

BINDURA UNIVERSITY OF SCIENCE EDUCATION



FACULTY OF COMMERCE

**IMPACT OF E-PROCUREMENT SOFTWARE (SAP) ON THE PROCUREMENT
PERFORMANCE OF COMPANIES IN THE AIRLINE INDUSTRY IN ZIMBABWE.**

RESEACH PROJECT

BY

GATSI SILAS I (B1542492)

**A DISSERTATION/THESIS SUBMITTED IN PARTIAL FULFILMENT OF
REQUIREMENTS FOR THE BACHELOR OF COMMERCE (HONS) DEGREE IN
PURCHASING AND SUPPLY OF BINDURA UNIVERSITY OF SCIENCE
EDUCATION. FACULTY OF COMMERCE.**

APRIL 2022

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NAME OF AUTHOR: **GATSI SILAS I**

TITLE OF PROJECT: **IMPACT OF E-PROCUREMENT SOFTWARE (SAP)
ON**

**THE PROCUREMENT PERFORMANCE OF
COMPANIES IN THE AIRLINE INDUSTRY IN
ZIMBABWE.**

DEGREE FOR WHICH **BACHELOR OF COMMERCE HONOURS IN**
PROJECT WAS PREPARED **PURCHASING AND SUPPLY**

YEAR THIS DEGREE WAS GRANTED: **2022**

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I dedicate my dissertation work to my family and many friends. A special feeling of gratitude to my loving parents, Mollyn F Gatsi and Garikayi Gatsi whose words of encouragement and push for tenacity ring in my ears. My brothers Admire and Malvin and also my cousins who have never left my side and are very special.

ACKNOWLEDGEMENTS

This study was made possible by a number of people. To begin with, I acknowledge my supervisor, Doc Mukoka for the guidance and continued dedication throughout the study. He enabled me to develop an understanding of the subject. I am also grateful to Air Zimbabwe, Fly Africa and Fastjet Zimbabwe for granting me the permission to conduct my research study. I would also like to express gratitude to my family and friends for their support.

ABSTRACT

The research study focused on the impact of e-procurement software (SAP) on the procurement performance of companies in the Airline industry in Zimbabwe. The study was guided by the following objectives, to evaluate the benefits of e-procurement in the procurement performance in the airline sector, to examine the challenges being faced in the use of e-procurement software on procurement performance in the airline sector and to determine the relationship between e-procurement and procurement performance among airlines in Zimbabwe. The study used a descriptive research design using qualitative method approach. The study considered a target population of 100 employees from 3 different airlines companies that includes Air Zimbabwe private limited, Fastjet private limited and Fly Africa private limited. A sample size of 80 employees was taken out of the sampling frame. In all a total of 59 respondents took part in this research study, the other 21 did not respond. Interviews were carried out only on the three procurement departments, 2 members were taken from the procurement departments of each of the three companies making a total of 6. From each organization the manager and one randomly selected subordinate were interviewed. Data sources embraced by the researcher were primary and secondary sources and questionnaires as well as interviews were the research instruments of the study. The collected data was then analysed and interpreted. From the findings, the benefits that the organisations uses SAP systems as their integration system with other departments and also with the suppliers as a way of communication due to this system so many costs are seen to be reduced such as administration cost and time. However, there are challenges being faced in the use of e-procurement that is poor infrastructure within the organisations that supports e-procurement initiatives and there is fear of unknown to implement change in the procurement structures of the organisations. Lastly, there is a relationship between e-procurement software (SAP) and procurement performance due to high percentage of respondents who agreed on the fact that e-procurement is more effective over manual procurement. It was recommend that firms should optimize benefits of e-procurement by increasing the proportion of expenditure on e-procurement by widening the scope of supplier sourcing and there is need for rules and regulations to be reviewed so as to achieve transparency and curb corruption.

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CHAPTER ONE

THE PROBLEM AND IT'S SETTING

1.0 Introduction

In this dynamic, fast changing and modern day business environment, we notice firms making use of the internet as well as internet related technologies in the daily running of business. A notable number of companies have adapted to several e-business methods. In this context, e-business refers to the use of electronic procurement tools like SAP software or other ERP systems. Chapter one will provide the overview of the topic illustrating the background of the study, statement of the problem, objectives and the research questions of the study. The research is conducted in the airline sector and looking on the impact of the e-procurement software (SAP) on the procurement performance of companies in the airline industry in Zimbabwe. Therefore, there is an analysis on the e-procurement software and the procurement performance in the procurement of goods and services. The significant of the study, delimitations and limitations of the study are going to be reviewed. Lastly, the chapter will extant the chapter summary.

1.1 Background to The Study

E-procurement is one of the technological progressions in the Supply Chain Management division in both public areas and private areas. Simply put, electronic procurement is the process of making purchases using technologies based on the internet. (De Boer, Harink, & Heijboer 2002). Transformation of a procurement department to an e-procurement environment takes changes in the procurement behaviors of an organization. It is unrealistic to think that an e-procurement system can be setup simply by purchasing a new computer system. Significant preparation is required to find solutions that integrate strategy, technology, procedures, and people in order to succeed. Furthermore, it has been done in relation to empirical research focusing on the adoption of e-procurement (Mitchell, 2000). E-procurement will alter procurement processes, resulting in increased procurement efficiency in a company. According to a study conducted by the Teachers Service Commission on the impact of e-procurement, there is a strong link between e-Procurement levels of ICT skill and

levels of e-Procurement application (Kingori, 2013). This suggests that procurement efficiency is strongly linked to the use of e-Procurement applications. Moreover, without the ICT systems that records what we have done it will be a problem at the company repeating orders that we have done and this will lead to a loss at the airline industry. Purchasing performance, according to Van Wheel (2006), is the outcome of two factors: purchasing effectiveness and purchasing efficiency. E-procurement is the use of internet-based Information Communication and Technology (ICT) to complete individual or all steps of the procurement process, such as searching, negotiating, ordering, receiving, and reviewing previous purchases (Croom & Brandon, 2004). According to Nelson et al (2009), purchasing accounts for the majority of organizational spending. Procurement is critical to the success of most businesses, as they spend at least a third of their total budget on goods and services (Killen & Kamauff, 2005).

E-procurement, according to Presutti (2003), is a technology solution that allows corporations to purchase goods and services over the internet. The cycle or process of purchasing goods is carried out by the procurement function. Sub-processes inside the process chain make it possible to respond to inquiries regarding the requirements for procurement, sources of goods and vendors, and procurement methods (Lysons & Farrington, 2006). According to Van, there are two types of purchasing: tactical and operational (2010). The procurement cycle includes the processes of defining specifications, sourcing, contract awarding, order placement, monitoring, and assessment.

Internal purchasing cycle papers (such as purchase requisitions) and external documents (purchase orders and invoices) were traditionally sent via mail, resulting in a significant amount of paper effort. Electronic transmission systems have altered the procurement cycle's speed and cost (Lysons & Farrington, 2006). Electronic procurement, it should be recalled, was the catalyst for this change. E-procurement systems, according to Ilhan & Rahim (2013), were created with the goal of automating and optimizing critical processes in a company's purchase cycle. E-procurement systems, according to Tatsis et al, (2006), include Electronic Data Interchange (EDI), Enterprise Resource Planning (ERP), SAP systems, and others.

Air Zimbabwe began using SAP as its e-procurement software in 2004, and it is still in use today. SAP was adopted to handle procurement processes. The procurement department at Air Zimbabwe is centralized, therefore it handles every step of the purchasing process. The function purchases large commodities like airplane replacement parts and other things that

have been requested by any department inside the company. The company manages its own IT infrastructure, enabling automation in its buying operations. The business electronically exchanges documents with foreign-based suppliers when completing transactions. Additionally, the e-procurement software houses the organization's procurement records. Despite using this software, the firm still encounters inefficiencies in its procurement processes, such as lengthy cycle times. Government officials must take a bold stance on breaking long-held cultural norms and embracing new and inventive ways to boost efficiency (Shalle & Irayo, 2013).

In practice, a large number of airlines outside of Africa employ SAP software in their procurement processes. With the use of e-procurement software, Etihad Airways' procurement unit in Abu Dhabi was able to automate the ordering process, which involves a lot of administrative work and paperwork, and optimize the entire procurement cycle. Lufthansa benefited from the software through improved procurement efficiency, which resulted in lower procurement costs and a longer purchase cycle. (Martin, 1998) asserts that the sharing of rapid and simple access to a single piece of information has also been made possible by e-procurement software (SAP). Additionally, it has been mentioned as a tool for enhancing and modifying business activities in accordance with the rules (Cooke & Peterson, 1998). The researcher is keen to identify the gap that led to ineffective procurement processes in Zimbabwe's airline industry by examining global trends in the usage of e-procurement software on the procurement cycle in other businesses.

1.2 Statement of The Problem

The company's procurement system objective is to deliver efficiency and to get value for money while spending the company's funds and adhering to the requirements of the Procurement Regulations Authority of Zimbabwe laws and policies. According to Edwards & Graham (2011), efficiency can be gauged from the perspective of the purchasing organization by looking at how successfully the purchasing department is carrying out the tasks set forth in the organization's budget. Limited legislation, lack of awareness and top management support, inefficiency in operations, integration with internal systems is a problem in the industry. These problems arise as a result of incompetent internal systems due to poor I.C.T systems, long procurement procedures as a result of long hierarchies that lead to too much

paperwork. The making of a payment requisition to have the entire signatory will take time than to use emails which is more conducive and effective to respond. All of which subsequently lead to heavy budgetary burden to the company. Therefore, the research will look at the ways on how the airline industry can use technology to respond to these challenges in order to operate efficiently at the same time improving the corporate procurement function.

1.3 Research Objectives

Looking at the above statement of the problem, this study is aimed at evaluate how e-procurement influences the activities of the purchasing function performance. Specifically the study seeks to achieve the following objectives:

1.3.1 Primary Obective

To establish the effectiveness of e-procurement software on procurement performance of companies in the airline industry in Zimbabwe.

1.3.2 Secondary objectives

- (i)** To evaluate the benefits of e-procurement in the procurement performance in the airline sector.
- (ii)** To examine the challenges facing e-procurement software on procurement performance in the airline sector.
- (iii)** To determine the relationship between e-procurement and procurement performance among airlines in Zimbabwe.

1.4 Research Questions

- (i)** What are the benefits of e-procurement in procurement performance to the airline industry in Zimbabwe?

- (ii) What are the challenges facing the e-procurement software on procurement performance in the airline sector?
- (iii) What is the relationship between e-procurement and procurement performance.

1.5 Significance of The Study

The previous researchers did not fully analyze the significance and the efficiency of technology in the procurement sector hence there is need for this study. Therefore, the researcher is set to carry out a research on how technology has impacted the purchasing function in the airline sector in Zimbabwe.

1.5.1 To The Airline Sector

The study's goal is to provide insight and information into how the aviation industry's procurement cycles are influenced by the effective adoption and usage of SAP software. When using the program, the procurement function should be able to detect holes in the department's service delivery that need to be filled. The buying departments of various airline firms can improve their service quality based on the study's recommendations. Furthermore, the organizations should be able to find methods to increase their operational efficiency as a result of this study.

1.5.2 To Bindura University of Science Education

As the work can be referred to as literature in the future, it is hoped that it will pave the door for further research by students at Bindura University. To put it another way, the other students should be familiar with SAP software and be able to identify several domains in which it can be applied. The module for the Pastel accounting program is now available at the university. Furthermore, the corporate image of Bindura University should improve as a result of the organization's support and approval of this study, and it is hoped that this would open the way for future industrial attachment possibilities for other students at the university.

1.5.3 To The Researcher

The researcher may gain an in-depth understanding of the SAP software's efficacy in procurement and other operations. It also aids the researcher in the acquisition and development of academic research abilities. Furthermore, the research is necessary since it adds value to the researcher's Bachelor of Commerce Honors Degree in Purchasing and Supply.

1.6 Delimitations of The Study/Scope

(i) Respondents

The responses will provide accurate data based on the facts on the ground, i.e., the management and its employees. These responders will have been chosen because they will be better able to explain how the company works. The study will be limited to Harare, which is home to the majority of aviation companies. This made it easier and less expensive for the researcher to locate personnel.

(ii) Research Coverage

This study is focused on organizations in the public and private sector found in Harare namely Air Zimbabwe Pvt Ltd, Fastjet Zimbabwe and Fly Africa Zimbabwe Zimbabwe. This will be strategic as all the information of the various organizations and departments will be in Harare at the Robert Mugabe International Airport, which will cut down time and transportation costs as all organizations centered in one geographical location.

(iii) Research Period

The researcher has had reasonably enough time to conduct the research. Since 2018 the researcher has kept contact with former co-workers and supervisors from Air Zimbabwe where the researcher was attached from December 2017 to September 2018. This has helped in getting a detailed understanding of how procurement processes are conducted in the airline industry.

1.7 Limitations

(i) Traveling Constraints

Due to the restrictions put in place by the government time and again traveling during the covid era has not been an easy task as transport costs can be hiked at any given point in time, at times the researcher is forced to put up away from home which puts a strain on the pockets of the researcher. The researcher has however managed the situation by putting up at relatives' homes and using the internet (e-mail) to communicate with some of the respondents.

(ii) Financial Constraints

The researcher had limited financial resources to use for field research, to manage this constraint the researcher had to do away with other necessities and seek financial help from relatives to carry out the research.

(iii) Data Gathering Issue

The respondents had the classification rule and subsequently kept some fundamental data in feeling uncertain about giving the data to some unacceptable hands like competitors. To control this imperative the researcher had to use approved documentation from the University for Information assembling in order to achieve trust of the expected respondents. additionally notifications were featured in the questionnaires that the data assembled was distinctly for academic reason.

1.8 Assumptions

- (i)** Every responder will provide accurate and trustworthy data.
- (ii)** The study will be done in line with the research objectives.
- (iii)** The full utilization of ICT resources plays a huge role in ensuring the organization effectiveness in attaining it's goals.

1.9 Definitions of Terms

- (i)** The purchasing cycle, it is a sequence of activities that begins with the identification of a requirement and ends with the delivery of the required goods to stores or points of usage, (Lysons & Farrington, 2006).
- (ii)** Procurement, means obtaining from external sources the services, capabilities, and expertise required for running, sustaining, and managing the company's principal and support activities at the best possible prices, Van Wheel (2002).
- (iii)** E-procurement, is the purchasing and selling of goods and services over the internet and other modern telecommunication systems, such like Electronic Data Interchange (EDI) and Enterprise Resource Planning (ERP).(Lee et al, 2006)
- (iv)** SAP software- is an enterprise resource planning software developed by the German company SAP SE.(online)

1.10 Chapter Summary

Chapter one was an introduction to the study of impact of e-procurement software (SAP) on the procurement performance of companies in the airline industry in Zimbabwe. It presented the background to the study, the research problem, the significance of the study and scope. It precedes the next chapter, which is a comprehensive review of literature on electronic procurement on procurement performance in the airline sector.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter contains information from previous publications as well as theoretical articles and structures relevant to the study subject. Literature review is a chapter in research which enables to acknowledge gap that exist in the subject under study. Adding on, it addresses different theories, concepts and empirical studies on e-procurement software (SAP) on the procurement performance and its impact in airline industry. This chapter reviews literature on the impact of e-procurement software (SAP) on the procurement performance of companies in the airline industry in Zimbabwe. At the end of the chapter are the empirical, gap analysis and the summary.

2.1 Theoretical Framework Of E-Procurement

1) Benefits of E-Procurement

According to Okibo, et al., (2013), an organization that uses e-procurement benefits from price reductions in e-sourcing. Realistic studies conducted in the United States of America revealed that cost and time are the two most important factors in the success of procurement processes. There is no paperwork, postage, or other expenditures connected with manually preparing and submitting papers with this method. The delivery of a document electronically is faster than the conventional method of sending documents through the post office, according to (A. Ruff, 2009). Because it is considerably simpler to trace orders and make the necessary corrections if an error is found in a prior order, it makes order monitoring and tracing easier. Procurement is an important aspect of the supply chain that has an impact on both external and internal stakeholders. This implies that it has the ability to contribute value not just to the exterior but also to the internal supply chain (Rita, P., & Krapfel, R., 2015).

Organizations have benefited greatly from the use of electronic procurement (e-procurement), including cost and revenue reductions.

E-procurement can improve customer service by reducing the time it takes to source materials. According to Eadie, et al., (2008), e-procurement is a speedy efficient technique of locating and connecting new suppliers, as well as a lean conduit for communication. Paper invoicing consumes a lot of time in terms of writing, filing, and postal communication, whereas personnel in e-procurement have enough time to focus on strategic procurement concerns. The time spent traveling from one town or country to another in search of a potential supplier or buyer is substantially reduced because information is easily available on the internet with a click of a mouse. Maverick buying is reduced as a result of e-procurement. When employees buy from suppliers other than those with whom they have established a purchasing agreement, this is known as maverick buying. A study conducted by (Arrowsmith, 2013) focused on investigating the Greek government procurement procedure as proposed by the General Secretariat of Purchasing. The study discriminated between tangible or quantifiable benefits and intangible, difficult to quantify benefits. The cost of supply reduction, the reduction of delicate costs, and the savings in lead time were all significant benefits. Procedure changes and organizational gains were among the intangible rewards. E-procurement, according to (Clark, et al., 2012), reduces purchasing activities.

E-procurement, according to (Eddie et al., 2007), improves communication by allowing e-documents to flow not only within a business, but also throughout its whole supply chain. This indicates an increase in the speed with which requirements are communicated, resulting in greater clarity of procurement criteria. Market intelligence and intelligence decisions, according to Hawking et al., (2004), are two separate concepts. Hawking et al., (2004) believe that good purchase decisions may not be possible without market information, and that the two parts are interdependent.

E-procurement connects public entities (as buyers) with vendors through the use of Web-based technologies (as suppliers). As a result, the procurement process has an impact on both the organizations that require products and services as well as the vendors that supply them. Essentially, institutions can obtain a wide range of goods and services from a wide range of vendors, while sellers have better access to all sector opportunities than ever before. As a result, both institutions and vendors will profit from a single platform where the former can

obtain all of the information needed to make a purchasing choice and the latter may reach out to potential consumers more frequently than before.

Strategic benefits, opportunity benefits, and operational benefits are the three categories of benefits associated with e-procurement adoption, according to (Attaran & Attaran, 2002). These advantages would bring together procurement processes, resulting in higher discounts and better service from suppliers. They also boost corporate image and commercial connections, such as the buyer-supplier relationship. They can help with budgetary control through making it simpler to match orders and reducing paperwork and its associated costs.

(Eakin, 2003) indicated e-procurement adoption benefits such as transactional, compliance, management information, price, and payment. According to Eakin (2003), e-procurement enables the purchase-to-pay process to be completed online. Time is saved and efficiency is increased with electronic processing. Not because employees deliberately make purchases outside of preferred agreements, but rather due to a lack of information, compliance and maverick spending are frequently important concerns inside a business. E-procurement uses catalogs and standard order processing and authorization processes to address this. It drastically reduces coding errors and provides incredibly detailed and accessible data because important information (cost center, commodity codes) is hard coded against the user. To maximize the financial benefits of strategic sourcing, this is required. A good e-procurement program, according to Eakin (2003), will produce high-quality, comprehensive management information, negating the need for data storage or resource-intensive data analysis. Your ability to negotiate lower prices will increase if you can convince your suppliers that you're using e-procurement to make sure end users fulfill their contractual commitments. The effective execution of the first four benefits makes it possible for bills to be paid electronically. This includes the ability to better control the firm cash flow and manage the efficient payment of suppliers since more streamlined procurement methods provide the accounts payable department with faster and more accurate information. During talks, the procurement manager can also legitimately guarantee the supplier prompt payment.

2) Challenges Being Faced In Using E-Procurement Software

E-Procurement will require significant time and financial commitments, and there is no guarantee that it will always be used to its full potential (Boudijilda & Pannetto, 2013).

According to Moszoro (2014), the following elements must be taken into account for the implementation of e-procurement to be successful: end-user acceptance and training, supplier acceptance, systems integration, performance measurement, security and authentication, support from top management, change management program, electronic procurement implementation strategy, and communication standards.

The greater part of end-user uptake and training is mainly linked to manager's implementation perspective of e-procurement foundation. E-procurement initiative calls for the training of staff in line with procurement activities since it involves new technologies and new different procurement approaches to make it a success, though some organisations may find it costly, so as hiring of experts. The adoption of electronic procurement tools is critical to organisational success in terms of e-procurement implementation. Final users may quickly realize the advantages of the adopting e-procurement system given that they comprehend it. The strategic management board should ensure that there is vision and goals aimed at promoting change, formulation of policies and strategies which enables the e-procurement initiative (Hardy & Williams, 2011).

Early supplier involvement results in the successful implementation of e-procurement. Meetings with suppliers updating them and hearing what their points of view are will be important if e-procurement implementation is to be a success. Frequent discussions pertaining to any necessary changes, issues and concerns like variable alternatives in developing and maintaining supplier catalogues. If suppliers are allowed and offered chances to give their views, there will be a room for improvement, so as to adjust practices accordingly (Deasy, et al., 2014)

Information in the procurement systems is very securely protected to ensure government information is kept private and that orders and payments are made legally. mechanisms for locating and verifying the user who submits an order, so the provider knows it is secure to fill the order. As financial transactions are involved and fraud is a possibility, e-procurement systems and processes need to be protected (Hardy & Williams, 2011).

(Manwaring, 2017) Modernizing and digitizing databases in managerial processes and payments methods can produce important revenue achievements, but requires more training for workers, as well as sufficient monitoring and administration measurements. Digitalization

and workforce training have need of noteworthy initial moneys, however these are rewarded off over time through greater than before revenues.

Despite the many benefits that the deployment of an e-procurement system gives both organizations, (Karsten Rosdahl, 2002) argues that only a small number of businesses are now employing e-procurement. One of the primary causes of this is the solution providers' technology-first approach to e-procurement rather than their procurement-focused strategy. This method has several inherent issues, not the least of which is the overwhelming consensus among early adopters that procurement specialists must be involved throughout the solution development process. However, because e-procurement usage has not increased at the rate anticipated, much recent research has focused on identifying these limitations (Kheng and Al Hawamdeh, 2002).

Concern over security is a barrier to the adoption of e-commerce systems since connectivity has increased but data security has decreased (Carter et al., 2000). According to (Croom, 2000), a vendor is unlikely to persuade the organization of the potential advantages of e-procurement if they are unable to connect effectively with key decision makers or comprehend their specific needs and concerns. This is primarily due to businesses' perception that they must implement the entire system within their organization, a strategy that necessitates significant investments in software, hardware, consulting services, installation, and integration, as well as reorganizing the procurement department and coordinating the system with supplier technologies.

(i) Lack of Common Standards

(OGC, 2002), Standards for e-procurement have not yet emerged or been developed, and the practice is still relatively new. Due to the expense of keeping electronic data in numerous distinct standards, a lack of common open standards is viewed as a significant obstacle to supplier adoption. By giving institutions and vendors an uniform and interoperable platform that enables effective and efficient information sharing, open standards make it easier to build an e-procurement system (NECCC, 2001).

(ii) Corruption

According to (Arrowsmith & Trbus, 2008), corruption has crept into the procurement process despite efforts to promote openness, accountability, and efficiency in both public and commercial procurement performance. As a result, some incompetent businesses have received tenders. (Tsabora, 2014) claimed that the absence of a defined framework for procurement policy was to blame for corruption in public procurement in Zimbabwe. While public procurement has been used as a key instrument for attaining social, economic, and other goals, some people have regarded it to be a source of waste and corruption (Arrowsmith, 1998). (Thai, 2001).

Bolton (2008) contends that corruption undermines the public's and honest contractors' confidence in the government, which has a negative impact on the procurement process. It causes the market for public contractors to become less competitive, which makes it harder for the government to get the best deal possible. He continues by saying that other procurement-related goals can also be hindered by corruption. Any government department's ability to operate effectively suffers from corruption. It compromises service delivery by shifting decision-making and the supply of services from people who need them to those that can afford them (Langseth, Kato, Kisubi & Pope, 1997). Bribery, conflicts of interest, fraud, nepotism, embezzlement, kickbacks, abuse of power, favoritism, theft, collusion, and extortion are just a few of the ways that corruption in the procurement process manifests itself. When a transaction is dishonest, substandard goods or services are provided, which leads to subpar service delivery (Pidaparathi, 2003).

(iii) Embezzlement

Amundsen (2000) asserts that embezzlement entails governmental officials stealing from the general fund. It is another form of misappropriation of public funds. It occurs when public employees misappropriate funds from the institutions where they work and have the power to manage such funds. Embezzlement is not regarded corruption from a legal point of view. Corruption, according to the law, includes two parties. However, embezzlement occurs when a single person receives resources for their own profit in the form of a bribe. (Amundsen, 2000).

(iv) Lack of Transparency

Lack of openness is one of the issues affecting public sector procurement, according to Organization for Economic Co-operation and Development (2007). It manifests itself in a number of ways, including the presentation of contradictory or inadequate information to bidders, a lack of openness in the use of non-competitive procedures, or opaque procurement policies and procedures. Fourie (2009) claims that public managers who are in charge of purchasing products and services face numerous difficulties, particularly from the political environment. Because the political environment interferes more with administrative tasks than with political concerns, it is difficult to distinguish between the roles of the administrative and political settings.

3) The relationship between e-procurement and procurement performance

The adoption of e-procurement can alter an organization's buying patterns (i.e., their buying process, selection criteria and the buying center). The buying process is occasionally described as a sequential process comprising a number of stages, steps, or phases of purchasing activities from the moment a desire originates to the actual purchase and subsequent review. The procurement process will change as a result of e-procurement, improving a company's procurement efficiency. In her study on the effect of e-procurement at the Teachers Service Commission, (Kingori, 2013) found that there is a substantial association between e-Procurement, the levels of ICT competence, and the levels of e-Procurement application. This suggests that e-Procurement solutions have a strong correlation with procurement efficiency.

Basically, procurement performance is aimed at complying with the requirements of internal and external audits more than it is to the overall procurement effectiveness. Due to lack of establishment of targets and objectives sometimes performance monitoring lacks also, more so, lack of concentration on the improvement of procurement performance activities will be the case (Darin, 2010). (Hardy & Williams, 2011) propounded that coming up with a procurement system which is efficient better the performance of the organization as a whole resulting from an enhanced procurement performance, helps policy makers in comprehending the way that different policy targets associate and how policy effect the entire performance of

a procurement system, enables the improvement of decision-making and consideration of constructive and long-term actions which are critical to the development of public procurement systems by the governments and parliaments, enables governments to acquire greater incentives for improving public procurement systems, assists in setting priorities in terms of reformation in public procurement segment as well as monitoring progress in line with set objectives and also updates on the necessary information to assess the expenditure system.

According to Carlos, et al., (2008), economically justifies e-procurement one should base on the three primarily factors which are:

- (i) Minimising off-contract expenditure through the use of technology for more user awareness of current contract facilities and also simplifying ordering against them.
- (ii) Increasing purchasing power through the use of technology to back the establishment of the identity of favorable circumstances for aggregation, so as ease of aggregation of customer requirements inside or across organizations.
- (iii) Lower costs of transaction through the use of technology by automating processes that are paper based in the present moment, streamlining and standardization of processes and documentation.

According to Amin (2012), electronic procurement means of solving problems are perceived as passage towards addressing various public procurement questions. Apparently, the greater level of support on procurement by the Internet facility, the less difficulty it becomes to implement and improve electronic procurement. Infrastructure in e-procurement and processes help in the accomplishment of the transparency and accountability in the public sector at the same time enhancing efficiency, and effectiveness, within the procurement process. Electronic procurement carries potential to bring to existence efficient operating in the procurement processes of the public sector, private sector and influence greater cost savings. Managing electronic transaction can liberate procurement officers from evaluations and contract a management duty which is apparently an advantage. More so, information for the managers is drawn out of the electronic procurement systems making use of standardised

software for reporting. The see-through management information which e-procurement brings about enables surveillance of conformity with the level of service pacts and weighing the performance of suppliers (Boudijilda & Pannetto, 2013)

In the same way, in as much as return on investment, quality, costs, measures of the progress of program management such as “on time, on budget, and issues management” and factors for performance of processes, are more directly related factors. The obstacles still remains in managing a number of factors needed to obtain the advantages of implementing e-procurement. Since setting up a foundation for e-procurement initiative is demanding on workers, costly and costly in terms of time, the possibility of many years before the benefits are fully reaped is highly perceived in the public sector. These benefits can be classified as operational and strategic benefits from adopting e-procurement (Hardy & Williams, 2011).

2.1.1 Theories Supporting The Study

2.1.1.1 Kaizen Continuous Improvement Model

A high degree of efficiency is maintained through constant, incremental process modifications, or "kaizen." The Kaizen continuous improvement methodology, which was made popular by (Maurer, 2004). The need to continually improve public sector procurement arises from the environment's dynamic. (Maurer, 2004) contends that there is just one crucial inquiry to make when discussing procurement. How is the business attempting to continuously enhance its strategy for acquiring new development, scheduled maintenance, and responsive maintenance? to guarantee procurement improvement. Organizations should employ "best value" techniques, according to Maurer (2004). These techniques include aspects like questioning what organizations do and how they do it, making comparisons with others, talking to people who will be impacted by the organizations' services, and proving that value for money is obtained during procurement.

However, Kaizen can make low level management's job more difficult because they not only have to spend time on the shop floor helping the method be implemented, but they may also need to work after hours to complete their regular administrative duties. Furthermore, because Kaizen was deeply ingrained in Japanese culture, it might be challenging to adopt in

different cultural contexts (Brunet, 2000). In this instance, it is quite challenging to use this paradigm in poor nations like Zimbabwe.

2.1.1.2 Gardenal Model

Source: (Gardenal, 2013)

(Gardenal, 2013) suggested a paradigm for evaluating the effectiveness and consequences of electronic procurement. The electronic tendering phase of the procurement purchasing cycle, which runs from the invitation to tender through the awarding of the tender to the chosen supplier, is the only phase of the cycle where this model is relevant.

According to (Gardenal, 2013), the model has five (5) effects, each of which has a unique indicator. The size of the effects are an indication of the corporate divisions benefited by the use of electronic procurement. Transparency, efficacy, efficiency, competitiveness, and dematerialization are some of these benefits. The dimensions of how e-procurement impacts procurement performance are shown in Fig. 2.1 below.

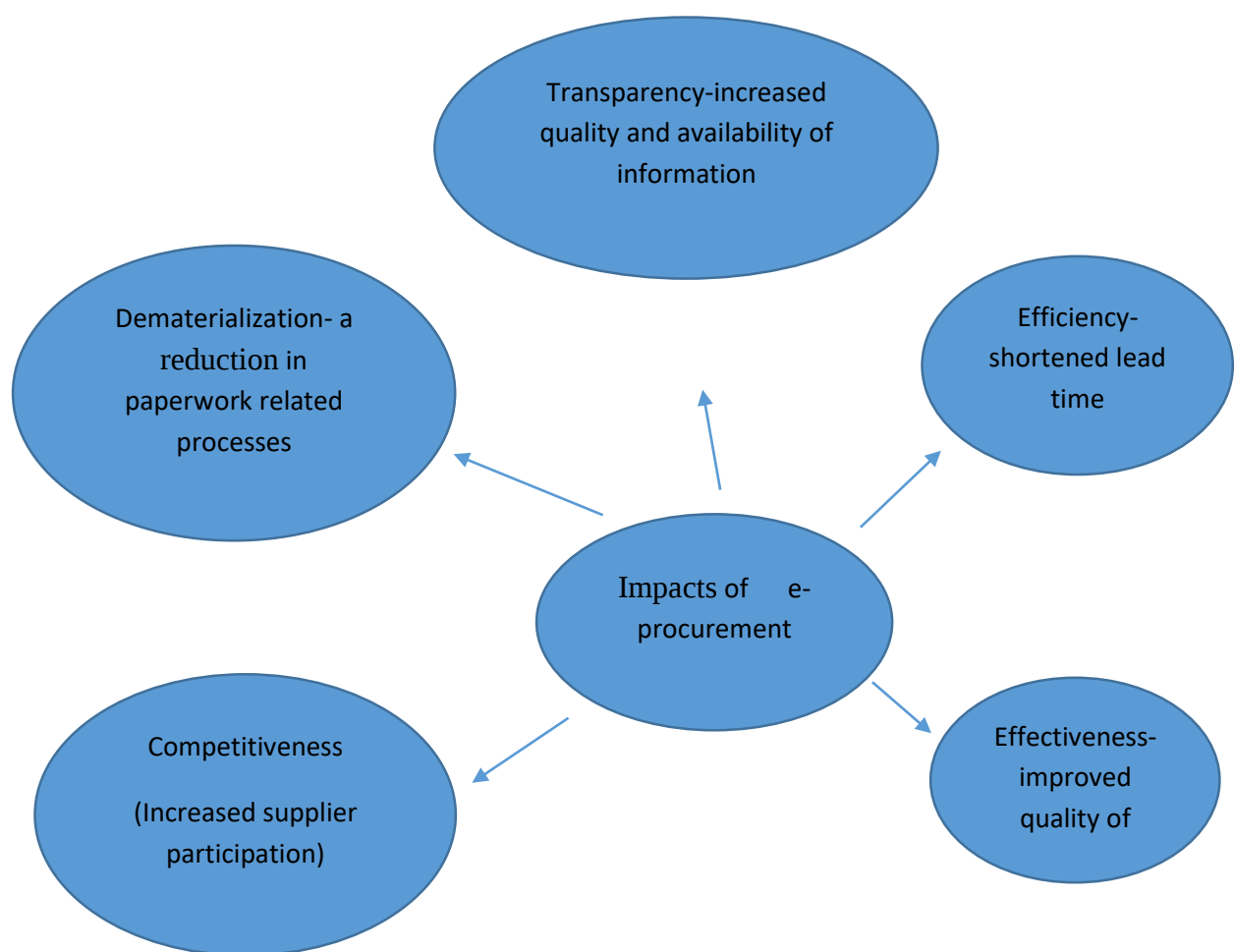


Figure 2.1: Source (Gardenal, 2013)

2.1.1.3 Transparency

CIPS (2005) states that this requires ensuring that information is disseminated both inside and outside of the organization. By automating the tendering process and distributing the invitation to tender so that all bidders are aware, electronic procurement improves transparency.

2.1.1.4 Efficiency

Efficiency, as defined by CIPS (2005), entails "doing things well" and evaluates how a corporation uses its resources throughout a process. Because the entire cycle will be automated, the electronic procurement system improves efficiency by minimizing paperwork and expediting the purchase process. The primary indicator of efficiency is a shorter tendering period.

2.1.1.5 Effectiveness

(Van Weele, 2010) defines purchasing effectiveness as the degree to which a predetermined objective or criteria is satisfied by taking a particular activity. According to (Gardenal, 2013), it is crucial to get good deals while also taking into account high standards of quality. Electronic auctions can be used in electronic procurement to access vast markets and bargain for product price reductions.

2.1.1.6 Competitiveness

(Gatdenal, 2013), strengthened by e-contribution procurement's to competitiveness by enabling greater vendor involvement throughout the tendering process via negotiation and the use of tools like e-auctions.

2.1.1.7 Dematerialization

The adoption of electronic procurement calls for a considerable transformation of procedures involving paper. According to (Gardenal, 2013), dematerialization has a favorable impact on the environment owing to the elimination of paper work and also affects the cost of funding due to a decrease in the cost of archives.

2.2 Conceptual Framework

According to Smyth (2004), a conceptual framework is composed of a number of big ideas and theories that aid researchers in correctly identifying the issue at hand and locating relevant material. The conceptual framework below illustrates how the dependent variable and independent variables are correlated with one another. Performance in the procurement process is the dependent variable in this study. It is considered dependent since an improvement in procurement performance in the organisation on the outcomes from several benefits. The independent variables in this case, the successful implementation of e-procurement software. The conceptual can be summarized as below:

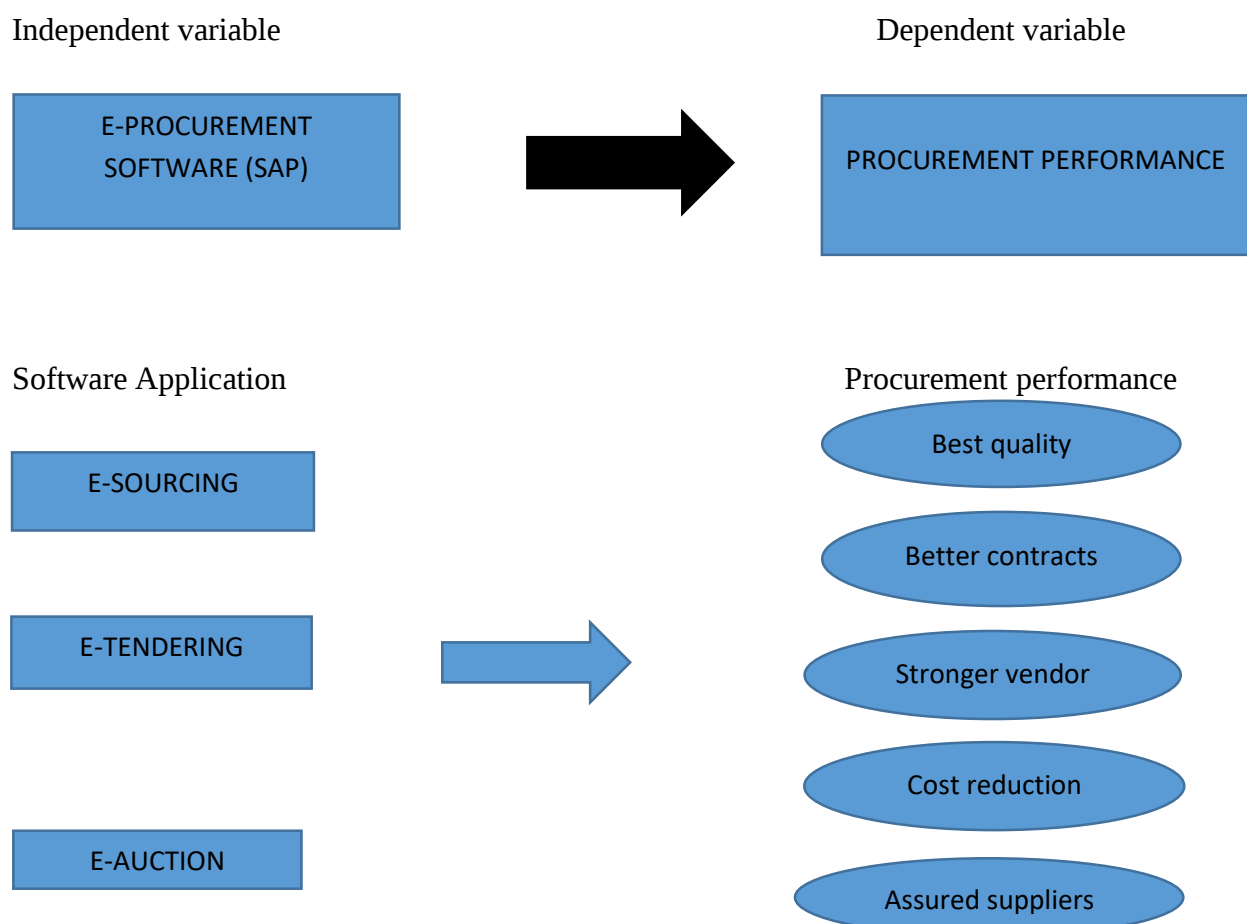


Figure 2.2: (Source, Self, 2022)

2.3 Empirical Framework

(Sundarraaj and Kumari, 2013) conducted study on e-procurement systems based on sap software in India, primarily concentrating on the value and impact of such systems inside the supply chain. The study's findings showed that companies involved in large quantities mostly profit from the e-procurement system. For the supply chain to acquire massive volumes, partnerships must be built through these platforms. The only function for which electronic procurement systems should be employed is the one that is required, not a range of additional functions.

Researchers (Subramaniam, Qualls, and Shaw, 2003) investigated the effects of business-to-business e-procurement platforms. The investigation was conducted in the United States of America. Its key concerns were the impact of e-procurement on core business processes, strategic evaluations of the function of e-procurement, and an understanding of the drivers of its value. The sample used was made up of businesses that use electronic procurement to buy equipment and supplies for offices. A manufacturing company sample was also collected. The researchers came to the conclusion that an e-procurement system improves procurement performance through the removal of erroneous purchases and the reduction of errors.

(Chang & Wong, 2010) investigated the factors that lead Chinese businesses to use electronic procurement systems. Cost savings and improved quality purchasing cycles are a couple of them. In a similar vein, McManus (2002) evaluated the level of e-procurement adoption in the American public sector in his research. The study came to the conclusion that low procurement expenses, low transaction costs, and a quick procurement process were what affected the rate of e-procurement usage.

2.4 Gap Analysis

This study was conducted in Zimbabwe, as opposed to the other studies that are described in the empirical evidence section. The empirical evidence shows that the other investigations were carried out in India, the United States, and China, respectively, suggesting that the outcomes of this inquiry were different from those of the other investigations. This study is centered on the airline industry in Zimbabwe, while some of the case studies in the research investigations were based on manufacturing enterprises and local government entities. More specifically, the researcher in this instance is worried about how the e-procurement software

will affect the effectiveness of the procurement process. Evidence from empirical studies indicates that the researchers' focus was on how e-procurement affected the entire supply chain.

According to the aforementioned discrepancies, the outcomes of the empirical evidence are different from those of this study since different countries have distinct economic climates. Additionally, the outcomes vary as a result of various research techniques, researchers' perspectives, and research abilities.

2.5 Chapter Summary

This chapter reviewed the literature on the impact of e-procurement software (SAP) mainly in the airline sector in Zimbabwe. The focus of the review was on the relationship between e-procurement and procurement performance, the advantages and difficulties faced by both public and private businesses, and the impact of e-procurement software (SAP) on the procurement performance as reported by various authorities in various countries. The study's theoretical analysis and empirical data on the impact of e-procurement systems on procurement performance, as well as research topics related to the objectives, were addressed using theories and frameworks. The research technique, which describes how the research will be carried out, will be covered in the following chapter.

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

This chapter explains and provides a description of the methodology, data sources, sampling techniques, and data collection techniques used in the study. According to (Nachmias & Nachmia, 1997), methodology is a set of specific guidelines and processes that serve as the foundation for research and the standard by which knowledge claims are assessed. In other words, methodology makes it easier for researchers who have similar experiences to communicate with one another. The methods utilized to carry out this investigation are also presented, along with a description of the equipment used for data collection. The methods utilized to analyze the data are also covered by the researcher. Finally, the process's ethical considerations are also highlighted.

3.1 Research Design

A research design is merely the researcher's strategy for conducting the study (Bogdan & Biklen, 2007). In an effort to meet the research's goals, the researcher decided on a descriptive survey methodology. Such a strategy was chosen because it, for example, uses questionnaires to solve the issues of geographic separation between the researcher and respondents. Additionally, it makes it possible to generate data about respondents within the organization contextually. The participants in this study can also offer in-depth details regarding the effects of e-procurement software.

3.1.1 Descriptive Survey Design

The descriptive research design addresses the relationships between variables. According to (Saunders et al., 2009), since the researcher is expected to go further and draw conclusions from the facts being presented, the description in management and business research has a very obvious position. According to (Wilson, 2013), surveys gather information at a certain

moment in order to describe the nature of the conditions that are in place, set standards, and ascertain the relationships that exist between various variables and particular events. A descriptive survey collects information about events, organizes, tabulates, depicts, and summarizes the information. It is employed to create the informational statement of the situation. Therefore, The researcher used a descriptive survey research design and utilized a case study methodology.

3.2 Research Method

The researcher conducted the research using the qualitative method approach as it shares certain characteristics to the study that is not able to be quantifiable (Cooper & Schindler, 2011). In addition, the qualitative technique, in accordance with Cooper & Schindler (2011), aims to comprehend a particular study problem or topic from the perspectives of the local community it involves. Therefore, qualitative methods increase confidence in personal communication skills of an individual. According to (Burns & Grove, 2009), qualitative research is a methodical and arbitrary way to highlighting and explicating ordinary life experiences and giving them greater meaning.

3.3 Population and Sample Size

A population is the entire case from which the necessary sample is drawn, according to Sekeran (2011). Wilson (2003) therefore describes a comprehensive set of components that are specifically identified for a study in accordance with its research aims. The researcher focused on Airlines that includes Air Zimbabwe, Fastjet Zimbabwe and Fly Africa Zimbabwe Zimbabwe and the target population was obtained from some of the employees out of the nine airlines companies that includes Central Air Transport Services (2008), DHL Aviation (2008), Exec-Air (1972), Fastjet Zimbabwe (2015), Global Africa Aviation (2014), Rainbow Airline (2013), Air Zimbabwe (1961), Zimbabwe Fly Africa Zimbabwe Zimbabwe (2014) and Air Namibia (1946). A total of one hundred (100) people were considered to be the target population, of which fifteen (15) heads of departments (managers) made up the population. The remaining eighty-five (85) people were other employees from the purchasing department, finance, flight operations, engineering, and human resources. With a 95%

confidence level and a 5% margin of error, an 80-person sample size was utilized to reflect the target population (Krejcie & Morgan 1970). The researcher was able to save time and obtain almost accurate information from the respondents by using this number. The researcher used stratified random sampling to in order to ensure the desired representation from each department was obtained.

<i>N</i>	<i>S</i>	<i>N</i>	<i>S</i>	<i>N</i>	<i>S</i>
10	10	220	140	1200	291
15	14	230	144	1300	297
20	19	240	148	1400	302
25	24	250	152	1500	306
30	28	260	155	1600	310
35	32	270	159	1700	313
40	36	280	162	1800	317
45	40	290	165	1900	320
50	44	300	169	2000	322
55	48	320	175	2200	327
60	52	340	181	2400	331
65	56	360	186	2600	335
70	59	380	191	2800	338
75	63	400	196	3000	341
80	66	420	201	3500	346
85	70	440	205	4000	351
90	73	460	210	4500	354
95	76	480	214	5000	357
100	80	500	217	6000	361
110	86	550	226	7000	364
120	92	600	234	8000	367
130	97	650	242	9000	368
140	103	700	248	10000	370
150	108	750	254	15000	375
160	113	800	260	20000	377
170	118	850	265	30000	379
180	123	900	269	40000	380
190	127	950	274	50000	381
200	132	1000	278	75000	382
210	136	1100	285	1000000	384

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

Source: Krejcie & Morgan, 1970

Figure 3.1 Source: (Krejcie & Morgan 1970)

3.4 Sampling Technique

The researcher used stratified random sampling technique. The population from each organisation was first divided into five strata, which were based on the departments in each of the organisation. The representatives were then picked from each strata with preference to the procurement departments as they have an in depth understanding of the topic of study. During this process the five departments in each organisation were used as stratas, The researcher then used systematic random sampling to pick representatives from each of the departments. Small papers written yes or no were put in a hat and employees picked the

papers from the hat, this was done for every department independently the number of yeses representing the number of employees that were required to represent the population. The number of samples from each organisation were deliberated using the percentage representation of each organisation to the total population using the following fomula:

$$\frac{n}{N} \times S = x$$

n = strata population

N = total population

S = sample size

x = strata sample size

The number of employees from each organisation was as follows Air Zimbabwe 45, Fly Africa 28 and Fastjet 27. The representation from each organisation and department was as shown below in table 3.1

Department	Air Zimbabwe	Fly Africa Zimbabwe	Fastjet Zimbabwe	Rate of response (%)
Purchasing	8	6	6	25
Finance and Expenditure	7	4	4	18.75
Human Resources	7	4	4	18.75
Engineering	7	4	4	18.75
Flight operations	7	4	4	18.75
Total	36	22	22	100

Table 3.1

3.5 Research Instruments

A research instrument, according to Kato (2002), is any pertinent tool utilized in a study to obtain data. Information was gathered for this study through questionnaires, interviews, and secondary data. They are mostly employed by researchers to gather trustworthy data that will be examined afterwards (Aina, 2004). Each instrument to be discussed pointing out other merits and demerits.

3.5.1 Questionnaire Guide

A list of inquiries that pertain to the goals and working hypotheses of a research study is known as a questionnaire (Saunders et al: 2007). According to (Best & Khan, 2006), a questionnaire reformulates a series of questions to which participants in a study provide their answers. In order to improve a full and comprehensive data collection, the questionnaires utilized in this study included both open-ended and closed-ended items. In order to collect respondents' personal information and information about the company in relation to the study, a set of questions was constructed in ascending order and divided into two portions. According to the sample size, these were sent to eighty (80) individuals.

As responders could complete the questionnaire in their leisure time and gave their effort, the survey was successful. The questionnaire helped the researcher collect more information quickly, which furthered the goal of saving time and money while doing the investigation. Since the names of the participants were omitted from the personal information section of the questionnaire, as promised, confidentiality in the data collected was maintained. As a result, the respondents provided unbiased responses. Furthermore, since the responses were provided in writing, it was simple to refer to, contrast, and quantify the views and opinions.

The questionnaire's effectiveness was, however, limited since some of the data was skewed. The relevance of some of the information gathered was also limited because not every participant fully understood how the e-procurement software functions in connection to the procurement processes. However, in order to address these issues, the researcher employed interviews.

3.5.2 Interviews Guide

Interviews were performed by the researcher with respondents from the organization under investigation. In addition to the questionnaire, the researcher was able to gain more insight into other topics included in the questionnaire by interviewing the respondents. According to Krishna Reddy (2016), interviewing refers to a conversation between two people or more where questions are asked to a person to get the required responses or answers. The interview guide had questions and conducted face to face with the benefit of being able to observe and record verbal and non-verbal behavior. Furthermore, the researcher is able to notice or capture the emotions and behavior of the respondents in the use of the SAP system in the procurement function.

However, interviews hinders the capturing or interviewing individual that is the quality of data from the interviewee for instance some people have the naturally ability to conduct an interview and gather the data well whereas some interviewer being the researcher will not be in a position to control the interview therefore the information being obtained may be biased. More so, the sample size limit the size of the staff to be interviewed where some are qualified and have high technical and theory experience about the SAP system on the procurement performance process.

3.6 Data Collection Procedures

In the beginning, the researcher sent approval letters to the human resources managers of Air Zimbabwe, Fastjet Zimbabwe, and Fly Africa Zimbabwe. The request for permission to gather data for the research was addressed in the approved letter. After receiving consent, the researcher reserved the dates and times necessary for sending the surveys to these organizations. The questionnaires were then given out to the employees for filling out during downtime. One week after they were distributed, the questionnaires were collected from the respondents. In order to maintain participant confidentiality, the researcher asked both open-ended and closed-ended questions. Following the completion of the other questionnaires, the researcher continued to follow up on those that had not yet been completed. The researcher also carried out interviews to gather information for the research. Interviews were carried out only on the three procurement departments, 2 members were taken from the procurement

departments of each of the three companies making a total of 6. From each organization the manager and one randomly selected subordinate were interviewed.

In order to gather information, the researcher used qualitative techniques. Instances where it is hard to perform a mathematical analysis or where information cannot be quantified are measured using this method. Consequently, because it contained useful information that could be quickly analyzed, it was quite helpful in our research.

3.6.1 Primary Data Sources

In order to collect primary data, the researcher used questionnaires that were handed to respondents at Air Zimbabwe, Fastjet Zimbabwe, and Fly Africa Zimbabwe. The advantage of gathering data from its primary source is that the researcher may get detailed information right away, as opposed to gathering secondary data, which uses material that has already been published. Furthermore, data derived directly from the primary source can be trusted because it provides a thorough understanding of the research project. (2002) (Moorhead & Griffin).

3.6.2 Secondary Data Sources

Simply said, secondary data is information that has been obtained in advance and with a specific goal in mind. To put it another way, Van (2010) claims that secondary data is historical in nature because it is always available when needed and was previously obtained especially for a particular purpose. The researcher also used secondary data from academic textbooks, internet papers, journals, and corporate documents from Air Zimbabwe, Fastjet Zimbabwe, and Fly Africa Zimbabwe, in addition to the primary data. Finding information from secondary sources reduces costs and research time..

3.7 Data Analysis and Presentation Procedures

Data analysis is the process of breaking down data into its constituent parts in order to reveal its distinctive aspects and structure for accuracy (Mugenda, 2003). This study is anticipated to offer both quantitative and qualitative data to thoroughly explain how adoption of e-procurement affects procurement performance. The researcher presented data using tables,

pie charts, and graphs. The results of the disseminated questionnaires to the respondents served as the basis for the data presented and the analysis. Data analysis assists with data interpretation, decision-making, and providing answers to research issues. Every field needs data presentation and analysis since it makes it possible for people to grasp the findings of surveys that have been conducted via content analysis. According to (Baulcomb, 2003), research scientists use the ground-breaking software SPSS to process important data in a series of easy steps. SPSS Aids in Research and Data Analysis Programs. These methods are employed to examine, modify, and create a distinctive pattern between various data variables.

3.8 Data Validity and Reliability

The questionnaire was pre-tested in order to identify places that needed modifications so that the participants would not experience any issues, ensuring that the data collected is valuable. Additionally, the researcher carefully chosen the participants, ensuring that their comments were insightful and provided valuable data. Members of the engineering and flight operations, purchasing, human resources, and finance departments made up the respondents in this study. These members also included the administrators of these tasks, who were able to offer knowledgeable information about the e-procurement program because they regularly used it.

Adding on, in order to strengthen and increase the validity of the data in this research, the researcher also acquired pertinent information from accredited researchers regarding the literature review, SAP online modules, and articles.

According to Best (1996), data reliability is defined as the degree of consistency that a data gathering tool indicates. A pilot test was conducted on the participants at the organization under study in order for the researcher to evaluate the data's dependability. Giving the same questions to several participants who provided the same responses increased the reliability of the data gathering instruments. Burns (2000) makes the supposition that a study can be repeated, implying that subsequent researchers must conduct their research in the same way as the initial researcher. It is recommended to employ similar research categories, procedures, accuracy standards, and points of view. Burns, 2002 also makes the supposition that multiple researchers are likely to come to similar conclusions by employing the same study

methodologies. However, enhancing data reliability can be challenging regardless of the device utilized. This may result from questionnaires that ask for subjective information.

3.9 Ethical Considerations

In this research the researcher had to seek ethical approval from Air Zimbabwe, Fastjet Zimbabwe and Fly Africa Zimbabwe in which the study is going to be carried out. The researcher guaranteed them that the data collected would not be shared to anyone else other than those from Bindura University of Science Education who were actively involved in the execution of this study. This was done to ensure that the data would be used properly, without any infractions, and that the subjects' confidentiality would not be violated. According to Babbie (2007), ethical standards also call for researchers to avoid placing subjects in situations in which their participation might put them at risk of harm (either physical or psychological), so the researcher made sure that the respondents' anonymity and confidentiality was upheld, and the research questions were also written in a way that did not infringe on their rights. The data's source would remain secret thanks to anonymity.

3.10 Summary

As was already mentioned, this chapter provided a thorough explanation of the research technique. This included a description of the research design, the population that was to be studied, the sample size, and the methods used for sampling. This chapter also covered the types of data gathering tools utilized, the methods used, the validity and dependability of the data, and the methods used to evaluate and present the data collected. Consequently, the next chapter examines data display and analysis.

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS AND DISCUSSION

4.0 Introduction

This chapter presents the analysis of findings of the investigation. The researcher discusses the findings relative to literature review in chapter two. Results have been explained and presented using various methods of statistical data presentation including graphs, charts and tables. “Graphic communication is communication using devices such as tables, bar graphs, pie charts”(Francis, 2004: 9). Since they display sets of numbers that are very challenging to convey in written form, graphic aids enable the researcher to communicate more effectively. The choice of these methods was centered on their facility to simplify comparison and interpretation of data. Statistics from the presentations were matched with information from the associated literature through discussions that have capacitated the presentations.

4.1 Response Rate

table 4.1 Responses of The Participants

Department	No. of distributed questionnaires	No. of returned questionnaires	No. of unreturned questionnaires	Rate of response (%)
Purchasing	20	18	2	90
Finance and Expenditure	15	13	2	87
Human Resources	15	11	4	73
Engineering	15	10	5	67
Flight operations	15	7	8	47
Total	80	59	21	74

As shown in the table above a total of eighty (80) questionnaires were distributed among three (3) airlines (Air Zimbabwe, Fastjet Zimbabwe and Fly Africa Zimbabwe). Unfortunately, out of 80 questionnaires, A response rate of 74 percent was obtained from the 59 surveys that were completed and returned. This greater response rate was brought about by the researcher following up every day via phone and email. All the respondents for the interviews cooperated towards the study by providing an ultimate response. The response rate was high, despite this. According to Saunders et al. (2012), a response rate of over 67 percent is seen as optimal. Both the questionnaire and interview response rates were 74% and 100%, respectively. This met the criteria set forth by Cooper and Schindler (1992), who advise that a response rate of between 50% and 92 percent is sufficient to ensure the validity and reliability of the study. (Saunders, 2003) further highlighted that a response rate above 50% provides a

true reflection of the total population of the study. In addition, the researcher rated the responsiveness of participants as good as it was high thus above 50%. Due to the researcher's ability to use a polite method when contacting the respondents and give them enough time to complete and answer the questions, both the questionnaire and interviews received such a high response rate.

4.2 Effectiveness of E-procurement Software on Procurement Performance of Companies in The Airline Industry in Zimbabwe

table 4.2 Modern E-procurement Systems Adding Value in The Organisations Procurement Performance

Modern e-procurement systems adding value			
	Number	Percentage	Cumulative Percentage
Strongly Agree	21	35.6	35.6
Agree	9	15.3	50.9
Neutral	10	16.9	67.8
Strongly Disagree	12	20.3	88.1
Disagree	7	11.9	100.0
Total	59	100.0	

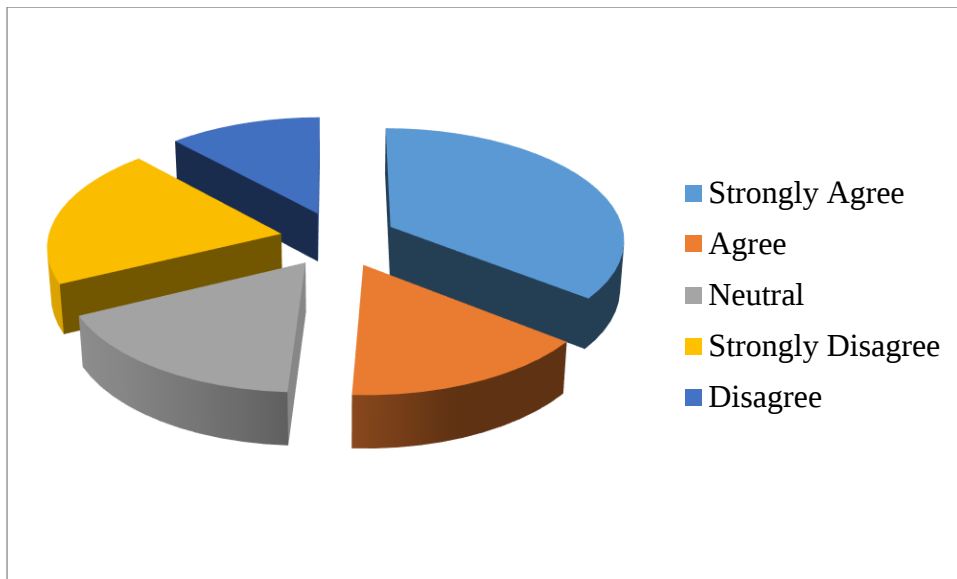


Figure 4.1 Modern E-procurement Systems Adding Value in The Organization Procurement Performance

Source: Primary Data

A total of 50.9% respondents as shown on the pie chart settled that modern procurement systems add value in the organisations procurement performance. The majority who disagreed were not knowledgeable pertaining to procurement systems as they did not attain any qualification in procurement. The use of electronic mail and web-based supplier's database is currently effective in the airline industry which enables the reduction in transport costs, transparency, time saving and supplier integration. However, manual systems are still in use within the public sector and this is supposed to be for security reasons on the government information. This was backed by (Turban, et al., 2015), reviewing that, firms that do not clinch e-procurement in their procurement processes are underprivileged that they cannot endure the competition in the now extremely competitive global village. He continued, adding that this implies that any of the effects of e-procurement on the procurement unit would shake the other parts of the organisations since they rely upon procurement to deliver materials at the right time, right quality, right quantity, right price and right place from the right source and these materials are used to make finished products for the final user or customer to enjoy flying in the skies.

4.3 Benefits of e-procurement

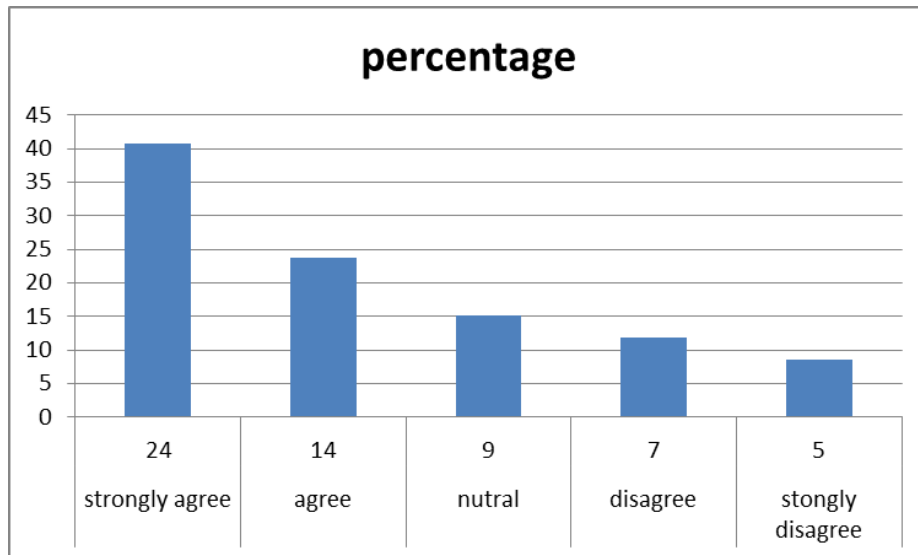


Figure 4.1 effect of e-procurement on transparency

Source: Primary Data

The majority of respondents agreed that e-procurement contributes to transparency in an organisation. This follows the 40.7% and 23.7% who strongly agreed and agreed respectively. According to the research findings, this entails that to a greater extent, e-procurement enhances transparency in the Airline industry, since a total of 64.4% agreed. The 15.2% of the respondents were not sure hence they remained neutral while another 11.9% disagreed on e-procurement resulting in transparency in the airlines. Strongly disagreed were 8.5% of the respondents who argued that e-procurement has not brought any transparency within the airlines. There are still cases of corruption and fraud being witnessed and some are currently being investigated, this might be due to e-procurement being partially adopted since the some Airlines are to this date still using manual methods of purchasing. This was highlighted by (Hardy, C. and Williams, S., 2011), suggesting that data is highly secured in the procurement systems in order to protect the privacy of government information and the legal status of orders and payments. He continued, "E-procurement systems and processes need protection as they include money transactions and could be subject to fraud." Mechanisms for identifying and authenticating the user who puts an order are necessary so that the supplier knows it is safe to fulfill the order.

4.4 Challenges facing e-procurement software

Table 4.3 Challenges being faced in using e-procurement software

Challenges facing e-procurement software on procurement performance				
		Frequency	Percent	Cumulative Percentage
Valid	Strongly Agree	26	44.1	44.1
	Agree	10	16.9	61.8
	Neutral	3	5.1	67.6
	Strongly Disagree	6	10.2	76.5
	Disagree	14	23.7	100.0
	Total	59	100.0	

Out of the total percentage, 10.2% strongly disagreed, and 23.7% disagreed that they are facing challenges in performing their duties and that makes a total of 33.9% of respondents who disagreed. Respondents who denied having challenges in procurement practices highlighted that they use both electronic and manual methods, hence they use each method selectively and situational. Some believes that fully implementing e-procurement will make the financial constraint of the organisation worse since it is costly in both time and finance as there would be the need for training and hiring experts. The majority of respondents (16.9% and 44.1%) agreed and strongly agreed respectively, revealed that e-procurement systems are lacking in the airline sector hence the majority of the procurement processes are being carried out manually, for example, inventory management is still being done manually such that the stock is recorded on hard paper. They further highlighted that the deficiency in the Information Systems results in manual processes which are subject to errors, time consuming, costly and cumbersome. They further reviewed that delays, errors and costs associated with

manual work greatly affect service delivery in the sense that, due to high costs, the quality and quantity may end up being compromised. Compromising both quality and quantity generally demotivate departmental users hence poor customer service delivery. For example, poor quality food and uncomfortable planes which do not last long hence prompting negative attitude towards customers in the country. (Ronald & Beverly, 2013), supports this by highlighting that organizations around the globe have adopted the use of computerized software packages and systems to control business activities. He also stated these internal controls have proven to be inevitable and help organization especially in the formal sector on service delivery. Additionally, he said that e-procurement has been popular to apply in the most recent era by both governments and businesses in order to lower the overall expenditures spent on purchasing operations. (Qrunfleh & Tarafdar, 2014) argued in favor of this claim and said that in order for any business to prosper, it must embrace and integrate information technology into its daily operations. He continued by saying that because of this and other favorable impacts, numerous businesses both locally and globally have adapted and implemented IT in their procurement processes and general company operations (Rita, P., & Krapfel, R., 2015).

4.5 Relationship Between E-procurement and Procurement Performance

Table 4.4 Relationship Between E-procurement and Procurement Performance

Relationship between e-procurement and procurement performance				
		Frequency	Percent	Cumulative Percentage
Valid	Very Large Extent	28	47.4	47.4
	Large Extent	11	18.6	66
	Moderate extent	8	13.6	79.6
	Small Extent	10	17	96.6
	No Extent	2	3.4	100.0
	Total	59	100.0	

Table 4.4 above indicates that 47.1% and 17.6% of the respondent's very large extent and large extent respectively that e-procurement and procurement performance has a relationship to attain an objective, mission and vision of the organisations in the airline industry. Since e-procurement is the procurement system of purchasing goods and services, it implies that there is need for e-procurement training in order to acquire quality services in the airline sector (Basheka, 2004). From figure above, 47.1% of the respondents who agrees that there is a very large extent that there is a relationship between e-procurement and procurement performance, these were followed by 17.6% who also agreed that there is a relationship between these variables. Therefore the study concludes that there is a relationship between e-procurement and procurement performance.

4.5.1 Interviews Findings

QUESTION: To what extent does your current procurement strategy affect the procurement performance?

Respondent 1: *the current use of (SAP) as the procurement software has helped in minimising ordering by speeding up the internal documentation process.*

Respondent 2: *the current procurement strategy which utilizes the use of (SAP) has been of great aid to keeping procurement records within the organisation which has helped to ensure a continuous trend of improvement in the performance of the procurement department.*

Respondent 3: *to a greater extent the use of the e-procurement software (SAP) has facilitated an improvement in the procurement performance of the organisation.*

Respondent 4: *the current strategy using the procurement software (SAP) has taken the procurement performance down a notch as the software is not being fully utilized thus at times it leads to unnecessary repetition of tasks as some tasks have to be done both manually and electronically.*

Respondent 5: *the current procurement strategy supports growth in procurement performance as it saves on time and ensures accuracy due to the use of e-procurement*

Respondent 6: *the current strategy has a positive impact on procurement performance as it utilizes the benefits of e-procurement*

According to the interview findings, a greater percentage (83%) of the respondents agree on the fact that e-procurement has a positive impact on the procurement performance of a firm. Also all the

respondents agree that e-procurement affects procurement without looking at how the performance is affected.

4.6 Chapter Summary

This chapter was largely concentrating on the presentation, interpretation and analysis of data which was composed. The main findings were presented in form of tables, pie charts and graphs with frequency of responses expressed as percentages in order to present sense to data collected. The data collected was through the use of questionnaires and interviews as the research instruments. The next chapter will focus on the summary, conclusions and recommendations based on the major findings of this research.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.0 Introduction

In this chapter, the summaries of the previous chapters that were employed in this research study are presented. In order to draw a conclusion and offer suggestions to the airlines in Zimbabwe, the research questions and objectives discussed in chapter one and the findings reported in chapter four were applied. This chapter also discusses the conclusions made in the preceding chapter's study of the impact of e-procurement on procurement efficiency in Zimbabwe's airline industry. This chapter also made recommendations for additional research areas.

5.1 Summary of Findings

Based on the first objective, the researcher sought to establish the use of e-procurement software on procurement performance.

- (i)** The researcher found out that the organisations uses SAP system as their integration system with other departments and also with the suppliers as a way of communication despite the fact that not all functions in these organisations are good in using this system, due to lack of knowledge of the system. Due to this system, administration costs including stationary costs and sourcing costs are seen to be reduced and time is being saved in this process. E-procurement impacts the operations of the organisations and brings about a change in procurement performance.
- (ii)** The researcher found out that data collected tally with the indicated statements in questionnaires and interviews that e-procurement software is effective and efficiency on procurement performance in procurement activities. The results support (Lysons &

Gillingham, 2003) argument that businesses have benefited significantly from installing electronic integration systems

- (iii) The researcher discovered that the benefits listed above typically encourage airline managers to invest in e-procurement, resulting in cost savings, increased quality, and enhanced relationships with suppliers, all of which lead to high profitability.

The second objective of the study was to establish the challenges being faced in the use of e-procurement on procurement performance among the airlines in Zimbabwe.

- (i) The researcher discovered that these organisations greatly appreciate and practice the use of e-procurement but it is being affected by numerous challenges that include poor infrastructure within the organisation that can support e-procurement initiatives and there is fear of unknown to implement change in the procurement structures of the organisations, so some procurement officers feel that their security is not guaranteed through the use of the internet.
- (ii) The researcher found that user departments at these airlines are not getting their needs met on time. This was brought on by departments' lack of staff who were knowledgeable about e-procurement software as a result of manual processes (SAP). As a result, the purchase activities would be delayed, which will damage the procurement performance.

5.2 Conclusions

(Collins, 2000) defined a conclusion as the result of deliberation on a topic or issue and careful consideration of what has been presented. Consequently, the research's findings were as follows.

5.2.1 Benefits E-procurement Software on Procurement Performance

The airline sector can extensively benefit and increase its performance through implementation of e-procurement. The benefits ranges from strategic benefits, transactional benefits, opportunity benefits and compliance benefits. The total organizational cost can be lowered if the e-procurement initiatives are taken into consideration.

5.2.2 Challenges Facing E-procurement Software on Procurement Performance in The Airline Sector

The findings show that the major challenge being faced in public and private procurement performance is the lack of financial resources. The Ministry responsible was not releasing adequate funds to cover for all the requirements within public and private airlines in Zimbabwe. This has been a major obstacle in service delivery since there are insufficient funds to cover all the purchases.

Lack of monitoring and evaluation in all contracts by the officials is another problem that impacts the procurement performance. Corruption hinders progress since funds are misappropriated thereby increasing loopholes within public procurement in Zimbabwe. In Zimbabwe as according to Tsabora (2014), corruption has been attributed to lack of formal procurement policy framework. Also the procurement process has been lacking transparency meaning there will be inconsistent and incomplete information regarding the whole procurement procedure.

5.2.3 The Relationship Between E-procurement and Procurement Performance Among Airlines in Zimbabwe

The study outcomes shows that there is a relationship between e-procurement and procurement performance due to high percentage of respondents who agreed on the fact that e-procurement is more effective over manual procurement. The need to improve and alter the current procurement systems in favour of e-procurement have been agreed to high percentages and that shows that the Airlines in Zimbabwe are still wanting on the IT systems which improves their corporate function.

5.3 Recommendations

In light of the findings, the researcher suggests the following in order to advance and adopt e-procurement software on the performance of procurement:

- (i) All users at the organizations should have access to system documentation, operational procedures, and training manuals as reference materials on how to utilize SAP software. These users include those who are involved in an organization's purchase process. The SAP system, including the SAP (MM) Materials Management application, should be familiar to user departments. If an employee is trained to utilize the e-procurement software, this improves the performance of the organizations.
- (ii) Mandatory full SAP software usage across all organizations for consistent operations
- (iii) To ensure the effectiveness of the sourcing procedures and real-time reporting of the sources and products available, these airlines should expand the use of their SAP software to a wide range of organizations' locations both inside and beyond Zimbabwean borders. Instead of relying solely on electronic catalogues and the standard database to find suppliers and items, the e-procurement process will be improved in this way.
- (iv) There should be segregation of roles in procurement, which entails a decrease in the number of people with the authority to maintain procurement records in SAP. This is done to guarantee that organizations adhere to the Principle of Privileges, which forbids using excessively high levels of access privileges for SAP operational roles.
- (v) An upgrade to the organizational structures inside the SAP software of the airlines in order to enhance the purchasing activities, authorisation flow, and procedure in order to maximize the procurement time and increase procurement performance.

5.3.1 To the Airline Industry

In order to minimize corruption and regain public trust, Zimbabwe's airline industry needs to establish a culture of openness and justice. In order to avoid purchasing unneeded or low-quality goods and services and to improve the performance of e-procurement on procurement operations, all undertaken procurement methods should not be fraudulent and a high level of openness should be maintained. The report also suggested that the organizations in charge of overseeing public procurement legislation work to guarantee that the rules and regulations are strictly followed. In order to prevent fraud and ensure that decisions are well-informed, procurement staff should uphold integrity. To do this, public bodies must ensure that requirements are met and that decisions are based on accurate information.

5.4 Future Research

This research focused on the Impact of e-procurement software (SAP) on the procurement performance of companies in the airline industry in Zimbabwe. However, the researcher advises conducting additional research on businesses outside the aviation industry or on businesses in a different sector in order to compare the effects of the SAP software on the procurement process at various organizations.

Several obstacles to the implementation of e-procurement were discovered during the investigation. Additional research is required to concentrate on the crucial success criteria for the adoption and implementation of e-procurement on the performance of the procurement process.

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APPENDIX 1: QUESTIONNAIRE

LETTER OF REQUEST

To whom it may concern

RE: RESEARCH ASSISTANCE

I am a final year student at Bindura University of Science Education, undertaking a Bachelor of commerce degree in Purchasing & Supply . I am conducting a research and the research topic is titled, **Impact of e-procurement software (SAP) on the procurement performance of companies in the airline industry in Zimbabwe**. I wish to collect data concerning how the e-procurement software affects the purchasing function activities and performance. Therefore, I am kindly requesting for your objective participation in this research study by completing this questionnaire. Your assistance will be greatly appreciated.

Thank you in advance for a favorable consideration in devoting in participating in this research study.

Yours faithful

S. Gatsi

E-mail address: silasgatsi94@gmail.com

Phone number: 0773 269 605

Supervisor: Doc Mukoka

SECTION A: RESPONDENTS' PERSONAL INFORMATION

(Please tick in the bracket [])

1. Gender male [] female []

2. Age 18-25[] 26-35[] 36-45[] Above 45 []

3. State your level of educational.

O'level [] diploma [] degree [] masters [] others [.....] (specify)

4. Indicate the department you operate under?

Procurement [] Finance [] Engineering [] Logistics [] Human Resources [] other [.....] (specify)

5. Which post do you hold in the company?

Executive [] head of department [] Supervisor [] line worker []

6. For how long have you worked in the organization?

0-3 years [] 4-6 years [] 7-9 years [] 10 years and above []

7. Name of your Corporation/Ministry
.....

8. Does your organization participate in e-procurement Yes [] No []

SECTION B: ORGANISATION INFORMATION

Use of e-procurement software on procurement performance.

9. Is e-procurement bringing any changes to the purchasing process of procuring goods and services in the organization? **Tick in the space provided**

Yes [] No []

10. How far do you agree with the following statements on the procurement performance of an organisation? **Tick in the space provided**

Statement	Strongly agree	Agree	Neutral	Strongly disagree	Disagree
E-procurement improves the procurement performance of the organization					
Better information flow between a firm and suppliers					
E-procurement led to time saving in the procurement process					

11. Have you ever got a problem or challenge in operating e-procurement application? **Tick in the space provided**

Yes []

No []

12. If above answer is 'Yes' what actions have you been taking to make yourself look better and competitive in the organization?

.....

13. Does e-procurement contribute to transparency? **Tick in the space provided**

	Strongly agree	Agree	Neutral	Strongly disagree	Disagree
Does e-procurement enhances transparency					

14. How reliable is e-procurement on management information and transactional benefits?

.....

15. Is e-procurement leads to product and service innovation due to good relationship with suppliers?

.....

16. E-procurement facilitates effective information sharing between functions, department and organisations? **Tick in the space provided**

Yes []

No []

Challenges facing e-procurement software on procurement performance in the airline sector

17. Challenges facing e-procurement software on procurement performance. **Tick in the space provided**

	Strongly agree	Agree	Neutral	Strongly disagree	Disagree
Lack of top management support					
Inadequate technological infrastructure to support e-procurement					
Low training levels					
Poor System Integration					
Lack of Performance Measurement Systems					
Lack of adequate Security and Authentication					
Non supporting organizational culture					
Corruption					
Inadequate accountability and control mechanisms					

18. Any other challenge that may not have been captured above

.....

To determine the relationship between e-procurement and procurement performance among airlines in Zimbabwe.

19. Relationship between e-procurement and procurement performance. To what extent has the organisation has improved its procurement performance through e-procurement

	Very Large Extent	Large Extent	Moderate Extent	Small extent	No Extent
Reduction of errors in order transmission					
Reductions in inventory					
Assured supply					
Transaction Cost reduction					
Improved procurement resource utilization					
Better contracts					
Stronger Vendor-Buyer Relationship					

APPENDIX II

Interview guide.

1. To what extent does your current procurement strategy affect the procurement performance?

.....

.....

.....

2. What challenges being faced in e-procurement system on procurement performance?

.....

.....

.....

3. What is the way forward in solving the challenges facing e-procurement?

.....

.....

.....

4. Do you have other ways, alternatives, options or systems of e-procurement?

.....

.....

.....

5. What measures were put in place to improve procurement systems as a way of improving procurement performance?

.....

.....

6. What measures were put in place to avoid corruption and Conflict of interest?

.....

.....

.....

The end. Thank you.