). *Challenges in Sharing Information Effectively*
- Stafford N. & Wells, (2016). *Enhancing quality*
- Strong, K.C., Ringer, R.C. & Taylor, S.A. (2001). *The Rules of Stakeholder Satisfaction (Timeless, Honesty, Empathy)*. *Journal of Business Ethics*, 32, 219-230.
- Thakur & Singh, (2013), *Customer engagement and online reviews*
- OAG (2016) .*The Commission of Inquiry into UNRA report*.
- UNRA Annual Performance (2016), *Annual report*.
- UNRA,(2019/21,2020/21), *Annual Performance Report*.
- URF,(2019/21), *Annual Performance Report*.
- Videira, Nuno & Antunes, Paula & Santos, Rui & Lobo, Gonçalo. (2006). *Public and stakeholder participation in European water policy*
- Vilma L.,(2015), *Understanding Stakeholder Engagement: Faith-holders, Hateholders & Fakeholders*.
- Wilson, Philip & Rogers, W. & Rodgers, Wendy & Wild, T Cameron. (2006). *The Psychological Need Satisfaction in Exercise Scale*. *Journal of Sport and Exercise Psychology*.
- Yadav S., & Singh S., (2012), *Financial Management practices*.

- Yadav, Nikita & Singh, V.. (2013). *E-Governance: Past, Present and Future in India*.
International Journal of Computer Applications.
- Yap, Ching Seng & Ahmad, Rizal & Newaz, Farhana & Mason, Cordelia. (2021).
Continuous Use and Extended Use of E-Government Portals in Malaysia.

Appendix i

Table 12 Table Showing Completed and ongoing projects

Projects 2008 – 2020					
No	Projects	Km	Type	PAPs	Region
1	Access to Kajansi Airstrip	1.6	Low Volume roads	5	Central
2	Busega-Mpigi Expressway Interchanges, link roads and review of main	25	Upgrade	1,933	Central
3	Busunju – Kiboga - Hoima	150	Rehabilitation	4,981	Central
4	Bwaise – Kawempe	13	Upgrade	-	Central
5	Isimba Dam Access Roads	8	Upgrade	-	Central
6	Kampala – Gayaza	14.2	All Rehab Projects	54	Central
7	Kampala – Masaka	130	All Rehab Projects	90	Central
8	Kampala – Mukono	17.7	All Rehab Projects	129	Central
9	Kampala Entebbe Expressway	51	All Upgrade Projects	4,600	Central
10	Kampala Flyover	5	All Upgrade Projects	30	Central
11	Kampala Northern Bypass I	21	All Upgrade Projects	889	Central
12	Kampala Northern Bypass II	18.6	All Upgrade Projects	701	Central
13	Kampala Southern by-pass	18	Expressways	143	Central
14	Kampala-Bombo Expressway	35	Expressways	1,647	Central
15	Kampala-Jinja (77km)	77	Only Design	7,340	Central
16	Kampala-Jinja Expressway	77	Expressways	490	Central
17	Kibuye-Busega-Mpigi - Dualling	33	All Upgrade Projects	2,546	Central
18	Kira – Kasangati - Matugga	16	Only Design	-	Central
19	Kireka - Namugongo Road (7Km)	7	All Rehab Projects	-	Central
20	Kitala – Gerenge (8Km)	8	All Upgrade Projects	1,042	Central
21	Kyaliwajala – Kira road (3.5Km)	3.5	All Upgrade Projects	-	Central
22	Kyotera – Rakai	20	Only Design	578	Central
23	Lugazi - Buikwe - Kiyindi	28	Only Design	67	Central
24	Lugazi – Njeru	30.1	All Rehab Projects	-	Central
25	Masaka – Mbarara	154	All Rehab Projects	952	Central
26	Masaka- Kyotera - Mutukula	80	Rehabilitation	745	Central
27	Masaka Town Roads	7.3	Rehabilitation	-	Central
28	Masaka-Bukakata	41	Upgrade projects: Completed and Ongoing	1,501	Central
29	Masaka-Kyotera-Mutukula	90	Rehabilitation	1,176	Central
30	Matugga – Semuto – Kapeeka	41.4	All Upgrade Projects	1,267	Central
31	Mbuya/SilverSprings-Kireka	4.6	All Upgrade Projects	-	Central
32	Migeera Kafu (22km)	22	Rehabilitation	-	Central
33	Mityana - Mubende (86km)	86	Rehabilitation	1,001	Central
34	Mityana Railway Access	2	Low Volume roads	-	Central

35	Mityana-Misigi-Kanoni	37.2	Only Design	78	Central
36	Mpigi - Kasanje – Buwaya	20.5	Low Volume roads	-	Central
37	Mpigi town roads, Butambala and Gomba selected	20	Upgrade projects: Completed and Ongoing	-	Central
38	Mpigi-Kanoni	65	All Upgrade Projects	6,930	Central
39	Mukono – Jinja	54	All Rehab Projects	-	Central
40	Mukono – Kalagi –Kayunga and Bukoloto –Njeru Roads	92.5	Rehabilitation Projects: Completed and Ongoing	79	Central
41	Mukono-Kyetume-Katosi/Kisoga- Nyenga	74	All Upgrade Projects	6,019	Central
42	Naalya – Kyaliwajala Road (2.5Km)	2.5	All Upgrade Projects	-	Central
43	Najanankumbi - Busabala - Kazi	12	Only Design	-	Central
44	New Nile Bridge	1	Upgrade projects: Completed and Ongoing	80	Central
45	Nyendo - Villa Maria	10.1	All Rehab Projects	17	Central
46	Seeta – Namugongo Road (7.2Km)	7.2	All Upgrade Projects	7	Central
47	Shrine Access Roads (1.8Km)	1.8	Upgrade projects: Completed and Ongoing	3	Central
48	Silver Springs - Bweyogerere Road (8Km)	8	All Rehab Projects	-	Central

Source: UNRA performance Report 2020.

Table 13 Determining Sample Size Krejcie and Morgan table 1970

Appendix ii:

<i>N</i>	<i>S</i>	<i>N</i>	<i>S</i>	<i>N</i>	<i>S</i>
10	10	220	140	1200	291
15	14	230	144	1300	297
20	19	240	148	1400	302
25	24	250	152	1500	306
30	28	260	155	1600	310
35	32	270	159	1700	313
40	36	280	162	1800	317
45	40	290	165	1900	320
50	44	300	169	2000	322
55	48	320	175	2200	327
60	52	340	181	2400	331
65	56	360	186	2600	335
70	59	380	191	2800	338
75	63	400	196	3000	341
80	66	420	201	3500	346
85	70	440	205	4000	351
90	73	460	210	4500	354
95	76	480	214	5000	357
100	80	500	217	6000	361
110	86	550	226	7000	364
120	92	600	234	8000	367
130	97	650	242	9000	368
140	103	700	248	10000	370
150	108	750	254	15000	375
160	113	800	260	20000	377
170	118	850	265	30000	379
180	123	900	269	40000	380
190	127	950	274	50000	381
200	132	1000	278	75000	382
210	136	1100	285	100000	384

Note.—*N* is population size. *S* is sample size.

Source: Krejcie & Morgan, 1970

Appendix iii



MAKERERE UNIVERSITY BUSINESS SCHOOL QUESTIONNAIRE FOR INTERNAL STAKEHOLDERS

Dear respondent,

I am James Niyibizi, a student of Makerere University Business School. I am undertaking a study on “*Electronic Engagement strategy, Service quality and stakeholder Satisfaction with Uganda National Roads Authority (UNRA) Construction Projects*”. The information you will provide for this study is purely for academic purposes. All responses will be treated with the utmost confidentiality.

SECTION A: Background Information of the Respondent

Please **TICK** as appropriate

1. **Your gender:** Male ☐ Female ☐

2. **Your age group**

18-24	25-29	30-34	35-39	40 & above
☐	☐	☐	☐	☐

3. **Your level of Formal Education**

Primary	Secondary	Tertiary Education	Bachelor's degree	Masters	PhD
☐	☐	☐	☐	☐	☐

4. Your marital Status

Single	Married	Divorced

5. How often do you engage with stakeholders in a month?

Daily	Weekly	Bi weekly	Monthly	Bi Monthly	Rarely

SECTION B: ELECTRONIC ENGAGEMENT STRATEGY

Please indicate by ticking in the appropriate box the extent to which you agree / disagree with the following statements using the scale in the brackets; **(1= Strongly Disagree; 2= Disagree; 3= Not sure; 4= Agree; 5= Strongly Agree)**

Electronic Engagement Strategy						
CODE	ITEM	SD	D	NS	A	SA
Control						
EECT 01	If stakeholders are involved with UNRA they pose a risk if information is electronically shared.	1	2	3	4	5
EECT 02	The interaction with stakeholders across a range of social networks is limited	1	2	3	4	5
EECT 03	UNRA determines which information is shared electronically	1	2	3	4	5
EECT 04	Stakeholders are not consulted electronically in our decision-making process	1	2	3	4	5
Collaborative						
EECB 01	We use electronic engagement tools to receive	1	2	3	4	5

	stakeholders' inquiries and queries in regard to UNRA projects					
EECB 02	We frequently use electronic engagement tools to engage stakeholders on any matters of their interest.	1	2	3	4	5
EECB 03	Stakeholders are empowered through social media and other electronic means to make contributions to the running of UNRA road projects.	1	2	3	4	5
EECB 04	Stakeholders are electronically informed of UNRA's new projects before their implementation	1	2	3	4	5
EECB 05	The organization responds adequately to stakeholder requests using electronic tools.	1	2	3	4	5
EECB 06	We electronically receive stakeholder proposals in relation to ongoing road construction projects	1	2	3	4	5
EECB 07	Stakeholders are updated and informed of any changes in UNRA project implementation electronically	1	2	3	4	5
EECB 08	Our key stakeholders are consulted electronically before decisions are made.	1	2	3	4	5

SECTION C: SERVICE QUALITY

Please indicate by ticking in the appropriate box the extent to which you agree / disagree with the statements using the scale in the brackets; **(1= Strongly Disagree (SD=1); Disagree (D=2); 3= Not sure; 4= Agree; 5= Strongly Agree)**

Service quality						
CODE	ITEM	S	D	NS	A	SA
		D				

Tangibility						
SQTA 01	UNRA has up to date equipment for use in its projects implementation	1	2	3	4	5
SQTA 02	The designs of UNRA roads, bridges & structures are physically appealing	1	2	3	4	5
SQTA 03	UNRA employees are always neat and smartly dressed in uniforms.	1	2	3	4	5
SQTA 04	UNRA structures, roads and bridges are always clean	1	2	3	4	5
SQTA 05	UNRA provides its stakeholders with quality and durable roads	1	2	3	4	5
Reliability						
SQRB 01	When UNRA promises on a project, they deliver as promised	1	2	3	4	5
SQRB 02	UNRA shows sincere interest in solving stakeholder problems	1	2	3	4	5
SQRB 03	UNRA provides services right the first time	1	2	3	4	5
SQRB 04	UNRA keeps their project records accurately	1	2	3	4	5
Responsiveness						
SQRP01	UNRA employees make information easily obtainable by stakeholders	1	2	3	4	5
SQRP02	UNRA Staff provide prompt services to stakeholders	1	2	3	4	5
SQRP03	UNRA Employees are always willing to help stakeholders	1	2	3	4	5

SQRP04	UNRA Employees are never too busy to respond to stakeholder requests electronically	1	2	3	4	5
Assurance						
SQAS01	Users feel safe when using projects completed by UNRA	1	2	3	4	5
SQAS02	The behavior and character of UNRA employees instills confidence in stakeholders	1	2	3	4	5
SQAS03	stakeholders feel safe in their transactions with UNRA	1	2	3	4	5
SQAS04	UNRA employees are polite to stakeholders	1	2	3	4	5
SQAS05	UNRA Employees are knowledgeable while answering stakeholder concerns	1	2	3	4	5
Empathy						
SQEP01	UNRA gives stakeholders individual attention	1	2	3	4	5
SQEP02	UNRA employees offer personalized services to stakeholders	1	2	3	4	5
SQEP03	UNRA has their stakeholder interests at heart	1	2	3	4	5
SQEP04	UNRA understands the specific needs of their stakeholders	1	2	3	4	5



MAKERERE UNIVERSITY BUSINESS SCHOOL

QUESTIONNAIRE FOR STAKEHOLDERS

Dear respondent,

I am James Niyibizi, a student of Makerere University Business School. I am undertaking a study on “*Electronic Engagement strategy, Service quality and stakeholder Satisfaction with Uganda National Roads Authority (UNRA) Construction Projects*”. The information you will provide for this study is purely for academic purposes. All responses will be treated with the utmost confidentiality.

SECTION A: Background Information of the Respondent

Please **TICK** as appropriate

6. Your gender: Male ☐ Female ☐

7. Your age group

18-24	25-29	30-34	35-39	40 & above
☐	☐	☐	☐	☐

8. Your level of Formal Education

No Education	Primary	Secondary	Tertiary Education	Bachelor's degree	Master's	PhD
☐	☐	☐	☐	☐	☐	☐

9. Your marital Status

Single	Married	Divorced

10. How often do you engage with UNRA employees and their representatives?

Daily	Weekly	Bi weekly	Monthly	Bi Monthly	Rarely

SECTION B: ELECTRONIC ENGAGEMENT

Please indicate by ticking in the appropriate box the extent to which you agree / disagree with the following statements using the scale in the brackets; **(1= Strongly Disagree; 2= Disagree; 3= Not sure; 4= Agree; 5= Strongly Agree)**

Electronic Engagement Strategy						
CODE	ITEM	SD	D	NS	A	SA
Control						
EECT 01	If stakeholders are involved electronically with UNRA, they pose a risk to the organization.	1	2	3	4	5
EECT 02	My interaction with UNRA across social networks is limited.	1	2	3	4	5
EECT 03	UNRA determines which information is share with public through electronic and social media means.	1	2	3	4	5
EECT 04	We the stakeholders are rarely involved in UNRA decision making process through electronic or social media means	1	2	3	4	5
Collaborative						

EECB 01	UNRA uses electronic engagement tools to involve us in its projects.	1	2	3	4	5
EECB 02	We are empowered to make contributions on UNRA road projects.	1	2	3	4	5
EECB 03	We are electronically informed of UNRA projects before implementation	1	2	3	4	5
EECB 04	UNRA responds adequately to our requests using electronic tools.	1	2	3	4	5
EECB 05	Our proposals through electronic channels to UNRA in relation to their projects are implemented.	1	2	3	4	5
EECB 06	We can send and receive information from the UNRA electronically	1	2	3	4	5
EECB 07	We are consulted by UNRA electronically before decisions are made.	1	2	3	4	5

SECTION C: SERVICE QUALITY

Please indicate by ticking in the appropriate box the extent to which you agree / disagree with the statements using the scale in the brackets; **(1= Strongly Disagree (SD=1); Disagree (D=2); 3= Not sure; 4= Agree; 5= Strongly Agree)**

Service quality						
CODE	ITEM	S D	D	NS	A	SA
Tangibility						
SQTA 01	UNRA has up to date equipment for use	1	2	3	4	5

SQTA 02	The design of UNRA roads, bridges & structures are physically appealing	1	2	3	4	5
SQTA 03	UNRA employees are always neat and smartly dressed in uniform	1	2	3	4	5
SQTA 04	UNRA structures, roads and bridges are always clean	1	2	3	4	5
SQTA 05	UNRA provides its stakeholders with quality roads	1	2	3	4	5
Reliability						
SQRB 01	When UNRA promises on a project, they deliver as promised	1	2	3	4	5
SQRB 02	UNRA shows sincere interest in solving stakeholder problems	1	2	3	4	5
SQRB 03	UNRA provides services right the first time	1	2	3	4	5
SQRB 04	UNRA Keeps their records accurately	1	2	3	4	5
Responsiveness						
SQRP01	UNRA employees make information easily obtainable by stakeholders electronically	1	2	3	4	5
SQRP02	UNRA Staff provide prompt services to stakeholders	1	2	3	4	5
SQRP03	UNRA Employees are always willing to help stakeholders	1	2	3	4	5
SQRP04	UNRA Employees are never too busy to respond to stakeholder requests electronically	1	2	3	4	5
Assurance						
SQAS01	I feel safe when using projects completed by UNRA	1	2	3	4	5

SQAS02	The behavior and character of UNRA employees instills confidence in us stakeholders	1	2	3	4	5
SQAS03	We feel safe while transacting with UNRA	1	2	3	4	5
SQAS04	UNRA employees are polite to us stakeholders	1	2	3	4	5
SQAS05	UNRA Employees are knowledgeable while answering our concerns as stakeholders.	1	2	3	4	5
Empathy						
SQEP01	UNRA gives us stakeholders individual attention	1	2	3	4	5
SQEP02	UNRA employees offer personalized services to us stakeholders	1	2	3	4	5
SQEP03	UNRA has their stakeholder interests at heart	1	2	3	4	5
SQEP04	UNRA understands the specific needs of their stakeholders	1	2	3	4	5

SECTION D: STAKEHOLDER SATISFACTION

Please indicate by ticking in the appropriate box the extent to which you agree / disagree with the following statement using the scale in brackets (**1= Strongly Disagree; 2= Disagree; 3= Not sure; 4= Agree; 5= Strongly Agree**)

CODE	ITEM	SD	D	NS	A	SA
Disclosures						
SSDL01	I am willing to recommend UNRA for additional road projects	1	2	3	4	5
SSDL02	I positively talk about UNRA projects	1	2	3	4	5

SSDL04	I appreciate UNRA for the appealing projects and services	1	2	3	4	5
SSDL05	I commend UNRA's improved services over the years	1	2	3	4	5
SSDL06	I appreciate UNRA for the safety designs in-built in their products and services	1	2	3	4	5
SSDL07	I follow UNRA social media platforms closely	1	2	3	4	5
SSDL08	UNRA provides several electronic channels in which we stakeholders can easily submit our issues	1	2	3	4	5
SSDL09	I am satisfied that UNRA's stakeholder engagement strategy unreservedly discloses information using electronic means	1	2	3	4	5
SSDL10	I am satisfied with the number of projects that UNRA is carrying out	1	2	3	4	5
Adaptation						
SSAD01	I accept UNRA products the way they are launched	1	2	3	4	5
SSAD02	I am satisfied with the designs of UNRA projects	1	2	3	4	5
SSAD03	I am always happy with modifications UNRA makes on existing and new road projects	1	2	3	4	5
SSAD04	I believe UNRA can perform much better	1	2	3	4	5
Stewardship						
SSSP01	I care about the welfare of UNRA projects	1	2	3	4	5
SSSP02	I abide by the avenues UNRA provides for maintaining and protecting its projects.	1	2	3	4	5
SSSP03	I am convinced that UNRA products and services are	1	2	3	4	5

	reliable					
SSSP04	I voluntarily report any vandalism of UNRA equipment and projects	1	2	3	4	5
SSSP05	I feel irritated by the way people litter and dispose off rubbish on UNRA roads	1	2	3	4	5
Perceived performance						
SSPQ01	The UNRA meets my expectations of what they can offer	1	2	3	4	5
SSPQ02	UNRA road products and services surpass my expectations	1	2	3	4	5
SSPQ03	UNRA Products and services delight me	1	2	3	4	5
SSPQ04	I am amazed by UNRA projects and services	1	2	3	4	5
SSPQ05	I am extremely satisfied with UNRA products and services	1	2	3	4	5

Appendix iv

Figure 4 Community Engagement Spectrum

Community Engagement Spectrum with Consult and Collaborate



Source: Graeme S.,(2017), International Association of Public Participation.

Appendix V

Figure 5 Results of Factor Analysis

Factor analysis/correlation		Number of obs	=	311
Method: principal-component factors		Retained factors	=	3
Rotation: orthogonal varimax (Kaiser off)		Number of params	=	10

Factor	Variance	Difference	Proportion	Cumulative
Factor1	1.70516	0.61395	0.3410	0.3410
Factor2	1.09121	0.04726	0.2182	0.5593
Factor3	1.04395	.	0.2088	0.7681

LR test: independent vs. saturated: $\chi^2(10) = 222.75$ Prob> $\chi^2 = 0.0000$

Rotated factor loadings (pattern matrix) and unique variances

Variable	Factor1	Factor2	Factor3	Uniqueness
service_qual	0.9222	0.0157	-0.0218	0.1488
elec_engage	0.9210	-0.0737	-0.0030	0.1463
sex_ne	-0.0131	-0.6938	0.3988	0.3594
age_ne	-0.0121	0.0382	0.8950	0.1973
mstat_ne	-0.0783	0.7763	0.2887	0.3079

Factor rotation matrix

	Factor1	Factor2	Factor3
Factor1	0.9834	-0.1606	-0.0841
Factor2	-0.1000	-0.8673	0.4876
Factor3	0.1512	0.4711	0.8690

Appendix Vi

Figure 6 Histogram and Probability plot for regression residuals

