I, Petronella Kundayi Murambinda, declare that

(i) The research reported in this dissertation, except where otherwise indicated, is my original research.

(ii) This dissertation has not been submitted for any degree or examination at any other university.

(iii) This research does not contain other persons' data, pictures, graphs or other information, unless specifically acknowledged as being sourced from other persons.

(iv) This dissertation does not contain other persons’ writing, unless specifically acknowledged as being sourced from other researchers. Where other written sources have been quoted, then:

a. their words have been re-written but the general information attributed to them has been referenced.

b. where their exact words have been used, their writing has been placed inside quotation marks and referenced.

(v) This research does not contain text, graphics or tables copied and pasted from the Internet, unless specifically acknowledged, with the source being detailed in the dissertation and in the reference section in Chapter VI.
DEDICATION

Dedication for this Masters’ research is to my mother who passed on during the course of writing this project.
ABSTRACT

Transparency in procurement is very key in healthcare delivery. This study investigated the impact of transparency in procurement on healthcare delivery in Zimbabwe’s health sector. It sought to assess whether the requirements of the Public Procurement and Disposal of Public Assets Act [Chapter 22:23] on ensuring that the procurement process was transparent had either a positive or negative impact on healthcare delivery. The study was provoked by media reports centred on healthcare delivery taking into context the introduction of the new Act in 2018. Data was collected using a self-administered questionnaire distributed to 115 participants from the Procurement department and Programmatic departments within the Ministry of Health and Child Care, Head Office. Data was analysed using the Statistical Packages for Social Sciences. The study found that procurement processes within the Ministry were transparent as required by law. It was however noted that the requirements in order to allow for transparent procurement were perceived to derail healthcare delivery due to failure to meet set timelines in ensuring programmatic implementation. Although flexibilities were noted to allow for emergency procurement within the health sector, the research found these were not being implemented.
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(iii) Lameck Munangaidzwa for assisting in the analysis of the statistical data.

(iv) Lastly, my family whose support has been extraordinary during the course of this Masters program.
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CHAPTER I
BACKGROUND

1.1 Introduction
This chapter is an introduction to this study whose focus is on the effect of transparency in procurement on public healthcare service delivery. The chapter describes the background to the study, the problem statement in Zimbabwe’s case and purpose of the study. The chapter further outlines the objectives of the study and ends with operational definition of terms.

1.2 Background to the Study
The procurement and supply chain management function plays an important role in healthcare delivery (Kumar, Ozdamar and Zhang, 2008). Timely acquisition of goods and services can mean a matter of life and death in the health sector. Healthcare service hinges on the efficient use of resources. The annual global spending on public health procurement is approximately US$3 trillion (WHO, 2017) and public health procurement expenditure ranges from 5% of Gross Domestic Product in low-income countries to more than 15% in high income countries. Resources spent in the health sectors globally and at country level offer lucrative opportunities for abuse and illicit gain. Health systems are particularly susceptible to corruption because they are prone to emergencies, asymmetry of information and the large number of actors which creates systematic opportunities for corruption and hinder transparency and accountability. Uncertainty regarding the effectiveness of medical treatments, the inability to predict who will fall ill, when and with what kind of illness, distinguish health markets from others, leading to inefficiencies and scope for abuse. The poor functioning of health markets make it difficult to set standards of accountability and to discipline health care providers for poor performance. Consumer choice is not a good regulator as patients cannot “shop around” for the best care due to a public service delivery monopoly, distance, limited availability or high cost of private care.
The health sector is characterised by a high degree of asymmetry of information (information is not equally available to all health sector actors) leading to significant inefficiency and vulnerabilities to corruption.

Ensuring transparency in the health sector procurement is an essential determinant of efficiency, as it ultimately contributes to how resources are used (WHO, 2017). According to Habibov (2016), the aim of healthcare service delivery is to get the best value for money; efficient and effective use of resources; transparency; provision of accountability and utilization for healthcare but most of the time this does not happen. Most countries have tried to come up with healthcare procurement service delivery systems which ensures transparency.

Transparency policies may include government-mandated disclosure of information, or may involve external agents such as civil society or the media (Fung et al 2007). Strategies to increase transparency include public service ‘report cards’, price monitoring and release of government documents or decisions through web sites, public databases, public meetings and the media (World Bank, 2003). Examples of transparency initiatives in Argentina, Morocco and Uganda show the range of interventions possible. The Ministry of Health in Argentina created a price monitoring system that tracked prices paid by 33 public hospitals for common drugs, sharing this data with the reporting hospitals. The effect of the transparency policy was that purchase prices fell immediately by an average of 12%, and stayed below the baseline for over a year (Schargrodsky et al , 2001). In Croatia, regulations have been proposed for the health sector which required hospitals to make waiting lists public, (Transparency International, 2006). In Uganda, an information strategy was used to reduce leakage of central government education grants to local governments (a problem first identified through a Public Expenditure Tracking Survey). Before the grant transfer amounts were publicized in
newspapers and posted in schools, only 13% of grant allocations reached the schools; after the reforms, 80–90% of grant funds were reaching recipients (Reinikka and Svensson, 2002).

World over, there has been reports of lack of transparency in the public health procurement related to healthcare service delivery (WHO, 2017). This lack of transparency in the public health service delivery has led to corruption in the public health procurement. In the United States of America (USA) for example, corruption in the public health expenditure have been regularly reported in newspapers (Nakmura, 2015). In 2015 alone, the USA spends approximately US$530 billion on public procurements, and although it has extensive laws and regulations in place, its system was not free from corruption as approximately US$ 5 million was reported unaccounted for as a result of lack of transparency in the procurement process (World Bank, 2016).

In addition, The World Health Organization (WHO) estimated that of the US$ 5.7 trillion spent on health worldwide in 2008, US$ 415 billion (7.3%) was lost to health-care fraud and abuse due to lack of transparency in the procurement process (WHO, 2008). Using data collected from 33 organizations in 7 countries, WHO estimated a global average loss from public health-care procurement expenditure through lack of transparency in the procurement process in 2013 to be 6.19% (US$ 455 billion of the US$ 7.35 trillion global health-care expenditure) (WHO, 2013). Furthermore, in Italy, Italian economists found that public health expenditure on medicines were not transparent after the anti-corruption investigations found that procurements estimated to US$227 million were done without following the procurement procedures of the country (World Bank 2015). This loss could have been avoided if the procurement process was transparent. Empirical evidence from Japan suggested that improved transparency reduces public procurement cost by up to 8% (WHO, 2017).
Transparency in public healthcare service delivery is not only a concern for the developed countries. A study carried out in 2013 by Transparency International, found that in 42 out of 109 countries surveyed, more than 50% of citizens believed that the public health sector expenditure in their country was not done in a transparent manner as it was ranked as corrupt or very corrupt and of these most (50%) were from developing countries. A study conducted by Kunst and Stronks (2013), also found that twenty African countries had public health expenditures which were not transparent. This had resulted in these countries losing billions of dollars due to corruption in the procurement process. In addition, a study done in Nigeria showed that there was no correlation between public health procurement expenditure and revenue collected from is 252 public health facilities, an issue which the author concluded that was due to lack of transparency in the procurement process (Khemani, 2004). Ensuring transparency especially in procurement complements the right to health, a principle enshrined in international law through the Universal Declaration of Human Rights and WHO Constitution, and which underpins Universal Health Coverage and the Sustainable Developmental Goals of health-related targets and indicators (WHO, 2017).

The Zimbabwean government has made several policies to ensure that its public healthcare service delivery is transparent. All its public health sector procurement are managed by the Ministry of Health and Child Care (MoHCC). The public health procurement for MoHCC is guided by legislative policies, acts of parliament and supporting documents. These include the Public Procurement and Disposal of Public Assets Act; Public Finance Management Act; Secretary for Health Guidelines for Procurement; Treasury Instructions; Accounting Officers’ Instructions on Procurement and Ministerial circulars (MoHCC, 2016). Within MoHCC, procurement is done in designated cost centers by procuring management units. To further ensure that there is transparency in the procurement of its public health commodities inclusive of medicines, surgical consumables and hospital plant equipment, the MoHCC uses
competitive bidding procurement processes. In addition, there are also routine internal and external procurement audits which are expected to be carried out every year. Since the government introduced these measures for ensuring that there is transparency in the public health procurement, there has not been a study investigate the effect of transparency on public healthcare service delivery in the Zimbabwean context.

1.3 Statement of the problem

Transparency in public procurement is critical as it has a bearing on how taxpayers’ money is used. Governments have introduced extensive reforms to ensure that principles of transparency prevail. The Zimbabwean Government in 2018 repealed the old act, Procurement Act of Zimbabwe [Chapter 22:21] and introduced the PPDPA which incorporated principles of transparency. Consequently, with attention in media reports currently focusing on healthcare service delivery, it is in this light, that the study seeks to investigate the effect transparency in procurement has on healthcare service delivery. There has been no empirical study which has been conducted to ascertain whether this aspect has an effect on healthcare delivery in Zimbabwe. In the absence of any such study, it is difficult for policy makers to manage the function of procurement with due consideration for its impact and significance in healthcare service delivery.

1.4 Purpose of the Study

The purpose of this study is to investigate the effect of transparency in procurement on public healthcare service delivery.

1.5 Research Objectives

The main objective of this study is to investigate the effect of transparency in procurement on public healthcare service delivery.
Specifically

- To assess the level of transparency in public healthcare procurement within the MoHCC.
- To assess the effects of transparency in procurement on the public healthcare service delivery for the MoHCC.
- To suggest effective strategies on ensuring transparent procurement procedures in order to guarantee efficient healthcare service delivery.

1.6 Research Questions

This study will answer the following research questions;

- What is the level of transparency in public healthcare procurement within the health sector?
- What are the effects of transparency in procurement on the public healthcare service delivery for the MoHCC?
- What effective strategies can be implemented to ensure transparent procurement procedures in order to guarantee efficient healthcare service delivery requirements?

1.7 Statement of the hypothesis

Null Hypothesis (HO): Transparency in procurement does not affect the public healthcare service delivery.

Alternative Hypothesis (H1): Transparency in procurement affects the public healthcare service delivery.

1.8 Significance of the study
(i) The findings of the study will specifically help the Ministry of Health to revisit their procurement reforms if they are to improve on transparency whilst taking service delivery into context.

(ii) In addition, the study will help policy makers to formulate best practices on how to improve transparency when procuring healthcare products.

(iii) The study will also act as a basis for further research to other researchers in the field of public service delivery and procurement in Zimbabwe and beyond.

1.9 Assumptions

This study assumes that:

- lack transparency has a negative effect on the public healthcare procurement
- study participants will be willing to participate
- study participants will provide truthful information.

1.10 Delimitations of the study

The scope of the study has been limited theoretically to the effect of transparency in procurement on healthcare service delivery within the Ministry of Health and Child Care procurement department. The study will focus on assessing the level of transparency in public healthcare procurement within the MoHCC and describing the effects service delivery. The study population will be Ministry of Health personnel who are involved in the public healthcare procurements expenditure for the ministry with specific focal on those stationed at head office level.

1.11 Definition of terms

Procurement: according to PPDPA means the acquisition by any means of goods, construction works or services and includes the disposal of any asset.
Transparency: is defined as honesty and openness. In this study transparency is generally considered the main pillar of good public healthcare procurement practise. The implication of transparency is that all of public health procurement decision should be scrupulous enough to bear public scrutiny (Transparency International, 2016).

Healthcare service: Schiele and Clifford (2016) defines it as services rendered by members of the health professions for the benefit of a patient.

1.12 Dissertation outline

This dissertation is made of five chapters. Chapter one provides the introduction to the study. The chapter outlines the research problem statement, the study objectives and the study significance. Chapter two review related literature while chapter three describes the methodology which was used. Chapter four displays the results as well as a discussion of the result. Chapter five summarizes, concludes and provided the study recommendations.

1.13 Chapter Summary

Chapter One introduced the study. It was highlighted that most countries world over are guided by the public health procurement for their governments. In Zimbabwe, the Public Procurement and Disposal of Public Assets Act Chapter [22:23] guides all the procurements for the public sector. The Act ensures that all procurements are done in a transparent manner. However, it was found that despite all the efforts made by the country to introduce reforms it seems the public health service delivery still challenges attributed to the procurement process. The next chapter reviews related literature.
CHAPTER II

LITERATURE REVIEW

2.1 Introduction

This chapter provides a discussion of theoretical and empirical literature from prior studies on transparency in public procurement and its effects on healthcare service delivery. The issues to be discussed in this chapter include: concepts such as procurement, public procurement, quality, key factors and challenges in public procurement, public healthcare procurement process, transparency in procurement and health service delivery, theoretical and conceptual framework to guide the study. The study also reviewed the strategies to enhance transparency in public sector procurement recommended in prior studies.

2.2 Theoretical Literature

This section of the chapter presents theoretical literature on various concepts of this study’s area such as procurement, public procurement, transparency in procurement as well as the procurement process in the public healthcare sector taking into context service delivery. This section shall conclude by providing a theoretical framework to guide this study.

2.2.1 Procurement

According to CIPS Procurement Glossary (2017), procurement is indicated as a process which is important in strategically developing and implementing an organizations’ goals. Procurement is focused on the acquisition of goods and services and the execution of plans. It focuses on identifying and engaging with potential stakeholders, whilst articulating the business needs and preparing a business case.
Procurement differs from sourcing in that the procurement process addresses all pre-contract and post-contract processes. Key to procurement is ensuring that user requirements are met.

### 2.2.2 Public Procurement

Public procurement is a term used in governmental circles for acquisition of goods and services using taxpayers’ money. (Quayle, 2010; Bowersox et al., 2012). With the emergence of Procurement and Supply Chain, public procurement has received greater attention due to the emergence of the concept of New Public Management (NPM) (Pollitt and Bouckaert, 2010; Hood, 2011). The principle focuses on how the public sector can be more effectively whilst ensuring that the process is conducted efficiently and with high standards of conduct in order to ensure high quality of service delivery and safeguard the public interest. Public procurement generally follows certain regulations and principles. The public healthcare sector follows these principles in procurement.

### 2.2.3 Overview of Procurement in the Healthcare Sector

Where procurement is done according to sound policies, there is potential benefit to the economy and these helps in wealth distribution (Musanzikwa, 2013). In the health sector, ensuring availability of medical supplies for priority health problems is of key in epidemiology (WHO, 2011; Mills, 2015). Procurement in the health sector just like any other sector is auditable, verifiable and transparent. The process flow can be summarised as:
User departments raise requisitions as per Procurement Plan **four weeks** before the date of delivery for Request for Quotations and **twelve weeks** before the date for Competitive Bidding.

Requests are received in the Procurement Management Unit and depending on the method of procurement, generic specifications are advertised via Government gazette, widely circulated newspapers and notice board.

Once tendering period has been closed, bids/quotations are evaluated by the Evaluations Committee. After recommendations are made by the committee, the recommendation is sent to the Accounting officer for approval.

Once approved the purchase order/contract is done after the standstill period where applicable.

2.2.4 Procurement and Healthcare service delivery

Arora et al. (2017) argue that healthcare service delivery is unique in that in relation to other industries in that long waiting times are not affordable in healthcare systems because patient condition may worsen substantially during the waiting period (Mustaffa and Potter, 2009). Taking this into context calls to duty therefore all functions including procurement which must ensure that medical supplies are always available. Meijboom, et al. (2011) underscore the role of the procurement function in healthcare systems. They contend that ‘simultaneity of production and consumption of services results in highly unpredictable and unique demand which is difficult to match with service capacity; hence the need for efficient replenishing systems. Additionally, extant literature suggests that some aspects of procurement performance such as inefficient processes and delayed delivery or stock outs of medical supplies may affect both efficiency (Kumar, DeGroot, and Choe, 2008) and effectiveness (Mustaffa and Potter, 2009) of healthcare systems. As Aronsson et al. (2011) suggest, it really does not matter which dimension of performance measurements takes prominence (cost or customer satisfaction / healthcare quality), because both dimensions can be achieved through the procurement function. Such is the significance of the procurement function.

2.2.5 Effect of procurement on healthcare delivery

Regarding the effect of procurement on healthcare delivery Kumar, DeGroot, and Choe, (2008) suggest that inefficient purchasing can eventually be passed along to the patient as additional costs. In addition, Aaronson et al. (2011) notes that inadequate and tedious procurement procedures and practices are responsible for rising costs and inefficiencies in healthcare systems. It is therefore important that the whole procurement process focuses on ensuring that efficiency is maintained during the whole procurement cycle (Mushanyuri, 2014). Efficiency in government procurement is an important issue in cases where public procurement accounts
for a large portion of economic activity. In major OECD countries, government procurement ranges from 8% to 10% of the gross domestic product, and this share is even larger in developing countries (OECD, 2017) Ensuring transparency in the procurement procedure is an essential determinant of efficiency, as it enhances the competitiveness of public procurement. The World Trade Organization (WTO) has been generally successful in liberalizing international transactions of goods and services among member countries, but unsuccessful in liberalizing public procurement (WTO, 2017). Given the importance efficiency is attributed to transparency, it becomes imperative to closely look at transparency.

2.3 Transparency in Procurement

Transparency can be defined as the openness of a system which allows public scrutiny (Kelman, 2015). Procurement process are required to be done in a fair and transparent manner. In order to ensure that the process is done transparently the broadly accepted underlying principles are:

(i) Open competition free access to the procurement market: in a research by Stykes, 2017, by allow equal opportunities to bidders to competitively bid, this ensures that the process is transparent.

(ii) Allow public examination and review: according to Bolton (2016) this is considered as operating procurement process in an environment that is auditable and verifiable. If a procurement process is transparent, it allows any external party to independently review the process at any given chance.

(iii) Openness and extensive communication: Musanzikwa (2013) contends that procurement should be based on principles which guarantee fair and non-discriminatory conditions of competition. Generally, a transparent procurement system ensures that all the team members as well as the qualified suppliers have equal access to all the system elements, including
procurement methods, legislation, evaluation criteria, technical specifications, supplier rights etc. These aspects are further reiterated by Bolton, 2016. In his study in 2017, Shonhe highlights that extensive communication is key in allowing fair competition. Publishing information in widely read papers, websites and on notice boards provides a forum for extensive communication.

(iv) Accountability: Asa (2012) indicated for any system to be rendered transparent, there should be assigned responsibility to either particular organisations or individuals. In order for a procurement system to be rendered as providing accountability, there should be assigned and prescribed responsibility with consequences in the event of non-compliance. In public procurement, this involves assigning to a Code of Conduct which highlights the punitive aspects in the event of non-compliance. Transparency provisions enable processes and decisions to be monitored and reviewed, helps ensure that decision-makers can be held accountable and also helps open public procurement to more competition (Mills, 2015; Bolton, 2016). Transparency needs to pervade all steps in the procurement cycle, from the earliest decisions on needs assessments, to the development of procurement plans and budget allocations, to bid evaluations, to implementing the contracts (and any contract amendments) and auditing performance.

2.4 Healthcare service delivery

According to the World Health Organisation (2011), healthcare service delivery can be defined as people-centred care that is focused and organized around the health needs and expectations of people and communities, rather than on diseases. This care is required to be delivered timeously in order to sustain life. According to Pegnato (2016), healthcare systems are increasingly facing challenges due to emergence of chronic conditions, complexities in treatment regimens and advances in medical knowledge which affect patient care. Low-
incoming earning countries have borne the brand of challenges being faced in the healthcare sector. One of the major challenges faced in healthcare service delivery is the issue of lack of transparency in the procurement processes in order to ensure that set targets are met.

2.4.1 Factors affecting healthcare service delivery

2.4.1.1 Organization Culture

Culture is defined as a collective, shared, belief and behaviour amongst a group of people. The cultural environment especially in the health sector plays a very important role in the functioning of any body and has an effect in its productivity and usefulness (Casson, 2012). Adeptness of an organization depends on combination of organization cultural and market condition (Ghoshal and Moran, 2016). This unique culture should be taken into account while dealing with healthcare service delivery. Some authors have been very critical for public procurement and have considered it as outright toxic (Schooner, 2010).

2.4.1.2 Individual Transaction Perspective

Healthcare service delivery is subjected to analysis by various entities such as the Auditor General, Health Professional bodies such as Medical and Dental Practitioners Association of Zimbabwe etc. Hence, each transaction is subject to scrutiny individually for efficiency, efficacy and correctness rather than overall transaction as any mistake can be life threatening. (Masten, 2016).

2.4.1.3 Market Conditions

Public healthcare sector operates in market condition where competition is distorted (Mckie, 2010). Williamson (2011) added that it is large buyer large supplier situation with barriers to entry thus, competition is not perfect. This is usually the case where procurements of equipment
or medical supplies are concerned. Long term contracts favour large and monopolistic suppliers.

2.4.1.4 Political Environment

The role of political leadership is important in the health sector (Murray, 2018) and public procurement strategy. The political masters are responsible for most democratic accountability in public sector which also include the healthcare sector. The bureaucrats are therefore required to understand the differences between political interference and political mandate when it comes to the welfare of patients (Murray, 2009). Due to very high lead time of procurement, forecast of technological requirement becomes very difficult and it is subjected to political and organizational pressure (McNaugher, 2017). Recent headlines in newspapers heighten this aspect. Such pressures situation become more vulnerable where there is lack of clarity on what is expected in service delivery. Generally it is seen that indenting authority and contract enforcing authority are independent. They are interwoven but not integrated. Their perspective has distorting

2.4.1.5 System Approach and Bureaucracy

In the public health sector operates on a systems approach which entails a lot of bureaucracy (Thai and Drabkin, 2007). If a system is fragmented such as those seen in Uganda, different departments can issue policy directives on a subject which are not coherent with each other due operations occurring in silos. End user are generally not consulted in the process of decision making. Furthermore, when consulted there is bureaucracy in decision making for example in the Zimbabwean context, before a patient can be attended to by a clinician, they pass through the administration, accounts and nurses’ offices which ultimately has an effect on service delivery (Berrios, 2016).
2.4.1.6 Multiple Stakeholders

In the healthcare sector there are multiple stakeholders including society at large with conflicting interest. Achieving the cooperation between the stakeholders is a key challenge (Korosec, 2013). Incongruity of goals leading to complexity and inefficiency has also been highlighted (Ergas and Menzes, 2014; Ouchi, 2009).

2.4.1.7 Human Resources

The posts in the public health sector remain a challenge internationally. With high staff turnover due to various reasons such monetary, fatigue due to overworking, there is an effect on institutional integrity and knowledge management. This discontinuity can create serious service delivery disruptions. Furthermore, lack of competent work force and constant training also has an effect on service delivery (Thai and Drabkin, 2017).

2.5 Previous studies on effects of procurement in healthcare service delivery

Kanyoma (2013) conducted a study in Malawi investigating the impact of procurement operations in health service delivery. In his study he concluded that procurement derailed service provision resulting in stock outs. This perception was further corroborated by a similar study conducted in Kenya by Ohashi in his 2009 study.

2.6 Theoretical Framework

This study was underpinned by the principle-agent theory and the general systems theory.

2.5.1 The principle-agent theory

The study was guided by the agency theory as initially hypothesized by Jensen and Meckling (1976) and later expounded on by Sarens and Abdolmohammadi (2010). The principle-agent theory is an agency model developed by economists that deals with situations in which the
principal is in position to induce the agent, to perform some task in the principal’s interest, but not necessarily the agent’s (Health and Norman, 2014). Donahue (2009) explains that procurement managers including all staff concerned with public procurement in the healthcare sector must play the agent role for elected representatives. In this case all those concerned with the public procurement function in the country's healthcare sector are agents of their respective health institutions hence they are responsible for the effectiveness and efficiency of the procurement function at the organisation in a transparent manner. This theory highlights the extent to which there is an adherence to proper and transparent public procurement policies by all stakeholders involved in the procurement processes in the sector, as agents to their healthcare institutions and country. In this study the principle could be identified as the country's public healthcare institutions, the government as well as all affected by the rot and inefficiencies of the procurement process at the public healthcare institutions (such as government, citizens, suppliers, donars etc).

2.5.2 The general systems theory

According to Dye (2006) and Easton (2013) the most widely employed theoretical framework is the system model, which von Bertalanffy (2008) states that there is an application of general system theory to public policy. Under social science applications, this model could be referred to as an “open system” model, which reflects the idea that all elements of the model are open to influences from the external environment. This therefore means that outputs and feedback are functions not only of the conversion element, but of other environmental factors as well. In this study, the public procurement system is considered to be influenced by factors which include: corruption, collusion, control and competition which through transparency may positively or negatively affect public healthcare service delivery in Zimbabwe. Thai (2010) adapts the systems model to capture “the whole scope of public procurement”. He is
particularly concerned to portray the core elements of any procurement system and the relationships between and among them.

2.6 Previous studies on the effect of transparency in procurement and healthcare delivery

This section of the chapter shall present literature from prior studies which discussed the effects of transparency in public procurement on healthcare service delivery. Prior studies highlighted that there are four issues or variables that affect public procurement efficiency and service delivery. These are mainly corruption, collusion, competition and control. Therefore, this study shall analyse the relationship and effect transparency may have on those four variables so as to establish what type of effect transparency has on public healthcare service delivery. Hence, this section shall discuss previous studies on the relationship transparency may have on service delivery.

Conceptual Framework

The conceptual framework as proposed by the researcher from the literature reviewed. This has led to the study also proposing two hypotheses to be tested as a guidance to fulfil the aim and objectives of the study, namely that,

H₁ Transparency in procurement is currently being practised in public healthcare procurement;

H₂ Transparency in public procurement has a significant effect on public healthcare service delivery.

Moreover, the study proposes to apply empirical analysis between transparency and the following four variables namely corruption, control, collusion and competition as well as show the level or extent of their effect on public healthcare expenditure. The hypotheses will be rejected if tested and the results are otherwise.
2.6 Chapter Summary

This chapter reviewed the prior theoretical and empirical literature on transparency and public procurement. Two theories were discussed in the chapter which will guide this study namely system approach and the principal-agent theories. Furthermore, from the literature reviewed a conceptual framework was constructed which had four variables whose relationship to transparency and public health will be established in chapter four through the testing of the five hypotheses. The next chapter shall provide the research methodology used in this study.
CHAPTER III

METHODOLOGY

3.1 Introduction

This section outlines the research methodology of the study. In more detail, the chapter outlines the research design, the study population, the data collection procedure, data analysis plan as well as the ethical considerations to be followed.

3.2 Research design

This study used a quantitative analytical cross sectional study design to describe the effect of transparency in procurement on public healthcare service delivery in Zimbabwe. A cross sectional design was preferred because it was relatively simple to conduct and would only require a short period of time to collect data as there was no need to follow-up of study subjects. This aspect is supported by Burns and Grove (2001)

3.3 Research setting

In this study, data was collected from personnel from Ministry of Health and Child Care, Head Office who were involved in the procurement process.

3.4 Target Population

The research population for this study comprised employees at the Ministry of Health and Child Care Head Office, who are involved in the procurement process. Eligibility criteria specify the characteristics that people in the population must possess in order to be included in the study (Polit & Hungler 1999). In this study, the participants had to be employees who were involved in the purchasing of health commodities and had to be willing to participate in the study.
3.5 Sample size and sampling

This section describes how the sample size for the study was determined and how the study participants were selected.

3.5.1 Sample size determination

There are 165 people who are currently working in the Ministry of Health and Child Care, Head Office. The sample size representative of people who were involved in procurement cycle and healthcare service delivery in this study were 115. It was determined based on the Krejcie and Morgan's (1970) sample size determination table.

3.5.2 Sampling technique

Simple random sampling was used to select the study participants. To ensure that each study participant has an equal chance of being selected for the study, the researcher generated an exhaustive alphabetical list of all employees who are working in the procurement department for a period of at least one year. Using random number tables, the researcher selected the study participants one by one until the sample size of 115 was reached.

3.6 Research instrument

A piloted self-administered questionnaire was used to collect data from study participants. The main reason why the researcher decided to collect data using a self-administered questionnaire was that respondents remained anonymous and could express themselves in their own words without fear of identification (Saunders et. al. 2009). This aspect was very important in this study where employees expressed their views about the effect of transparency in procurement on public healthcare service delivery in Zimbabwe.

The questionnaire was based on the literature from similar studies and other research instruments used in other similar studies. The questionnaire was guided by the objectives of
the study and had four sections. Section A contained questions on personal and organizational information, Section B had questions on level of transparency in public procurement within MoHCC, Section C included questions on effects of transparency on the public healthcare procurement healthcare delivery for the MoHCC while section D had questions which required participants to suggest strategies on how the Ministry could improve the transparency of the public healthcare service delivery (see Appendix I).

3.7 Validity of the research instrument

Validity can be sub-categorised into external and internal validity. These were assessed at piloting phase. The pilot study was carried out at the Harare Central Hospital. Harare Central Hospital was selected as the most ideal site for piloting the research instrument because it had a similar procurement system used by the Ministry of Health.

3.7.1 Content Validity

Content validity was used taking into account the full range of possible answers, opinions, or for the purpose of this study, the full range of relationships between public healthcare service delivery and transparency. For example, this tool would have poor content validity in testing the effect of transparency on public health service delivery if it only assessed issues to do with the procurement policy. The inclusion of procurement practices which affect transparency ensured that a wide range of issues could be assessed. It also acknowledged the complexity of transparency in the public procurement.

In section B and C the questions incorporated the breadth of that topic. For example, questions in these sections unpacked the effect of transparency on public health expenditure. This showed that our research instrument exhibits strong content validity.
3.7.2 Equivalence

For this research, equivalence was assessed using two surveys (Survey A and B) with the same individuals. During piloting, in the first survey, participants answered the questions as they were outlined and after five days the order of the questions was rearranged for the second survey. The results from the test showed a good equivalence reliability as evidenced by responses between similar questions which were highly correlated and were significant.

3.7.3 Internal Consistency

Internal consistency was measured with Cronbach’s alpha (α) (Saunders et al, 2009). A Cronbach’s alpha of > 0.7 was seen for all questions which showed that the tool was reliable.

3.8 Data collection procedure

This study used a piloted questionnaire to obtain data relevant to the study’s objectives and research questions. The purpose of the study was to describe effect of transparency in procurement on public healthcare service delivery in Zimbabwe. The researcher approached the 115 people involved in procurement for the Ministry of Health and Child Care Head Office to participate in the study. Every employee who was willing to participate was given a cover letter which contained information about the study and a questionnaire. Before completing the questionnaire, the study participants signed the cover letter to express their willingness to participate in the study. The completed questionnaires were checked for completeness before they were further cleaned and entered into a statistical software for analysis.

3.9 Data presentation and analysis procedures

Before processing the responses, the completed questionnaires were edited for completeness
and consistency. Quantitative data was analysed by the use of descriptive statistics using SPSS (Version 22) and presented through percentages, means, standard deviations, and frequencies. The information was displayed by use of frequency tables and in prose-form.

This was done by tallying up responses, computing percentages of variations in response as well as describing and interpreting the data in line with the study objectives and assumptions through use of SPSS (Version 22) to communicate research findings. Content analysis was used to analyze qualitative data or aspect of the data collected from the open ended questions.

In addition, the study conducted a multiple regression analysis. Multiple regression analysis was used to establish the relations between the independent and dependent variables. Multiple regression is a tool that was used because it is the procedure that uses two or more independent variables to predict a dependent variable. The multiple regression equation was:

\[ Y = \beta_0 + \beta_1 X_1 \]

Whereby \( Y \) = Effect of transparency in procurement on healthcare service delivery

\( X_1 = \) Procurement reforms negatively affect healthcare service delivery

While \( \beta_1 \), are coefficients of \( X_1 \) variables and \( \varepsilon \) is the error term. A p-value of less than 0.05 was considered statistically significant.

3.10 Ethical considerations

The current study was subject to certain ethical issues since it was conducted in the public sector. Approval to conduct the research within the Ministry of Health was sort from the Secretary for Health and Child Care and permission was granted (Appendix II). As mentioned earlier, all participants reported their written acceptance regarding to their participation in the research, through a signed cover letter. The aim of the cover letter was to reassure participants that their participation in the research was voluntary and that they were free to withdraw from
it at any point and for any reason (Saunders et al, 2009). Next to this, participants were fully informed regarding the objectives of the study, while they were reassured that their answers would be treated as confidential and was only to used only for academic purposes and only for the purposes of the particular research (Saunders et al, 2009). Except from the above, participants were not harmed or abused, both physically and psychologically, during the conduction of the research. In contrast, the researcher attempted to create and maintain a climate of comfort.

3.11 Chapter summary

This chapter outlined the methodology of the study. The study was a quantitative cross sectional study. People who were involved in procurement within the Ministry of Health at Head Office qualified to take part in the study. A pretested self-administered questionnaire was used to collect data. Participation in the study was voluntary. The research instrument was pretested to ensure that it collected valid and reliable data. The next chapter, presents results and discussion of the findings.
CHAPTER IV
DATA PRESENTATION, ANALYSIS AND DISCUSSION

4.1 Introduction

This chapter presents, analysis and discusses the research results. The main purpose of this study was to investigate the effect of transparency in procurement on public healthcare expenditure. Specifically, the study assessed the level of transparency in public healthcare procurement within the MoHCC, assessed the effects of transparency in procurement on the public healthcare service delivery for the MoHCC and came up with effective strategies on ensuring transparent procurement procedures in order to guarantee efficient healthcare service delivery. Tables were used to present the data while literature review was used for discussion of the results.

4.2 Response rate

The questionnaire was distributed to 115 study participants. Table 4.1 shows the response rate results.

Table 4.1 Response Rate

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Responded</td>
<td>111</td>
<td>96.9</td>
</tr>
<tr>
<td>Not responded</td>
<td>4</td>
<td>3.1</td>
</tr>
<tr>
<td>Total</td>
<td>115</td>
<td>100</td>
</tr>
</tbody>
</table>

From the study, 111 out of 115 target respondents filled in and returned the questionnaires contributing to a 96.% response rate. This commendable response rate can be attributed to follow ups through telephone as well as sending the questionnaire via email which was done
by the investigator. According to Mugenda and Mugenda (1999) as well Punch (2003) argued that a response rate of 50% is adequate for analysis and reporting; a rate of 60% is good and a response rate of 70% and over is excellent. Our response rate of 96% shows that the respondents were willing to participate in the study.

### 4.3 Demographic Characteristics of study participants

Study participants were requested to indicate their sex, age group, work experience, highest level of education and department worked. The analysis relied on this information so as to categorize the different results according to study participants’ acquaintance with public sector procurement. Table 4.2 displays the results.

- **Gender of respondents**

Results displayed in table 4.2 showed that the majority (56.9%) of the study participants were male. The study found a distribution of respondents by gender of 56.9% of male to 43.1% women as reflected in Figure 4.1. These results revealed that the staff of MoHCC is mainly men dominated.

This information can be displayed as:

**Figure 4. 5 Percentage of respondents by gender**

![Percentage of respondents by gender](image)

*Source: Survey Data*
- **Age of respondents**
  The study inquired the respondents to indicate their age. A large percentage of respondents of 46%, were aged between 36 and 45 years, whilst those aged between 26 and 35 years constituted to 29% of the study sample. Those aged between 18 and 25, 46 and 55 years and above 55 years accounted for approximately 11%, 8% and 6% respectively. The findings indicate a mature staff of MoHCC. The results shown in Figure 4.2 are similar to those of Bigdeli *et al.*, (2014).

**Figure 4.6 Percentage of responses by age**

![Percentage of responses by age](image)

*Source: Survey Data*

- **Level of Education**
  A significant proportion of the respondents had diplomas (43%), followed by graduates (35%), and postgraduates (12%) respectively. As shown in Figure 4.3 those with secondary education added to 9% of the total respondents. From the results, it can be observed that most of the respondents were educated and the study believed that they understand the effect of transparency in procurement on healthcare service delivery. Hence, they provided reliable responses.
Years of employment
This section sought to find out the length of time the respondents have been employed at MoHCC. Figure 4.4 shows that 43%, 29% and 25% of the respondents claimed that they have been working at MoHCC for 11 to 15, 6 to 10 and 16 to 20 years respectively. On the other hand, a combined proportion of 3% of respondents revealed that they have been MoHCC employees for 1 to 5 years and for more than 21 years correspondingly. From the results, most of the respondents have been MoHCC’s staff for so long hence, they provided reliable information relating to the the effect of transparency in procurement on healthcare service delivery at MoHCC.
4.4 Level of transparency in public healthcare procurement within the MoHCC.

Study participants were asked to highlight their views about the level of transparency in the public health procurement within the Ministry of Health. The procurement system was classified as transparent if the overall mean for all responses is above 3. Table 4.1 presents the results.

Table 4.1. Study participants’ views about the level of transparency in the public healthcare procurement within MoHCC.
Table 4.2: Views about the level of transparency in the public healthcare procurement within MoHCC.

<table>
<thead>
<tr>
<th>The public healthcare procurement within the MoHCC allows</th>
<th>Mean</th>
<th>Std</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information is available for the public</td>
<td>3.56</td>
<td>1.16</td>
</tr>
<tr>
<td>Is guided by the public procurement act</td>
<td>4.01</td>
<td>2.11</td>
</tr>
<tr>
<td>Requires advertisement of tenders</td>
<td>3.33</td>
<td>1.09</td>
</tr>
<tr>
<td>Requires that specifications be publicly available</td>
<td>4.72</td>
<td>1.77</td>
</tr>
<tr>
<td>Requires that criteria for evaluation of the bid be included as part of the tender package</td>
<td>3.42</td>
<td>2.01</td>
</tr>
<tr>
<td>Requires that contract awards be made by the Evaluation Committee</td>
<td>4.21</td>
<td>1.78</td>
</tr>
<tr>
<td>Requires that information on tender process and results are made public</td>
<td>3.33</td>
<td>1.22</td>
</tr>
<tr>
<td>Has a section on formal appeal process for procurements</td>
<td>2.07</td>
<td>1.10</td>
</tr>
<tr>
<td>Is audited regularly</td>
<td>4.0</td>
<td>2.16</td>
</tr>
<tr>
<td><strong>Overall</strong></td>
<td><strong>4.22</strong></td>
<td><strong>1.67</strong></td>
</tr>
</tbody>
</table>

From the results displayed in table 4.2, most of the study participants were of the view that the public healthcare procurement expenditure within the MoHCC requires that specifications be publicly available as indicated by a mean of 4.72. According to Musanzikwa (2013) if the procurement system is transparent the general public should be aware of each procurement specifications. This is done to allow everyone an equal chance for participating in the procurement process.

Study results further shows that the public healthcare procurement expenditure within the MoHCC requires that contract awards be made by the Evaluation Committee as illustrated by mean score of 4.21. This was also supported by Musanzikwa (2013) who contends that the involvement of the evaluation committee to during the procurement process is one way of ensuring that the process is transparent. The same author further recommended that the
evaluation committee should be guided by rules which guarantees fair and non-discriminatory conditions of competition.

It was also shown that the MOHCC healthcare procurement is guided by the public procurement act as depicted by mean of 4.01. This results is in line with what was recommended by Bolton (2016) who said that for a public procurement process to be transparent it should by guided the act of parliament. This act should outline how the public should be done to ensure transparency.

Study results further showed that the MOHCC procurements are audited regularly as illustrated by a mean of 4.0. This agreed with what was reported in a study by Bolton (2016) who concluded that a transparent procurement process should be audited. According to Bolton (2016) when proper procurement procedures are followed, the processes are auditable, verifiable and transparent.

From the study results it can be concluded that overall the MoHCC healthcare procurement process is transparent as depicted by a mean of 4.22. Generally, a transparent procurement system ensures that all the team members as well as the qualified suppliers have equal access to all system elements, including procurement methods, legislation, evaluation criteria, technical specifications, supplier rights etc (Musanzikwa, 2013; Mills, 2015; Bolton, 2016).

4.5 Effects of transparency in procurement on the public healthcare service delivery for the MoHCC

The study further assessed the effect of transparency in procurement on the public healthcare service delivery for the MoHCC. The variable with a mean of less than 3 shows a negative effect while those with a mean of three and above shows positive effect on the public healthcare service delivery for MoHCC. The results are displayed in table 4.4.
### Table 4.4: Effects of transparency in procurement on the public healthcare service delivery for the MoHCC

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Std</th>
</tr>
</thead>
<tbody>
<tr>
<td>The public procurement processes are flexible for user departments</td>
<td>3.56</td>
<td>0.33</td>
</tr>
<tr>
<td>The regulatory requirements for procurement allow for emergency procurement in a health crisis</td>
<td>1.52</td>
<td>1.22</td>
</tr>
<tr>
<td>Procurement personnel are knowledgeable on the flexibilities for emergency procurement</td>
<td>4.67</td>
<td>1.89</td>
</tr>
<tr>
<td>Procurement reforms negatively affect healthcare service delivery</td>
<td>1.57</td>
<td>0.35</td>
</tr>
<tr>
<td>Procurement processes are adequately transparent whilst ensuring timely healthcare delivery</td>
<td>2.88</td>
<td>1.03</td>
</tr>
<tr>
<td>The Ministry is losing money through the current public procurement due to unmet targets</td>
<td>2.67</td>
<td>1.11</td>
</tr>
<tr>
<td><strong>Overall</strong></td>
<td>2.47</td>
<td>1.61</td>
</tr>
</tbody>
</table>

Results displayed in table 4.4 shows that the public procurement processes are flexible for user departments and that the procurement personnel are knowledgeable on the flexibilities for emergency procurement have a positive effect on the public healthcare service delivery for the MoHCC as depicted by their means which are above the cut-off point of three. Overall, study results showed that while their transparency in procurement for the MoHCC, public healthcare service delivery is being negatively affected as the regulatory requirements for procurement do not allow for emergency procurement in a health crisis (mean=1.52 <3), procurement reforms negatively affect healthcare service delivery (mean=1.57) and procurement processes are adequately transparent but they do not ensure timely healthcare delivery (mean=2.88). In addition, study results show that the Ministry is losing money through the current public
procurement due to unmet targets and this negatively affects its public healthcare service delivery (mean=2.67).

Similar findings were reported in a study by Musanzikwa (2013) who that due to lack of transparency in the procurement process by the Office of the Auditor General found irregularities in the tendering processes during Targeted Approach Program at Gwanda hospital with allegations that the Government of Zimbabwe was prejudiced about three hundred thousand dollars. The same author reported that they were complaints raised by departments within the institution that procured goods did not meet stipulated specifications and were sub-standard. The end users reported that they had minimal input in the procurement process. By year end, 2011 the hospital had run out of vital and essential medicines in the pharmacy department. There reportedly were food shortages for hospitalized patients (Musanzikwa, 2013).

4.6 Effective strategies on ensuring transparent procurement procedures in order to guarantee efficient healthcare service delivery. Inferential statistics was done to identify effective strategies on ensuring transparency procurement procedures in order to guarantee efficient public healthcare service delivery for the MoHCC. Regression analysis was the techniques which was used. The following sections presents the results.

4.6.1 Coefficient of Determination of Variables
The coefficient of determination was carried out to measure how well the statistical model was likely to predict effect of transparency in procurement on the public healthcare service delivery. The findings of the study are as depicted in table 4.5.
Table 4.5 Regression Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R squared</th>
<th>Adjusted square</th>
<th>R</th>
<th>Std. Error of the estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.742</td>
<td>0.551</td>
<td>0.641</td>
<td>0.00438</td>
<td></td>
</tr>
</tbody>
</table>

The coefficient of determination, \( r^2 \) is the square of the sample correlation coefficient between outcomes and predicted values. As such it explains the contribution of the seven independent variables (Sex, The public procurement processes are flexible for user departments, The regulatory requirements for procurement allow for emergency procurement in a health crisis, Procurement personnel are knowledgeable on the flexibilities for emergency procurement, Procurement reforms negatively affect healthcare service delivery, Procurement processes are adequately transparent whilst ensuring timely healthcare delivery, The Ministry is losing money through the current public procurement due to unmet targets) to the dependent variable. The seven independent variables that were studied explain only 55.1\% of the effect of transparency in procurement on the public health care service delivery as represented by the \( R^2 \). This therefore means that other factors not studied in this research contributes 44.9\%. Therefore, further research should be conducted to investigate the other factors (44.9\%) that have an effect of transparency in procurement on the public health care service delivery.

4.6.2 Multiple linear Regression

The researcher further conducted a multiple regression analysis so as to identify the determinant of the effect of transparency in procurement on the public health care service delivery. The main purpose of multiple regressions is to learn more about the relationship
between several independent or predictor variables and a dependent variable. The regression analysis results are presented in table 4.6.

Table 4.6. Multiple regression model for the effect of transparency in procurement on the public healthcare service delivery.

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>B</td>
<td>Standard error</td>
<td>B</td>
<td>Standard error</td>
</tr>
<tr>
<td>Constant=1.23</td>
<td>1.316</td>
<td></td>
<td>1.451</td>
<td>0.357</td>
</tr>
<tr>
<td>Sex</td>
<td>0.67 1.27</td>
<td>0.42 0.01</td>
<td>3.76</td>
<td>0.03*</td>
</tr>
<tr>
<td>The public procurement processes are flexible for user departments</td>
<td>0.35 0.11</td>
<td>0.33 0.09</td>
<td>4.89</td>
<td>0.2</td>
</tr>
<tr>
<td>The regulatory requirements for procurement allow for emergency procurement in a health crisis</td>
<td>0.56 0.32</td>
<td>0.48 0.15</td>
<td>3.67</td>
<td>0.55</td>
</tr>
<tr>
<td>Procurement personnel are knowledgeable on the flexibilities for emergency procurement</td>
<td>0.77 0.31</td>
<td>0.42 0.29</td>
<td>2.99</td>
<td>0.01*</td>
</tr>
<tr>
<td>Procurement reforms negatively affect healthcare service delivery</td>
<td>0.32 0.12</td>
<td>0.26 0.07</td>
<td>4.88</td>
<td>0.99</td>
</tr>
</tbody>
</table>


Procurement processes are adequately transparent whilst ensuring timely healthcare delivery

<table>
<thead>
<tr>
<th></th>
<th>0.59</th>
<th>0.27</th>
<th>0.47</th>
<th>0.18</th>
<th>3.87</th>
<th>0.08</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Ministry is losing money through the current public procurement due to unmet targets</td>
<td>0.44</td>
<td>0.1</td>
<td>0.38</td>
<td>0.29</td>
<td>4.58</td>
<td>0.36</td>
</tr>
</tbody>
</table>

*means statistical significance (p<0.05)

The following equation was generated.

\[ Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon \]

becomes:

\[ Y = 1.23 + 0.67 X_1 + 0.35 X_2 + 0.56X_3 + 0.77X_4 + 0.32X_5 + 0.59X_6 + 0.44X_7 \]

The regression equation above has established that taking all factors into account

(Sex, The public procurement processes are flexible for user departments, The regulatory requirements for procurement allow for emergency procurement in a health crisis, Procurement personnel are knowledgeable on the flexibilities for emergency procurement, Procurement reforms negatively affect healthcare service delivery, Procurement processes are adequately transparent whilst ensuring timely healthcare delivery, The Ministry is losing money through the current public procurement due to unmet targets) constant at zero, effect of transparency in procurement on the public health care service delivery will be 1.23. The findings presented also shows that taking all other independent variables at zero, a change in sex from male to female will lead to a 0.67 improvement effect of transparency in procurement on the MoHCC public health care service delivery and this was statistically significant (p-value=0.03 <0.05).
Similar results were reported by Bolton (2016) who found that as compared to women, men were more likely to be involved in accepting gifts and corruption during the procurement process. Our study results also shows that taking all other independent variables at zero, an improvement in the flexibility of public procurement processes for user departments will lead to a 0.35 improvement in the positive effect of transparency in procurement on the MoHCC public health care service delivery, an improvement in procurement personal knowledge on the flexibilities for emergency procurement will lead to a 0.56 positive effect of transparency in procurement on the public health care service delivery and this was also statistically significant. According to Musanzikwa (2013), some procurement some procurements lack transparency due to limited knowledge on procurement laws among people who will be involved in the procurement process.

4.6.3 Chapter Summary

The results indicate that level of transparency in public healthcare procurement within the MoHCC is good as public healthcare procurement expenditure within the MoHCC requires that specifications to be publicly available, requires that contract awards be made by the Evaluation Committee, is guided by the public procurement act and is audited regularly. Furthermore,
CHAPTER V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter summarizes the study. The chapter also concludes the study and outlines the study recommendations. Based on the research findings, areas for further research are also highlighted.

5.2 Summary

The Government of Zimbabwe has introduced several reforms to ensure that there is transparency in the public health procurement. These public procurement reforms have been met with constant criticism by end users that there are now delays and impediments in acquiring their goods and services on time due to what is required by law. Such a situation has created difficulties of inefficiencies in achieving programmatic targets which are affected by procurement (Auditor General annual report, 2018). In addition, previous routine internal audits carried out over the years by the Office of the Auditor General cited flawed procurement processes as prejudicing the MoHCC of more than fifty million United States dollars annually (Auditor General Annual reports, 2013, 2015 and 2017). This figure was further corroborated by Shonhe (2017) in his study on challenges faced in the health sector on purchasing and supply chain. The purpose of this study was to investigate the effect of transparency in procurement on public healthcare service delivery. The study objectives were to assess the level of transparency in public healthcare procurement within the MoHCC, to assess effects of transparency in procurement on the public healthcare service delivery for the MoHCC and to suggest effective strategies on ensuring transparent procurement procedures in order to guarantee efficient healthcare service delivery.
An analytical cross sectional study was used. A total of 111 study participants were interviewed. On level of transparency in the public health procurement within the Ministry of Health, study results showed that overall the MoHCC healthcare procurement process is transparent. On effect of transparency in procurement on the public healthcare service delivery for the MoHCC, public healthcare service delivery is being negatively affected as the regulatory requirements for procurement do not allow for emergency procurement in a health crisis, procurement reforms negatively affect healthcare service delivery and procurement processes are adequately transparent but they do not ensure timely healthcare delivery. Effective strategies on ensuring transparent procurement procedures in order to guarantee efficient healthcare service delivery were that females should be involved in the procurement process, procurement personal knowledge on the flexibilities for emergency procurement should be improved among others.

5.3 Conclusion

In conclusion, study results has shown that level of transparency in public healthcare procurement within the MoHCC is good as public healthcare procurement expenditure within the MoHCC requires that specifications to be publicly available, requires that contract awards be made by the Evaluation Committee, is guided by the public procurement act and is audited regularly.

Study results shows that the public procurement processes are flexible for user departments and that the procurement personnel are knowledgeable on the flexibilities for emergency procurement have a positive effect on the public healthcare service delivery for the MoHCC as depicted by their means which are above the cut-off point of three. Overall, study results showed that while there is transparency in procurement for the MoHCC, public healthcare service delivery is being negatively affected as the regulatory requirements for procurement do
not allow for emergency procurement in a health crisis (mean=1.52 <3), procurement reforms negatively affect healthcare service delivery (mean=1.57) and procurement processes are adequately transparent but they do not ensure timely healthcare delivery (mean=2.88). In addition, study results show that the Ministry is losing money through the current public procurement due to unmet targets and this negatively affects its public healthcare service delivery (mean=2.67).

The researcher further conducted a multiple regression analysis so as to identify the determinant of the effect of transparency in procurement on the public health care service delivery. It was found from the regression analysis that taking all factors into account (The public procurement processes are flexible for user departments, The regulatory requirements for procurement allow for emergency procurement in a health crisis, Procurement personnel are knowledgeable on the flexibilities for emergency procurement, Procurement reforms negatively affect healthcare service delivery, Procurement processes are adequately transparent whilst ensuring timely healthcare delivery, The Ministry is losing money through the current public procurement due to unmet targets) constant at zero, effect of transparency in procurement on the public health care service delivery will be 1.23.

The findings shows that taking all other independent variables at zero, a change in sex from male to female will lead to a 0.67 improvement effect of transparency in procurement on the MoHCC public health care service delivery. Similarly, the study results also shows that taking all other independent variables at zero, an improvement in the flexibility of public procurement processes for user departments will lead to a 0.35 improvement in the positive effect of transparency in procurement on the MoHCC public health care service delivery, an improvement in procurement personal knowledge on the flexibilities for emergency
procurement will lead to a 0.56 positive effect of transparency in procurement on the public health care service delivery.

5.4 Recommendations

Skills programmes are of the utmost importance for MoHCC staff working in the procurement environment. There is a need to develop skills development programmes for procurement practitioners. The staff assigned with the administration of procurement practices should be assessed and appraised from time to time and at monthly, quarterly and annual intervals to determine whether they are performing according to the procurement set standards.

Issues of ethical procurement practices and governance are important in the global village. The study argues that, ethics statements should form part of the procurement authority’s pledge to the code to practise and apply understanding and commitment, ethical practice, professionalism, and accountability in the administration of procurement practices.

The public must be informed of the preference point system to be used in the evaluation of the tender as well as of the deliverables or performance indicators by which a person awarded a contract will be assessed.

The procurement function itself carried out in a cost-effective way, and the procurement authority should foster value. However, there is a need for a focused approach in terms of the procurement ethics statements, which are currently not effective. The procurement ethics statement pledged by any organisation, small or large, in the public or the private sector, to demonstrate its corporate commitment to the principles of ethical procurement.
5.5 Recommendations for further study

This study was not exhaustive in scope. There are other potential areas for research which can enlighten the discussion or debate on the effects of transparency in procurement on healthcare service delivery. First, other researchers could explore the determinants of transparency or factors affecting transparency in public sector organisations. Secondly, qualitative studies on the effects of transparency in procurement on healthcare service delivery can enhance knowledge on the area.
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APPENDICES

APPENDIX I

My name is Petronella Kundayi Murambinda and I am a student at Bindura University of Science Education pursuing a Master of Science Degree in Purchasing and Supply Chain Management. I am undertaking an academic research project in partial fulfillment of the requirement of the degree program.

The title of the research is “An Investigation into the effect of transparency in procurement on healthcare expenditure”

I therefore kindly request your assistant by being part of my respondents and answer the question on this questionnaire. For the sake of confidentiality and ethical reasons, respondents are requested not to write their names on the questionnaire. Responded are assured that the information will be treated with strict confidentiality and will be used for academic purpose only. This survey is targeting all procurement qualified practitioners. In order to enhance confidentiality kindly send the completed questionnaire to pettymra@gmail.com. For further information and/or clarification contact the under signed on 0772 973 364.

I thank you for your time.

Signed

Ms Petronella K. Murambinda (Msc Student)
The research instrument

**SECTION A: DEMOGRAPHIC INFORMATION**

Please respond to the questions below by ticking in the appropriate box/ or in the box that suits you most

(1) Please specify your gender.

<table>
<thead>
<tr>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

(2) Please specify your age

<table>
<thead>
<tr>
<th>Below 20 years</th>
<th>20-30 years</th>
<th>31-40 years</th>
<th>41-50 years</th>
<th>51-60 years</th>
<th>More than 60 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>

(3) What position do you occupy in your organization?

<table>
<thead>
<tr>
<th>Procurement Manager/Head of Procurement Management Unit</th>
<th>Procurement Analyst/Specialist</th>
<th>Procurement Officer</th>
<th>Procurement Assistant</th>
<th>Other (Specify)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

(4) What is your highest qualification?

<table>
<thead>
<tr>
<th>Certificate</th>
<th>Diploma</th>
<th>Degree</th>
<th>Post-graduate (Masters, Doctorate, etc)</th>
<th>Other (Specify)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

(5) Please specify the number of years you have been within the health sector.

<table>
<thead>
<tr>
<th>Below 1 year</th>
<th>1-3 years</th>
<th>3-6 years</th>
<th>6-9 years</th>
<th>10 or more years</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>
For sections B to D, please consider the statements and tick the box that best represents your view most closely. Please take into cognizance the scoring method detailed below:

1 = Strongly Disagree
2 = Disagree
3 = Neutral
4 = Agree
5 = Strongly Agree

**Section B:** Level of transparency in public healthcare procurement within the MoHCC.

<table>
<thead>
<tr>
<th>The public healthcare procurement within the MoHCC allows</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>6. Information is available for the public</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>7. Is guided by the public procurement act</td>
<td></td>
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</tr>
<tr>
<td>8. Requires advertisement of tenders</td>
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<tr>
<td>9. Requires that specifications be publicly available</td>
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<tr>
<td>10. Requires that criteria for evaluation of the bid be included as part of the tender package</td>
<td></td>
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</tr>
<tr>
<td>11. Requires that contract awards be made by the Evaluation Committee</td>
<td></td>
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<tr>
<td>12. Requires that information on tender process and results are made public</td>
<td></td>
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</tr>
<tr>
<td>13. Has a section on formal appeal process for procurements</td>
<td></td>
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<tr>
<td>14. Is audited regularly</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

**Section C:** Effects of transparency in procurement on the public healthcare service delivery for the MoHCC
<table>
<thead>
<tr>
<th>To what extent do you agree with the following statement for the MoHCC public healthcare procurement in relation to healthcare service delivery</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>15. The public procurement processes are flexible for user departments</td>
<td></td>
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</tr>
<tr>
<td>16. The regulatory requirements for procurement allow for emergency procurement in a health crisis</td>
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<tr>
<td>17. Procurement personnel are knowledgeable on the flexibilities for emergency procurement</td>
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<tr>
<td>18. Procurement reforms negatively affect healthcare service delivery</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19. Procurement processes are adequately transparent whilst ensuring timely healthcare delivery</td>
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</tr>
<tr>
<td>20. The Ministry is losing money through the current public procurement due to unmet targets</td>
<td></td>
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</tr>
</tbody>
</table>

Section D: Effective strategies on ensuring transparent procurement procedures in order to guarantee efficient healthcare service delivery.

<table>
<thead>
<tr>
<th>To what extent do you agree with the following statement for strategies on ensuring transparent procurement procedures in order to guarantee efficient healthcare service delivery</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>20. Goods procured are value for money</td>
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<tr>
<td>21.</td>
<td>There is Non-discrimination in the awarding of contract</td>
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<tr>
<td>22.</td>
<td>Product selection tailored to particular needs</td>
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</tr>
<tr>
<td>23.</td>
<td>There is enough competition among suppliers</td>
<td></td>
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</tr>
</tbody>
</table>