RESEARCH TOPIC:

An examination of the procurement regulations’ impact on Public Sector Supply Chain agility. A case of Ministry of Health and Child Care.

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REG No. B1439506

DESSERTATION SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE MASTER OF SCIENCE (MSC) DEGREE IN SUPPLY CHAIN MANAGEMENT AT BINDURA UNIVERSITY OF SCIENCE EDUCATION

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The serves to confirm that we have supervised the student Davison Zvirikunzeno dissertation titled: *An examination of the procurement regulations’ impact on Public Sector Supply Chain agility. A case of Ministry of Health and Child Care* submitted in partial fulfilment of the requirements of Master of Science in Purchasing and supply chain Management at Bindura University of Science Education

Supervisor  
Date

Chairperson  
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Name of Student: Davison Zvirikutzeno

Title of Dissertation: An examination of the procurement regulations’ impact on Public Sector Supply Chain agility. A case of Ministry of Health and Child Care

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……………………………      ………………………………
Signed         Date
DEDICATION

This project is dedicated to my wife Letticia and my four children Valentine, Welldone, Vanessa and Whitney for their support throughout the project.
ACKNOWLEDGEMENTS

I hereby acknowledge the support that I received from various people who extended made this research project a success. My supervisor and mentor, Mr L Muchabaiwa for his tireless effort in guiding me throughout the project. My workmates at Ministry of Health and Child Care for their valued advice. My lovely wife Letticia for the encouragement and support throughout the demanding period.
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ABSTRACT

Public procurement has gained considerable significance through its socio-economic contribution to the success of not only developed countries but also developing countries. The public sector supply chain system is highly regulated mainly due to varying objectives, diverse stakeholders and because of its high dependence on taxpayer’s funds. Notwithstanding all these regulations, the public sector supply chain system has to be responsive to the ever-changing market needs. This study, therefore examined the procurement regulatory measures’ impact on Public Sector Supply Chain agility in the Ministry of Health and Child Care. The study objectives were to identify public sector procurement regulatory measures that affect supply chain agility in the Ministry of Health, to understand how the procurement regulatory measures like; (procurement timelines, evaluation and payment system) add value to the public sector supply chain agility, to identify supply chain agility gaps in the Zimbabwean public sector procurement set-up, to examine how the Zimbabwean public sector procurement regulations, compare with international best practices and to determine how the current procurement regulatory measures can be improved to enhance effective public sector supply chain agility.

An exploratory design was used. Findings from the study showed that public sector procurement measures that had an effect on supply chain agility within the Ministry of Health were accountability, competition, value for money, transparency, non-discrimination and proportionality. On how procurement regulatory measures add value to the public sector supply chain agility, study findings showed that timeliness of procurement and payment of suppliers needs to be respected. The supply chain agility gaps in the procurement regulatory measures in place were that there is no flexibility and negotiations are minimal, payments are delayed and that the procurement process has a lot of bureaucracy. The current regulatory measures can be improved to enhance an effective public sector supply chain agility by involving suppliers in the procurement process. Zimbabwe’s public sector set up was also said to be not meeting in
international procurement best practices, as it is too bureaucratic and needs to be liberalized and be decentralised.

The study therefore recommended that, in order for the public sector procurement regulatory measures to have an impact on supply chain agility in the Ministry of Health, the Ministry should pay its suppliers on time. The study also recommends that the procurement process should be flexible and should not have a lot of bureaucracy. It was also recommended that the procurement process should be decentralised.
CHAPTER I

INTRODUCTION

1.1 Introduction

Supply chain management, generally, refers to the management of acquisition of organizational resources to meet current and future needs of an organization. Thai (2001) asserts that supply chain management fraternity has gradually developed and its evolution dates back from the 1890 right across 1970s where the importance of the function heavily relied on during harsh periods of war, recession and famine. The function has passed a number of evolitional phases such as buying, purchasing, logistics and materials management to supply chain management. These changes in names given the function have a very close bearing to the breadth and depth of its perceived importance, contribution and relevance in business cycles. The function has transformed both in the private and in public sector, from a transactional, passive position to a proactive and strategic position. Substantial strides and savings have been realized through the recognition of supply chain importance in the public sector where senior positions in procurement have been created at Directorate level. This introductory chapter describes the study background, problem statement, research questions and objectives.

1.2 Background of the study

Notwithstanding developments alluded to before, the pace of supply chain evolution seems to be outdone by the external economic developments. The ever-changing customer tastes, short product life cycle, global competition all seem to push the government’s overreliance on compliance as a way of safeguarding public funds especially in the public sector. The public procurement function appears heavily “infested” with regulatory measures that, instead of helping improve realization of value for money, hamper supply chain agility. More emphasis and investments in procurement have been directed towards ensuring compliance at the expense of flexibility and ease of doing business. Whilst it is generally appreciated that procurement
regulations help improve accountability and safeguarding taxpayer’s revenue but the “multi-million dollar” question that has remains unanswered is that, couldn’t we realize even more value for money with more flexible public procurement especially in the face of volatile supply markets. Are the regulations doing more good than harm to the value of public funds? The researcher has therefore; observed that the impact of procurement regulations on public procurement agility appears to have been abandoned by previous researchers.

1.3 Problem Statement

There has been a perennial problem in trying to balance, somehow, conflicting public sector procurement objectives. In as much as the various procurement regulations seem to offer confidence to the various stakeholders through safeguarding public funds they also appear to be unresponsive to the volatile and turbulent supply market environment. The rigidity of the safeguards appears to have negatively affected the speed with which decisions have to be made to counter fast-changing business environment. This study tries to examine some of these regulatory measures and find ways to improve public sector supply chain agility.

1.4 Aim of the study

The study examined procurement regulations’ impact on supply chain agility at the subject Ministry as well as make recommendations that help improve service delivery.

1.5 Objectives

To identify public sector procurement regulations that affect supply chain agility in Ministry of Health and child Care.

To understand how the procurement regulatory measures like; (procurement timelines, evaluation and payment system) add value to public procurement agility.

To identify supply chain agility gaps in public sector procurement set-up in Zimbabwean.

To examine how the Zimbabwean public sector procurement regulations, compare with international best practices.
Determine how the current procurement regulatory measures can enhance agility in public sector supply chain.

1.6 Research questions

What are public sector procurement regulatory measures that affect procurement agility in the Ministry of Health?

How do the current regulatory measures add value to the public sector supply chain agility?

What are public procurement agility gaps in procurement regulatory measures in place?

How does the Zimbabwean public sector set up compare with the international procurement best practices?

How can the current regulatory measures be improved to enhance an effective public sector supply chain agility?

1.7 Assumptions of the study

The study would be objective in data collection and interpretation and the researcher hoped that the respondents would offer maximum cooperation through provision of accurate information throughout the study.

1.8 Significance of the study

The research will benefit the public procuring entities in particular, Ministry of Health, as recommendations will help improve procurement effectiveness in the public sector. The researcher will also acquire in-depth skills and understanding of the management of volatile situations in public sector. To future researchers, the study will help add knowledge on public sector procurement agility.

1.9 Delimitations of the study

The research was done between January and May 2019 and focused on examining the procurement regulatory measures’ impact on Public Sector Supply Chain agility.
10.0 The study’s Limitations

Resources were not adequate to undertake the research as the study required material support like copiers, printers and paper material as well as travelling costs in data gathering. However, the researcher engaged the Ministry of Health seeking assistance in support of the study. Since the research involved many activities and the timeline was limited, the researcher tried as much as possible to consolidate various activities.
CHAPTER II

LITERATURE REVIEW

2.1 Introduction

This chapter reviewed literature on procurement regulatory measures’ impact on Public procurement agility. Literature on public procurement agility was obtained through review of articles and textbooks. The researcher mainly used terms like “supply chain agility” and “Public procurement”, in his search for relevant literature. Various journals related public procurement were also used in the literature review. There were some limitations in the review of the related literature for the research for example, not all journals were accessed.

2.2 Effect of public sector procurement regulations on supply chain agility

Public procurement is largely regulated through measures that normally affect the supply chain agility. Roodhooft & Abbeele (2006) state that public procurement is a process where public entities acquire goods and services for organizational use. One of the public sector procurement regulatory measure that affect the supply chain agility is accountability. Public procurement officials need to account for funds they use in the procurement process as they are subject to public scrutiny and may be challenged through courts of law (Bailey et al 2008). He further alleges that the main reason for need for transparency is to prevent abuses to taxpayer’s money. Coincidentally, Thai (2001) claims that whilst it common knowledge that employees in general should be held responsible and must give account for every action they make, public procurers in particular are accountable to the whole nation. They should abide by the dictates of laws and rules governing the expenditure of public funds such as the Procurement Act and the enabling Public Finance Management Act (PFMA).
Another public sector procurement measure, which affects supply chain agility, is competition. UNCAC (2010) defines competition in procurement as the act of inviting various bidders to contest in securing tenders on favourable conditions. The principle stresses that all goods should be bought under competitive conditions, unless if there are convincing reasons to the contrary (Van Weele 2005). It is generally believed that competition leads to improved quality, lower prices, accelerated innovation and discouraged collusive tendencies.

The other public sector procurement measure which affects supply chain agility is value for money. Government procurement decisions are no longer based on acquiring goods at lowest prices but other considerations such as lifetime costs up to disposal period (Bailey, 2008). Bailey, (2008) further admitted that there is no common agreed definition for value for money as there are a number of objectives that need to be balanced vis a vis time, life cycle, budget, environment and image. This coincides with Benton (2014) claim that purchasing professional are primarily charged with the responsibility of contracting for the total cost ownership. In some other texts value for money is attained when three factors of sustainable procurement are well balanced which economy, environment and social goals. In general terms there should be consideration of not only direct and monetary costs accruable from procurement of goods and services but a holistic approach should be taken in ascertaining full benefits procurement transaction.

Transparency is another public sector procurement measure, which affects supply chain agility. It refers to adherence to set procedures in tender award (Van Weele et al, 2014). This means that procurement measures should be characterized by visibility, publicity, compliance to set rules and procedures, limiting purchasing professionals’ use of own discretion in making procurement decisions. The various dimensions of contractual transparency are publicity, traceability and verifiability of the rules of the process (Arrowsmith, 2001). In line with the principle of transparency, the Procurement Act 22:14 subsection 31.1 requires that invitation to tender be
published in at least three widely read newspapers as well as newspaper of international circulation.

Non-discrimination and equal treatment is another public sector procurement measure which affects supply chain agility. This principle discourages unjustified selective offering of tenders to bidders on racial, nationality or sex in all stages of the procurement cycle (Van Weele, 2014). It therefore calls for entities to broaden their net in inviting bids even if they do not expect foreigners to respond. Other authors like UNCAC (2013) equate this principle to integrity and objectivity principle where ethical conduct and consistence should be maintained so as to eliminate bias, prejudices and subjective evaluations in decision making. The Procurement Act 22:14 subsection 31 to 32 borrowed this principle and calls for a wide and international publication of invitation to tender in order to ensure participation of foreigners. It further stresses that all suppliers shall be treated fairly and impartially. Proportionality is another public sector procurement measure which affects supply chain agility.

Proportionality in public procurement means requirements in the specifications and for the suppliers must have an obvious link with the contract subject matter (Van Weele, 2014). Requirements should therefore be necessary and appropriate so as to avoid putting unwarranted pressure on the suppliers and therefore supplier qualifications shall be evaluated according to set standards (Procurement Act 22:14).

2.3 Public sector procurement agility gaps
Supply chain agility generally refers to the ability to respond to unexpected demands whilst achieving value for money. McCue (2015) asserts that public procurement should devolve the purchasing responsibility maintaining control, reduce leakages, mismanagement as well as constraints. In most countries, this is available but adherence monitoring is not done. According to McCue (2015) competing demands faced by governments lead to flexible structures and processes in public procurement. A study by Hui et al (2011) found that public funds should be spend in a manner that shows realization of value for money. The procurement agility gaps however, are centred on procuring entities’ failure to be responsive and adhere to regulations. Compliance has been the main original objective in public procurement as given by (Lisa 2010).
The other supply chain agility gap is poor and late decision making in public procurements. A study by De Lange (2011) found that significant amount of are lost annually because of poor implementation of public procurement policies and regulations. According to Musanzikwa (2013), the other supply chain agility gap is lack of efficiency in the tender awarding process for a number of projects resulting in project completion delays.

2.4 How the procurement regulations add value to the public sector supply chain agility.

Procurement regulatory measures aim at ensuring that procurement of goods and services leads to acquisition of correct goods at the right price from the right supplier. and objective is to carry out activities related to procurement in such a way that the goods and services so procured are of the right quality, from the right source, are at the right cost and can be delivered in the right quantities, to the right place, at the right time. A study by Musanzikwa (2013) showed that procurements should be done on time to avoid delays in implementation of activities. The same author highlighted that supplier payments are usually done late thereby affecting supplier goodwill. Benslimane et al (2005) also reiterated that public procurements should be done: on time, economically and they should be of quality. Musanzikwa (2013), also asserts that efficient and capable suppliers should be engaged so as to improve service delivery. In addition, a study by De Lange (2011) concluded that public procurements departments should identify evaluate and develop suppliers in order to enhance supply chain effectiveness. This can be achieved through opening tendering opportunities to as many prospective suppliers as possible. It was further reported that public procurements should identify the most reliable sources of supply through either open tender, multi-stage tendering (pre-qualifying suppliers and retaining only those that are capable of meeting the organisation’s requirements and limited tendering (McCue (2015), further supported that procuring entities should identify reliable supply sources, qualify and retain competent suppliers who can satisfy organizational requirements.. In other words, public procurement involves investigating the availability of new goods and services and monitoring their trends in market prices. A study by Caldwell et. al (2009) further stressed that the key public procurement measure is transparency and transparency be visible at all stages of the procurement process.
2.5 How to improve to effectiveness of public sector supply chain agility

The procurement regulations can be tailored to improve procurement agility in the public sector. Knudsen, 1999, maintains that successful transition of a procuring entity from passive to active purchasing begins with improvement of effectiveness and efficiency. However, CIPS (2005) argued that procurement effectiveness and efficiency just represent different competencies and capabilities for the purchasing function. Generally, efficiency shows that an organization is “doing things right” and on the other hand effectiveness shows that an entity is “doing the correct thing”. If an organization fails to balance between the two usually results in an entity being efficient but not effective or vice versa.

Lysons and Farrington (2012), cleared that procurement effectiveness relates to the level of the appropriateness of the objectives that an organization is pursuing as well as the extent to which these goals are achieved. In other words, effectiveness in procurement can be said to be a scenario where an organisation manages its procurement precisely and as per planned schedule. OECD (2011) further revealed this where it further enlightened that procurement effectiveness encompasses avoidance of wasteful expenditures and minimizing as much as possible procurement related costs. In summary when procurement is effective when it meets all the principles like value for money and the economic objective.

Results from a study by Madara et al (2009) supported the view that efficiency is one of the pillars and principles of public procurement measures this requires that all activities be done as cost effectively as possible. Results from their study showed that the organization could achieve better efficiency in procurement decentralisation the authority and other related processes. Accordingly, decentralisation demands that various measures be adopted to improve success and these measures encompass setting out clear procurement policies and guidelines that are comprehensive and understandable by everyone. Another study by Lysons and Farrington (2012), found that the procurement process should be done by professional and well trained staff for it to be efficient.

A study by Lange (2011) shows that the best way to ensure value for money in contract award is through permitting qualified bidders to participate in public contracts. The competitive bidding method allows various service providers to offer their different expertise, goods and services thereby ensuring that an entity gets best option. It was common knowledge that ineffective and non-transparent procurement regulations lead to acquisition of goods and services at
unreasonable prices. To improve effective public supply chain agility, there should be access to information throughout the procurement process (Lange, 2011). It therefore recommended that suppliers be appraised of procurement opportunities and outcomes (Musanzikwa (2013). For example in Mexico, there is a limited interaction between service providers and procuring officials such that documentation flow in the tendering process is exchanged electronically through the online portals (Musanzikwa (2013). In order to further improve procurement regulatory measures to enhance effective public sector supply chain agility, there is need for organizations to be accountable to their funders. These will ensure that particular guidelines are followed in the use of their funds.

2.6 Comparing Zimbabwean public procurement regulations with international standards
For the Zimbabwe’s procurement regulatory measures to have impact on public sector supply chain agility there is need for them to be aligned to the international best practices. A study by (Van Weele, 2014) shows that public procurement involves use of large volumes of funds and because of that it is central to the effectiveness of service delivery. Van Weele, 2014 also recommends that procurement systems be transparent to ensure cost-effective service delivery. In most countries the regulatory framework (Van Weele, 2014) guides public procurements. The same study further stressed that the government procurement should be done in terms of set out procurement plans, contract placement and contract administration procedures. In Brazil public procurements is decentralised to eliminate bureaucracy, improve coordination and empower procurement officials thereby reducing hindrances posed by central procurement (Thai, 2001). Nevertheless, the same author reported that problems still existed with this system and may continue forever due to negative public perceptions. The same study highlighted that not only dealers were complaining of bureaucracy that delays their bill settlements and service delivery but even government officials themselves were complain of delays between the issue of purchase acquisitions and the availability.

2.7 Conclusion and summary
Chapter looked at what other researchers and authors wrote on public sector procurement regulations in relation to supply chain agility. The literature review includes both theoretical and empirical studies. Key issues that were highlighted include; procedures, public sector procurement principles, weaknesses and challenges of the Procurement Act and public sector procurement. The following chapter outlines the research methodology for the study.
CHAPTER III

METHODOLOGY

3.0 Introduction
Whereas the previous chapter dealt with literature related to the impact of regulations on supply chain agility in the public sector procurement, this chapter discusses the research design and methodologies as well as their justification. This also includes an analysis of the research instruments, research ethics and the data collection plan.

3.1 Study design
The methodology applied for this study was selected to acquire information and make conclusions on the impact of procurement regulations on supply chain agility in the Health sector. The researcher adopted an exploratory research approach. Sekaran (2002), pointed out that an exploratory study is undertaken when little is known about the situation at hand, or when no information is available on how similar problems or research issues were solved in the past. Their aim is to gain familiarity with the issues, and to gain a deeper understanding about the topic. This research is largely qualitative in nature. To some extent, quantitative techniques were used to collect secondary data.

3.2 Study population
All the 60 employees who are working in the procurement department within the Ministry of Health and Child Care and procurement audit reports were studied.

3.3 Sample size and Sampling design
Research may be quantitative or qualitative and the former is based on probability theory and the later based on non-probability theories (Neuman 2000). This study adopted the qualitative
method as well as purposive, non-probability method of sampling especially in gathering data from primary sources. Kumar 2011 and Daniel (2012) both define purposive sampling as a technique where inclusion of participants was done based on the importance they bring to the study. The researcher singled out procurement personnel who are involved in the procurement process for the Ministry of Health for interviews until saturation was reached.

Simple random sampling using the lottery method was used to select procurement audit reports for review. According to Kumar (2011) and Saunders (2007), simple random sampling ensures that all elements have equal non-zero chance of being selected for a study. Quarterly procurement audit reports for the period 2015 to 2018 will be included for the study. There are 16 such reports in total for the period 2015 to 2018. This study will sampled 50% of these reports using a lottery method to minimise selection bias.

3.4 Data collection instrument
A pretested interview administered guide was used for data collection from study participants.

Pretesting was used to determine if questions in the interviewer guide are understandable for the respondent to answer truly to their best opinion.

3.5 Data collection procedure
The researcher used primary and secondary data sources in this research. The initial data collection method was to review procurement audit reports (secondary data). The data helped build background of the study and constructively developed the project as well as comprehension of the research outcome. The researcher used in-depth interviews to collect primary data and this helped gain deeper overview into some of the issues highlighted during document review. In-depth interviews made respondent open up on their perceptions on the subject matter. Saunders (2007) also stressed that in-depth interviews offer the platforms for discussion of issues with
respondents. The interview guide was made up of semi-structured questions that and these helped the researcher get participant’s experiences and views about public sector procurements. Before full-scale data collection exercise, a pilot study was conducted where the data collection tolls were tested for reliability and validity.

3.5 Validity and Reliability
Data quality was enhanced by addressing reliability and validity. Data is generally considered reliable when it is consistent. Saunders, 2007 reiterates that reliability refers to the degree to which data collection method will yield consistent findings or similar observations are concluded by different researchers. Reliability refers to the extent an instrument would give same results at different occasions and under similar conditions. He further argues that the circumstances that surround most qualitative studies are complex and dynamic in nature. The flexibility that is inherent with in-depth interviews makes it more difficult to ensure consistency. In this study, the use of previous procurement audit reports and in-depth interviews provided the triangulation to the research. This helped improve the level of reliability (Saunders, 2007). The issues raised in the procurement reports tallied with the responses that were obtained through interviews. To minimise interviewee and interviewer subjectivity during in-depth interviews, the interviewer pre-tested the questions prior to the interviews. In addition, the interviewer was careful avoided asking leading questions and assured respondents that the information collected was going to be confidential.

On the other hand, the researcher ensured that the primary data collected for this research was valid. Leedy 1993 defined validity refers as the degree to which a study accurately reflects the specific concept that the researcher attempts to measure. The researcher-strengthened validity of the data was by probing and follow-up questioning the participant during the interviews to clarify issues. Due diligence and care was exercised in selecting words and phrases to use for the respondents to avoid misinterpretations.
3.6 Data analysis plan
After gathering relevant data for the research, it has to be analysed. Since this study is qualitative, data will be analysed for content. The first stage consisted of transcripts preparation followed by the theme identification and development of concepts as well as coding them in order to retrieve information on specific ideas. The second stage was the interpretation of the insights and themes with reference to the research questions.

3.7 Ethical considerations
The researcher employed ethical principles in his execution of data collection and analysis as defined by Hussey and Hussey (2007) when he said research ethics include debriefing participants, informed consent, confidentiality, protection of privacy, protection against harm and identity. In order to ensure compliance to these research ethical principles participants were assured the participants and Ministerial authorities that data collected was going to be purely scholarly. The researcher presented university confirmation letter stating that the bearer was doing an academic research. The researcher also sought consent from the participants by issuing out consent forms for participants to read and sign. As if that was not all, the researcher gave enough time (1-5 days) to seriously study and acquaint themselves with the interview guides before answering. On anonymity and confidentiality, the researcher assured respondents that information obtained from them was not going to be given to other people, organizations or any interested people. The researcher went on to sign official secrecy forms with the participants as an assurance of keeping information confidential.

3.8 Summary of the chapter
The chapter outlined different research designs used by the researcher in his study. The researcher identified population under study, sample and sample size, sampling techniques used as well as their justifications. Highlighted in the chapter were also different data sources,
instruments, reliability, validity, ethics and data presentation/analysis. The researcher will present and analyse data gathered in this chapter in the next chapter in order to bring meaningful research and the subsequent recommendations.
CHAPTER IV

DATA PRESENTATION, ANALYSIS AND DISCUSSION

4.1 Introduction

This chapter presents findings and discussion of the research findings. The findings are presented in relation to the research objectives. The method used to analyse the data is already discussed in the methodology chapter. The chapter started by providing an overview of all respondents, and then went into detailed discussion on the procurement regulatory measures’ impact on Ministry of Health and Child Care supply chain agility.

4.2 Demographics of the study participants

This section presents results of the socio-demographic characteristics of study participants. Data was collected until saturation was reached. This was realised when the researcher saw a similar pattern in the interviewees’ responses. Further when saturation was reached, collection of new data won’t necessarily contribute to a new discovery of the issue. According to Saunders et al (2009) it is best to simply gather data until theoretical saturation is reached. For this study saturation was reached at 14 participants. Therefore, a total of 14 people were interviewed and their opinions were extracted and discussed accordingly. Table 5.1 displays the results.

Table 4.1 Socio-demographic characteristics of study participants.

<table>
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<td><strong>Sex</strong></td>
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<tr>
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</tr>
<tr>
<td>Female</td>
<td>6 (43)</td>
</tr>
<tr>
<td><strong>Age group in years</strong></td>
<td></td>
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<tr>
<td>Age Category</td>
<td>Count</td>
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<td>--------------</td>
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<tr>
<td>Less than 30</td>
<td>2 (14)</td>
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<tr>
<td>30-40</td>
<td>6 (43)</td>
</tr>
<tr>
<td>41-50</td>
<td>4 (29)</td>
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<tr>
<td>50+</td>
<td>2 (14)</td>
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<td>Tertiary</td>
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<th>Years of experience in procurement</th>
<th>Count</th>
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<td>4 (29)</td>
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<td>5 -10 years</td>
<td>3 (21)</td>
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<tr>
<td>10 + years</td>
<td>7 (50)</td>
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Results displayed in table 4.1 shows that eight men and six females participated in the study. Six of the study participants were aged between 30 to 40 years. The majority had reached tertiary level of education and had more than ten years working in the procurement department for the Ministry of Health. These results showed that the study participants had high levels of literacy coupled by maturity, as they had an average age of 41 years. The majority of the study participants had worked in the procurement department for an average of 10 years thereby guaranteeing high level of institutional memory.

**4.3 Awareness of the public sector procurement regulatory measures that affect supply chain agility in the Ministry of Health**

Study participants were asked to state the public sector procurement measures, which have an effect of supply chain agility within the Ministry of Health. Study results showed that the respondents were aware of the public sector procurement measures which had an effect on supply chain agility within the Ministry of Health. The following quotes illustrates this;

“procurement regulatory measures include timelines for procurement processes, procurement methods, procurement process review and debarring processes” said responded 5.
The study participants were also asked to describe how accountability, competition, value for money, transparency, non-discrimination and proportionality affect the supply chain agility in the Ministry of Health. The findings showed that study participants were aware of how each one of these affect the supply chain agility. The following quotes illustrates this;

“Accountability -this makes officers responsible for their actions, Competition - bidders must compete to get business in the public sector but it consumes time thereby affecting supply chain agility, Value for money -this is total life costing of a procurement activity. The effect is twofold as it ensures prevention of leakages but officers usually do not factor in supply side challenges that come with the measures and transparency - refers to the openness of procurements in the public sector and includes advertising and ensuring that all prospective bidders are accorded equal opportunities” said responded 7.

This was further supported by the following quote;

“procurement regulatory measures that affect supply chain agility are those which reduces flexibility and swiftness. Are non-discrimination and proportionality” respondent 1 – this he said are similar to transparency and they delay the procurement process.

Another responded said that

“the regulations he knows are debarring process, timelines for tender advertising as well as thresholds”. He further said that “accountability retards progress as it turns to be bureaucratic and the measures of transparency, non-discrimination, competition and value for money are good for the system if done in time”. Said respondent 3

4.4 Adding value supply chain agility through procurement regulations
Results from this study showed that for the Ministry of Health procurement regulatory measures to add value there is need to address the issue of timeliness. The findings also showed that for the regulatory measures to add value to the public sector supply chain agility they need to be monitored. In one of the interview session, a respondent said:

“The procurement measures add value to the supply chain agility but need to be strongly monitored” respondent 10.

In one interview session, a responded said:
“The procurements have never been done in time and suppliers usually complain of late payments” respondent 6

The following quote from another respondent also supported the above respondent.

“No, the procurements are usually delayed and so are payments”, said respondent 4

However, while some respondents said the public sector procurement measures add value to supply chain agility there were some who were thinking that it depends on how an individual sees it. The following response illustrates this;

“it depends on the way one sees it, the measures may add value or not” said respondent 5.

Other study participants were of the opinion that that the public sector procurement measures do not add value to supply chain agility. The following quote illustrate this;

“The procurement measures do not add value but frustrate the system”. Said respondent 14.

4.5 Supply chain agility gaps in the procurement regulations

Findings from this study showed that there are supply chain agility gaps in the current public sector procurement regulatory measures. The following quote illustrate this;

“Yes there are gaps. The flexibility is too low, negotiations are minimal, payments are delayed and the process has a lot of bureaucratic process”. Said respondent 11.

This was further supported by the following quote;

“There are short-comings in the system. There needs to be improvements in supplier involvement and negotiations. In as much as the measures help in combating corruption and ensure value for money too much of it shuts out suppliers” said respondent 8.

To further support that there were supply chain agility gaps in the current public sector procurement regulatory measures another respondent has this to say;

“Obviously, there is no system without its flaws. The current procurement measures have some gaps. There is need to improve on flexibility, alertness and time factor in the whole procurement process” said respondent 3.
4.6 Improving supply chain agility through procurement regulations
Study participants were asked to state whether the current procurement measures can be improved to enhance an effective public sector supply chain agility. It was found that suppliers should be involved in the procurement process and that there should be decentralization of decision making to improve on timeliness of the procurement process. The following quote illustrates this;

“the procurement measures need to be improved to include the supplier involvement, decentralization of decision making to officers and negotiations as well as shortening timeframes on the procurement timelines” said respondent 1.

Another respondent added that suppliers should be involved but the process needs to be transparent as he said;

“Suppliers may be included as long as it is done transparently” respondent 11.

Study findings also showed that the current supply chain regulatory measures should be flexible and there should be supplier development programs. The following quotes illustrate this;

“the current procurement measures need to be changed to suit the private industry practices where there is flexibility and quicker decision making” said respondent 6.

“Suppliers need to be included so as to improve accessibility through practices such as early supplier involvement and supplier development programs” said respondent 8.

4.7 Comparing public procurement with the international standards
Study participants were asked about their opinion on whether the Zimbabwe’s procurement system meet international standards. The findings showed that Zimbabwe procurement system does not meet international standards. The following quotes illustrated this;

“The Zimbabwean procurement system does not meet the best international practices. This is based on the volume of litigation cases that are witnessed in the public sector” said respondent 10.
“To some extent the public sector Zimbabwean public sector meets some international standards though there is still a lot of ground to be covered mainly on the supply side and contract administration practices” said respondent 3.

“The procurement system needs to be improved so that it matches international standards. The process is too bureaucratic and needs to be liberalized and be decentralised” said respondent 9.

4.8 Discussion
Results from the study showed that study participants were aware of the public sector regulatory measures that affect MoHCC supply chain agility and these were accountability, competition, value for money and transparency. These findings are in agreement with what was found in a study by Roodhooft & Abbeele (2006) who concluded that one public sector procurement regulatory measure which affect the supply chain agility is accountability. Van Weele (2014) referred accountability as a process of holding an individual or organization fully responsible for actions or inaction for functions they are engaged in over which they have authority to exercise their discretions. Public buyers are accountable to the public whose money they spend and for that reason procedures and practices are subject to public scrutiny or challenge through the courts (Bailey et al 2008). He further alleges that the main reason for need for transparency is to prevent abuses to taxpayer’s money. Coincidentally, Thai (2001) claims that whilst it common knowledge that employees in general should be held responsible and must give account for every action they make, public procurers in particular are accountable to the whole nation. They should abide by the dictates of laws and rules governing the expenditure of public funds such as the Procurement Act and the enabling Public Finance Management Act (PFMA). The other public sector procurement measure which affects supply chain agility is value for money. Government procurement decisions are no longer based on acquiring goods at lowest prices but other considerations such as lifetime costs up to disposal period (Bailey, 2008). Transparency is another public sector procurement measure which affects supply chain agility. Transparency refers to compliance to prescribed manner in bid selection (Van Weele et al, 2014). In public
procurement, transparency involves the publicity of procurement opportunities and disclosure of rules to be followed in the execution of procurement activities (UNCAC, 2013). It can therefore be deducted from the two definitions that public sector procurement measures should be characterized by visibility, publicity, compliance to set rules and procedures, limiting purchasing professionals’ use of own discretion in making procurement decisions. The various dimensions of transparency are publicity of contracts, publicity of the rules of the process, limits on discretion and provision of verification and enforcement (Arrowsmith, 2001). Proportionality is another public sector procurement measure which affects supply chain agility. Proportionality in public procurement means requirements in the specifications and for the suppliers must have an obvious link with and be proportionate to the subject matter of the contract (Van Weele, 2014). Requirements should therefore be necessary and appropriate so as to avoid putting unwarranted pressure on the suppliers. Resultantly, a procuring entity shall evaluate the qualifications of suppliers according to the criteria or requirements set out in the documents by which tenders, bids and proposals are sought (Procurement Act 22:14)

Results from this study showed that for the Ministry of Health procurement regulatory measures to add value there is need to address the issue of timeliness in the procurement process. The findings also showed that for the regulatory measures to add value to the public sector supply chain agility they need to be monitored. These findings were supported by Musanzikwa (2013) who concluded that procurement regulatory measures’ overall aim and objective is to carry out activities related to procurement in such a way that the goods and services so procured are of the right quality, from the right source, are at the right cost and can be delivered in the right quantities, to the right place, at the right time. The same author highlighted that procurements should be done on time to avoid delays in implementation of activities. Musanzikwa (2013) went on to conclude that delays in payment of suppliers hinder participation by some suppliers in the public procurement process— especially those small companies that struggle with limited cash flow. According to Benslimane etal (2005) public procurements should be done on time and they should be quality materials, items and services economically from reliable sources. It was also
recommended from a study by Musanzikwa (2013) that public procurements should be timely delivered through the selection of capable and efficient suppliers.

Findings from this study also showed that there are supply chain agility gaps in the current public sector procurement regulatory measures. Similar findings were reported in a study by Benslimane et al (2005) who found that public procurements should be done on time and they should be quality materials, items and services economically from reliable sources. It was also recommended from a study by Musanzikwa (2013) that public procurements should be timely delivered through the selection of capable and efficient suppliers. A study by De Lange (2011) found that significant amount of monies are wasted yearly due to poor management of public procurement policies. For example, De Lange (2011) cites that in South Africa taxpayers were fleeced of R30bn through corruption, incompetence and negligence by public officers. According to Musanzikwa (2013), the other supply chain agility gap is inefficiency in the awarding of tenders for various projects, which results in the delay or non-completion of crucial projects.

Study participants were asked to state whether the current procurement measures can be improved to enhance an effective public sector supply chain agility. It was found that suppliers should be involved in the procurement process and that there should be decentralization of decision making to improve on timeliness of the procurement process.

Similar results were reported in a study by Lange (2011) who recommended the involvement of suppliers in the procurement process. According to Lange (2011) in order to improve effective public supply chain agility, the suppliers should access to information throughout the procurement process. Suppliers need to be made aware of procurement opportunities, the outcome of the tendering process and the procurement needs to be published online (Musanzikwa (2013). For example in Mexico, there is a limited interactions between public officials and private firms as documents arising from the tendering process are exchanged electronically through the online portal (Musanzikwa (2013). In the same vein, in Ireland, the procuring entities are encouraged to publish a contract award notice on the e-tenders website (Shaw, 2010).

The findings from this study further showed that Zimbabwe procurement system does not meet international standards. Similar results were found by Thai (2001) who reported that in the United States of America public procurements is decentralised to eliminate bureaucratic
obstacles, improve inter-departmental coordination and empower service delivery managers to procure without impediments by a centralised entity. However, the same author reported that problems are still existed with this system and may persist forever as a result of lasting unfavourable public perceptions. The same study highlighted that dealers were complaining of red tape which hampers them in bidding, in delivering goods and in securing the payment of bills (Thai, 2001). The same study further reported that government executives themselves were complaining of delays between the issue of purchase acquisitions and the availability of goods for use.

4.9 Chapter summary
The chapter presented and discussed the research findings. Literate review was used to discuss the findings. The results were presented and discussed in line with the research objectives. The next chapter summarises, concludes and provides recommendations for the study.
CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction
This chapter summarizes and concludes the study. The chapter further provides the study recommendations. Areas which needs further studies are also highlighted.

5.2 Summary
There has been a perennial problem in trying to balance, somehow, conflicting public sector procurement objectives. In as much as the various procurement regulatory measures seem to offer confidence to the various stakeholders through safeguarding public funds they also appear to be unresponsive to the volatile and turbulent supply market environment. The rigidity of the safeguards appears to have negatively affected the speed with which decisions have to be made to counter fast-changing business environment. The purpose of this study was therefore to analyse and examine the impact of procurement regulations on the supply chain agility at the Ministry of Health and Child Care. The study objectives were to identify public sector procurement regulatory measures that affect supply chain agility in the Ministry of Health, to understand how the procurement regulatory measures like; (procurement timelines, evaluation and payment system) add value to the public sector supply chain agility, to identify supply chain agility gaps in the Zimbabwean public sector procurement set-up, to examine how the Zimbabwean public sector procurement regulations, compare with international best practices and to determine how the current procurement regulatory measures can be improved to enhance effective public sector supply chain agility.

Literature has shown that the public procurement process in most countries is governed by public procurement measures and these measures affect the supply chain agility (Thai,2001). Literature
has also shown that accountability, timeliness and transparency affect the supply chain agility (Van Weele, 2014). An exploratory design was used. According Sekaran (2002) an exploratory study is undertaken when not much is known about the situation at hand, or when no information is available on how similar problems or research issues have been solved in the past. Data collection was done until saturation was reached. Fourteen procurement personnel were interviewed. A pretested interview administered guide was used to collect data from study participants.

Findings from the study showed that public sector procurement measures that had an effect on supply chain agility within the Ministry of Health were accountability, competition, value for money, transparency, non-discrimination and proportionality. On how procurement regulatory measures add value to the public sector supply chain agility, study findings showed that timeliness of procurement and payment of suppliers needs to be respected. The supply chain agility gaps in the procurement regulatory measures in place were that there is no flexibility and negotiations are minimal, payments are delayed and that the procurement process has a lot of bureaucracy. The current regulatory measures can be improved to enhance an effective public sector supply chain agility by involving suppliers in the procurement process. Zimbabwe’s public sector set up was also said to be not meeting in international procurement best practices, as it is too bureaucratic and needs to be liberalized and be decentralised.

5.3 Conclusion
Study findings showed that respondents were aware of the public sector procurement regulatory measures that affect supply chain agility in the Ministry of Health. It was found that

“Accountability - makes officers responsible for their actions, Competition - bidders must compete to get business in the public sector but it consumes time thereby affecting supply chain agility, Value for money - this is total life costing of a procurement activity. The effect is twofold
as it ensures prevention of leakages but officers usually do not factor in supply side challenges that come with the measures and transparency - refers to the openness of procurements in the public sector and includes advertising and ensuring that all prospective bidders are accorded equal opportunities”

These findings are in agreement with what was found in literature. For example in a study by Roodhooft & Abbeele (2006) who concluded that one public sector procurement regulatory measure which affect the supply chain agility is accountability. Van Weele (2014) referred accountability as a process of holding an individual or organization fully responsible for actions or inaction for functions they are engaged in over which they have authority to exercise their discretions.

On how procurement regulatory measures add value to the public sector supply chain agility, study findings showed that for the Ministry of Health procurement regulatory measures to add value there is need to address the issue of timeliness. The findings also showed that for the regulatory measures to add value to the public sector supply chain agility they need to be monitored. These findings were supported by Musanzikwa (2013) who concluded that procurement regulatory measures’ overall aim and objective is to carry out activities related to procurement in such a way that the goods and services so procured are of the right quality, from the right source, are at the right cost and can be delivered in the right quantities, to the right place, at the right time.

On whether there are supply chain agility gaps in the procurement regulatory measures, which were used by the Ministry of Health, findings from this study, showed that there are supply chain agility gaps. It was found that the procurement process is not flexible, negotiations are minimal and there were delays in payment of suppliers. It was further found that the process has a lot of
bureaucracy. Musanzikwa (2013) recommended that procurement entities should select efficient and capable suppliers so as to ensure timely delivery of goods.

On how current regulatory measures can be improved to enhance an effective public sector supply chain agility, findings from this study showed that there is need to involve suppliers in the procurement process and that there should be decentralization of decision making to improve on timeliness of the procurement process. Lange (2011) asserts that suppliers should have access to information throughout the procurement process in order to improve effective public supply chain agility. (Musanzikwa (2013) also supported that suppliers need to be made aware of procurement opportunities, tendering process outcome of the and the procurement needs.

5.3 Recommendations
Based on the study findings, this study therefore recommends that, in order for the public sector procurement regulatory measures to have an impact on supply chain agility in the Ministry of Health, the Ministry pay its suppliers on time. The study also recommends that the procurement process should be flexible and should not have a lot of bureaucracy. The Ministry should also involve its suppliers in the procurement process. Finally, the researcher recommends that procurement processes be decentralised.

5.4 Areas for further study
A similar study could be carried out using a different research methodology.
REFERENCES


United Nations Development Programme (UNDP)/IAPSO, 2006, Sustainable procurement guidelines: Economic, social and environmental considerations in public procurement,


Appendix A: Introductory Letter

BINDURA UNIVERSITY OF SCIENCE EDUCATION  
Faculty of Commerce  
Department of Economics  

26 March 2019  

Dear Respondent  

RE: REQUEST FOR RESPONSES ON THE QUESTIONNAIRE  

I am Davison Zvirikunzeno a student at Bindura University of Science Education studying for Master of Science Purchasing and Supply Chain Management. As part of my studies I am carrying out a research project on the topic titled: An examination of the procurement regulatory measures’ impact on Public Sector Supply Chain agility. A case of Ministry of Health and Child Care, for which I am kindly asking for your assistance with information relating to the topic. Supply chain agility is defined as the ability of the supply chain to respond to unexpected demands whilst achieving value for money.  

The researcher wishes conduct some interviews with you where you will be asked to shed some light in various aspects of the topic and you are assured that the research shall be purely scholarly. All responses are treated with utmost confidentiality. Your completion and subsequent forwarding of this questionnaire to the undersigned will be interpreted as implying willingness or not willing to participate in this study.  

Thank you, in advance, for your cooperation.  

D. Zvirikunzeno  
0773 299 807/ 0712 873 841  

Agreed……………………………/ Not Agree……………………………………