**BINDURA UNIVERSITY OF SCIENCE EDUCATION**

****

RESEARCH TOPIC:

***The effects of e-procurement on public procurement performance during Covid 19: A case study of Chitungwiza Municipality (2020-2022)***

**By**

Natasha Vurumu (B190377A)

A DISSERTATION SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE BACHELOR OF COMMERCE HONOURS DEGREE IN PURCHASING AND SUPPLY OF BINDURA UNIVERSITY OF SCIENCE EDUCATION FACULTY OF COMMERCE.

# RELEASE FORM

Name of student:. Natasha Vurumu

Dissertation title:. Effects of e-procurement on public procurement performance during Covid 19.

Degree Title:. Bachelor of Commerce Honors Degree in Purchasing and Supply.

Permission is granted to the Bindura University of science education Library and the department of economics to produce copies of this dissertation in an effort it deems necessary for academic use.

Signed............................

Permanent address: 3965 Unit D Seke Chitungwiza

Date:

# APPROVAL FORM

The undersigned certify that they have read and recommend to Bindura University of Science Education for acceptance of a research project entitled:

The effects of e-procurement on public procurement performance during Covid 19.

Submitted by: NATASHA VURUMU

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS OF THE BACHELOR OF COMMERCE HONOURS DEGREE IN PURCHASING AND SUPPLY.

……………………………… ……………………. ………/…………/………….

Name of supervisor Signature Date

……………………………. ……………………… ……/………/…………..

Chairperson Signature Date

# DEDICATION

I dedicate this piece of work to the Almighty God who sailed with me throughout the course of this research and made everything possible. I would also like to take this opportunity to express my sincere gratitude to my family, and all my friends for all the love, support, encouragement, and inspiration they offered me during my research period.

To all, I sincerely say, Thank you!

# ABSTRACT

The purpose of the study was to find the effects of e-procurement on public procurement performance during covid-19 using Chitungwiza Municipality as a case study. This study was guided by three objectives explicitly: to determine which procurement methods that are currently being employed at Chitungwiza Municipality; to identify the challenges affecting e-procurement on the public procurement performance during covid 19 and to analyze the effects of e-procurement on the public procurement performance. To satisfy the objectives, 20 respondents was used as the study population. The study was motivated by the bottlenecks in the supply chain of the public sector. Questionnaires and interviews were used to gathering information. The questionnaires were distributed using Google forms through emails at Chitungwiza Municipality. The data was analyzed using SPSS: pie charts, bar graphs and also tables were used to analyze data. The main findings were that increased transparency, reduction of costs were the effects of e-procurement on public procurement performance during covid 19 and that electronic procurement is the most effective strategy to use during covid-19 period. The study recommends that public entities should move from traditional methods of procurement to modern day methods as like e-procurement and also the adaptive strategies should be used to changes in business environment rather that to be rigid to traditional strategies.

# ImageACKNOWLEDGEMENT

It is impossible to thank everyone that head been a part of this stage of my life. I would like to give my honor and glory to the most high God for protecting and guiding me throughout my degree program and who gave me the wisdom to excel academically. The researcher is grateful to a number of people who made this project a success because of their unwavering support. My wholehearted to my University supervisor Mr. Mandaza for the selfless commitment he demonstrated, he constantly encouraged me when the journey was tough and pushed me when it was needed during my course of this research. Also my sincere appreciation to my wonderful parents, brothers and also my friends whose support made things easier and all walked this journey with me, without their encouragement this project would not have been accomplished successfully.

Table of Contents

[RELEASE FORM ii](#_Toc122217579)

[APROVAL FORM iii](#_Toc122217580)

[DEDICATION iv](#_Toc122217581)

[ABSTRACT v](#_Toc122217582)

[ACKNOWLEDGEMENT vi](#_Toc122217583)

[CHAPTER 1 4](#_Toc122217584)

[1.0 Introduction. 4](#_Toc122217585)

[1.2 Background of the study 4](#_Toc122217586)

[1.3 Statement of the problem. 9](#_Toc122217587)

[1.4 Research objectives 10](#_Toc122217588)

[1.5 Research questions 10](#_Toc122217589)

[1.6 Significance of study 10](#_Toc122217590)

[1.6.1 To Chitungwiza Municipality (CM) 10](#_Toc122217591)

[1.6.2 To Bindura University of Science Education (BUSE) 11](#_Toc122217592)

[1.6.3 To government and policy makers. 11](#_Toc122217593)

[1.6.4 To the researcher 11](#_Toc122217594)

[1.7 Assumptions 11](#_Toc122217595)

[1.8 Limitations 11](#_Toc122217596)

[1.9 Delimitations 12](#_Toc122217597)

[1.10 Chapter summary 12](#_Toc122217598)

[CHAPTER 2 LITERATURE REVIEW 13](#_Toc122217599)

[2.0 Introduction 13](#_Toc122217600)

[2.1 Theoretical Literature Review 13](#_Toc122217601)

[2.1.1 The Disruptive Innovation Theory 13](#_Toc122217602)

[2.1.2 Technology Acceptance Theory 14](#_Toc122217603)

[2.1.3 Innovation Diffusion Theory 14](#_Toc122217604)

[2.1.4 Technology Organization and Environment 16](#_Toc122217605)

[2.2 Empirical Literature Review 18](#_Toc122217606)

[2.3 RESEARCH GAP 23](#_Toc122217607)

[CHAPTER 3 RESEARCH METHODOLOGY 24](#_Toc122217608)

[3.0 Introduction 24](#_Toc122217609)

[3.1 Research Design 24](#_Toc122217610)

[3.2 Target Population 25](#_Toc122217611)

[3.3 Population distribution 25](#_Toc122217612)

[3.4 Sampling Techniques 25](#_Toc122217613)

[3.5 Sample size 26](#_Toc122217614)

[3.6 Sample size of Respondents 26](#_Toc122217615)

[3.7 Data collection tools 27](#_Toc122217616)

[3.7.1 Questionnaire 27](#_Toc122217617)

[3.7.2 Interviews 27](#_Toc122217618)

[3.7.3 Documents review. 28](#_Toc122217619)

[3.8 Data collection procedures 28](#_Toc122217620)

[3.9 Validity and Reliability 28](#_Toc122217621)

[3.10 Data presentation and analysis 29](#_Toc122217622)

[3.10.1 Quantitative data. 29](#_Toc122217623)

[3.10.2 Qualitative data 29](#_Toc122217624)

[CHAPTER 4DATA PRESENTATION, INTERPRETATION AND DISCUSSION 30](#_Toc122217625)

[4.1Introduction 30](#_Toc122217626)

[4.2 Response rate 31](#_Toc122217627)

[4.3 Demographic data for participants 31](#_Toc122217628)

[4.4 ANALYSIS OF DATA 37](#_Toc122217629)

[4.4.1 To determine which e-procurement methods are currently being employed at Chitungwiza Municipality during Covid 19 37](#_Toc122217630)

[4.4.2 To determine the challenges affecting e-procurement to enhance public procurement performance during Covid 19 38](#_Toc122217631)

[4.3.3 To analyze the effects of e-procurement on the public procurement performance during Covid 19 at Chitungwiza Municipality 40](#_Toc122217632)

[4.4 Chapter summary 41](#_Toc122217633)

[CHAPTER 5 SUMMARY, CONCLUSION AND RECOMM ENDATIONS 43](#_Toc122217634)

[5.0 Introduction. 43](#_Toc122217635)

[5.1 Summary of the study. 43](#_Toc122217636)

[5.2 Summary of the findings. 43](#_Toc122217637)

[5.3 Conclusions. 44](#_Toc122217638)

[5.4 Recommendations 45](#_Toc122217639)

[5.5 Area of further study 45](#_Toc122217640)

[References 46](#_Toc122217641)

[APPENDIX 1 49](#_Toc122217642)

[APPENDIX 2 50](#_Toc122217643)

**List of figures**

[Figure 2: Technology-Organization-Environment (TOE) 18](#_Toc122217723)

[Fig 4.1: Job title of Participants 32](#_Toc122217724)

[Fig 4.2: Participants by gender 33](#_Toc122217725)

[Fig 4.5: Participants by years of experience 36](#_Toc122217726)

[Fig 4.6: Responses from participants on which e-procurement methods are currently being employed at Chitungwiza Municipality during Covid 19 37](#_Toc122217727)

[Fig 4.6: Responses from participants on the challenges affecting e-procurement to enhance public procurement performance during Covid 19 39](#_Toc122217728)

[Fig 4.7: Responses from participants on the effects of e-procurement on the public procurement performance during Covid 19 at Chitungwiza Municipality 41](#_Toc122217729)

**List of Tables**

[Table 1.1 Chitungwiza Municipality procurement departments’ performance 9](#_Toc122217939)

[Table 3.1 Sample Frame 25](#_Toc122217940)

[Table 3.2 sample respondents. 26](#_Toc122217941)

[Table 4.1: Questionnaire response rate for participants 31](#_Toc122217942)

# CHAPTER 1

## 1.0 Introduction.

In this chapter, the researcher will discuss the study's objectives as well as its historical context, which defines the nature of the research problem. The problem statement that serves as the foundation for the research will be presented supported by the research questions that will help the researcher conduct the investigation. Other elements that make up this chapter are the goals of the study, assumptions and restrictions, delimitations, significance of the study, definitions of words, and structure.

## 1.2 Background of the study

A municipality is a public corporation created by the legislature for political purposes, with political powers, to be exercised for purposes related to the public good, in the administration of civil government. Municipalities are instruments of government subject at all times to the control of the legislature with respect to their duration, powers, rights, and property for example Chitungwiza Municipality. It is a basic principle of law of municipal corporations that such corporations possess and can legally exercise only such powers that are expressly granted. Generally, municipalities possess only such powers conferred upon them by the legislature. It is well settled that municipal corporations have no inherent powers and can exercise only those powers which were expressly granted to them by a statute. In other words, municipalities are made up of structures that govern them from the top management to lower-level management mentioning also the procurement department which is the center of the study.

Chitungwiza Municipality, the case study, is wholly government owned and falls under the ambit of the Ministry of Local Government. Subject to the CMC Act Constitution of Zimbabwe, Amendment No 20 of 2013 Section 24 to 278. Chitungwiza Municipality (CMC) is ordinarily run by an elected Non-Executive Mayor, Deputy Mayor and forty-six (46) elected Councilors. The 46 Councilors represent the residents of the wards in which they are elected. Chitungwiza Municipality provides local government services such as education, health, housing, water and sanitation, fire and ambulance, road construction and maintenance, burial and cremation services among others through its departments which are headed by directors and to come up with these services the procurement department is needed. All the directors report to the town clerk. Urban councils are local government authorities that are involved in the administration of towns and cities in Zimbabwe and other parts of the world (Kiragu, 2018).

In addition, the procurement department of Chitungwiza municipality is responsible for the procurement of supplies, materials and equipment through public bidding and personnel canvass needed by different offices (national and local) of the municipality. Their main performance is to set standards before acquiring an item. It should be the right quality, at a reasonable price, accurate or reasonable quantity provided by a reliable source and requested at the right time. The procurement department is also responsible for inventory management, contract negotiation and supplier evaluation as well as preparation of procurement documents, purchase order, purchase request.

According to Nelson et al. (2001), the primary costs incurred by businesses come from using manual procurement techniques to buy goods and services. Traditionally, purchasing agents had to call a variety of suppliers and have an in-person chat. Purchase requests must be raised physically on paper in which the things needed and their costs are listed before receiving approval. The same is true for purchase orders, which are traditionally drafted and authorized by hand before being physically delivered to the vendor by courier. Traditional procurement required manual management of the function, substantial reliance on paperwork, and was time-consuming. Due to lack of visibility, it was also subject to disruptions from different factors.

The efficiency of institutions was hampered by the conventional manual technique, which involved managing procurement processes through paperwork; excel sheets, and phone calls. Internet technology is chosen, according to Schoenherr T. (2019), to lower overall spending and improve public service delivery during the procurement process. Moving activities to an e-procurement platform automates purchasing procedures, speeds up operations with significantly quicker processing, and saves time for procurement professionals.

When procurement was done manually in the past, before the advent of COVID-19, it was challenging to manage supplier relationships and monitor their performance. Public sector organizations can gain a thorough grasp of their purchasing activities and a better awareness of the lifecycle of their supplier contracts by using e-procurement software. Fadhillah and Juwono (2020) assert that organizations can more successfully monitor supplier performance with the aid of technology, helping to verify that a provider complies with contractual requirements. Increasing an organization's bottom line, producing more savings, and adding value to the firm are all goals of good procurement.

The standard procurement method minimizes the importance of strategy and treats it more like a short-term purchase procedure, failing to produce significant cost savings and profit (Croom, and Brandon Jones 2005). With a digital platform, institutions can more easily accomplish their financial objectives thanks to strategic supplier procurement, improved administration, and spend visibility.

Covid-19 pandemic has turned the world on its head, brought it to a standstill, and highlighted how crucial public procurement is in times of crisis. Extreme measures were taken locally, nationally, and internationally to acquire vital Personal Protective Equipment (PPE). According to the World Bank (2021), at the same time when businesses were being forced to close their doors and customers were being advised to stay at home, a global economic crisis started to ease. During the Covid-19 pandemic, one of the most prominent problems for public institutions like Chitungwiza Municipality has been the acquisition of necessary materials.

Chitungwiza Municipality had to make urgent purchases of commodities, services, and labor to address this global pandemic, and this was only possible through e-procurement. In the meantime, e-procurement is defined as a technology created to make it easier for a business or government agency to buy items online (Davila et al., 2003, Schoenherr and Tummala, 2007). On March 27, 2020, Procurement Regulatory Authority of Zimbabwe (PRAZ) released Circular No. 1 of 2020 about the procurement of necessities to control the Covid-19 illness epidemic. In accordance with this instruction, procuring organizations are allowed to make last-minute purchases of products, services, and labor under Circular No. 1 of 2020. The guidance also outlines the several choices accessible to public sectors if they have an urgent necessity for goods, services, or works owing to Covid-19 under the public contracts regulations, which are statutory instruments 17 and 18 of 2021. The procurement departments in various organizations have unquestionably been helpful in the face of a number of issues since the start of the year, according to Mettler and Rohner (2019). The new pandemic-related criteria have proven to be challenging for each procurement team to grasp. However, people who already had a reliable automation system were able to travel without any problems in the early stages of the pandemic.

The majority of procurement processes, however, are repetitive in nature, making them perfect candidates for automation. This suggests that expenditure analysis, supplier bids, contract management, and of course, the actual purchasing and payment processes were all automated to provide the firms a significant amount of benefits. With the advent of web-based and electronic procurement systems, procurement has undergone a radical transformation from a manual process that anybody who can read and write could undertake to a fully automated strategic function that can only be handled by procurement practitioners.

The generation of e-procurement includes e-tendering, e-auctioning, catalog management, and vendor management, and it has been adopted by governments in both developed and developing nations. In terms of efficiency, transparency, and opening up of public procurement, the introduction of e-procurement of modern information technology (ICT) presents exciting potential (European Commission). According to Kiragu, R. (2012), technology has significantly aided in the success of procurement. It all began with the use of email to request quotes and receive them, then enterprise resource planning, which makes it easier to create and approve purchases using web technologies, e-tendering, which uses the internet to communicate pricing information to suppliers, and finally, e-sourcing, which has the primary goal of finding suppliers. Due to the advantages of lower transaction costs, more opportunities for competitive sourcing, improved interorganizational coordination, and the need to address supply chain issues brought on by the Covid-19 pandemic, public institutions like Chitungwiza Municipality began to realize the necessity of integrating internet-based technologies into their procurement procedures. E-procurement, according to Roma and McCue (2012), is the use of information technology to create a procurement process that is adaptable to environmental changes. E-procurement is a concept that has been implemented by practically all businesses and procuring organizations across numerous nations.

Specifically, social, cultural, and political reasons which are driving e-procurement in public organizations (Garran, 2005). Due to the Covid-19 pandemic, e-procurement has become the norm and must be used in public sector especially organizations like Chitungwiza Municipality. This demands resources and specialist knowledge. A coordinated training program and change management mechanisms are also necessary for the procedure (Garran, 2005)

Not only in Zimbabwe but also throughout Sub-Saharan Africa, the significance of public procurement has increased significantly during the past ten years. This, according to Panetto and Boudjilida (2013), is demonstrated by the fact that public procurement accounts for between 8 and 15% of a country's GDP in Sub-Saharan Africa. According to Shalle and Irayo (2013), up until the early 2000s, Zimbabwe, like many other developing nations, had a high inefficiency rate when it came to using public monies, especially for public sector procurement. Due to limits brought on by the COVID-19 epidemic, the number of suppliers who once enjoyed the privilege of doing business with state businesses has now decreased due to reduced physical accessibility to the procuring organizations.

E-procurement has subsequently gained popularity as one of the major public sector reforms in most nations, including Zimbabwe. The goal of adopting e-procurement is to increase public procurement's efficiency, effectiveness, transparency, and accountability.

With the establishment of PRAZ in 2018, the Zimbabwean government became actively involved in the implementation of e-procurement. Since then, there has been a lot of pressure and reform to make sure that all public procurement processes are carried out in a way that is open, free, and equal and that all bids are treated fairly. The Public Procurement and Disposal of Public Assets (PPDPA) Act Chapter 22:23 of 2018's requirements were made mandatory by the Zimbabwean government for the procurement of all public products, works, and services. In order to assure pricing uniformity, it is mandated, particularly for public institutions, that all procurement and financial processes be carried out online through common procurement arrangements and framework agreements.

Examples include the introduction of the Systems Applications and Products (SAP) and the Public Financial Management System (PFMS) by the government to various procurement entities. Additionally, it improves accountability and transparency and serves to discourage fraud and corruption (USAID, 2008). Finally, e-procurement in particular has been the subject of numerous studies in the field of procurement. Peter and Anne (2002), Musanzikwa (2013), Gupta and Palmer (2003), Mushanyuri (2014), Basheka, Oluka, and Mugurusi are a few authors that have written about this issue (2012). However, not much has been done to the impact of e-procurement on public procurement performance during COVID 19 pandemic. This study seeks to examine the impact of e-procurement on the public procurement performance during COVID 19 using Chitungwiza Municipality as a case study.

#### Table 1.1 Chitungwiza Municipality procurement departments’ performance

|  |  |  |
| --- | --- | --- |
| **VARIABLES** | **BEFORE (2017-2019)** | **AFTER (2020-2021)** |
| Procurement cycle time | 43-47% | 63% |
| Purchase order accuracy | 25-38% | 60% |
| Emergency purchase ratio | 39-44% | 65.4% |
| Cost savings | 57-60% | 85.6% |
| Vendor performance | 59-63% | 70% |

*Source: primary data*

From table 1.1 Chitungwiza Municipality projected the above improvements in the recent covid 19 season through the use of e-procurement. The statistics from the year 2017-2019 indicate that procurement cycle time ranged between 43-47% but after covid 19 era it increased to 63%. Chitungwiza Municipality currently holds purchase order accuracy at 60% thus due to e-procurement during covid 19.Its cost savings and vendor performance has increased to 85.6% and 70% respectively.

## 1.3 Statement of the problem.

COVID 19 has strengthened the case of e-procurement. Due to covid 19 we have seen consecutive disruptions in the supply chain of public sectors and other industries. A decrease in the productivity has been witnessed and also inefficiencies on the supply chain. Public institutions like Chitungwiza Municipality are facing both supply and demand uncertainties and capacity fluctuations and disruptions in global supply chains. Therefore the only way to quickly and effectively supply the public entities with necessary goods to ease the problems is through an electronic platform. Less is known, though, about the impact of e-procurement on changes in public procurement performance during covid 19.

## 1.4 Research objectives

1. To determine which e-procurement methods are currently being employed at Chitungwiza Municipality during covid 19.

2. To determine the challenges affecting e-procurement to enhance public procurement performance during covid 19.

3. To analyze the effects of e-procurement on the public procurement performance during covid 19 at Chitungwiza Municipality.

## 1.5 Research questions

1. What are the e-procurement methods currently used at Chitungwiza Municipality?

2. What are the challenges affecting e-procurement to enhance public procurement performance at Chitungwiza Municipality?

3. What are the effects of e-procurement on the public performance during covid 19 at Chitungwiza Municipality?

## 1.6 Significance of study

### 1.6.1 To Chitungwiza Municipality (CM)

The study will allow the organizations to get clear insights on how e-procurement affects the public procurement performance as it might provide in depth knowledge and understanding on e-procurement practices, challenges and benefits emphasizing on the public sector.

### 1.6.2 To Bindura University of Science Education (BUSE)

The study is going to enrich the university body of knowledge and facilitate further research findings. Moreover the findings can be used to cover he educational gaps that could have been omitted by previous researchers.

### 1.6.3 To government and policy makers.

The study will also be helpful for the policy makers on e- procurement in organizations both for private as well as public sectors, which will help to redefine the procurement department for efficient performance by applying e- procurement.

### 1.6.4 To the researcher

The study might be useful to the researcher as it broadens problem solving skills and provide an opportunity to apply concepts studied in real life situations.

## 1.7 Assumptions

The research will be based on the following assumptions:

* Respondents will willingly co-operate by facilitating access to data and information that maybe considered sensitive and confidential.
* The research environment will remain constant throughout the study period.

## 1.8 Limitations

* Time factor- The researcher will have to attend lectures and study at the same time, the research's time frame is constrained.
* Confidentiality- The original and secondary sources of data withheld important information because it may be viewed as a threat. In order to address this issue, the researcher thoroughly described to the company representatives the relevance of the study and how the findings would help the organization achieve its objectives after the project was over.

## 1.9 Delimitations

The research will focus on the effects of e-procurement on public procurement performance during Covid 19 at Chitungwiza Municipality.

## 1.10 Chapter summary

This proposal gave the background to the study, which gave an insight to the research area. The background to the study was central to the research as it laid a foundation for the problem being investigated. The statement of the problem, research questions and an outline of objectives were also discussed. An outline of limitations was also discussed. The justification for carrying out the research was a major motivation to the research and provided the impetus to work within the confines of the set objectives. The next chapter is literature review.

# CHAPTER 2LITERATURE REVIEW

## 2.0 Introduction

The chapter highlights the theoretical literature which cover the theories around the area of study and empirical literature which focus on the past studies relevant/closer to the study.

## 2.1 Theoretical Literature Review

This review covers the theories around e-procurement in improving the performance of public procurement. These theories are given as

### 2.1.1 The Disruptive Innovation Theory

Barahona and Elizondo (2012) discussed the theory of disruptive innovation. This theory points out that e-procurement is an innovation. As such it requires continual improvement. Because of such improvements, it disrupts the normal procurement operations and processes. The theory of disruptive innovation is characterized by small and costly client base and non-attractiveness at the initial stages of implementation, some level of acceptance as the system is implemented, new competition as innovation continues and continuous quality improvement to improve adaptability to user and stakeholders needs.

Disruptive innovations require critical resources, processes and values. Critical resources include resources supporting the normal business activities such as people, technologies, product designs, brands, customer and supplier relationships, relationship management with its clients and suppliers and marketing activities. Critical processes include decision making protocols and coordination patterns that supports operations of an existing business operations. In addition, organizational cultural values, belief system and assumptions are also critical (Barahona & Elizondo, 2012). The theory of disruptive innovation recognizes the fact that public organizations and systems are less flexible. Therefore, the adoption of e-procurement strategies requires a strategic and proactive approach so as to build the system within the existing structures rather than adoption of completely new systems. Adequate preparation in terms of the right technology, leadership to foster change process, training of the employees and awareness campaign among users is critical. It is important to note that sometimes disruptive innovations may only work in the short run.

### 2.1.2 Technology Acceptance Theory

Technology acceptance model was introduced by Devis (1986). According to this theory, emerging technologies cannot improve organizational effectiveness and performance if the change has not been accepted by the users (Davis, 1986). The theory of technology acceptance is one of the most popular theories in understanding adoption of computer technologies. Adoption of any innovation or especially information technology based requires investment in computer-based tools to support decision making, planning communication. However, these systems may be risky. It is therefore very critical that the systems are specified on organizational preference and logic. It is also necessary to understand that people may resist technological changes. There must be an effort to understand why people resist changes and the possible ways through which such issues can be resolved. Appropriate organizational culture must be inculcated; the change must be adopted in an incremental way accompanied by communication. Everyone involved must be informed on their roles and empowered to perform the respective roles (Kamel, 2014).

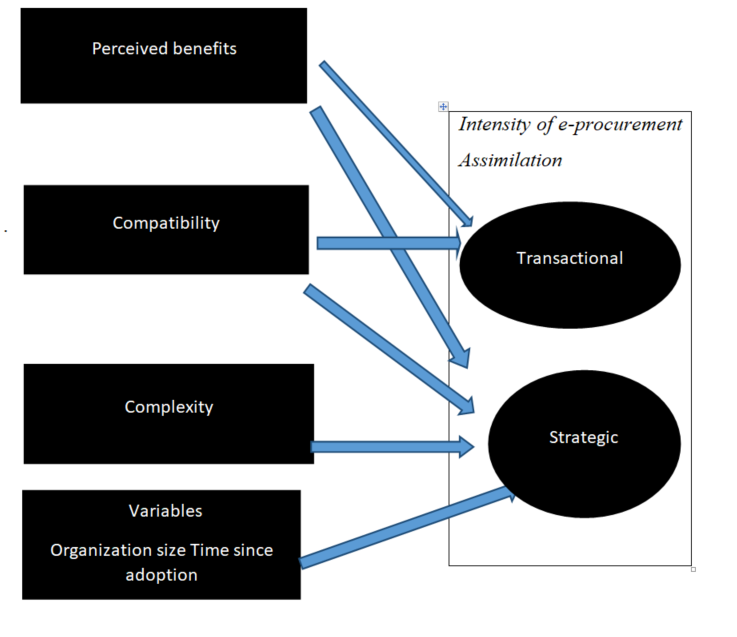
Theory of technology is based on two assumptions; perceived usefulness of the system such us; improved performance, enhanced productivity, effectiveness and efficiency in operations etc. and the perceived ease of use of the new systems such as ease to learn, ease to use, ease to control and ease to remember. This theory brings an understanding that acceptance and use of new technology is a function of the users’ feelings about the system and its perceived benefits.

### 2.1.3 Innovation Diffusion Theory

Innovation diffusion theory was proposed by Rogers (1962). The theory presents that innovation is a process aimed to improve economic development. According to innovation diffusion theory, innovation is defined as an idea perceived as new by individuals. OECD (1997) cited by Andreanne & Swaminathan (2007) defined innovation as all the scientific, technological, organizational, financial, and commercial activities necessary to create, implement, and market new or improved products or processes Innovation theory brings on board four important elements. The first element is innovation that puts attention on the ability to come up with more efficient and better ways of doing things.

This theory categorize adopters of innovation into five categories that are innovators, individuals who want to be the first to try the innovation, early adopters, people who represent opinion leaders, early majority individuals who need to see evidence that the innovation works before they can adopt it, late majority, skeptical individuals who only adopts an innovation after it has been tried by the majority and laggards, individuals who are very skeptical of change and are the hardest group to involve in the innovation process.

According to innovation theory, rate of adoption of innovative strategies can be looked at in terms of; relative advantage given to the organization, compatibility, complexity, trial-ability of the new strategies and observability to the stakeholders within the social system. The second factor is communication that lays information and creating and sharing information relating to innovative initiatives in the organization. The third element is time that considers the duration involved in the innovation-decision process. The last element is the social context of the new systems (Rogers, 1997). Diffusion of innovation strategies requires evolution and reinvention of products and people so that they are able to perform better (Les Robinson, 2009). The concepts in this theory are very relevant to this study. They help build on the study and enable the researcher understand the expected relationship between the variables.



##### Figure 1: Innovation Diffusion Theory

While innovation diffusion theory brings understanding of the innovation process, it has a number of limitations. The theory does not foster a participatory approach. It is therefore only able to work best with adoption of behaviors. Lastly, the theory does not take into account an organization’s resources and social support in adoption of new methods.

### 2.1.4 Technology Organization and Environment

According to the earlier notion, a successful firm should have a structure that is in harmony with its environmental needs (Lawrence & Lorsch, 1967). According to Ener (2012), an organization's ability to adapt to both internal and external elements, such as the environment, its size, and its strategy, determines how effective it is. Therefore, when making a decision, decision-makers should consider the environmental, organizational, and technological obstacles. Technology, organization, and environment are said to be the three main factors that influence organizational adoption.

A corporation is more likely to use e-procurement, according to the model, if there are certain perceived costs, benefits, top management support, absorptive aptitude, and competitive pressure. The amount of adoption of e-procurement is not directly influenced by the technical environment, despite the fact that it plays a key role in adoption decisions. How broadly e-procurement is used depends largely on organizational and environmental factors.

**External Task Environment**

**Industry Characteristics & Market Structure**

**Technology Support Infrastructure**

**Government Regulations**

Organization

Formal & Informal Linking Structure

Communication Processes

Size

Slack

Technology

Available

Characteristics

Technology Innovation Decision Making

m

##### Figure 2: Technology-Organization-Environment (TOE)

The technological context in this paradigm refers to the technology that an organization has access to. Its main emphasis is on the potential effects of technology on adoption. The features of an organization are described by the organizational environment. Common organizational features include the size of the company, the level of formalization, the level of centralization, the complexity of the management structure, the quality of the human resource pool, and the amount of internal spare resources. The setting in which an organization operates is the external environment. This covers the market, rivals, rules, and connections to the government. These outside factors offer opportunities and constraints for technological developments (Technology-Organization-Environment-Framework-TOE-Source-DePietro-Wiarda, n.d.). To characterize various IT adoptions, including e-business, enterprise resource planning, electronic data interchange, open systems, and knowledge management systems, the TOE framework is frequently used in studies. The approach is also better suited for the study on the adoption of e-procurement since it takes environment, organization, and technology—three crucial factors—into account.

## 2.2 Empirical Literature Review

Gupta and Palmer (2003) surveyed the state of the art in electronic procurement technology. A survey of 168 public and private sector organizations in the United States found that the final balance may involve multiple technologies, each serving a different market segment. was shown. Such a variety of solutions can further delay the industry's transition to the growth stage. This study is similar to mine, except that it deals with electronic procurement technology in the United States and my study is in Zimbabwe. The economic performance of the Zimbabwe economy and the US economy are very different. Although the surveys are completely similar, different results are to be expected in this survey as high and low performing countries have different results.

Wojciech and Zahir (2010) examined the benefits of e-procurement in his four case studies from companies in the information technology (IT) and high-tech sectors. This study used a multicase study design in Central Europe. This study reported that a new benefit classification was proposed. The framework was developed based on information systems literature. The study identified non-monetary, intangible benefits at the strategic level, in addition to operational benefits, confirming the difficulty in assessing benefits. This study is similar to mine, but differs in that it examined the impact of e-procurement in Central Europe and my research report on the same issue in Zimbabwe. Least developed countries and developed countries have different economic performance. On the other hand, we would expect different results in this study, as high-performing and low-performing countries have different results. Hence the reason for conducting this survey.

Petter Gottschalk, Anne Foss, and Abrahamsen (2002) investigated the extent to which firms have plans to use electronic marketplaces for purchasing. A survey of Norwegian companies was used for this study. The survey found that most organizations have plans, only 3% have no plans, and 34% have specific plans to use e-marketplaces for purchases. Responding organizations were found to have planned to purchase far more indirect goods than indirect services on the electronic marketplace. The main expected benefit of using electronic marketplaces for shopping is reduced transaction costs. This study is similar to my study in that it looks at e-procurement adoption in Norway and my study on e-procurement efficiency is conducted in Zimbabwe. it's different. On the other hand, we would expect different results in this study, as high-performing and low-performing countries have different results.

Matunga, Nyanamba and Okibo (2013) evaluated the effect of e-procurement on efficient procurement in public hospitals in Kenya. The purpose of this study was to assess the extent to which e-procurement improved the quality of goods in public hospitals, determine the extent to which e-procurement reduced the prices of goods purchased in public hospitals, and determine the extent to which was to do e-procurement ensures the highest cost-effectiveness in public hospital procurement. The study concludes that public hospitals are adopting some of the e-procurement applications regardless of the challenges involved. This study is similar to mine in that it assessed the impact of e-procurement on service delivery in public hospitals. The methodology used was also similar, except that the impact of e-procurement and service delivery in Kenya was examined. Public institutions and my research are conducted in Zimbabwe. The operating environments of public institutions in Zimbabwe and Kenya are different. Although the surveys are completely similar, different results are to be expected from the surveys as high and low performing countries have different results.

Kamotho (2014) investigated e-procurement and procurement performance in state-owned enterprises in Kenya and found that e-bidding and e-invoicing significantly improved procurement performance. Descriptive research method was used in this study. The result is fewer order submission errors, lower transaction costs, faster time to complete the procurement process, better utilization of procurement resources, and better delivery assurance. This study is similar to mine in that it also examined the impact of e-procurement and procurement performance and the methodology used, but differed in that it examined e-procurement and procurement performance in state-owned enterprises in Kenya. My research was conducted in Zimbabwe. The Zimbabwe economy and Kenya's economic performance are different. Although the surveys are completely similar, we would expect different results in this survey as the results are different for high and low performing countries.

Chepkwony and Lagat, (2016) sought to determine the impact of electronic ordering and electronic notification on supply chain performance. This study used innovation diffusion theory and had an explanatory study design. Multiple regression analysis showed that electronic ordering and electronic notification have significant positive effects on supply chain performance. The study concludes that the elements of the e-procurement dimension, e-ordering and e-notification, improve supply chain performance. However, no studies evaluated the relationship between electronic ordering and service delivery. As a result, there is a lack of knowledge about the impact of electronic ordering on in public procurement performance during Covid 19. In particular, it is not known what impact electronic ordering will have on the public procurement performance during Covid 19.

Madzinga, Sibanda and Munuhwa, (2020) assesses the impact of e-procurement as a strategic procurement tool in the beverage industry in Zimbabwe and establishes the impact of e-order processing on the performance of the supply chain. Qualitative research method was used in this study. The survey results showed a significant correlation between electronic order processing and supply chain performance. The study concludes that electronic order fulfillment improves supply chain performance, and suggests that by adopting electronic procurement, companies can regularly assess, evaluate, and evaluate their existing suppliers. This study is also similar to mine, except that it examined the impact of e-procurement on the beverage industry in Zimbabwe and that my study was conducted in a public institution. Although the surveys are completely similar, the surveys were conducted in different industries or sectors, so the surveys expect different results.

Dlakuseni, S., Kanyepe, J., Tukuta. M, (2018) sought to assess the e-procurement potential of state-owned enterprises (SOEs) in Zimbabwe's public sector. A targeted sampling technique was used for this study. The study found that staff competencies, inadequate legal frameworks, inadequate technical infrastructure, and security of procurement transaction data are challenges to e-procurement implementations. At the same time, the study recommends ongoing staff training on e-procurement. This study is similar to mine in that it also looked at e-procurement and SOE performance, but different in that it looked at e-procurement and SOE performance. By public institutions in Zimbabwe during Covid-19. The research environment in the absence of a pandemic is different from the research environment at the epicenter of an outbreak. Therefore, although the survey is completely similar, I would expect different results in this survey as my survey is needed as it is necessary to assess e-procurement and public procurement performance during the Covid-19 period.

Mibenge and Okeye 2007 sought to determine how e-procurement affected both internal and external customer service. It focused on the relationship between these two types of customer service. The study adopted a qualitative methodology, and two companies like Wood Biggyhandel and Tarkett were employed as the key data sources. A questionnaire was created by the researcher and sent to the two businesses. The results of the questionnaire and the interview suggested that e-procurement had fundamentally altered how business is conducted in the companies. The use of electronic procurement has yielded numerous advantages, but there are still certain difficulties to be resolved. It leads in cost savings, the reduction of paperwork, and the ability to keep track of inventory. The study is also similar to mine.

Kipngeno and Okello (2015). The purpose of this study was to investigate the connection between e-procurement and Kenyan government’s procurement performance. In this study, correlational research design was used. Using stratified random sampling the sample was purposefully chosen to consist of 120 individuals working Kericho County’s procurement, finance and accounting, and IT departments. Through the use of structured questionnaires, data was gathered. According to the findings, e-procurement has a favorable relationship with how well governments in Kenya conduct their supply chain functions.

Irungu 2012.The study on how information and communication technology affects the performance of a Kenyan aviation company was conducted in 2012. The study's goal was to demonstrate how Internet applications have an impact on the performance of Kenya Airways and to research how communication networks affect that performance. The study used a descriptive survey design since it may generate statistical data on several topics. Data from the study were both primary and secondary. Primary data was gathered from respondents utilizing a questionnaire that was given to them anonymously and distributed after they had been given access to the online survey form via notification emails. As soon as all respondents had completed their responses, the findings were made accessible online. The results were made available online as soon as each respondent finished answering the questions. According to the findings, all of the respondents agreed that Kenya Airways has adopted ICT to a greater extent, and the use of ICT services has improved the airline's performance. The study supports the assertion that the use of ICT tools has a significant impact on the organization and all of its elements, including people, culture, structure, process, and tasks. According to the study findings, the majority of respondents cited the following as ways in which ICT has improved efficiency in their department: increased productivity and efficiency, faster passenger processing, and immediate dissemination of information.

Damavandi (2011)

The study focused on the implementation of e-procurement and its impact on ship management in Tehran in 2011. The study's goals were to figure out how e-procurement has an impact on ship management company performance. The qualitative research method was used for the study, and data was collected through questionnaires and interviews. Interviews were conducted with all departments involved in procurement activities. According to the study's findings, using electronic procurement systems reduces costs in the procurement process, both directly and indirectly, in Islamic Shipping Company (IRISL). According to the findings of the study, the overall implementation of electronic procurement has improved performance in the Islamic Republic Shipping Company. E-procurement has been found to be effective in increasing sales.

Sikwila, (2016) conducted study on electronic procurement and cost savings in fast-moving consumer products in Zimbabwe but discovered that the country's retail industry uses e-procurement sparingly. A qualitative research method was used. According to the findings, it follows that businesses in the retail sector should embrace e-procurement to reduce the cost of administrative ordering, consequently increasing their profit margins. On the other hand, the following are the key barriers to the adoption of e-procurement: Low levels of understanding of e-procurement capabilities, a lack of skills and knowledge in the fast-moving goods retail sector, and a lack of supplier cooperation because e-procurement requires a commitment from both the supplier and the retailer. There is no internal data available to the retail chains.

## 2.3 RESEARCH GAP

There are several studies that have been carried out in other countries not only in Zimbabwe regarding the impact of e-procurement. Considering these studies conducted by various researchers, there is no specifically study on the effects of e-procurement on public procurement performance during Covid 19. With the identification of such gap the researcher was prompted to carry out a study on the effects of e-procurement on the public procurement performance during covid-19 on Chitungwiza Municipality.

# CHAPTER 3 RESEARCH METHODOLOGY

## 3.0 Introduction

This chapter introduces the research methodology used in this study. It also includes a description of various techniques, including study design, intended audience, sampling procedures and methods, data collection tools and methods observed in the study.

## 3.1 Research Design

For the study's design, a descriptive survey approach was selected. They are qualified to gather data to address research questions because of their aptitude (Mugenda and Mugenda, 2008). The effect of electronic ordering, bidding, and procurement on public procurement performance was examined in this particular research study using quantitative research. Utilizing questionnaires, information was gathered from respondents.

## 3.2 Target Population

According to Cooper and Schindler (2001), a population consists of the elements from which conclusions are drawn. In this study, the target group was administrative staff from the purchasing, finance, stores and information and communication technology departments of Chitungwiza Municipality.

## 3.3 Population distribution

It is aggregate of all elements under examination and is defined in terms of elements, sample units and size. The population of the study was drawn from 85 Chitungwiza Municipality’s administration.

#### Table 3.1 Sample Frame

|  |  |  |  |
| --- | --- | --- | --- |
| Department | Target population | Sample size | Percentage |
| Procurement | 7 | 5 | 71% |
| Stores | 4 | 2 | 50% |
| Information technology | 7 | 7 | 100% |
| Finance | 7 | 6 | 86% |
| Total | 25 | 20 | 80% |

Source field data:2022

Table 3.1 above shows that 20 respondents from a target population of 25, giving 80% response rate. In support Bista and Selah 2017 asserted that data collected from more than 50% of the targeted population is considered credible and reliance can be placed on it.

## 3.4 Sample size

A sample is portion or part of the population of interest. For purpose of manageability, the study used a selected representative sample of 10% of the target population as recommended by Mugenda and Mugenda (2003). The study used Yamane's formulae, n= N/ (1 + Ne2), to determine the sample size (Yamane 1967). Where; n was the sample size for the study.

N was that sample study. e was the level of precision.

Calculation of the sample size using the above formula.

20

Therefore, the researcher used a sample of 20

## 3.5 Sample size of Respondents

A random sampling method was used, as shown in Table 3.1 below. This was used because random sampling allows researchers to perform analyzes of the collected data with a lower margin of error. The random sample of 20 of Chitungwiza Municipality from various departments which are procurement, finance, stores and information technology. The entire workforce is represented by these workforces as shown below.

#### Table 3.2 sample respondents.

|  |  |
| --- | --- |
| **DEPARTMENT** | **NUMBER OF STAFF** |
| PROCUREMENT | 5 |
| FINANCE | 6 |
| STORES | 2 |
| INFORMATION TECHNOLOGY | 7 |
| TOTAL | 20 |

**Source; field data 2022**

**3.6 Sampling Techniques**

There are two sampling techniques namely probability sampling and non-probability sampling McCombes 2019. In this study 20 participants were selected out of the sample study of 25 Chitungwiza Municipality's employees. In probability sampling, simple random sampling was performed where every participant had a chance to be selected to take part in the research. Based on the characteristics of the sample, sampling is used because it is the most convenient sampling technique and it allows unbiased data collection which will make the study arrive at unbiased conclusions.

## 3.7 Data collection tools

Research was conducted using both primary and secondary sources of data collection. Primary data allows the researcher to initiate a comparative analysis between theories with actual practice that could have been achieved by merely using data. On the other hand, secondary was also used because it is affordable and easy to access.

### 3.7.1 Questionnaire

This study collected data from the procurement, finance, and information and communication technology departments of Chitungwiza Municipality using open-ended and closed-ended structured survey questionnaires. They were chosen for their high level of interaction with the Procurement Services department. According to Remenyi (2009), closed questions are used in quantitative studies. It is assumed that detailed knowledge about the features of interest is available, and therefore it is possible to predetermine the categories of responses. Closed questions have answers that are easy to process and highly comparable.

**Justification of questionnaires.**

The tool was adopted because it facilitates the rapid collection of a wide range of data and because it is affordable and simple to use. Participants will be able to reply to questions on questionnaires at their own leisure, giving them time to consider the ask an inquiry before responding. According to Adamchank (2000), it is simple and rapid to tabulate and analyze survey responses.

### 3.7.2 Interviews

The interview questions were designed to elicit information on the procurement, stores, information technology and finance staff’s perceptions of the system as well as to address the study's objectives. By adhering to a predetermined order of inquiry, the researcher was able to stay within the parameters of the research objectives. The researcher benefited from conducting interviews because they gave him the opportunity to ask more questions.

The questionnaire was complemented with the questions, which revealed nonverbal language that the questionnaire did not express. The interview questions were designed to address the study's goals and learn the opinions of the targeted employees regarding the system. By adhering to a predetermined order of inquiry, the researcher was able to stay within the parameters of the research objectives. The researcher benefited from conducting interviews since it gave them the opportunity to ask follow-up questions and more difficult queries.

**Justification for using interviews**

The researcher uses this technique because it records both verbal and nonverbal inquiries, allows the subject to maintain concentration by indicating how uncomfortable they are with a question through body language. Although there is a set format for in-depth interviews, they can be presented in a variety of ways. Adamchnk and other (2000)

### 3.7.3 Documents review.

Documents such as journals, reports, newspapers, and articles and magazines of Chitungwiza Municipality were reviewed in relation to the study objectives.

## 3.8 Data collection procedures

This is a technique used to acquire information used in research to substantiate the claims made by the researcher. Permission will be sought and the participants consented to take part in the research. Questionnaires will be distributed through the authority email facility. Questionnaires were collected from all respondents after 3 days and given time and privacy when being completed.

## 3.9 Validity and Reliability

The validity was established using a panel of experts or academic advisers. Basic principle for establishing validity is the same as endorsing audit observations and conclusions generally, that is, compared to evidence from different sources and of a different nature.

Reliability of the questionnaire was done using a pilot test which sought to answer the question, does the questionnaire consistently measure whatever it purports to measures? To achieve reliability, again as in the validity case, a pilot study was carried out to the instruments’ reliability. The research attempted within the possible limits to ensure both validity and reliability of the study.

## 3.10 Data presentation and analysis

All questionnaires were thoroughly verified for verification, consistency, and completeness after they were collected and before they were analyzed. For this study, qualitative and quantitative analysis will conduct. The results were presented in the form of tables, charts, and graphs, which aided in the analysis of the data and the drawing of conclusions.

### 3.10.1 Quantitative data.

The Social Science Statistics Package (SPSS), version 24, will be used to analyze numerical data. The all-inclusive statistical tool SPSS is used for data management, display, and analysis (Landau and Everitt, 2004). According to Russell and Booth (2008), researchers use the SPSS system to create tabular reports, charts, and graphs on distributions and trends. This package also manages data for calculating sums and averages in columns. Researchers that employ inference statistics like factor analysis, regression analysis, and analysis of variance (ANOVA) might also benefit from the system (Landau and Everitt, 2004). The veracity of the data acquired was first confirmed by the study's researchers. Once the data is coded, the variables will have names. The data will then be entered using the SPSS statistics application. Data cleansing and error detection continues to be closely watched. The estimated frequency distribution for each occurrence variable is displayed in the contingency table and graph. The acquired data were then described and analyzed using the percentages and numbers derived from the frequency distribution.

### 3.10.2 Qualitative data

We will use the subject analysis to look at the qualitative information. Subject analysis is a qualitative analysis method for identifying, analyzing, and reporting data patterns. Researchers organize and describe the data in great detail (Nowell et al, 2017). This process requires subjectivity and interpretation. It has a deductive personality (Blair, 2015). This means that rather than attempting to impose meaning on the collected data, thematic analysis looks to derive meaning from the language that is already accessible.

# CHAPTER 4 DATA PRESENTATION, INTERPRETATION AND DISCUSSION

## 4.1 Response rate

#### Table 4.1: Questionnaire response rate for participants

|  |  |  |
| --- | --- | --- |
| **Number of questionnaires administered** | **Number of questionnaires returned** | **Response rate (%)** |
| **20** | **20** | **100** |

Table 4.1 illustrates the rate of response from the questionnaires that were administered. A total number of 20 questionnaires were administered among the Chitungwiza Municipality administrators. From the 20 administered questionnaires all of them were successfully attended to and returned resulting in 100% response rate. The participants were encouraged to take part in the survey, which helped the researcher achieve this response rate. According to Conner (2011), a response rate that is above 50% is satisfactory and ideal for ensuring accurate results. This means that a response rate of 100% is most desirable and it demonstrates that meaningful conclusions could be drawn from the selected research sample. The next section is going to look at the demographic data for participants.

## 4.2 Demographic data for participants

Participants were asked to indicate their departments in the given categories. Fig 4.1 below shows the distribution of responses obtained from participants by their departments.

##### Figure 4.1: Departments of Participants

The response rate of the participants in the study is shown by job title in Fig 4.1, indicates that 7 (35%) are for Information Technology. Also, 5 (25%) of the population are for procurement. In addition, 2 (10%) are of stores while 6 (30%) are for finance. The results show that more participants were from the procurement department. The researcher selected more participants from the procurement department because they have much knowledge about the impact of e-procurement on changes in public procurement performance during Covid 19. The researcher also selected participants from other departments to ensure that other departments are fully represented. This concurs with Angeles (2006) who says that every part of the population should be fully represented to ensure that the results of the study are valid. Participants were asked to indicate their gender in the given categories. Fig 4.2 below shows the distribution of responses obtained from participants by gender.

##### Figure 4.2: Participants by gender

Fig 4.2 illustrates that out of the total of 20 participants, 11 (55%) were male participants while another 9 (45%) were female participants. More male as compared to female participants implies that the municipality has more males employed there as compared to females, or that males were more co-operative as compared to female participants. The researcher did what is right to select both male and female participants were represented by those who were selected to participate in the study. The selection of both males and females also indicate that the researcher did not discriminate anyone, and the selection was fair.

The administrators were also asked to indicate their age. Figure 4.3 below shows the distribution of responses obtained from the participants by age.

**Fig 4.3: Participants by age**

Figure 4.3 illustrates that 2 of the participants were below the age of 30. Also, 5 were at the age of 31-40 years. Also, 9 of the participants were at the age of 41-50. Lastly 4 of the participants are above 50 years. The findings of the study show that most of the participants were between 41 to 50 years of age, meaning that they were mature people. This illustrate that they had concrete knowledge about the effects of online marketing strategies on the sustenance of Zimbabwean hotels and possible solutions to the research problem.

Participants were also asked to indicate their highest level of education. Figure 4.4 below shows the distribution of responses obtained from participants by highest level of education.

**Fig 4.4: Participants by highest level of education**

Fig 4.4 shows that 2 (10%) of the participants had secondary education while 4 (20%) of the participants had diplomas. Again 9 (45%) of the participants had degrees while 3 (15%) were post graduates. Only 2 (10%) of the participants had other qualifications. This clearly indicates that the researcher selected participants with desirable qualifications as pointed out by Werani (2015) who said that people with high qualifications are able to give valid data that is useful for research purposes.

Participants were also asked to indicate their years of experience. Fig 4.5 below shows the distribution of responses obtained from participants by years of experience.

##### Fig 4.5: Participants by years of experience

Fig 4.5 shows that 3 of the participants have above 20 years of experience. Also, 11 of the participants have 11 to 20 years of experience. In addition, 4 of the participants have 5 to 10 years of experience and lastly, 2 of the participants have years of experience that is below 5. This implies that the researcher gathered information mostly from mature respondents who were most experienced and more knowledgeable about the impact of e-procurement on changes in public procurement performance during Covid 19. The respondents were able to give the researcher authentic data since they had many years of experience with the hotels. The next section is going to look into the analysis of data.

## 4.3 ANALYSIS OF DATA

### 4.4.1 To determine which e-procurement methods are currently being employed at Chitungwiza Municipality during Covid 19

The researcher wanted to determine from the participants which e-procurement methods are currently being employed at Chitungwiza Municipality during Covid 19. The participants responded and their responses were presented in Fig 4.6 below:

##### Figure 4.6: Responses from participants on which e-procurement methods are currently being employed at Chitungwiza Municipality during Covid 19

***key; SD-strongly disagree, A-agree, D-disagree, SA-strongly agree***

Figure 4.6 indicates that 3 strongly disagree. 6 disagree. Also, 4 agree and 7 strongly agree that they are using e-Informing as e-procurement method currently being employed at Chitungwiza Municipality during Covid 19. Also, 7 strongly disagree. 4 disagree. Also 3 agree and 6 strongly agree that they are implementing e-tendering as e-procurement method currently being employed at Chitungwiza Municipality during Covid 19. In addition, 8 strongly disagree. 4 disagree. Also, 3 agree and 5 strongly agree that they have adopted e-auctioning as e-procurement method currently being employed at Chitungwiza Municipality during Covid 19. To add more, 3 strongly disagree. 4 disagree. Also, 5 agree and 8 strongly agree that they are utilizing e-purchasing as e-procurement method currently being employed at Chitungwiza Municipality during Covid 19. Also, 2 strongly disagree. 5 disagree. Also, 4 agree and 9 strongly agree that they are using e-ordering as e-procurement method currently being employed at Chitungwiza Municipality during Covid 19. Lastly, 8 strongly disagree. 6 disagree. Also, 4 agree and 2 strongly agree that they are utilizing e-invoicing as e-procurement method currently being employed at Chitungwiza Municipality during Covid 19. The results show that most of the participants indicated that they were utilizing e-purchasing. The results also indicate that very few participants were using other e-procurement methods such as e-informing, e-tendering, e-auctioning and e-invoicing. This implies that municipalities fail to improve their performance because they focus on using only e-purchasing instead of using other e-procurement methods which can help to improve their performance (Oslomobekov, Bello. and Gilliland, 2002). These findings are in line with those of Chekwony and Lagat 2016 which indicates that e-ordering and e-notification improves supply chain performance. On the other hand Phillips (2003) argues that e-procurement helps to speed up processes and improves the performance of the organization.

### 4.3.2 To determine the challenges affecting e-procurement to enhance public procurement performance during Covid 19

The researcher wanted to determine from the participants the challenges affecting e-procurement to enhance public procurement performance during Covid 19. The participants responded and their responses were indicated in Figure 4.7 below:

##### Figure 4.6: Responses from participants on the challenges affecting e-procurement to enhance public procurement performance during Covid 19

Figure 4.6 indicates that 3 strongly disagree. 4 disagree. Also, 5 agree and 8 strongly agree that the challenge affecting e-procurement to enhance public procurement performance during Covid 19 procurement is that employees are inadequately trained. Also, 7 strongly disagree. 3 disagree. Also, 4 agree and 6 strongly agree that there are loopholes in legislative provisions. In addition, 8 strongly disagree. 4 disagree. Also, 3 agree and 5 strongly agree that the challenge affecting e-procurement to enhance public procurement performance during Covid 19 procurement is that they are having too much political influence. To add more, 3strongly disagree. 4 disagree. Also, 6 agree and 7 strongly agree that the other challenge is that their departments are poorly communicating. Also, 3 strongly disagree. 5 disagree. 4 agree and 8 strongly agree that there is too much corruption. Lastly 2 strongly disagree. 4 disagree. Also, 5 agree and 9 strongly agree that the challenge affecting e-procurement to enhance public procurement performance during Covid 19 procurement is that there is no transparency. The results indicate that most serious challenge faced by the participants was that there was no transparency in the procurement department. In the current literature the researchers found out challenges that are associated with the effect of e-procurement such as lack of system integration Sakwila 2016. This concurs with Phillips (2003) who says that transparency helps an organization to let all the stakeholders know what will be taking place within the organization, and suggests that for e-procurement to be successfully implemented there should be transparency

### 4.3.3 To analyze the effects of e-procurement on the public procurement performance during Covid 19 at Chitungwiza Municipality

The researcher wanted to know from the participants the effects of e-procurement on the public procurement performance during Covid 19 at Chitungwiza Municipality. The participant’s respondent and their responses were presented in Figure 4.7 below:

Figure 4.7: Responses from participants on the effects of e-procurement on the public procurement performance during Covid 19 at Chitungwiza Municipality

***key; SD-strongly disagree, A-agree, D-disagree, SA-strongly agree***

Figure 4.7 indicates that e-procurement enhances procurement performance as it reduces costs, improves procurement planning, transparency and reduced corruption. Lastly, 3 strongly disagree. 2 disagree, 8 agree and 7 strongly agree that reduced corruption is the effect of e-procurement on the public procurement performance during Covid 19 at Chitungwiza Municipality. Most of the participants indicated that implementation of e-procurement mostly leads to improved performance of organizations. This is supported by Presutti (2001) when he says that e-procurement helps to increase the speed of processes in procurement department and therefore improves the overall performance of the department. This is also supported by past studies such as Irungu 2012, indicated that e-procurement has improved the organization performance. The research under study was also supported by Damavandi (2011) from the data collected the findings of the study were that using electronic procurement systems reduce costs in the process of procurement directly and indirectly in Islamic Shipping Company (IRISL).

## 4.4 Chapter summary

The chapter showed the presentation and analysis of data collected. It showed the responses from selected administrators from different departments. The key results presented related to e-procurement methods are currently being employed at Chitungwiza Municipality during Covid 19, the challenges affecting e-procurement to enhance public procurement performance during Covid 19 and the effects of e-procurement on the public procurement performance during Covid 19 at Chitungwiza Municipality. The next chapter will portray conclusions of the study and then give some recommendations expected to mitigate the impact of e-procurement on changes in public procurement performance during Covid 19.

# 

# CHAPTER 5 SUMMARY, CONCLUSION AND RECOMMENDATIONS

## 5.0 Introduction.

This chapter presents the summary of the research project, conclusions and recommendations of the study.

## 5.1 Summary of the study.

Chapter 1 of this project provided the introduction of the study under review that is the effects of e-procurement on public procurement performance during covid 19, survey of Chitungwiza Municipality. The statement of the problem, objectives of the study and the significance of the study as well. The research project was guided by the following research objectives; to determine which e-procurement methods currently used at Chitungwiza Municipality. The second objective was to determine the challenges affecting e-procurement on the public procurement performance. Lastly, to analyze the effects of e-procurement on public procurement performance.

Chapter ttwo tfocused ton tthe tliterature treview tas ta tway tof ttestifying tthe timportance tof tthe tarea tof tstudy tthat tis treviewing tprevious tstudies tand tproviding tjustification tof tthe tcurrent tstudy. tThe tstudy trevolved ton tthe tTheory tof tTechnology tAcceptance tModel t(TAM) tand tthe tDiffusion tof tInnovations. tChapter three mainly tfocused ton tresearch tmethodology tand tresearch tdesign. tThe tresearch tused tdescriptive tsurvey tresearch tdesign.

The investigation shows that most procurement processes have been greatly enhanced by technology. The findings also demonstrate that technology in procurement offers firms a number of important benefits. Technology has a modest to large impact on how effectively the organization's procurement function is carried out. Technology has improved the effectiveness of procurement processes such as getting quotations, producing purchase orders, and creating purchase requisitions.

## 5.2 Summary of the findings.

The objective was to find the effects of e-procurement on public procurement performance during covid 19. A response rate of 100% gave a relatively high presentation and 25 % of the respondents were 41-50 years and had knowledge of the activities of the public procurement Chitungwiza Municipality. Also a highest respondent rate of 45% had degrees.

To determine which procurement methods currently being employed at Chitungwiza Municipality was the study’s first objective. The research found out that e-auctioning, e-ordering, e-tendering and e-purchasing are the methods of e-procurement that are being used at CM. The results show that most of the participants indicated that e-purchasing is highly used at Chitungwiza Municipality.

The second objective of the study was concerned with the challenges affecting e-procurement on the public procurement performance. The research found out the actual challenges are poor communication among departments, too much corruption, lack of transparency and too much political influence. The results indicated that the most serious challenge at CM was that there was no transparency in the procurement department.

The researcher established that e-procurement has an impact on the performance of procurement at Chitungwiza Municipality. The major finding of this study was that technological change has vastly improved the operations of procurement department and as well as the organisations in public sector. The effects of e-procurement were uncovered as one of the objectives of this research. These effects have favourable impact on the procurement performance of Chitungwiza Municipality and these include improved communication, improved procurement planning, reduced shrinkage, greater security, reduced errors, reduced costs and reduced corruption.

## 5.3 Conclusions.

It was revealed that covid-19 pandemic disrupts supply chains and poses a threat to public institutions. Development Gateway’s report, (2020) on emergency procurement amid covid19 finds that not only are in-person transactions inadvisable during a pandemic, but that paperbased, non-digitized processes are too slow at a time when rapid procurement is urgently needed.

According to the UNDP, the coronavirus has generated new gaps that digital government services must fill and has put a strain on existing services. The states most under strain, those that could benefit greatly from e-procurement and other e-government services, are likely strapped for cash and unable to finance these new initiatives. With assistance from donor finance, e-procurement can fulfill a government’s responsibilities to its citizens and offers an opportunity to support recovery processes, while minimizing bureaucratic costs, at a time when state budgets are stretched thin.

## 5.4 Recommendations

* The study established that online supplier search should be implemented to speed up service delivery process.
* Public institutions should take up the role of ensuring full implementation of online contracts monitoring.
* The use and acceptance of e-ordering in procurement procedures should be sped up and an awareness of its benefits should be communicated to all staff so that they can adopt and move in line with technology.

## 5.5 Area of further study

This study focused on the elements of e-procurement in public institutes, it therefore recommends that further studies should be conducted to focus on private institutes to find out how e-sourcing, e-tendering and e-ordering affect procurement performance. Finally, lessons from the Covid-19 outbreak suggest bottlenecks in supply chains for essential equipment and services that must be addressed to improve resilience against future crises.

# References

Angeles R (2006) Business-to-business E-Procurement Corporate Initiative: A Descriptive Empirical Study, ICEC Conference, Fredericton, NB, Canada, pp. 391-402

AI-bayat, Danny 2011,. Assessing Internet-Based procurement to Support virtual enterprise."Adamchak,S, 2000. The in depth interview,Research Associates.Inc(TechNotes)Carayannis, E.G. and Popescu, D., (2005), Profiling a methodology for economic growth and convergence: learning from the EU e-procurement experience for central and eastern European countries”, Technovation, 25(1), 1-14.

Carr, A.S. and Pearson, J.N., (1999). Strategically managed buyer-supplier relationships and performance outcomes. Journal of Operations Management, vol. 17 (5), 497-519.

Croom, S., (2000). The impact of the web-based procurement on the management of operating resources supply. The Journal of Supply Chain Management, 36(1), 4-13.

Damavandi Harold, 2010 lnternal role of procurement Pluralist View”, Managerial Procurement, 5(2), pp. 160- 170

Essig J,Arnold G 2001. "Assessing Internet-Based procurement to SuppDamavandi Harold, 2010 lnternal role of procurement Pluralist View”, Managerial Procurement, 5(2), pp. 160- 170

Davila, A., Gupta, M. and Palmer, R.J. (2003). Moving procurement systems to the internet: the adoption and use of Eprocurement technologies models. European Management Journal, 21(1), 11-23.

Humphreys, P.K., Li, W.L. and Chan, L.Y., (2004). The impact of supplier development on buyer-supplier performance. The International Journal of Management Science, 32(2), 131-143.

Jayraj et al. (2006). Adoption of information systems innovations by individuals: A study of processes involving contextual, adopter, and influencer actions. Information and Organization. 18(3), 205-234

Irungu Okeke,2012, The E-procurement Benchmark Report: Less Hype, More Results”, Boston, Massachuset.

Knudsen, D. (2003). Aligning corporate strategy, procurement strategy and e-procurement tools, International Journal of Physical Distribution and Logistics Management, 33(8), 720-734.

Mibenge and Okeye 2007 The E-procurement Benchmark Report: Less Hype, More Results”, Boston, Massachuset.

Mugenda,O.,and Mungenda A,G.,1999.Research Methods Quantintative and Qualitative Approaches,Acts Press,Nairobi.

Oslomobekov, T., Bello, D.C. and Gilliland, D.I., (2002). Adoption of electronic commerce tools in business procurement: Enhanced buying center structure and processes. The Journal of Business & Industrial Marketing, 17( 2/3), 151166.

Phillips, P.A., (2003). E-Business Strategy: Text and Cases, McGraw-Hill, Maidenhead, England.

Philips P and Piotrowicz W (2006) E-Procurement: How Does it Enhance Strategic Performance? Working Paper Series Number 113, Kent Business School, April

Presutti, W.D., (2003). Supply management and e-procurement creating value added in the supply chain. Ind. Market. Manage., 32: 219-226.

Quayle, T. (2005). The (real) Management implications of e-procurement’, Journal of General Management, 31(1), 23-39.

Ross, A.D. Wu, F., and Zsidisin, G.A (2007). Antecedents and outcomes of e-procurement adoption: an integrative model. IEEE Transactions on Engineering Management, 54(3), 576-586.

Samaniego, M.J.G., Arranz, A.M.G. and Cabezudo, R.S.J. (2006). Determents of Internet use in the purchasing process. Journal of Business & Industrial Marketing. 21(3), 164-174.

Rajkumar, T.M., (2001). E-procurement: business and technical issues. Information System Management, 18(4), Fall, 52-60.

Talluri, S., Chung, W. and Narasimhan, R. (2006) ‘An optimization model for phased supplier integration into e-procurement system’, IIE Transactions, 38(5), 389-399.

Thomas Puschmann (2005), Successful Use of Eprocurement in Supply Chains. Social Science Research Network. 10(2), 122-

# APPENDIX 1

3965 Unit D

Seke Chitungwiza

29 October 2022

The Human Resources Manager

Chitungwiza Municipality

P.O Box CZA 70

Chitungwiza

RE: SEEKING PERMISSION TO CARRY OUT A RESEARCH USING CHITUNGWIZA MUNICIPALITY (CM) AS A CASE STUDY

With reference to the above am seeking for permission to conduct a study entitled; “Assessing the Effects of e-procurement on public procurement performance during Covid 19: A Case of Chitungwiza Municipality (2020-2022).” This study is done as part of efforts to complete the Bachelor of Commerce Honors Degree in Purchasing and Supply degree at Bindura University of Science Education.

For any enquiries and verification, you may also conduct my dissertation supervisor, Mr. Mandaza (Lecturer: Bindura University of Science Education - Economics Department) using the following contact details; +263 716 040 227 and mandazasp@gmail.com.

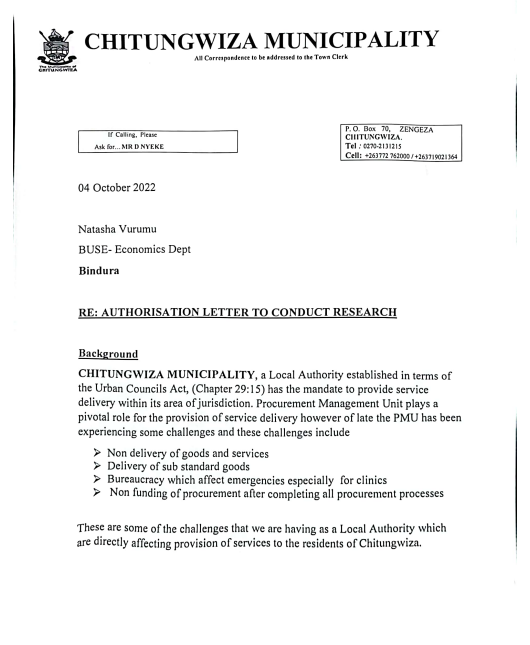
Thank you in advance for considering my request.

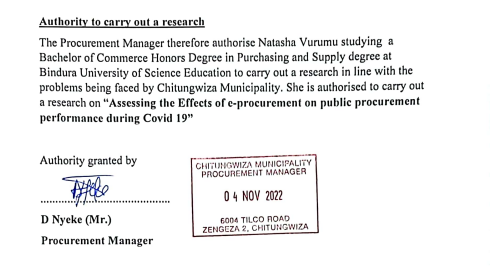
Yours faithfully

Natasha Vurumu

+263 773796884

natashavurumu@gmail.com





**APPENDIX 2**

**QUESTIONNAIRE FOR EMPLOYEES**

My name is **Vurumu Natasha** Student No. **B190377A** I am studying for a **BACHELOR OF COMMERCE HONOURS DEGREE IN PURCHASING AND SUPPLY** offered by Bindura University. My research is entitled: “**THE IMPACT OF E-PROCUREMENT ON PUBLIC PROCUREMENT PERFORMANCE DURING COVID 19**.” May you answer all the questions truthfully, honestly and openly. Confidentiality will be maintained and your identity will in no way be linked to your responses to the questions. You will be provided with feedback from the results when the study is completed.

**SECTION A: Demographic Data**

*This section seeks to collect data on the background of the respondents. Tick in the appropriate box or fill in the spaces provided.*

1. Department:
2. Gender: Male Female
3. Age: Below 20 21-30 31-40 41-50 Above50
4. Select your highest level of educational qualification

Secondary Ed Diploma Degree Post Grad, PHD ETC

1. Experience with e-procurement:

Below 5 5-10 11-20 21-30 Above 30

**SECTION B: To determine which e-procurement methods are currently being employed at Chitungwiza Municipality during Covid 19**

*This section seeks to determine which e-procurement methods are currently being employed at Chitungwiza Municipality during Covid 19. Please tick in the appropriate box provided.*

| 1. **Which e-procurement methods are you currently employing in your organization during this Covid 19?** | **Strongly**  **Disagree** | **%** | **Disagree** | **%** | **Agree** | **%** | **Strongly Agree** | **%** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| We are using e-Informing |  |  |  |  |  |  |  |  |
| We are implementing e-tendering |  |  |  |  |  |  |  |  |
| We have adopted e-auctioning |  |  |  |  |  |  |  |  |
| We are utilizing e-purchasing |  |  |  |  |  |  |  |  |
| We are using e-ordering |  |  |  |  |  |  |  |  |
| We are utilizing e-invoicing |  |  |  |  |  |  |  |  |

1. Give reasons why you are implementing the online marketing strategies you have indicated above……………………………………………………………………………………………………………………………………………………………………………………………………………….
2. Which online marketing strategies not listed above are you not implementing? Give reasons why you are not implementing them……………………………………………………………………………… …………………………………………………………………………………………………………...

**SECTION C: To determine the challenges affecting e-procurement to enhance public procurement performance during Covid 19**

*This section seeks to determine the challenges affecting e-procurement to enhance public procurement performance during Covid 19*

| 1. **What are the challenges affecting your e-procurement to enhance public procurement performance during Covid 19?** | **Strongly**  **Disagree** | **%** | **Disagree** | **%** | **Agree** | **%** | **Strongly Agree** | **%** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Our procurement employees are inadequately trained |  |  |  |  |  |  |  |  |
| There are loopholes in legislative provisions |  |  |  |  |  |  |  |  |
| We are having too much political influence |  |  |  |  |  |  |  |  |
| Our departments are poorly communicating |  |  |  |  |  |  |  |  |
| There is too much corruption |  |  |  |  |  |  |  |  |
| There is no transparency here |  |  |  |  |  |  |  |  |

**SECTION D: To analyze the effects of e-procurement on the public procurement performance during Covid 19 at Chitungwiza Municipality**

*This section seeks to analyze the effects of e-procurement on the public procurement performance during Covid 19 at Chitungwiza Municipality*

| 1. **What are the effects of e-procurement on the public procurement performance during Covid 19 at your organization?** | **Strongly**  **Disagree** | **%** | **Disagree** | **%** | **Agree** | **%** | **Strongly Agree** | **%** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| We are having increased service delivery |  |  |  |  |  |  |  |  |
| Our procurement costs are being reduced |  |  |  |  |  |  |  |  |
| Our procurement planning is improving |  |  |  |  |  |  |  |  |
| We are having improved transparency in the procurement department |  |  |  |  |  |  |  |  |
| Our communication through departments is improving |  |  |  |  |  |  |  |  |
| Corruption is being reduced |  |  |  |  |  |  |  |  |

***Thank you for taking time to complete this questio***