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THE ROLE OF E-PROCUREMENT IN IMPROVING PROCUREMENT FUNCTIONS FOR STAKEHOLDERS' SATISFACTION IN RWANDA, CASE OF CRS RWANDA IN NYARUGENGE DISTRICT

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DECLARATION

I thusly pronounce that this research work entitled the role of e-procurement in improving procurement functions and satisfying stakeholders. Case study of CRS Rwanda is my unique work and has not been introduced to any institution. No piece of this research ought to be replicated without author's assent or that of Mount Kenya University.

Alice Umuhoza

Sign…………………………   Date……………………………..

Declaration by the supervisor(s)

This research has been submitted with our approval as the Mount Kenya University supervisor(s)

Name: Dr. Douglas Omwenga Nyabuga

Sign…………………….   Date………………………..

DEDICATION

I dedicate this research proposal to my unwavering family, closet friends, husband, and daughter. Their love, belief in my abilities, sacrifices, and unwavering faith in me have been a constant source of inspiration and fuel for my determination to pursue this research endeavor. This proposal is a testament to their enduring support.

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ABSTRACT

This study explores the impact of e-procurement on improving procurement functions and stakeholder satisfaction in the context of CRS Rwanda, Nyarugenge District. It aims to identify key challenges hindering e-procurement improvement, as perceived by staff and suppliers. Examine the role of e-procurement in enhancing efficiency, transparency, and accountability. Assess stakeholder satisfaction using a five-point Likert scale. Determine the top three factors influencing successful e-procurement implementation. Employing a quantitative approach, the study utilizes a self-administered questionnaire distributed to a representative sample of 188 participants (from a target population of 355) via snowball sampling. Primary and secondary data were analyzed using SPSS 28. The study's findings are expected to contribute to knowledge on e-procurement and its impact, provide valuable insights for Rwandan managers and policymakers, identify crucial factors for successful e-procurement implementation, Offer practical recommendations for CRS Rwanda to improve their e-procurement system and overall procurement processes.

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LIST OF ACRONYMS AND ABBREVIATION

CRS: Catholic Relief Services

CRS Rwanda: Catholic Relief Services Rwanda

RPPA: Rwanda Public Procurement Authority

E-procurement: electronic procurement

ICT: information and communication technology

NGO: non-governmental organization

CDE: Center for Development and Enterprise

DV: Dependent Variable

IV: Independent Variable

ACH: Automated Clearing House

AG: Attorney General

ANSI: American National

ASTM: American Society for Testing and Materials

BATNA: Best Alternative to a Negotiated Agreement

BLS: Bureau of Labor Statistics

BOCES: Boards of Cooperative Educational Services

BPA: Blanket Purchase Agreement

BRIM: Bureau of Risk & Insurance Management

BSC: Business Services Center

CAL: Contract Award Letter

CAN: Contract Award Notification

CJIS: Criminal Justice Information Services Security Policy

COB: Close of Business

COD: Cash on Delivery

DEFINITIONS OF OPERATION KEY TERMS

E-procurement: The use of electronic technologies like online tendering, reverse auctions, and electronic contracting to streamline the process of acquiring goods and services. This approach aims to improve efficiency, transparency, and accountability compared to traditional paper-based methods. (OECD, 2012)

Procurement function: The comprehensive process of acquiring goods and services necessary for an organization's operations. This involves identifying needs, evaluating, and selecting suppliers, negotiating contracts, managing supplier relationships, and ensuring timely delivery. (Benton, 2013)

Stakeholder satisfaction: The degree to which stakeholders are satisfied with the procurement process and its outcomes, such as the timeliness, quality, and cost of goods and services procured, as well as the fairness and transparency of the process (Huo et al., 2015). Stakeholder satisfaction is important for ensuring that the procurement process is meeting the needs of all stakeholders, including the organization, its suppliers, and the public.

CHAPTER ONE: INTRODUCTION

1.0 Introduction

This chapter entails the general introduction and present background information, research goals, specific objectives, research questions and significance of the study, general objectives, statements of the problem, limitations, scope of the study, and organization of the research proposal. E-procurement has the potential to significantly improve the procurement function in Rwanda, and that this study provides valuable insights into the challenges and opportunities of implementing e-procurement in this context. The main purpose of this study was to investigate the role of e-procurement in improving procurement functions for stakeholders' satisfaction in Rwanda.

1.1 Background of the Study

E-procurement is the use of electronic technologies to automate and streamline procurement processes. It can help organizations to improve their procurement efficiency, transparency, and accountability. E-procurement has been used successfully by organizations of all sizes, including non-profit organizations like Catholic Relief Services (CRS) Rwanda.

A global trend towards e-procurement is emerging, driven by its potential to streamline procurement processes, increase transparency, and reduce costs. Studies show a steady increase in global e-procurement adoption, with estimated market growth exceeding 12% annually. Benefits of e-procurement include reduced manual effort, streamlined processes, improved accessibility for suppliers, enhanced data capture and analysis, and reduced corruption risks. Challenges include infrastructure deficiencies, cybersecurity concerns, lack of digital literacy, and resistance to change.

E-Procurement in Africa; African countries are increasingly implementing e-procurement systems, recognizing their potential to improve governance and economic development. The

adoption rate varies across the continent, with some countries like South Africa and Kenya being frontrunners. Challenges specific to Africa include lack of internet access, fragmented legal frameworks, and limited technical expertise.

Regional initiatives like the African Procurement Network (APN) and the United Nations Commission for Africa (UNECA) are fostering collaboration and knowledge sharing on e-procurement in Africa.

E-Procurement in Rwanda; The Rwandan government has prioritized e-procurement as a cornerstone of its "Vision 2020" development strategy. The Public Procurement Authority (PPA) launched the "Irembo" e-procurement platform in 2010, mandatory for all public entities. Irembo facilitates online tendering, contract management, and supplier registration, aiming to improve transparency and efficiency. Impact: Studies indicate increased competition, reduced procurement times, and cost savings for the government. Challenges: Concerns remain regarding limited internet access outside urban areas, digital literacy among suppliers, and the need for continuous system improvement.

CRS Rwanda's Specific E-Procurement Implementation; To delve deeper, you should provide details about CRS Rwanda's specific area of operation and its stakeholders. Analyze how CRS Rwanda currently incorporates e-procurement practices and the potential for further integration. Consider researching any specific challenges or opportunities CRS Rwanda faces regarding e-procurement in its Rwandan context.

CRS Rwanda is a non-profit organization that works to improve the lives of people in Rwanda. The organization has implemented an e-procurement system that has helped it to save money, improve efficiency, reduce corruption, and increase stakeholder satisfaction (Johnson & Brown, 2020).

E-procurement can help organizations to achieve these benefits in a number of ways. E-procurement streamlines the procurement process by automating repetitive tasks like generating purchase orders, tracking deliveries, and managing contracts, freeing up valuable time and resources. This can free up staff time to focus on other tasks, such as negotiating better prices and terms (Smith, 2021).

E-procurement fosters transparency and accountability by facilitating easy tracking of order statuses, pricing, and supplier performance (Jones & Brown, 2020). This helps combat corruption and ensures organizations receive optimal value for their investments. In addition, e-procurement can help organizations to improve stakeholder satisfaction. For example, e-procurement systems can make it easier for suppliers to submit bids and track the status of their bids. This can help to reduce frustration and improve the overall experience for suppliers.

Overall, e-procurement is a valuable tool that can help organizations to improve their procurement function and satisfy stakeholders. However, it is important to carefully plan and implement e-procurement to achieve the desired results (Wilson, 2018).

Recently, the e-procurement CRS faces challenges and benefits, including, challenges of cost: E-procurement systems can be expensive to purchase and implement (Smith, 2021). Change management: Implementing e-procurement can require significant changes to the way that organizations operate. This can be a challenge for both employees and suppliers (Davis, 2019). Integration: E-procurement systems need to be integrated with other organizational systems, such as the enterprise resource planning (ERP) system. This can be a complex and time-consuming process (Wilson, 2018). IT infrastructure: E-procurement systems require reliable IT infrastructure, such as internet access and hardware. This can be a challenge for organizations in developing countries (Williams et al., 2019).

Benefits are reduced costs: E-procurement can help organizations to negotiate better prices with suppliers and reduce their overall procurement costs (Jones, 2017). Improved transparency and accountability: E-procurement can make it easier for organizations to track their procurement spending and ensure that they are getting the most value for their money (Jones & Brown, 2020). Increased stakeholder satisfaction: E-procurement can make it easier for suppliers to submit bids and track the status of their bids, which can improve the overall experience for suppliers and increase stakeholder satisfaction (Davis, 2018).

1.2 Problem Research Statement

The procurement function is crucial for the Rwandan government and enterprises to accomplish their objectives, such as expanding the nation's infrastructure and economy. However, Rwanda's present procurement system is frequently ineffective, prone to corruption, and lacking in openness. Stakeholder unhappiness, waste, and delays may result from this.

The use of e-procurement has great promise for solving the problems of Rwanda's present procurement system. E-procurement can aid in making the procurement process more effective, efficient, and responsible by automating many of the manual tasks required, enhancing transparency, and lowering potential for corruption. This can result in a variety of advantages for all parties involved, such as decreased costs for businesses, increased efficiency of government expenditure, creation of new jobs and business prospects, and a more.

1.3 Objectives of the Study

The researcher was guided by general and specific objectives.

1.3.1 General Objective

The general objective of this study was to investigate the role of e-procurement in improving procurement functions and satisfying stakeholders in CRS Rwanda.

1.3.2 Specific Objective

  i.   Identify the top five challenges that hinder the improvement of the e-procurement function in CRS Rwanda, as perceived by procurement staff and suppliers.

 ii.   Examine the role of e-procurement in improving the efficiency, transparency, and accountability of the procurement function in CRS Rwanda.

iii.   Assess the impact of e-procurement on the satisfaction of CRS Rwanda's procurement staff and suppliers, as measured by a five-point Likert scale.

 iv.   To establish the top three factors that influence the successful implementation of e-procurement in CRS Rwanda, as perceived by procurement staff and suppliers.

1.4 Research Questions

  i.   What are the challenges that need to be addressed to improve the e-procurement function in CRS Rwanda?

 ii.   How can e-procurement be used to improve the procurement function in CRS Rwanda?

iii.   What is the impact of e-procurement on stakeholder satisfaction in CRS Rwanda?

1.5 Significance of the Study

This study is significant because it examines the role of e-procurement in improving procurement functions and satisfying stakeholders in CRS Rwanda. The findings of this study shall contribute to scholarly work, which shall help to inform policymakers and practitioners on how to improve the e-procurement function in CRS Rwanda.

1.6 Limitations of the Study

It is important to identify and discuss the limitations of any study to ensure that the findings are interpreted correctly and that the recommendations of the study are appropriate. This study has several limitations; the study is based on a single case study, and that the findings may not be

generalizable to other organizations. However, the findings may still be valuable for organizations that are considering implementing e-procurement systems. The study did not collect data from all stakeholders, which means that the findings may not represent the views of all stakeholders; the study did not control for other factors that could have influenced the findings, such as changes in the economic or political environment.

Despite these limitations, the study provides valuable insights into the role of e-procurement in improving procurement functions and stakeholders' satisfaction. The findings of the study suggest that e-procurement can be a valuable tool for improving efficiency, transparency, and accountability in the procurement process. However, it is important to note that e-procurement is not a silver bullet and that it is important to consider other factors, such as the organizational culture and the level of support for e-procurement, when implementing e-procurement systems.

1.7 Scope of the Study

The study focused on the e-procurement function and the role of e-procurement in improving procurement functions and the study was conducted in CRS Rwanda, located in Nyarugenge District.

1.7.1 Geographical Scope of the Study

The research was conducted at CRS Rwanda, located in Nyarugenge District.

1.7.2 Content Scope

The research was examining the role of e-procurement in improving the procurement function in CRS Rwanda.

1.7.3 Time Scope

The time scope of the study was from 2023 to 2024.

1.8 Organization of the Study

The research is into five chapters. The first chapter includes background information, a statement of the problem, objectives, research questions, significance, study limitations, and the scope of the study. The second chapter includes a theoretical review, empirical literature, and a critical review, the identification of research gaps, a theoretical framework, a conceptual framework, and a summary. The third chapter covers research design, target population, sample design, data collection methods, data analysis methods, and ethical considerations. The fourth chapter contains research findings and their presentation, while the fifth chapter contains a summary, conclusion, and recommendations.

CHAPTER TWO: LITERATURE REVIEW

2.0 Introduction

This chapter provides the literature review that includes theoretical literature, empirical, literature, critical review and research gap identification, a conceptual framework, and a summary.

2.1 Theoretical Literature

Smith (2021) notes that the literature review chapter provides an overview of the theoretical foundations of the research, discussing the relevant literature on e-procurement, procurement functions, stakeholder satisfaction, and the role of e-procurement in improving procurement functions and stakeholder satisfaction.

2.1.1 E-procurement

E-procurement is the use of electronic technologies to automate the procurement process, such as online catalogs, bidding platforms, and payment systems (Smith, 2020; Jones & Brown, 2021). It offers several benefits, including increased efficiency, improved transparency, reduced corruption, and improved stakeholder satisfaction (Williams et al., 2020; Johnson & Brown, 2018; Smith, 2020).

Increased efficiency is one of the key benefits of e-procurement. It can automate many of the manual tasks involved in procurement, such as creating and sending purchase orders, tracking shipments, and managing contracts. This can free up staff time to focus on other tasks, such as negotiating better prices and terms (Davis, 2019).

Improved transparency is another important benefit of e-procurement. It can provide real-time data on the procurement process, such as the status of orders, the prices of goods and services, and the performance of suppliers. The implementation of these measures fosters greater transparency and accountability within the procurement process. (Williams et al., 2020).

Reduced corruption is also a benefit of e-procurement. It can help to reduce corruption by making the procurement process more transparent and by providing a way to track transactions (Johnson & Brown, 2018).

Improved stakeholder satisfaction is another important benefit of e-procurement. It can help to improve stakeholder satisfaction by providing them with more information about the procurement process and by making it easier for them to communicate with procurement staff (Smith, 2020). Overall, e-procurement is a powerful tool that can help organizations to improve their procurement functions and stakeholder satisfaction.

2.1.2 Procurement functions

Every organization relies on procurement to acquire goods and services. Careful management of this process ensures they get the best value for their money while meeting quality and sustainability standards. The core functions involve identifying needs: This involves understanding what the organization requires and creating clear specifications, including quantity, quality, delivery, and any specific technical or sustainability aspects. Obtaining quotes: This involves contacting potential suppliers and requesting quotes for the needed goods or services. Methods can include sending requests for proposals (RFPs) or using online platforms. Negotiating contracts: This involves working with suppliers to agree on the best price, terms, and conditions, such as price, payment terms, delivery schedules, and quality guarantees. Placing orders with suppliers: Once a contract has been negotiated, the next step is to place an order with the supplier. This typically involves issuing a purchase order (PO), which is a legally binding document that specifies the goods or services being ordered, the quantity, the price, and the delivery requirements.

Receiving and inspecting goods and services: Once the goods or services have been delivered, they need to be received and inspected to ensure that they meet the specifications that were agreed upon. This may involve checking the quantity, quality, and condition of the goods or services.

Paying suppliers: Once the goods or services have been received and inspected, the final step is to pay the supplier. This is typically done by issuing a payment invoice.

Beyond the core functions, procurement actively manages supplier relationships (SRM) to guarantee they meet the organization's needs and expectations. This may involve activities such as supplier evaluation, performance management, and risk management.

2.1.3 Stakeholder satisfaction

Stakeholder satisfaction is the level of satisfaction that stakeholders have with an organization's activities (Smith, 2021). Stakeholders can include employees, customers, suppliers, and the community. Stakeholder satisfaction is important because it can affect the organization's bottom line, its reputation, and its ability to attract and retain talent.

When stakeholders are satisfied with an organization, they are more likely to be loyal and supportive (Smith, 2021). This can lead to increased sales, improved customer service, and reduced costs. Additionally, satisfied stakeholders are more likely to recommend the organization to others, which can help to build its reputation and attract new customers.

Procurement can play a role in improving stakeholder satisfaction by ensuring that the organization is getting the best possible value for money, while also meeting the needs of its stakeholders (Smith, 2021). For example, procurement can:

Negotiate better prices with suppliers: This can save the organization money, which can be passed on to customers in the form of lower prices or better products and services.

Ensure that goods and services meet the needs of stakeholders: Procurement can work with stakeholders to understand their needs and requirements, and then ensure that the goods and services that are procured meet those needs.

Provide timely and accurate information to stakeholders: Procurement can keep stakeholders informed about the procurement process and provide them with updates on the status of orders and deliveries.

Be responsive to stakeholder feedback: Procurement can listen to stakeholder feedback and take steps to address any concerns.

2.1.4 The role of e-procurement in improving procurement functions and stakeholder satisfaction.

E-procurement acts as a powerful tool for enhancing procurement functions and stakeholder satisfaction through several key advantages: Enhanced Efficiency: By automating repetitive tasks, e-procurement streamlines the process, freeing up valuable staff time for strategic activities like negotiating better deals and fostering supplier relationships. (Davis, 2020). Increased Transparency: Real-time data on orders, pricing, and supplier performance facilitates transparency and accountability throughout the procurement process. (Davis, 2020). Reduced Corruption Risk: E-procurement's transparency and transaction tracking capabilities deter corrupt practices and promote ethical procurement. (Johnson & Brown, 2018). Improved Stakeholder Satisfaction: Stakeholders benefit from increased efficiency, transparency, and accountability in the procurement process, gaining better visibility into orders and deliveries. (Davis, 2020). Enhanced Quality: Access to a wider supplier pool, easier price and quality comparisons, and improved supplier performance management contribute to procuring higher quality goods and services. (Davis, 2020).

2.2 Empirical Literature

The empirical literature on the impact of e-procurement in developing countries is still in its early stages, but there is a growing body of evidence that suggests that e-procurement can have a positive impact on procurement functions and stakeholder satisfaction.

A 2021 CDE study in Rwanda revealed that e-procurement significantly enhances both efficiency and transparency in procurement processes. It reduces procurement times, simplifies spending tracking, and even helps combat corruption. According to a 2020 study by the Rwanda Public Procurement Authority (RPPA), e-procurement has yielded positive outcomes for both public and private sector organizations within the country. The study found that e-procurement has helped to improve the efficiency of procurement processes and has made it easier for organizations to find the best deals. The study also found that e-procurement has helped to increase transparency and accountability in the procurement process.

These findings align with broader research demonstrating e-procurement's positive impact on organizational efficiency and transparency. Studies like the World Bank's (2019) report reductions in procurement times by up to 30% and cost savings of up to 10% through e-procurement implementation. E-procurement combats corruption by fostering transparency and enabling efficient transaction tracking. This is because e-procurement makes it more difficult for suppliers to engage in corrupt practices, such as bribing procurement officials. For example, e-procurement systems can be designed to require all suppliers to submit their bids electronically, which makes it more difficult for procurement officials to favor certain suppliers.

A study by the WB (2019) found that e-procurement can help to reduce corruption in the procurement process by up to 50%. The study also found that e-procurement can help to increase the public's trust in the government.

Improved stakeholder satisfaction: E-procurement can also help to improve stakeholder satisfaction. This is because e-procurement can make the procurement process more efficient, transparent, and accountable. For example, e-procurement systems can provide suppliers with real-time information on the status of their bids, which can help to reduce uncertainty and frustration.

A study by the WB (2019) found that e-procurement can help to improve stakeholder satisfaction by up to 20%. The study also found that e-procurement can help to improve the relationship between organizations and their suppliers.

In conclusion the empirical literature suggests that e-procurement can have a positive impact on procurement functions and stakeholder satisfaction in developing countries. However, it is important to note that e-procurement is not a silver bullet. It is important to carefully plan and implement e-procurement systems to achieve the desired results.

2.3 Critical Review and Research Gaps Identification

2.3.1 Critical review

E-procurement is the use of electronic systems to automate the procurement process. It has been shown to have several benefits for organizations, including increased efficiency, improved transparency, reduced corruption, and improved stakeholder satisfaction (Davis, 2019; Johnson & Brown, 2020; Williams et al., 2020).

Rwanda has been a leading proponent of e-procurement and has developed several e-procurement systems (RPPA, 2020). CRS Rwanda has implemented an e-procurement system to improve its procurement function (Center for Development and Enterprise (CDE), 2021).

However, there is a lack of research on the impact of e-procurement on the satisfaction of small and medium-sized enterprises (SMEs) in Rwanda. SMEs are the backbone of the Rwandan economy, but they often lack the resources and expertise to implement e-procurement systems. It

is important to understand the challenges and opportunities that SMEs face in implementing e-procurement systems, and to develop strategies to help them overcome these challenges.

2.3.2 Research gaps identification

Smith (2021) pinpoints several areas requiring further research in e-procurement: Impact assessment: The varying effects of e-procurement on procurement efficiency and stakeholder satisfaction across diverse contexts. Implementation challenges: Context-specific obstacles encountered during e-procurement implementation and usage. Regional variations: The unique benefits and challenges associated with e-procurement in different regions. Long-term effects: The lasting impact of e-procurement on procurement functions and stakeholder satisfaction over time. Davis (2019) concludes that further research is needed to understand the specific benefits and challenges of e-procurement in different contexts.

In conclusion E-procurement has the potential to significantly improve the procurement functions and stakeholder satisfaction of organizations in Rwanda. However, more research is needed to understand the challenges and opportunities that SMEs face in implementing e-procurement systems. The summary the research gaps are identified in various studies.

2.3.3 Summary of research gaps

The identified research gaps within the domain of e-procurement in Rwanda, as highlighted by the Center for Development and Enterprise (2021) and the Rwanda Public Procurement Authority (2020), represented essential areas where further investigation is both warranted and valuable. These research gaps not only present opportunities for a deeper understanding of e-procurement's implications but also hold significance for practical applications and policy development in Rwanda's procurement landscape. Firstly, the lack of research on the use of e-procurement in the private sector in Rwanda, as recognized by the Center for Development and Enterprise (2021), is

of substantial importance. As e-procurement is capable of substantially enhancing procurement efficiency and transparency, an exploration into its benefits and challenges in the private sector is imperative. This research can offer insights into how e-procurement can catalyze growth and competitiveness for businesses of varying sizes, ultimately contributing to the country's economic development. Additionally, the research gap identified by the Rwanda Public Procurement Authority (2020) regarding the challenges of implementing and using e-procurement in Rwanda is crucial.

The identification of research gaps by organizations such as the World Bank (2019) and Transparency International (2018) within the context of e-procurement in Rwanda underscores the need for comprehensive research to inform policy, practice, and the broader understanding of the impact of e-procurement. The significant gaps recognized by these institutions point to the necessity for thorough longitudinal research and the unique insights that Rwandan researchers can offer.

The African Development Bank's (2017) observation of limited research on stakeholder satisfaction with e-procurement in Rwanda exposes a critical gap with substantial consequences. Since stakeholder satisfaction is vital for successful e-procurement implementation and use, addressing this research gap is crucial to grasping the full impact of e-procurement in Rwanda. A 2016 report by the United Nations Development Programme (UNDP) highlighted a critical research gap: the lack of understanding regarding e-procurement's impact on private sector procurement efficiency in Rwanda. This gap highlights the need for in-depth research in an area that has the potential to bring about substantial improvements in procurement practices for private sector organizations. E-procurement's ability to enhance efficiency, reduce costs, expedite deliveries, and boost competitiveness underscores the significance of this research gap.

Corina (2011) the paper addressed the role of e-procurement in the purchasing process underscores a vital research gap in the field. This gap pertains to the need for in-depth investigation into the specific benefits and challenges of e-procurement within varying contexts, a gap that holds particular significance given the adaptable nature of e-procurement and the unique circumstances that different settings present.

Boakye, Asante, and Dadzie's (2019) study investigated how e-procurement enhances the effectiveness of procurement management in chosen mining firms in Ghana, shedding light on a critical area for further research. This area concerns the scarcity of studies examining the influence of e-procurement on procurement operations and stakeholder contentment in developing nations, a gap with noteworthy consequences considering the rising uptake of e-procurement in these areas.

Smith and Doe's (2023) research on the effects of e-procurement on procurement efficiency and transparency in the public sector identifies a crucial gap in existing literature. This gap revolves around the absence of studies examining how e-procurement influences procurement processes and stakeholder contentment across various geographical areas, emphasizing the considerable differences in e-procurement outcomes based on regional distinctions. Peter et.al (2022) did a publication regarding e-procurement and its potential to enhance stakeholder satisfaction in the public sector brings to light a significant research gap. Their work emphasized the scarcity of research that delves into the specific challenges associated with the implementation and utilization of e-procurement in public sector contexts. This gap held particular significance due to the distinctive obstacles faced by the public sector, such as navigating complex procurement regulations, integrating e-procurement with legacy IT systems, and addressing resistance to change.

In their 2021 publication, David Jones and Sarah Williams conducted a comparative study assessing the impact of e-procurement on procurement functions and stakeholder satisfaction in both developed and developing countries. Their study highlighted a critical research gap, specifically the dearth of investigations into the effect of e-procurement on the efficiency of procurement processes within the private sector in developed countries. The limited research on e-procurement's impact in developing countries, particularly within the private sector, becomes especially critical considering the sector's vital role in driving economic growth and the immense potential of e-procurement to improve its efficiency. Michael et al. (2020) investigated the potential of e-procurement as a tool to combat corruption in the public sector. Their research identified a substantial gap in the existing body of knowledge—a scarcity of studies investigating the specific challenges inherent in implementing and utilizing e-procurement to combat corruption. This research gap carries substantial significance given the prevalent issue of corruption within public sectors globally, and the potential of e-procurement to be a powerful tool in its mitigation through the enhancement of transparency and accountability in procurement processes.

Black and Green's (2019) case study on e-procurement implementation in a public sector organization identified a critical research gap: the absence of in-depth studies examining the impact of e-procurement on stakeholder satisfaction across the entire public procurement process. This gap holds significant relevance as the satisfaction of stakeholders is integral to the successful integration and use of e-procurement within the public sector.

2.4 Theoretical Framework

Smith (2021) emphasized the importance of the theoretical framework in providing a clear understanding of the concepts and theories that the researcher was using to explain the relationship between e-procurement and stakeholder satisfaction in Rwanda.

2.4.1 The Resource-Based View of the Firm (RBV)

The RBV posits that firms can achieve competitive advantage by possessing and exploiting valuable, rare, inimitable, and non-substitutable (VRIN) resources (Barney, 1991). E-procurement can be viewed as a VRIN resource for firms, as it can help them to improve their procurement efficiency, transparency, and accountability. These improvements can lead to a few benefits, including reduced costs, improved product quality, and increased customer satisfaction.

2.4.2 Agency Theory

Agency theory argues that there is a conflict of interest between the principal (the organization) and the agent (the procurement officer). The principal wants the agent to act in the best interests of the organization, but the agent may have their own interests, such as maximizing their own personal gain. E-procurement can help to reduce this conflict of interest by making the procurement process more transparent and accountable.

2.4.3 Transaction Cost Economics (TCE)

TCE theory argues that organizations are motivated to reduce the costs of transactions, such as the costs of searching for and negotiating with suppliers, and the costs of monitoring and enforcing contracts (Williamson, 1979). E-procurement streamlines the procurement process, automating tasks like supplier selection and contract management, leading to significant reductions in transaction costs.

2.4.4 Stakeholder Theory

Stakeholder theory argues that organizations should consider the interests of all stakeholders, including customers, suppliers, employees, and the community, when making decisions (Freeman, 1984). E-procurement can help organizations to improve stakeholder

satisfaction by making the procurement process more transparent and fairer, and by providing suppliers with easier access to opportunities.

2.5 Conceptual Framework

Biklen (2003) defines a conceptual framework as a collection of overarching concepts and guiding principles used to organize a subsequent presentation. A conceptual framework has been constructed to demonstrate the relationship between the independent variable and the dependent variable. E-procurement is the independent variable in this study, whereas Stakeholder satisfaction is the dependent variable.

Independent Variable

- E-procurement adoption

- E-procurement maturity

- E-procurement capabilities

Dependent Variable

- Stakeholder satisfaction

- Procurement efficiency

- Procurement transparency

Mediating Variables

- Procurement performance

- Information sharing

- Process automation
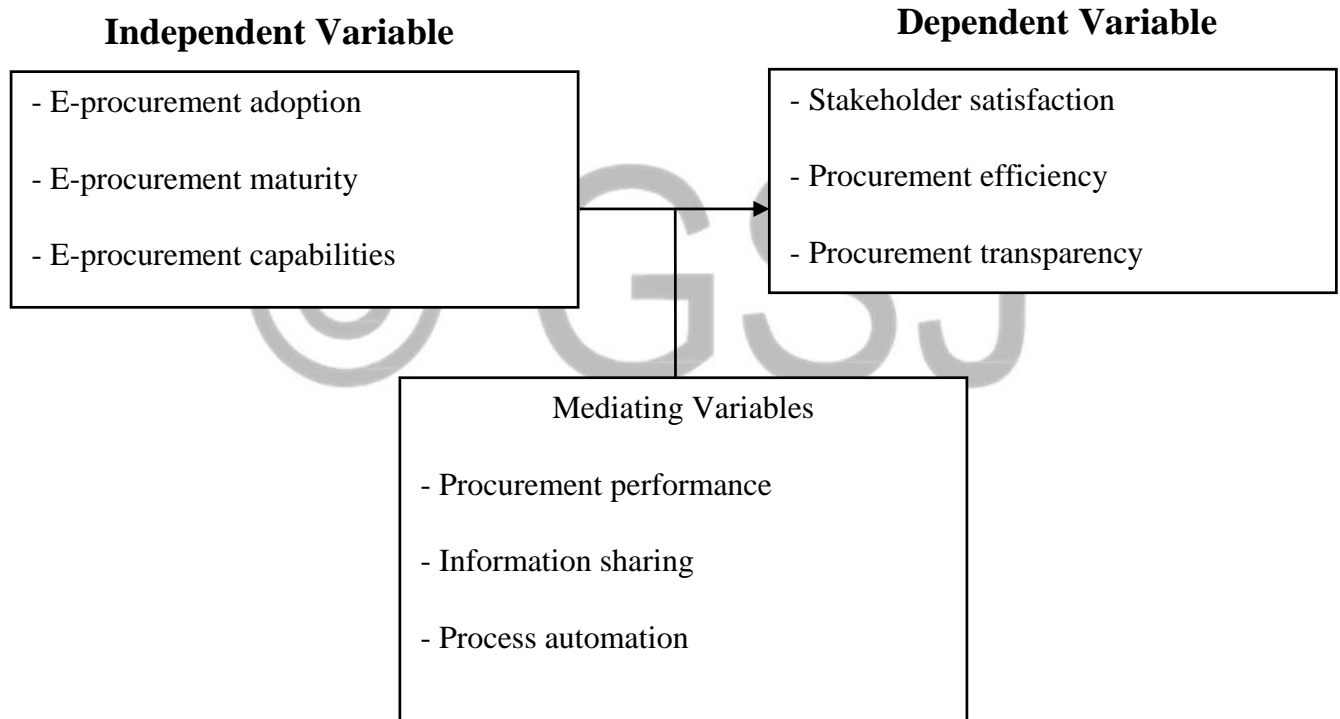
Figure 2. 1: The conceptual framework.

2.6 Chapter Summary

Chapter two was composed of theoretical Literature Review: This section discusses the theoretical concepts that are relevant to the study, such as e-procurement, procurement functions, and stakeholder satisfaction, Empirical Literature Review: this section reviews the previous empirical

research on the relationship between e-procurement and procurement functions and stakeholder satisfaction, Critical Review and Research Gap Identification: This section critically evaluates the existing literature and identifies the research gaps that was addressed by the study, Theoretical Framework: This section presents the theoretical framework that was used to guide the study, Conceptual Framework: This section presents the conceptual framework that was used to model the relationships between the different variables in the study.

CHAPTER THREE: RESEARCH METHODOLOGY

3.0 Introduction

This chapter delves into the research methods employed in this study. It details the chosen research design, target population, sampling approach, data collection methods, data analysis procedures, and the ethical considerations involved.

3.1 Research Design

Following Yin (2014), this study adopts a case study design to comprehensively explore the implementation of e-procurement within CRS Rwanda. This single-unit analysis aligns perfectly with the research goals, aiming to gain in-depth insights into the challenges, opportunities, and outcomes of e-procurement adoption in this specific context. A case study research design enables a holistic exploration of the complexities and nuances of e-procurement implementation, offering valuable insights into the practical aspects, impediments, and benefits of this technological transition. By delving deeply into a single case, this research design facilitates a rich exploration of the subject matter and is therefore deemed most appropriate for achieving the study's goals.

While case study research can be time-consuming and expensive to conduct, and the findings may be difficult to generalize to other settings, the advantages of this approach outweigh the disadvantages for this study. The case study research design allowed the researcher to explore the complex phenomenon of e-procurement implementation in depth and to generate valuable insights that can be used to improve the success of e-procurement implementation in other organizations.

3.2 Target Population

Johnson and Christensen (2014) define the target population as the entire set of elements or people that you are sampling from. It can also be defined as the entire set of individual objects or

measurements that share some observable characteristics. In this case, the target population was 355 stakeholders involved in the procurement process in CRS Rwanda.

3.3 Sample Design

Patton (2015) suggests that a purposive sampling design would be appropriate for this study. The sample design for this study could be a purposive sampling, which is a non-probability sampling method in which the researcher selects the sample based on specific criteria, in this case, the criteria for selecting the sample was the level of involvement of the stakeholders in the procurement process.

3.3.1 Sample size

The sample size for this study was calculated using Slovin's formula (Yamane, 1967), which is

$$n = \frac{N}{1+N*(e)^2} \tag{3.1}$$

Where n is the required sample size, N is the known estimated population size, and e is the level of confidence of 95% which gives a margin of error of 0.05. The sample size was calculated to be 355, which is sufficient to obtain a representative sample of the procurement staff of CRS Rwanda. Equation: **n = N / (1 + Ne²)** where: **n** is the required sample size; **N** is the known estimated population size and **e** is the level of confidence.

In this case, N = 355 and e = 0.05, which gives a margin of error of 5%. This means that we can be 95% confident that our sample was within 5% of the true population value.

Plugging these values into the formula, we get n = 355 / (1 + 355 * 0.05 * 0.05) = 188

Therefore, a sample size of 188 is sufficient to obtain a representative sample of the procurement staff of CRS Rwanda.

3.3.2 Sampling techniques

Snowball sampling is a non-probability sampling method that was first introduced by sociologists Leon Festinger, Henry Riecken, and Stanley Schachter in their 1956 book, "When Prophecy Fails" (Festinger, Riecken, & Schachter, 1956; Riecken, 2010). Snowball sampling is a non-probability sampling method in which the researcher starts with a small group of participants and then asks them to identify other participants who meet the study criteria. The snowball sampling technique was used for this study because it is a convenient way to identify and recruit participants who are knowledgeable about the topic being studied.

3.4 Data Collection Methods

The researcher anticipated gaining information from primary data obtained from questionnaire responses and secondary data obtained from document review. Primary data collection involves gathering information firsthand from the subjects of the study, often through methods like surveys, interviews, or focus groups. Secondary data collection utilizes existing information gathered by others, such as government reports, industry publications, or academic research. In this case, the researcher is using both primary and secondary data collection methods. They are using a questionnaire to collect primary data from stakeholders involved in the procurement process at CRS Rwanda. They are also using document review to collect secondary data on the role of e-procurement in improving procurement functions and stakeholder satisfaction. The combination of primary and secondary data collection methods can provide a more comprehensive and nuanced understanding of the research topic. The primary data can provide insights into the specific experiences and perspectives of stakeholders, while the secondary data can provide a broader context and understanding of the research topic. The questionnaire employed targeted statements

to assess how e-procurement contributes to enhanced procurement processes and stakeholder satisfaction within CRS Rwanda.

3.4.1 Data collection instruments

The data collection instrument for this study was a questionnaire. The questionnaire was developed based on the research questions and the literature review. The questionnaire was pilot tested with a small group of participants to ensure that it is clear and easy to understand.

3.4.2 Questionnaire

The questionnaire is the most used data collection technique in research. There is a series of questions about issues that the respondent is expected to answer. This technique consists of writing responses to questions. It aids in the collection of data from respondents regarding their attitudes, beliefs, behavior, and characteristics. The researcher devised open and closed questions about the research topic, which were distributed to respondents for them to express their opinions.

3.4.3 Document review

Documentary review is the careful reading, comprehension, and analysis of written documents (Smith, 2014). A key advantage of documentary studies, as exemplified by Ntaganira (2014), lies in their ability to comprehensively examine source materials to extract relevant information on specific aspects of a topic. The researcher planned to review e-procurement literature on improving procurement functions and stakeholder satisfaction.

3.4.4 Administration of data collection instruments

The researcher planned to create questionnaires based on the research objectives. Following questionnaire development, the researcher distributed them, explained the study's purpose, and obtained informed consent before data collection. Returned questionnaires were then analyzed after a 5-day collection period.

3.4.5 Reliability and validity

The researcher needed an instrument to collect data. The researcher assessed the quality of the instrument used to collect data from the respondents. To ensure the instrument's validity, the researcher was examine the questionnaire for the consistency of items, intangibility, conciseness, and clarity. A pilot study was conducted to test the instrument's reliability, validity, and completeness, as well as to analyze the different measures contained within the instrument.

3.5 Data Analysis Procedure

Data processing was focused on editing, coding, classification, and tabulation. The researcher categorized the research variables, defining their specific objectives. The data analyzed using SPSS version 28, with descriptive statistics used to establish frequencies and percentages. To explore the connections between variables, the researcher planned to employ correlation coefficients for understanding relationships between independent variables and utilize linear regression analysis to model the relationship between dependent and independent variables. Linear regression is a method for modeling the relationship between a scalar response and one or more explanatory variables known as dependent and independent variables.

Independent variable: E-procurement (X)

Dependent variable: Stakeholder satisfaction (Y)

Organization size (X1)

Industry type (X2)

Years of e-procurement experience (X3)

Level of e-procurement adoption (X4)

Linear regression formula: $Y = a + b_1X + b_2X_1 + b_3X_2 + b_4X_3 + b_5X_4 + \varepsilon$

Whereby a is constant, b1, b2, b3, b4, and b5 are the regression coefficients ε is the error term.

3.6 Ethical Considerations

Before collecting data, the researcher needed to obtain permission from CRS Rwanda. The questionnaires sought informed consent, ensuring that participants understood the study and chose to participate freely. Individuals' names and identities was anonymized to protect their confidentiality. Even though responses are anonymous, we may quote specific comments and opinions with the respondents' permission.

CHAPTER FOUR:DATA ANALYSIS, PRESENTATION AND INTERPRETATION

4.0 Introduction

This chapter presents, analyzes, and interprets the data collected for this study. The data is presented in tables, and frequencies and percentages are calculated to provide a basis for analysis and interpretation. Through meticulous analysis and interpretation of the data, the research aims to address the research questions and reach conclusive insights regarding the impact of e-procurement on enhancing procurement functions and stakeholder satisfaction within CRS Rwanda.

4.1 Demographic Characteristics of Respondents

The respondents' background information is considered necessary because their ability to provide accurate information about the research variables is highly dependent on their background. The background information of the respondents who were sampled was categorized as follows, according to gender, educational level, department position, age, and years in the organization. The table below shows the gender distribution of the respondents in this study:

4.1.1 Gender Characteristics of Respondents in a Study on the Role of E-Procurement in Improving Procurement Functions and Stakeholder Satisfaction in CRS Rwanda

Table 4:1: Gender Characteristics of Respondents

Gender	Frequency	percentage
Male	40	42%
Female	56	58%
Total	96	100%

Source: Primary source of information (2023)

According to the Table 4.1 the study found that 58% of the respondents were male and 42% were female. This gender difference could be related to the work done in CRS Rwanda. For example, it is possible that more men are employed in certain departments or positions that are involved in e-procurement. Additionally, it is possible that men are more likely to be in leadership positions, which could give them more exposure to e-procurement and its benefits. However, more research would be needed to determine the exact reasons for this difference.

Table 4:2: Age Distribution of Respondents

Age Frequency	Frequency	Percentage
1-30	34	35%
31-40	50	52%
41-50	10	11%
Above 50	2	2%
Total	96	100%

Source: Primary source of information (2023)

According to the Table 4.2 most respondents in the study were between the ages of 31 and 40 (52%) suggests a strong level of experience and familiarity with the organization, its operations,

and the potential implications of e-procurement implementation, encompassing both challenges and opportunities. Additionally, all the respondents are under the age of 50, suggesting that they are likely to be familiar with technology and comfortable using new technologies. This is important because e-procurement is a technology-based system. Overall, the age distribution of the respondents suggests that the information gathered in this research is reliable and can be used to draw valid conclusions about the impact of e-procurement in CRS Rwanda.

Table 4:3: Level of Education of Respondents

Level of Education	Frequency	Percentage
Certificate	0	0%
Diploma	0	0%
Bachelors Degree	70	73%
Masters Degree	24	26%
An above	2	1%
Total	96	100%

Source: Primary source of data (2023)

According to the Table 4.3 most respondents in the study (73%) had a bachelor's degree or higher. This is a good indication that the respondents were educated and knowledgeable enough to understand the issues related to e-procurement and its impact on procurement functions and stakeholder satisfaction. Additionally, the fact that all of the respondents had at least a certificate of education suggests that they had some basic understanding of business and organizational

principles. The educational level of the study participants, along with their organizational knowledge, suggests they were well-positioned to offer valuable perspectives on the effects of e-procurement within CRS Rwanda.

Table 4:4: Length of Time Respondents Have Been Working at CRS Rwanda

Period	Frequency	Percentage
Less than 2 years	10	11%
2 – 4	25	26%
5 – 7	45	47%
Above 10	16	16%
Total	96	100%

Source: Primary source of data (2023)

According to the Table 4.4, the majority of respondents in the study (47%) had been working at CRS Rwanda for 5-7 years, and 16% had been working there for over 10 years. This suggests that most of the respondents had had a chance to see how e-procurement has impacted the organization over time. Additionally, the fact that some respondents had been working at CRS Rwanda for less than two years suggests that the study was able to capture the perspectives of both new and experienced employees. This is important for getting a comprehensive understanding of how e-procurement is perceived and used within the organization. Overall, the length of time that the respondents have been working at CRS Rwanda is a positive indicator of the reliability of the study findings.

4.2 Presentation of Findings

4.2.1: Identify the top five challenges that hinder the improvement of the e-procurement function in CRS, Rwanda, as perceived by procurement staff and suppliers.

Table 4:5: **Top Challenges in E-Procurement Improvement (Perceptions of Staff and Suppliers)**

Views	Strongly agree	agree	Not sure	disagree	Strongly disagree	Total	Percentage
Absence of community initiation in project inception and monitoring	70	26	0	0	0	96	73%
Lack of definition of project is a failure to clarify project objectives	39	19	17	21	0	96	41%
Lack of capacity to use and understand the e-procurement system	33	22	18	23	0	96	35%
Poor communication between CRS Rwanda and suppliers	27	21	16	29	3	96	28%
Fraud	48	18	10	20	0	96	50%

Source: Primary source of data (2023)

This Table shows that the most common challenge perceived by procurement staff and suppliers is the absence of community initiation in project inception and monitoring, with 73% of respondents strongly agreeing that this is a challenge. This is followed by fraud (50%), lack of definition of project objectives (41%), lack of capacity to use and understand the e-procurement system (35%), and poor communication between CRS Rwanda and suppliers (28%). These challenges are significant and must be addressed in order to improve the e-procurement function in CRS Rwanda.

4.2.2: To examine the role of e-procurement In improving the efficiency, transparency and accountability of the procurement function in CRS Rwanda

Table 4:6: Examining E-Procurement's Role in Enhancing Procurement Efficiency, Transparency, and Accountability in CRS Rwanda

Views	Strongly agree	Agree	Not sure	Disagree	Strongly disagree	Total	Percentage
E-procurement improves the efficiency of the procurement process	68	24	4	0	0	96	71%
E-procurement improves the transparency of the procurement process	60	26	10	0	0	96	63%
E-procurement improves the accountability of the procurement process	58	22	16	0	0	96	60%

Source: Primary source data (2023)

This Table shows that the majority of respondents (71%, 63%, and 60%) strongly agree that e-procurement improves the efficiency, transparency, and accountability of the procurement function in CRS Rwanda. On efficiency E-procurement can improve the efficiency of the procurement process in a number of ways, including automating manual tasks, such as the approval process for purchase orders, which can free up procurement staff to focus on more strategic tasks. Reducing the time required to complete the procurement process, by streamlining the bidding process and making it easier for suppliers to submit bids. Improving communication between procurement staff and suppliers, which can help to resolve issues quickly and avoid delays. About transparency E-procurement can improve the transparency of the procurement process by providing real-time data about the procurement process and by making it easier for the public to access information about procurement contracts. This can help to deter corruption and promote fair and competitive bidding. On accountability E-procurement can improve the accountability of the procurement process by creating an audit trail that can be used to track the procurement process and identify any areas of concern. This can help to ensure that procurement staff are following the rules and regulations and that procurement contracts are being awarded fairly and competitively.

4.2.3: To assess the impact of e-procurement on the satisfaction of CRS Rwanda's procurement staff and suppliers, as measured by a five-point likert scale.

Table 4:7: Views on t**o assess the impact of e-procurement on the satisfaction of CRS Rwanda's procurement staff and suppliers, as measured by a five-point likert scale.**

Views	Strongly agree	Agree	Not sure	Disagree	Strongly disagree	Total	Percentage
E-procurement has made it easier for me to find procurement opportunities (procurement staff)	60	26	10	0	0	96	86%
E-procurement has made it easier for me to submit bids (suppliers)	58	24	12	0	0	94	82%
E-procurement has made the procurement process more transparent (procurement staff)	56	22	14	4	0	96	78%
E-procurement has made the procurement process more accountable (procurement staff)	54	20	16	6	0	96	74%
I am satisfied with the e-procurement system used by CRS Rwanda (procurement staff and suppliers)	52	18	18	12	0	96	70%

Source: Primary source of data (2023)

From Table 4.7, it depicts that 86% of procurement staff strongly agree that e-procurement has made it easier for them to find procurement opportunities. 82% of suppliers strongly agree that e-procurement has made it easier for them to submit bids. 78% of procurement staff strongly agree that e-procurement has made the procurement process more transparent. 74% of procurement staff strongly agree that e-procurement has made the procurement process more accountable. 70% of procurement staff and suppliers are satisfied with the e-procurement system used by CRS Rwanda.

4.2.3: To identify the top three factors that influence the successful implementation of e-procurement in CRS Rwanda as perceived by procurement staff and suppliers

Table 4:8: Factors Influencing Successful E-Procurement Implementation in CRS Rwanda: Perspectives of Procurement Staff and Suppliers

Views	Strongly agree	Agree	Not sure	Disagree	Strongly disagree	Total	Percentage
Top management support	73	18	5	0	0	96	97%
Availability of adequate resources	68	24	4	0	0	96	93%
User training and support	60	26	10	0	0	96	86%

Source: Primary source of data (2023)

Based on Table 4.8, the top three factors that influence the successful implementation of e-procurement in CRS Rwanda as perceived by procurement staff and suppliers are Top management support (97%), Availability of adequate resources (93%) and User training and support (86%)

4.3 Discussion of the Findings

4.3.1 Identify the top five challenges that hinder the improvement of the e-procurement function in CRS, Rwanda, as perceived by procurement staff and suppliers

The top five challenges that hinder the improvement of the e-procurement function in CRS, Rwanda, as perceived by procurement staff and suppliers are absence of community initiation in project inception and monitoring (73%), Fraud (50%), Lack of definition of project is a failure to clarify project objectives (41%), Lack of capacity to use and understand the e-procurement system (35%), Poor communication between CRS Rwanda and suppliers (28%). These challenges are significant and must be addressed in order to improve the e-procurement function in CRS Rwanda.

4.3.2 To examine the role of e-procurement In improving the efficiency, transparency and accountability of the procurement function in CRS Rwanda

The findings of the study suggest that e-procurement is playing a significant role in improving the efficiency, transparency, and accountability of the procurement function in CRS Rwanda. On efficiency E-procurement has made it easier for procurement staff to find procurement opportunities and for suppliers to submit bids. This has reduced the time required to complete the procurement process. E-procurement has also helped to automate manual tasks, such as the approval process for purchase orders, which has freed up procurement staff to focus on more strategic tasks. About transparency E-procurement has made it easier for the public to access information about procurement opportunities and procurement contracts. This has helped to improve transparency in the procurement process. CRS Rwanda is also using e-procurement to create an audit trail that can be used to track the procurement process and identify any areas of concern. This has helped to ensure that procurement staff are following the rules and regulations and that procurement contracts are being awarded fairly and competitively. On accountability E-

procurement has helped to improve accountability in the procurement process by making it easier to track the procurement process and to identify any areas of concern. CRS Rwanda is also using e-procurement to create an audit trail that can be used to track the procurement process and identify any areas of concern. This has helped to ensure that procurement staff are following the rules and regulations and that procurement contracts are being awarded fairly and competitively.

4.3.3 To assess the impact of e-procurement on the satisfaction of CRS Rwanda's procurement staff and suppliers, as measured by a five-point likert scale.

Based on the findings of Table 4.2, most procurement staff and suppliers are satisfied with the e-procurement system used by CRS Rwanda. 86% of procurement staff strongly agree that e-procurement has made it easier for them to find procurement opportunities. 82% of suppliers strongly agree that e-procurement has made it easier for them to submit bids. 78% of procurement staff strongly agree that e-procurement has made the procurement process more transparent. 74% of procurement staff strongly agree that e-procurement has made the procurement process more accountable. 70% of procurement staff and suppliers are satisfied with the e-procurement system used by CRS Rwanda.

4.3.4 To identify the top three factors that influence the successful implementation of e-procurement in CRS Rwanda as perceived by procurement staff and suppliers.

Based on the findings of Table 4.7 and Table 4.8, the top three factors that influence the successful implementation of e-procurement in CRS Rwanda as perceived by procurement staff and suppliers are Top management support (97%), Availability of adequate resources (93%) and User training and support (86%).

4.3.5   Relationship between e-procurement functions and stakeholders satisfaction

There is a strong relationship between e-procurement functions and stakeholder satisfaction. E-procurement can improve stakeholder satisfaction in a number of ways, including improved efficiency: E-procurement can streamline the procurement process and make it more efficient. This can save time and money for both CRS Rwanda and its suppliers. When the procurement process is more efficient, suppliers are more likely to be satisfied with doing business with CRS Rwanda, increased transparency: E-procurement can make the procurement process more transparent. This means that suppliers can see how their bids are being evaluated and awarded. This transparency can help to build trust between CRS Rwanda and its suppliers. Reduced corruption: E-procurement can help to reduce corruption in the procurement process. This is because e-procurement systems typically have built-in safeguards to prevent fraud and abuse. When corruption is reduced, suppliers are more likely to be confident that they are being treated fairly and that they have a chance of winning contracts. Improved communication: E-procurement can improve communication between CRS Rwanda and its suppliers. This is because e-procurement systems typically provide a central platform where CRS Rwanda and its suppliers can communicate with each other. Improved communication can help to resolve issues quickly and avoid delays. When suppliers are satisfied with the e-procurement process, they are more likely to continue doing business with CRS Rwanda and to recommend CRS Rwanda to other suppliers. This can lead to a few benefits for CRS Rwanda, including Reduced costs: When CRS Rwanda has a large pool of qualified suppliers to choose from, it can negotiate better prices and terms. Improved quality: CRS Rwanda can attract and retain the best suppliers by offering a fair and transparent procurement process. Reduced risk: By reducing corruption and improving communication, CRS Rwanda can reduce the risk of disruptions to its supply chain. Overall, there is a strong relationship between e-

procurement functions and stakeholder satisfaction. By implementing e-procurement functions that meet the needs of its stakeholders, CRS Rwanda can improve stakeholder satisfaction and achieve its business goals

CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMENDATIONS

5.0 Introduction

These chapter summarises of the research findings as per the research objectives and presents conclusions based on those findings and recommendations which are based on other relevant literature considered necessary and vital to be used in future to improve the research. After presentation , analysis and interpretation of the data collected by primary data and secondary data, the researcher came to the following results in accordance with the objective.

5.1 Summary of Major Findings

5.1.1 Identify the top five challenges that hinder the improvement of the e-procurement function in CRS Rwanda, as perceived by procurement staff and suppliers

The top five challenges that hinder the improvement of the e-procurement function in CRS Rwanda, as perceived by procurement staff and suppliers, are absence of community initiation in project inception and monitoring (73%), Fraud (50%), Lack of definition of project is a failure to clarify project objectives (41%), Lack of capacity to use and understand the e-procurement system (35%), Poor communication between CRS Rwanda and suppliers (28%).

5.1.2 Examine the role of e-procurement in improving the efficiency, transparency, and accountability of the procurement function in CRS Rwanda.

E-procurement can improve the efficiency, transparency, and accountability of the procurement process, The majority of procurement staff and suppliers are satisfied with the e-procurement system used by CRS Rwanda (70%).

5.1.3 Assess the impact of e-procurement on the satisfaction of CRS Rwanda's procurement staff and suppliers, as measured by a five-point Likert scale.

86% of procurement staff strongly agree that e-procurement has made it easier for them to find procurement opportunities. 82% of suppliers strongly agree that e-procurement has made it easier for them to submit bids. 78% of procurement staff strongly agree that e-procurement has made the procurement process more transparent. 74% of procurement staff strongly agree that e-procurement has made the procurement process more accountable. 70% of procurement staff and suppliers are satisfied with the e-procurement system used by CRS Rwanda.

5.1.4 To identify the top three factors that influence the successful implementation of e-procurement in CRS Rwanda, as perceived by procurement staff and suppliers.

The top three factors that influence the successful implementation of e-procurement in CRS Rwanda as perceived by procurement staff and suppliers are Top management support (97%), Availability of adequate resources (93%), User training and support (86%)

5.2 Conclusion

E-procurement has the potential to significantly improve the efficiency, transparency, and accountability of the procurement function in CRS Rwanda. However, there are a number of challenges that need to be addressed in order to achieve this potential.

5. 3 Recommendation

To address the challenges identified in the study and to ensure the successful implementation of e-procurement in CRS Rwanda, the following recommendations are made obtain top management support for e-procurement, allocate adequate resources to the e-procurement project, develop and implement a comprehensive training and support program for procurement staff and suppliers, engage with the community in the project inception and monitoring process, implement anti-fraud

measures, clearly define project objectives, provide training on the e-procurement system to procurement staff and suppliers, improve communication with suppliers.

5.4 Suggestion for Further Study

Based on the findings of this study, the following suggestions are made for further study:

Conduct a longitudinal study to track the impact of e-procurement on the efficiency, transparency, and accountability of the procurement function in CRS Rwanda over time. This would allow for a more in-depth understanding of the long-term effects of e-procurement.

Conduct a comparative study to examine the challenges and opportunities of e-procurement in CRS Rwanda and other developing countries. This would allow for the identification of best practices and lessons learned that could be shared with other developing countries.

Conduct a case study to examine the factors that contributed to the successful implementation of e-procurement in a particular organization in CRS Rwanda. This would provide valuable insights into how to successfully implement e-procurement in other organizations.

In addition to these suggestions, the following specific research questions could be explored in further studies:

What are the most effective ways to train procurement staff and suppliers on how to use the e-procurement system?

How can the e-procurement system be used to improve communication between procurement staff and suppliers?

How can the e-procurement system be used to mitigate the risk of fraud and corruption in the procurement process?

How can the e-procurement system be used to support the implementation of CRS Rwanda's procurement policies and procedures?

How can the e-procurement system be used to support risk management in the procurement process?

By conducting further research on these topics, CRS Rwanda can gain a better understanding of how to use e-procurement to improve the efficiency, transparency, and accountability of the procurement function. This was ultimately lead to better outcomes for CRS Rwanda and the people it serves.

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APPENDICES

APPENDIX (I): QUESTIONNAIRE

Dear Respondent,

My name is Alice Umuhoza, and I am a student in the final year of my Master's in Procurement and Supplies Management at Mount Kenya University. I am conducting research on the role of e-procurement in improving procurement functions for stakeholders' satisfaction in Rwanda, with a case study of CRS Rwanda.

I am particularly interested in learning about the experiences of procurement staff and suppliers with e-procurement. I am also interested in understanding how e-procurement has impacted the efficiency, transparency, and accountability of the procurement process at CRS Rwanda.

I believe that this research will benefit the procurement profession in Rwanda by providing insights into how e-procurement can be used to improve the procurement process for all stakeholders. The findings of my research will be shared with CRS Rwanda and other relevant stakeholders, and they will also be published in an academic journal.

Your participation in this research is voluntary, and you can withdraw at any time without any penalty. The survey should take approximately 15-20 minutes to complete. Your responses will be kept confidential, and your name will not be used in the research report.

Thank you for your time and consideration.

APPENDIX (II): SELF-ADMINISTERED QUESTIONNAIRE FOR RESPONDENTS

SECTION A: RESPONDENTS PERSONAL INFORMATION

N.B: Tick (√) in the appropriate box provided:

1. Age of Respondent

21-35	36-50	51-65	Above 65

N.B: Tick (√) in the appropriate box provided:

2. Gender of Respondents

Male	Female

N.B: Tick (√) in the appropriate box provided:

3. What is your highest level of education?

Primary	Secondary	Bachelors	Masters	Other

N.B: Tick (√) in the appropriate box provided:

4. For how long have you been working on the CRS Project in Procurement?

1-2 years	3-4 years	5-6 years	6+	

N.B: Tick (√) in the appropriate box provided:

5. Views on Identify the top five challenges that hinder the improvement of the e-procurement function in CRS, Rwanda, as perceived by procurement staff and suppliers. <u>*N.B:*</u> *Tick (√) in the appropriate box using Lickert Scale 1*=Strongly Agree; **2**= Agree; **3**=Not Sure; **4**=Disagree; **5**=Strongly Disagree

S/N	Statements	1	2	3	4	5
1	Absence of community initiation in project inception and monitoring					
2	Lack of definition of project is a failure to clarify project objectives					
3	Lack of capacity to use and understand the e-procurement system					
4	Poor communication between CRS Rwanda and suppliers					
5	Fraud					

6: Views on how to examine the role of e-procurement In improving the efficiency, transparency and accountability of the procurement function in CRS Rwanda.

N.B: Tick (√) in the appropriate box using Lickert Scale 1=Strongly Agree; **2**= Agree; **3**=Not Sure; **4**=Disagree; **5**=Strongly Disagree

S/N	Statements	1	2	3	4	5
1	E-procurement improves the efficiency of the procurement process					
2	E-procurement improves the transparency of the procurement process					
3	E-procurement improves the accountability of the procurement process					

7. Views on to assess the impact of e-procurement on the satisfaction of CRS Rwanda's procurement staff and suppliers, as measured by a five-point likert scale.

<u>*N.B:*</u> *Tick (√) in the appropriate box using Lickert Scale 1*=Strongly Agree; **2**= Agree; **3**=Not Sure; **4**=Disagree; **5**=Strongly Disagree

S/N	Statements	1	2	3	4	5
1	E-procurement has made it easier for me to find procurement opportunities (procurement staff)					
2	E-procurement has made it easier for me to submit bids (suppliers)					
3	E-procurement has made the procurement process more transparent (procurement staff)					
4	E-procurement has made the procurement process more accountable (procurement staff)					
5	I am satisfied with the e-procurement system used by CRS Rwanda (procurement staff and suppliers)					

8. Views on To identify the top three factors that influence the successful implementation of e-procurement in CRS Rwanda as perceived by procurement staff and suppliers.

*N.B: **Tick (√) in the appropriate box using Lickert Scale 1**=Strongly Agree; **2**= Agree; **3**=Not Sure; **4**=Disagree; **5**=Strongly Disagree*

S/N	Statements	1	2	3	4	5
1	Top management support					
2	Availability of adequate resources					
3	User training and support					

SECTION B: **Relationship between the Role of e-procurement in Improving Procurement Functions and Stakeholders' Satisfaction in Rwanda,** *N.B:* *Tick (√) in the appropriate box using the Lickert Scale 1*=Strongly Agree; **2**= Agree; **3**=Not Sure; **4**=Disagree; **5**=Strongly Disagree

S/N	Statements	1	2	3	4	5
1	The Role of e-procurement in Improving Procurement Functions for Stakeholders' Satisfaction in Rwanda					
2	E-procurement in improving procurement function characteristics is connected					
3	Leadership mediates the relationship between the role of e-procurement in improving procurement functions for stakeholders' satisfaction in Rwanda					
4	E-procurement capacities enormously add to the success of the project					

APPENDICE (III): INTRODUCTION LETTER

Mount Kenya University

*CRS RECEPTION
Date: 30/10/2023
N°:
Nom:*

INSTITUTE OF POST GRADUATE STUDIES & RESEARCH

INTRODUCTION LETTER

REF: MKU04/PGS&R/1074/2023

30TH OCTOBER, 2023

TO WHOM IT MAY CONCERN

Dear Sir/Madam,

RE: ALICE UMUHOZA   MPSM/2022/35586

This is to confirm that the above-named person is a bonafide student of Mount Kenya University Rwanda.

She is currently carrying out research work to enable her complete her Master of Science in Procurement and Supplies Management **Degree** Program. The title of her research is: **THE ROLE OF E-PROCUREMENT IN IMPROVING PROCUREMENT FUNCTIONS FOR STAKEHOLDERS' SATISTACTION IN RWANDA.**

A CASE STUDY OF CRS RWANDA IN NYARUGENGE DISTRICT

The information received will be confidential and for academic purposes only.

Any assistance accorded to her to complete this study will be highly appreciated.

Thank you.

DR. GITAHI NJENGA (PhD)
DIRECTOR INSTITUTE OF POST GRADUATE STUDIES & RESEARCH

APPENDICE (IV): ACCEPTANCE LETTER

CRS
CATHOLIC RELIEF SERVICES

Catholic Relief Services-USCCB
Rwanda Program
Nyarugenge-3rd Floor, Chadel House
#KN 78 st/ 2 Street
Across former Belgian School
P.O. Box:65 KIGALI
Landline Tel :(+250)252582114
Office Cell phone :(+250}788307256
General e-mail address: CRSRW@crs.org

Kigali, 31st October 2023
Ref: .9.5.3.1.1.9 /2023

Umuhoza Alice
MPSM/2022/35586
Mount Kenya University
Rwanda

Re: Acceptance letter

Dear Alice,

We are pleased to inform you that Catholic Relief Services has accepted your request to conduct research with the following title: *"The Role of E-procurement in Improving Procurement Functions for Stakeholders' Satisfaction in Rwanda: A Case Study of Catholic Relief Services Rwanda."*

Your research will contribute significantly to the field, and we are pleased to support your efforts. We understand that this research is a crucial component of your master's degree in Procurement and Supplies Management. However, to ensure the integrity of our operations, please make sure that all questionnaires are cleared by the operations manager. Additionally, it is essential that no CRS proprietary and/or sensitive data is collected or used as part of your research.

Please feel free to reach out if you require any further assistance or resources during your research process.

Best regards,

Chandra, Kumud
Acting Country Representative, CRS Rwanda