

**EVALUATING THE FACTORS AFFECTING ADOPTION OF E-
PROCUREMENT IN PUBLIC INSTITUTION: A CASE OF MAASAI MARA
UNIVERSITY**

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DECLARATION

Declaration by the study

This research project is my original work and has not been presented to any other examination body or university.

Name.....Signature.....Date.....

ODL-BML/5/00165/1/2015

Declaration by the supervisor

This research proposal has been submitted for examination with my approval as the university supervisor.

Name.....Signature

.....Date.....

Lecturer

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DEDICATION

I do dedicate this research project to the following my lovely wife Ruth and young boys Daniel, Nathan and Mathias, friends and all those who supported me during this period.

ACKNOWLEDGEMENT

I wish to thank the following people whose efforts and commitment can never be taken for granted. I first acknowledge the almighty God for his grace and favour on my own I could not have made it. I also thank my supervisor Mr. D. Komu for his constant guidance and advise. To my family I say thank you for the sacrifice you made and for your moral support. to all my friends and colleges at work thank you for according me a humble time to work on this document. for those who assisted in me to my friends for their encouragement and support too. Lastly I would like to acknowledge the entity MUA community for the good and conducive learning environment during my study period thanks a lot and God bless you.

ABSTRACT0720348879

This study aimed at evaluating factors affecting adoption of e-procurement in public institutions in Kenya. The specific objectives of the study sought to; examine how e-procurement solutions affect the adoption of e-procurement in public institution, examine how Standardization affect adoption of e-procurement in public institutions, assess how availability of resources required for e-procurement affect the adoption of e-procurement in public institution and establish how the volume of transaction affect the adoption of e-procurement in public institutions. Descriptive design was adopted for this study. The design is appropriate in collecting the opinion and views of the respondents with the aim of answering questions such as who, what, how, when and where. The target population was 500 permanent employees of Maasai Mara University. A sample size of 50 employees were selected using Stratified and simple random sampling methods. Data was collected from both primary and secondary sources whereby questionnaires and literature reviewing were done respectively so as to get detailed information. The questionnaire were pilot tested for validity and reliability before distribution to the respondents and they were found to be valid and reliable. Data was analyzed using descriptive statistics and they were presented using graphs, pie charts and frequency tables. The study established that Maasai Mara University did not employ the use of e procurement solutions in their procurement process. Indicating that their level of adoption was very low. The study also established that standardization of the goods procured had an effect on the adoption of e – procurement in the process. In regard to the resource availability, the study established that the university did lack resources but there was lack of management support in the adoption of the e procurement in the procurement process. The results further indicated that the university had enough volumes of goods to be procured that warranted them to adopt e procurement. The study established that only few respondents agreed with the statements indicating that the low level of adoption of e procurement in the university could not be attributed to e procurement solutions available, the standardization of the goods, resource availability or the level of volumes being procured by the university. The study therefore concluded that to enhance the procurement process the university is expected to reconsider the adoption of e procurement by selecting the most appropriate solutions that will ensure standardization of the goods that will utilize the available resources and have the ability to handle large volumes of procured goods to ensure effective use of the system. The study recommends that the university needs to adopt the best solution to enhance effectiveness in the procurement process and take care of the standards and volumes of the goods. There is also need for the university to develop a good resource base for embracing the e procurement platform in order to make the procurement process effective and efficient. The results of the study shall be of great benefit to the management of the university, the procurement department and other government institutions.

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LIST OF ABBREVIATIONS

MRP	Manufacturing Resource Planning
RBV	Resource – based view
PPDR	Public Procurement and Disposal Regulations
ICT	Information Communication Technology
EOQ	Economic Order Quantities
VMI	Vendor Management Inventory

OPERATIONAL DEFINITION OF TERMS

Technology

The entire infrastructure necessary for the design, manufacture, operation, and repair of technological artifacts.

CHAPTER ONE

INTRODUCTION TO THE STUDY

1.0 Introduction

The chapter discusses the background, from which the problem is defined the purpose of this study, the research questions, and the significance of the study, the scope and the limitation of the study.

1.1 Background of the Study

In the recent years the internet has had radical effects on corporate purchasing practice, in direct and indirect purchases (Amit & Zott 2001). It was further noted that most companies adopted various information technology such as Enterprise Resource Planning (ERP) and Manufacturing Resource Planning (MRP) in managing their procurement process in the last three decades. The aim of this move has been to manage the costs of the bought-in goods and services, there has been a need for procurement manager to raise their productivity and contribution in creation of value (Smart 2010). This has encouraged the interest in this study which sought to evaluate the effects that E-procurement has on company's procurement process.

According to Orr (2002) the cost of purchases can make up for 30%-60% of a firm's entire spending. This indicates that firms are expected to ensure that they adopt appropriate technology that assist them in the purchasing process making it more effective to reduce the cost that is involved (Puschmann & Alt 2005). In a similar study De Boer, Holmen and Pop-sister, (2003) indicated that to attain significant saving and/or value addition, business managers ought to focus on the purchasing process. Nevertheless, more attention has been on the supply chain for direct materials suppliers than indirect, because of their small transaction volumes, low value products and low strategic.

According to De Boer, Holmen and pop-(2003) procurement practices linked to the procuring of goods and services have been affected with problems, like unnecessary disconnected processes and inefficient buying non-strategic sourcing and emergency purchases. This argument helps to form a case for the, current study, as it provides as insight into the understanding of how to make the entire process more cost effective at the same time ensuring efficiency and effectiveness in the activities being undertaken.

Piotrowicz and Irani (2010) indicated that Purchasing can totally account for a large part companies' general expenses, mainly for services organizations. A great deal debate has been there about e-procurement solution and their advantages to the organization, but there seems to be little effort in the making the debate recommendations more practical. Lack of adoption of e-procurement in the public institutions has provoked the attention of the researcher on those factors and specifically learning institutions.

The procurement course frequently differs between companies as a result of activity times and relations with suppliers (Trkman& McCormack 2010). In order to understand the application of e-procurement in the organization, it was important to understand the procurement process which is among the most essential processes of a company. Presutti (2002) notes that e-procurement systems have the authority to change the purchasing procedure since it affects all the steps acknowledged. Presutti 2002, Puschmann & Alt (2005) E-procurement importantly simplifies the operational workload for buyers by spreading out the operation procurement course, thus

enhancing the efficiency of the procuring route and allowing buyers to concentrate on extra tactical missions.

According to Trkman and McCormack (2010) companies are taking e-procurement solutions. One needs to bear in mind that organizational changes can frequently bring even bigger saving than execution of a simple technology. According to Kalakota and Robinson (2001), there are five major problems facing procurement managers in a competitive business world. Attaining procurement software and incorporating it with company's back-office systems, raising the procurement role to a point of tactical value. There is an effective procurement role and its processes, with other corporate business functions such accounting, marketing and human resource. The aim of this study was to examine the factors that effect of adoption of E-procurement in public universities by focusing on Maasai Mara University.

1.2 Maasai Mara University

The university was started in the year 2008 as a constituent university of Moi University. It was chartered in the year 2013 when it became a full flagged university offering both certificate, diploma and degree programs. The university is located in Narok town and currently it has a student population of more than 10,000. The university has a work force of close to 900 including both the teaching and non-teaching staff. The university has a functional procurement department and being a public university, the university is expected to fully follow the provisions of the public procurement and disposal act of 2015. The university is using an electronic resource planning system in managing most of its operations. The university has been able to computerize some of its procurement operations so that it enhances the efficiency and effectiveness of the department. The effectiveness of the adoption of

the e- procurement platform by the university has not been studied as the university is still young and hence the need for this study.

1.3 Statement of the Problem

The goal of the research problem was to present the reader and researcher an accurate idea of the issue the research is attempting to clarify or investigate answer for. If there was some previous knowledge of the subject one was researching on, the research problem can be presented as a question (Metsamuuronen, 2006). For the purpose of this study the research problem starts from the fact that the achievement of e-procurement in business operation has not been great expected (Davila et al.2003).

Numerous businesses are still applying traditional procurement on purchasing goods and services regardless of the value or quantity. Quesada, Gonzalez, Mueller & Mueller (2010) established in their study on e-procurement that the increasing need for firm's procurement function to modernize its processes and create more value to the business is pushing procurement manager to discover new ways of making purchasing more competent. This study therefore sought to establish why, by focusing on the main question of the study; what are the factors affecting the adoption of e-procurement in public institution with reference to Maasai Mara University?

1.4 Objectives of The Study

1.4.1 General Objective

The main objective of the study was to assess the factors affecting adoption of e-procurement in public institutions, a case of Maasai Mara University.

1.4.2 Specific Objectives of the Study

Specifically, the study sought;

1. To examine how e-procurement solutions affect the adoption of e-procurement in public institution.
2. To examine how Standardization affect adoption of e-procurement in public institutions
3. To assess how availability of resources required for e-procurement affect the adoption of e-procurement in public institution.
4. To establish how the volume of transaction affect the adoption of e-procurement in public institutions.

1.5 Research Questions

This study seeks to answer the following research questions;

- i. To what extent does the e-procurement solutions affect the adoption of e-procurement in public institution?
- ii. How does standardization affect adoption of e-procurement in public institution?
- iii. To what extent does the availability of resources affect the adoption of e-procurement in public institutions?
- iv. What is the effect of volume of transaction undertaken by the organization on adoption of e-procurement in public institution?

1.6 Significance of the Study

The results of the study shall contribute to existing research in relation to the factors affecting the adoption of e-procurement in the purchasing process. This research is expected to benefit researchers by extending the knowledge base that exist already, assist present empirical evidence in relation to the factor's affection the adoption process.

The study shall be of significance to all procurement stakeholders, since many of them may be experience the same difficulties, as those encounter by other officers in the organization. The finding of this research could be generation more efficient. This study shall help to improve the performance of public institutions and reduce cost incurred in undertaken the purchasing for the organization. A thorough understanding of these factors shall ensure that the other department are more effective and efficient in their operation as they shall be able to get the required resource.

1.7 Limitations of the Study

This study was limited to the factors affecting the adoption of e-procurement in public institution such as Maasai Mara University. The study was also be limited to the four factors defined by the objectives that is; the various e-procurement solution available for the organization, Standardization issues of the e-procurement procedures, availability of resources required for e-procurement and volume of transaction undertaken by the organization on which literature was reviewed. Similar, the study will be limited to the sample size which consists of the employees in the procurement department at Maasai Mara University. And finally, the findings of the study were limited to the questionnaire as the main data collection instrument as it is assumed that the instrument be able to provide appropriate data for the analysis of the study.

1.8 Scope of the Study

The study only focused on examining the factors affecting the adoption of e-procurement in the public institution. The study takes note that there are many factors that may affect the adoption of e-procurement but for the purpose of this study the focus is on such factors as e-procurement solution available, standardization, the resources available for adoption and the volume of the transaction to be undertaken.

The study is being carried out at Maasai Mara University in Narok County. The study was carried out between the months of January to April 2021.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter presents the literature review on studies related to the current study. The chapter is organized to covered theoretical review, empirical and conceptual review relating to effect of e procurement adoption on performance of public institutions.

2.1 Theoretical review of literature

This study was guided by two theories; resource-based view theory and the systems theory. The theories are discussed as follows;

2.1.1 Resource Based Theory

The proponent of this theory is Werner felt (1984) and subsequently conceptualized by Barney's (1991). It notes that there is a relationship that exists between resources and the firm's performance. It is further noted that the success and sustainability of the firm including its ability to compete effectively depends on the unique resources that it possesses, by addressing the rapidly changing business environment. The theory has received positive contributions from other scholars such as Zahra and George (2012); Mahoney and Pandian (2012) and Dierickx and Cool (2009).

Among the critics of the theory is Lopez (2015) who indicated that by possession of resources an organizations competitive advantage is not assured unless the resources are effectively put to proper use. This theory addressed the utilization of resources to enhance performance of organization hence it was suitable for this study. The adoption of new technology is aimed at enhancing efficiency and effectiveness and supporting the current business operations in public institutions such as Maasai Mara University.

2.1.2 System theory

Systems theory, was postulated by Wang (2005). According to the theory information is assumed not to essentially engross any conscious mind, patterns circulating in the framework can be termed as information. As per Kang'ethe (2012), a system is a cluster of correlated and interacting elements, which work jointly to attain an ideal reason or set of goals. As such, one can say that information in this sense is something conceivably supposed as representation, however not made or presented for that reason.

According to Kang'ethe (2012), the need for efficiency and effectiveness is supposed to bring about harmony and synergy between the human resource as the core resource that controls other resources. The adoption of technology in procurement is aimed at enhancing the performance of the procurement process especial in the public institutions such as Maasai Mara University.

2.1.3 Technology Acceptance theory

The proponent of this theory was Davis (1986) who sought to explain the driving force behind the adoption of technological knowhow by firms in the business environment. According to Monyoncho (2015) the TAT is an IT system that deals with usage and the effect of ICT on customers and the firms operation (Mojtahed, Nunes & Peng, 2011).

The theory affirms that the user's behaviour determines the systems real utilization and intention for usage. It is also noted that perception towards new technology directly relates to its functionality as well as the simplicity of the system (Lim & Ting, 2012). The theory also purports that the recognitions or suspicions about the advancement are instrumental in the improvement of states of mind that will in the

long run result in system usage conduct (Lim & Ting,2012). The theory is applicable to this study in the sense that it explains how the procurement process can be made more efficient and effective in provision of their services which can be applied in understanding the how best to make procurement effective in public institutions such as Maasai Mara University.

2.2 Empirical Review of Literature

This section gives a description of the literature based on the four objectives of the study.

2.2.1 Various e-procurement solutions available for the organization

As per Lankford (2004) successful companies have effectively incorporated the Internet in managing their supply chain and they seize a competitive advantage over other firms without internets. E- Procurement process are and how they work. This research concentrates on examining these solutions, evaluating the standardization issues in the adoption of e-procurement.

Today competitive business environment has made it imperative for firm to continuously look for effective ways to compete. The past two decades has seen a drastic change in the role of strategic functioning of companies. Purchasing became a value-added resource to the firm when managed strategically. Infact the buyer, rely on strategic partner to achieve and sustain a competitive position (Submarian and Shaw, 2004). This increases efficiency of service and work and also improves speed which ensures time economization. IT ensures effective communication between buyers and suppliers and also with the organization.

Trkman & McCornack (2010) indicated that communication influences high performance and contributes to the achievement of an organization's goals. E-procurement is also an effective way of ensuring accuracy which minimizes costs and ensures profit maximization.

Knudsen (2003) noted that there are several categorizations for e-procurement, but common to all is that e-procurement entails diverse applications. The main variation between e-procurement and the traditional procurement system is that it lets employees to individually make order for goods and services direct from their computer terminal on the web (Croon & Johnson 2003). De Boer et al. (2002) split e-procurement to six forms: e-MRO, web-based ERP, e-sourcing, e-tendering, e-informing. A great number of diverse applications and systems of e-procurement are recognized in the literature. Most studies have focused on e- MRO solutions, which is the procedure of creating and commending purchasing applications (De Boer et al.2002). Such solution can be existing function in system for instance SAP, or entirely sovereign solutions incorporated in ERP applications (Smart 2010).

According to Angels & Nath (2007) implementation of an e-procurement solution is not an easy process. For instance companies executing e-procurement have to plainly realize the reason of initiating such a system. Kalakota and Robin (2011) note that so as to fully thrive in e-procurement accomplishment one needs to undertake the following; clarify the goal of the business: business must ensure that the business problem or aim is defined well and understood. Business ought to first establish what kind of purchasing the solution intentioned to support.

Presutti (2012) noted that the maximum value of businesses can be realized from implementation of an e-procurement initiative. However, the whole purchasing process must be evaluated to determine if it need to be reengineered. These factors become important to be entire process of procurement which is important to this study.

Croom and Brandom-jones (2005) noted that the primary motivation for companies adopting e-procurement solution has been cost reductions and process efficiencies. According to Davila et al. companies utilizing e-procurement solution report saving of 42 percent in purchasing transaction costs. Croom and Johnston (2003) established that e-procurement accomplishment can encompass up to 75% cost decrease in procurement course cost and 16 -18% decline in purchasing cost for indirect purchases. The saving that come out from automating the process and removing paperwork and human intervention, has assisted in reducing cost transaction and cycle time and automating the audit trail and approval process. Davila et al.(2003) examined the use of e-procurement and additional control over spending and this can reduce the headcount supporting purchasing transaction. It was further noted that e-procurement has a major effect on compliance of the procurement process.

2.2.2 Effect of standardization in the purchasing process

Attaran & Attaran (2012) noted that most organizations consider traditional purchasing methods more flexible especially those that are dealing with the new supplies, it was noted that the use of phone or email has revolutionaries the process of contracting and making the acquisition. The purchasing process can be made more effective and efficient specially when it is done alongside other daily operations.

Angeles & Nath (2007) indicated that standardization was regarded a key difficulty in e-procurement adoption. Once purchases are one –time-only or when the products or services procured are intricate and hard to normalize, the advantages from e-procurement are difficult to attain. It is noted that services and products standardization can cause confrontation among employees of services and products. Some organization have experience challenges relating to the descriptions of the products and services, arising from higher level are at times faulty, which makes it hard to use e-procurement in these purchases. This study seeks to establish whether the adoption of e-procurement in the organization help the organizations to ensure standardization of the products.

2.2.3 Availability of resources required for e-procurement affect the adoption process in public institutions

For e-procurement effectiveness it is important to understand the availability of resources. Croom& Brandon-jones, (2005) notes that many organizations have reported that at the moment of adoption their resources were so limited and there was no time for proper planning of adopting e-procurement. This study notes that there are various requirements in terms of resources that the organization require to ensure that the process of e-procurement adoption is appropriate technical skills.

Most organization has not been able to adopt to the new technologies in procurement due to the lack of time, financial resources, and requirement infrastructures. Although the gains in adopting e-procurement solution can be noteworthy, there are several internal and external risks linked to the adoption of e-procurement. Smart (2010) concluded that there has been a continuing problem with recognizing value from IT

investments and creating a case for IT introduction generally. This is why companies require an apparent plan for executing e-procurement technologies.

2.2.4 Volume of transaction undertaken by the organization and the adoption of e-procurement in public institutions

As identified in the theoretical description in the earlier stages in this research, in order for e-procurement to work properly, the transaction volumes need to be high. In most organization as noted by Presutti (2002) the volumes of indirect purchases solution; hence this affected the adoption of the E programmes. It was noted that almost half of their purchases were services, which are hard to standardize and are often bought only once. This review is appropriate for establishing the factors that influence the adoption process. This study attempts to fill the existing gap in literature by considering the fact that there have been limited studies focusing on effect of e procurement adoption among public institutions in Kenya.

Bertrand, Poutre&Luin (2006) asserted that cost has a direct effect on the procurement expenditure in the public service and it therefore becomes a major issue when it comes of the management of the procurement operations. Most companies and institutions are having a hard time trying to ensure that they effectively control their costs to ensure that they can effectively manage their operations. A study by Narkoty (2012) noted that in Ghana inventory is one of the largest asset's organizations have and hence there is a great desire to ensure that it is managed effectively. According to Nordin (2002) inventory costs can be reduced by implementation of reordering points as well as appropriate Economic Order Quantities (EOQ). Similar Humphreys, Shiu, Chan FTS (2001) established that

companies increasingly employ systems such as Vendor Management Inventory (VMI) system to be able to minimize the costs of inventory carrying costs. The use of ERP could be a better option for most small-scale businesses in the scheduling of inventory to ensure reduced costs and improved performance.

2.3 Summary of the Review and gaps to be filled

From the reviewed studies it can be noted that on e-procurement is the use of systems and not the adoption. For instance, Presutti (2002) noted that organization that procure large volumes of indirect purchases do not benefit from a comprehensive e-procurement solution, hence this affects the adoption of the E procurement programs. This is not the same for Maasai Mara University which purchase very large volumes at any given time. In relation to the budget of the university the study disagrees with the findings of Croom & Brandon-Jones, (2005) who noted that most organizations lack the resources to support E-procurement.

Angels and Nath (2007) and Yu, Yu, Itoga and Lin (2008) noted that implementing an e-procurement solution is not as simple as many businesses think implementing e-procurement need to clearly understand the purpose of launching such a system. This review therefore applies for much other organization. According to this study Maasai Mara University is exceptional because it has the resources required though the level of adoption of e procurement is noted to be very low.

This requires that the implementation process must be planned and executed thoroughly in order to minimize the challenges and risks companies might face. While indirect purchases can sometimes account for a big part of company's overall

spending it is important that also these purchases are conducted following company policies and instructions. Using e-procurement can act as a stepping stone for companies that are engaging in procurement for the first time before moving into comprehensive e-procurement which also involves direct purchase.

Literature has also shown that adopting e- procurement solutions provide substantial cost savings and other benefits, but there are also challenges and risks companies need to take into account when considering adoption of e-procurement. However, this requires that the implementation process must be planned and executed thoroughly in order to minimize the challenges and risks companies might face.

2.4 Conceptual framework

A conceptual framework is figure that shows how the study variables are to be measured and how they relate to one another. The independent variables are indicated by the three independent variables while the use of e-procurement in the dependent variable. This study seeks to make use of this conceptual framework in order to establish the factors that affect the effective use of e-procurement at Maasai Mara University. The conceptual framework has been shown from the following schematic diagram.

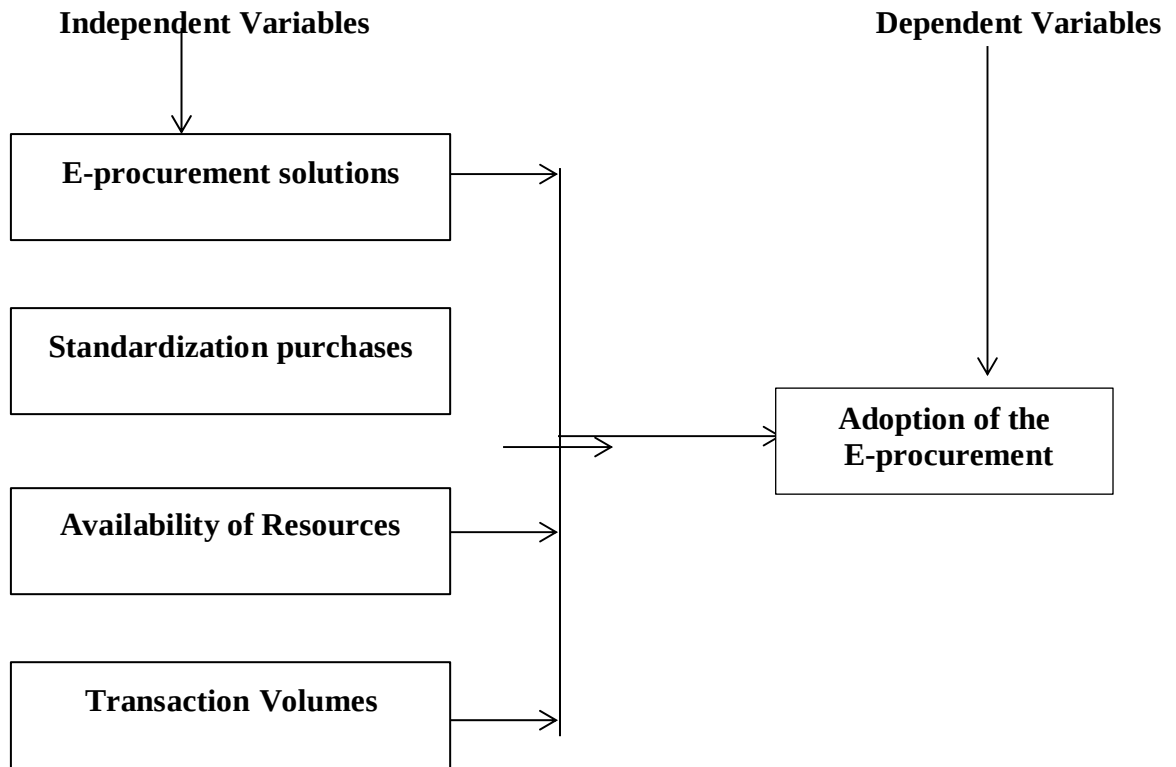


Figure 2.1: Conceptualization of the factors affecting adoption of e-procurement

Source: Author 2021

2.6 Operationalization of the variables

From the conceptual framework it can be seen that the adoption of the e-procurement is affected by the various factors which have been conceptualized as, the level of awareness of e-procurement solutions among the respondents from Maasai Mara University. From the figure it can be seen that the adoption of e-procurement depends on the understanding of the various e-procurement solutions that are available to firm to enhance the adoption. E-procurement solutions are considered as the various methods available for making the e-procurement process effective. Such solutions include; E-sourcing, E-tendering, E-payment to suppliers involves electronic generation and collection of invoices and arranging for payment and E-archiving provides reliable records of how a transaction has been carried out. This facilitates the carrying out of a transaction trail to ensure that the organizations procurement

procedures were adhered to. There is a direct relationship between the available e – procurement solutions and the adoption of E procurement in the firm. This relationship shows that when the e – procurement solutions are available then it is easier for firms to adopt the e- procurement in their operations.

On whether standardization of the purchases influences the adoption of e-procurement in the operations of public organizations, the figure shows that there is a direct relationship between the variables. A firm can only adapt to a n e procurement platform if it is able to have its operations standardized to the technological platform available. Since the process uses standard forms to communicate the information then a firm can only be ready to adapt to the plat form after they have the standardized form. Therefore +without proper standardization of the materials required to operate the e- procurement platform it might be difficult for a firm to adopt to the technology.

Adoption of e-procurement is also affected by the availability of resources by the firm. Technology is very expensive to install and operate. It therefore requires the firm to have appropriate resources in terms of both financial and human resources in order to effectively manage the operation. In this case resources have been conceptualized to cover financial ability, human resources skills and knowledge among others. There is therefore a direct relationship between the variables as shown by the figure.

For e-procurement to be effectively adopted this study notes that there is a relationship between the e-procurement process and the volume of transactions, that the institution is able to operate at any given time. E-procurement is only effective if the organization

considered the volume of transactions as effective enough for gaining lower costs. The cost factor can only be realized if the volume of transactions is big enough. Volumes are able to bring about economies of scale and hence efficiency and effectiveness in the operations.

2.7 Summary of the Chapter

The next chapter has presented related literature in in with e- procurement. The chapter has considered in depth what others have done in relation to factors influencing adoption of e-procurement both across the world and in Kenya. The chapter has also highlight the gaps that exists in the previous studies particularly the limited data on e- procurement in public institutions.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

3.0 Introduction

This chapter introduces the procedure for data collection and analysis. It discusses the research design, the population of the study, the sampling procedure, data collection tools and the procedure involved and the analysis that is used in providing relevant data for answering the research questions.

3.1 Research Design

This study used a descriptive case study design. The descriptive design of research is a process of collecting data in order to answer questions concerning the current status of the study. The design sought to collect data based on the opinion and experiences of the respondents in regard to the study. Larson and Lovelis (2012) observed that descriptive design is concerned with condition that exist. This design is appropriate because the study seeks to establish the opinion of the respondents regarding the factors affecting the adoption of e-procurement in public institutions. The design is also appropriate as it gives the respondents freedom to present their views and option within their work environment. The case study indicates that the data was used to collected from one specific organization that is Maasai Mara University for in depth analysis.

3.2 Target Population

The study targeted all the 500 permanent employees of the university consisting of both the teaching and the non-teaching staff who are users of the procured goods and services. According to the Human resource manager, Maasai Mara University

2020. These respondents are also in position to give their views and opinion on what they perceive of the purchasing process in the organization in relation to their work.

3.3 Sample and Sampling Technique

Sampling is a process of selecting few respondents to participate in a research process. This was done to ensure effectiveness in the data collection process when the population is very vast and there are limited resources of time and finances. Because of the vastness of the population the study used both purposive and simple random sampling method to select the appropriate sample for the study. All the employees working in the procurement department were purposively selected in order to give data regarding. The simple random was used to select the sample from among the other employees in of the institution.

A list of the employees from other department in Maasai Mara University was obtained from the Human resource department and every k^{th} person will be selected from the list to make the sample. For the purpose of this study a sample of 50 respondents was selected. This represents 10% of the study population. This sample is within the 10% minimum sample size for a descriptive analysis as proposed by Meredith, Walter and Joyce (1996), and Kothari (2004), indicated that for a large population a sample of not less than 10% is appropriate as a representative sample.

3.4 Instruments

The study collected both primary and secondary data. The primary data was collected directly from the field respondents using a questionnaire while secondary data was collected from documented data at the procurement department of the university. The researcher used the questionnaire as the main instrument of data collection, since they permit coaction of data from a population that is diverse and is expected to give their

opinion about the study variables. According to Kothari(2004) questionnaires have the advantage of ensuring that the respondents who have limited time can create their own time to respond to the instruments. They also save time and cost as they can be used to reach more people at the same time. It is also easy to enhance their consistency. Questionnaire are set of questions, open and closed which requires the respondent to divulge some information or reaction in regards to a given issues or situation. The study used both open ended and closed questions, the respondent is free to respond to various issues depending on their person viewpoint, shared perception as well as divulging suggestive desired cause of action.

On the other hand in closed question the respondents is limited to a five scale linker response of strongly disagree, disagree, not sure, agree and strongly agree, in response to structured inquiry. The questionnaire is organized into 5 sections: section A covered the demographic factors of age, gender, education level and years in service. The second section B, had five question on the level of awareness of the respondent on e-procurement , section C, had five questions covering the element of standardizations of the purchase, section D had four question finding out the availability of resources and lastly section E had five statement the volume of purchase.

Under each section the respondent were required to respond to open question that led to the identification of any other important factor that had not been covered but the employees were aware off. The respondent were asked to give their views on whether the management is commitment to ensuring that the adoption of e-procurement is possible or and whether they that e-procurement is important to the institution.

3.6 Pilot study

After the questionnaires are developed, the researcher consulted with the supervisor to approve and validate the questionnaire. After validation, the questionnaire was pilot tested on five university employees who were asked to make any relevant comments about the questions. All the comments were incorporated in the study and the internal consistency of the questionnaire tested. According to Mugenda and Mugenda (2003) a sample of between 1-10% of the population is appropriate for use in the pilot study. For this study therefore 5 respondents were selected and used for the study.

3.5.1 Validity

Validity refers to the ability of a research instrument to provide the required data (Mugenda and Mugenda, 2003). To ensure validity of research instrument the researcher will ensure that the questionnaires are well designed and the questions are well and clearly framed without any difficulty of interpretation by giving it to research supervisor to ensure they are valid. Another independent person from the university procurement department was requested also to validate the questionnaire.

3.5.2 Reliability test

Reliability of a research instrument is the ability of an instrument to produce similar findings drawn subjected to different samples drawn from the same population. Reliability of research instrument is done by a pilot study being conducted by the researcher from a proportion of the sample that will be used for the study. The pretest was done on employees who were not used for the study. For this study a reliability coefficient of 0.73 which was above the threshold of 0.7 was obtained from the results of the study and hence the study was considered reliable. This is according to Kothari (2004) who suggested a reliability coefficient of 0.7 and above as being appropriate.

3.6 Data Collection Procedure

After preparation of the questionnaires and the approval by the supervisor the researcher consulted with the university management and the procurement department to be allowed to collect the data. This is expected to take place within two weeks. The questionnaires were collected back for the analysis after the two weeks.

3.7 Data Analysis and Presentation

After data collection the data was analyzed both qualitatively and quantitatively. Quantitative data was analyzed using both descriptive and inferential statistics. Descriptively the data was analyzed using mean, percentages and frequencies. For inferential data analysis the Pearson correlation and simple regression will be used to assess the relationship between the variables. Qualitative data was analyzed using appropriate themes drawn from the open-ended questions. The findings were simplified and presented using tables and graphs. The researcher coded the data and using Microsoft excel software analyzed and present the results.

3.8 Ethical Considerations

The respondents are always concerned about their privacy and the confidentiality of the data they provide to outsiders. This section describes how this was ensured in the study

3.8.1 Informed Consent

The researcher visited the university and seek permission from the management and also request to talk to the respondents and seek their approval to participate in the study.

3.8.2 Voluntary Participation

The participations were assured that their participation is by choice and hence they are at will to participate. None of them were forced to participate in the study. The

researcher presented the objectives of the study to them as an assurance that the results sought are not to be used for any other purpose in order to gain their confidence.

3.8.3 Confidentiality

Respondents are always concerned about the use of the data provided to the outsiders. The researcher took time to ensure that the respondents confidentiality is assured by instructing them not to have any of their identity written anywhere in the questionnaire.

3.8.4 Privacy

The researcher assured them of their privacy by assuring them that the information provided will be treated with ut-most good faith and that it will be used only for the study and not for any other purpose.

3.8.5 Anonymity

The researcher will request that the respondents don't write their identity anywhere on the questionnaire.

3.9 Chapter Summary

This chapter has discussed the research plan by stating the research design the target population sample size and sampling procedure, validity and reliability and the data analysis procedure. The chapter has given a step by step procedure of collecting the and analyzing the data.

CHAPTER FOUR

DATA ANALYSIS AND PRESENTATION.

4.1 Introduction

This chapter presents the results of the findings and gives the interpretation thereof. The study sought to establish the effect of; the results were presented based on the research questions investigated in this study. The data was presented in tables, charts, and graphs. This made easier to understand what was investigated and analyzed. The results were organized on the basis of the objectives, for easier analysis the study combined the disagree and degree was combined to show that the respondents disagreed with the statement. The open-ended questions were used to back up the data analyzed for each objective.

The researcher distributed a total of 50 questionnaires and through constant follow up he was able to collect all the questionnaires back. On screening the questionnaires, the researcher was satisfied with the response rate and hence all the 50 questionnaires were used for the analysis. The study therefore had a 100% response rate.

4.2 Response on the demographic Characteristics of the respondents

The researcher established the background information of the respondent since it forms the bases of the respondent participating in the study. The background information included: gender, age and level of education of the respondent. The employee's response to the questionnaire and the findings were presented in the section below.

4.2.1 Gender of the respondents

Gender plays an important role when assessing the views and perception of employees about certain situation. This study on the study on the factors affecting the adoption of e-procurement on the performance of an organization. The result obtained was presented on table 4.1.

Table 4.1: Gender of the Respondents

Gender	Frequency (f)	Percentages (%)
Male	35	70.0
Female	15	30.0
Total	50	100.0

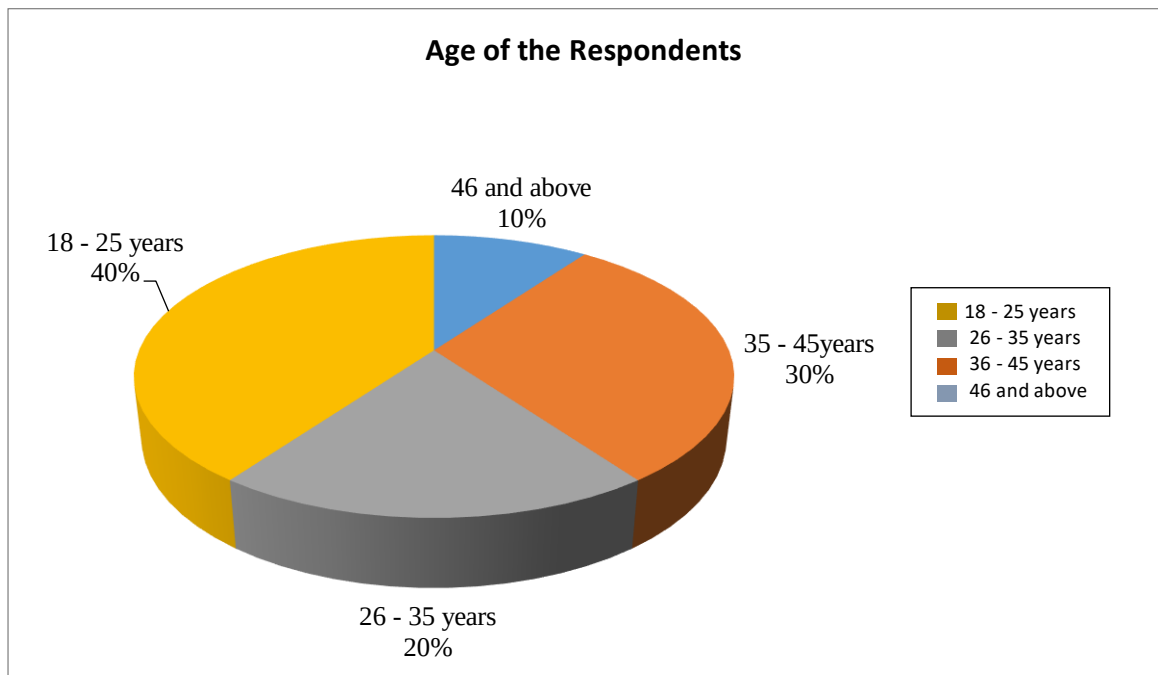
Source: survey 2021

The result of this study presented on table 4.1, and it is clear that majority of the respondent 35(70%) were male while 15(30%) were female. This show that majority of the respondents were male, however it was hoped that the results of the study would not be biased, the results were taken to be representative of the entire population. This implied that there were more male employees than females who participated in the study from the various department at Maasai Mara University.

4.2.2 Age of the Respondents

Age was considered important for this study because it is also an important aspect that helps to define the views and the opinions of different people in a given situation. This study notes that peoples respond different to various issue depending on their age as it defines the level of maturity. For this study age was considered because it helped to define the understanding of various employees on the procurement process at the institution.

Figure 4.1: Age of the Respondents



Source: Survey, (2021)

The study revealed that most of the respondents were aged between 18-25 years with 20(40%). Those aged between 36-45 years were 15(30%) those between 26-35 years were 10(20%) while the remaining few above 46 years are rated at 10%. This implies that majority of the work force are young adults and they are in their productive stage and needed by the university. This shows that majority of those employed at the university in various department were young adults who understand the role of ICT on procurement adoption process.

4.2.3 Respondents level of education

The level of education was also an important aspect of this study because it also helps to bring out the difference in the views of individual on specific job related issues. The results were presented in table 4.2.

Table 4.2 Respondents level of education

Education Level	Respondents (F)	Percentages (%)
O' level	8	16
Middle level college	30	60
University	12	24
Total	50	100

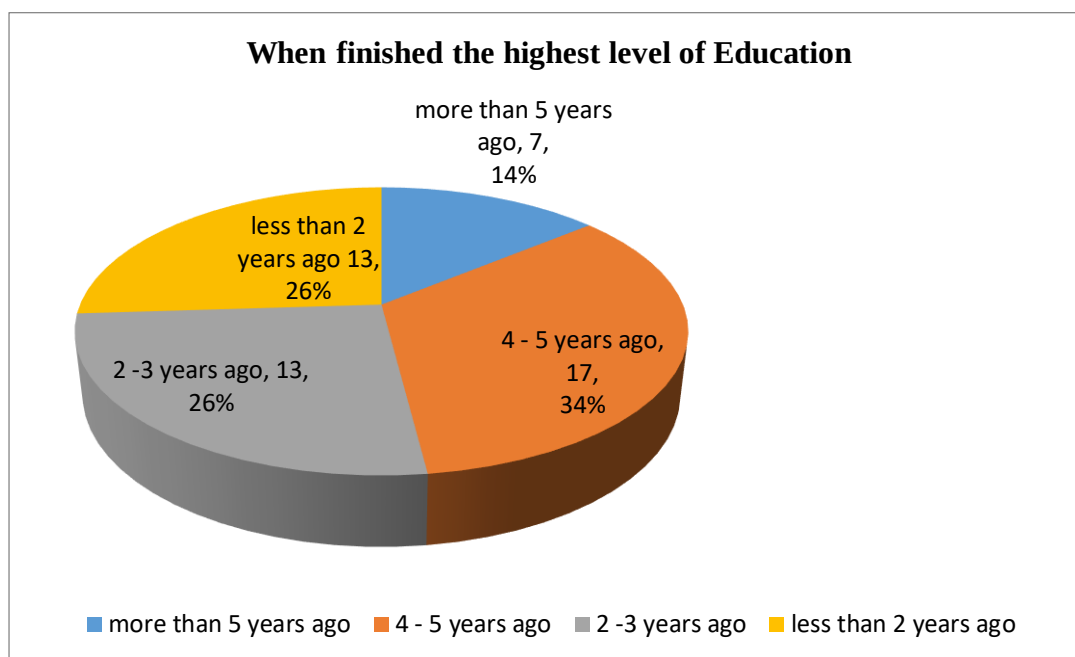
Source: Survey 2021

This research results in table 4.2 shows that the majority 30(60%) of the university employees are college level graduates, followed by graduates 12(24%) and only 8(16%) were O'level. This shows that most of the employees at the university hold diplomas and certificates from middle level college. This shows that they have the basic education required to work in higher learning institution and hence they are in a position to understand the various procedures being undertaken including the procurement procedures.

4.2.4 When did you finish your highest level of education?

It was also important to find out when the employment had completed their highest level of education. The responses was presented in figure 4.2.

Figure 4.2 Years after Completing Highest Level of Education



Source: Survey 2021

The result presented on figure 4.2 show the response of the employees regarding the years after completing their highest level of education. It was noted that majority of the respondents 17(34%) had completed their highest level 4-5 years ago, the next 13(26%) had completed their highest education level between 2-3 years ago.

4.2.5 Department Where Respondents Work

It was important for the respondents to indicate their departments as the study sought to establish the factors that affect the adoption of the e-procurement and since procurement affects all the department then it was important to get views of employees from the entire department in the institutions. The results were shown in table 4.3

Table 4.3: Department where respondent where worked

Department	Frequency (f)	Percentages (%)
Procurement department	19	38.0
Marketing department	10	20.0
Administration department	10	20.0
Accounts department	11	22.0
Total	50	100.0

Source: Survey 2021

The results presented on the 4.4 shows that majority of the respondents 19(38%) of the respondents were in the procurement department, in marketing department there were 10(20%) administration department there were 10(20%) and from the accounts department they were 11(22%) of respondents. Since the study was focused on the procurement department, it was important to have the highest number of respondents who could give us the correct picture of the adoption of e-procurement.

4.2.6 Awareness of the purchasing process

It was important to establish whether the respondent were aware of the purchasing processing because their awareness was a sign of their understanding of the process. From the responses it was note that all 50 (100%) of the respondent who participated in the study from the four department where the sample was obtained were aware of how purchasing was done in the institution, this showed that they had basic knowledge to enable them participate in this study.

4.2.7 The overall percentage cost spends by the university on purchases

The study sought to establish the responses on the overall cost that is spend on the purchases of supplies by the university. The result were present in the table 4.4

Table 4.4: Overall percentage cost spend on purchasing by the University

Responses	Frequency (f)	Percentage (0%)
40-50%	11	22.0
60-70%	11	22.0
70-80%	28	56.0
Total	50	100.0

Sources: Survey 2012

The result of the study presented in table 4.4 shows that most of the respondents 28(56%) said that 70-80% of the overall coast of the university is spend on the purchases. The next 11(22%) 60-70% while another 11(22%) indicate 40-50% as the percentage of the total cost of procurement at the university. this show that the highest expenditure by the university is in the purchase. This show that majority of the respondents said the university spend a lot of its coast on the purchases. This is an indication that there is need for the university to consider the adoption of e-procurement to reduce the cost incurred in the procurement process.

4.3 Awareness of E-Procurement Solution Available for the Institution

The study also sought to out whether the respondents were aware of any e-procurement solutions available for use in the procurement process by the institution. The respondent were required to indicate their level of awareness on scale of 1-5 please indicate against the e- procurement solution used by the university in the procurement process. Where 1- strongly disagree, 2- disagree, 3- not sure, 4- agree,

5- strongly agree. The study however used 3 level of response to indicate that the respondents agree, is no sure or disagree. The result were presented in the table 4.5

Table 4.5 Response on various e-procurement solutions available for use in the university

E-procurement solutions	Agree		Not Sure		Disagree	
	F	0%	F	0%	F	0%
The university uses e-MRO during procurement	19	38	0	0	31	62
Web-based ERP is available for use in the procurement process at the university	21	42	2	4	27	54
E-sourcing is used by the university to make the procurement process effective	16	32	12	24	22	44
e-tendering is one of the solution used by the university in the procurement process	14	28	0	0	36	72
E-informing is used as a procurement solution to make the process more effective	13	26	7	14	30	60
Average	17	34	4	8	29	58

Source: Survey 2021

From the result in the table 4.6 in is clear that the majority of the respondent disagreed with the most of the statements which means that the e-procurement solution identified were not in use at the university. The study established that 31(62%) of the respondents disagreed with the statement against only 19(38%) who agreed with the statement that e-MRO solutions was used during the procurement of good and services at the university.

On whether the university used web-based ERP as a procurement solution, the results show that 27(54%) of the respondents disagreed while 21 (42%) agreed with the statement while only 2(4%) of the respondents were not sure of the statement. This implies that most of the respondents were not familiar with the use of the ERP in the procurement process.

The study also sought to assess the effect of E-sourcing is used by the university to make the procurement process effective. The respondents were asked to indicate their level of agreement on whether the university used the E sourcing platform and how it affects the procurement process. The results show that most of the respondents 22(44%) disagreed with the statement, 16(32%) agreed and only 12(24%) were not sure. This implies that most respondents were not aware of whether the university uses E sourcing in their procurement process.

The respondents were also asked to indicate whether they use e-tendering as one of the solution used by the university in the procurement process. The results show that majority of the respondents 36(72%) disagreed with the statement and 14(28%) agreed. This indicated that e tendering was not very familiar among the respondents apart from only a few who were mainly from the procurement department.

In regard to whether E-informing was used as a procurement solution to make the process more effective. The study established that most of the respondents 30(60%) did agree with the statement while only 13(26%) agreed and 7(14%) were not sure. This indicated that E informing was not widely used in the university to enhance

procurement process. This again implies that e- procurement was not common among the university staff and hence it was not widely applied.

The results show that there is limited use of the e procurement solutions among the respondents from Maasai Mara University. On average most respondents indicated that the use of e procurement was not very well known among the respondents. The study noted that from the responses only two E solutions seemed to be in use at Maasai Mara University. This minimal use could be attributed to lack of knowledge in the use of the E procurement solutions among the employees from the other departments apart from the procurement department. The study therefore noted that low adoption of E procurement at the university could be attributed to the lack of use by most of the departments and lack of knowledge among the respondents.

4.4 Effect of Standardization of Purchases on the Adoption of E-Procurement

This study sought to establish whether standardization is a factor affecting adoption of e-procurement. On a scale of 1-5 please indicate against the e- procurement solution used by the university in its procurement process. Where 1- is strongly disagree 2- disagree, 3-not sure, 4-agree 5-strongly agree. The study however used 3 level of responses to indicate that the respondent agrees, is no sure or disagrees. The results were presented in table 4.6.

Table 4.6: Response on the effect of standardization on the adoption of e-procurement

	Statement	Agree		Not sure		disagree	
		F	%	F	%	F	%
1	It is not possible to standardize the various items required for purchase by Maasai Mara University through e-procurement	7	14	13	26	30	60
2	E-procurement is very flexible since it can be adopted to most functions in the university most effectively	19	38	15	30	16	32
3	E-procurement can be made more effective if the standardization process can be appropriate done.	24	48	10	20	16	32
4	Difficulty in standardization of the items used in the procurement process at the university makes it difficult to adopt to e-procurement	27	54	12	24	11	22
Average		19	38	12	24	19	38

Source: survey 2021

The results show that most of the respondents 30(60%) who participated in the study disagreed with the statement that it is not possible to standardize the various items required for purchase by Maasai Mara University through e-procurement. Only 7 (14%) agreed with the statements while 13(26%) were not sure. This indicates that there is a possibility of the university standardizing their procurement procedures through the adoption of e procurement.

The results also show that majority of the respondents 19(38%) agreed with the statement that E-procurement is very flexible since it can be adopted to most functions in the university most effectively. While 16(32%) disagreed and 15(30%) were not sure of the response. This implies that the respondents feel that e

procurement is very flexible and its adoption can help to improve procurement process.

On whether E-procurement can be made more effective with appropriate standardization process, the results show that most of the respondents 24(48%) agreed with the statement, 10(20%) were not sure and 16(32%) disagreed with the statement. This implies that with appropriate standardization of the procurement process it is possible to adopt E- procurement at the university.

The study also sought to assess whether the difficulty in standardization of the items used in the procurement process at the university makes it difficult to adopt to e-procurement. The results show that most of the respondents 27(54%) agreed, 12(24%) were not sure and 11(22%) disagreed with the statements. This implies that standardization helps to enhance adoption of E procurement and hence makes the procurement process effective. this therefore means Masai Mara university still suffer from standardization of its purchases and make it very difficult for them to adopt to the use of e-procurement. This indicates therefore that standardization is a factor that affects the adoption of e-procurement and hence the effectiveness of the procurement process in public universities.

4.5 The Availability of Resource Required for e-Procurement Affect and Adoption Process in Public Institutions.

The third objective of the study was to establish whether availability of resources required for e-procurement adoption in the university affects the adoption process. The respondents were asked to give their response indicating whether the adoption of

e-procurement was hindered by the resources that are required by the systems. The results were presented on table 4.7

Table 4.7: Responses on Whether Resource Availability Affects the Adoption of E-procurement.

	Statement	Agree		Note sure		Disagree	
		F	%	F	%	F	%
1	e-procurement requires expensive facility to enable its adoption,	21	42	7	14	22	44
2	The university lacks the appropriate human skills to affect the e-procurement process	29	58	10	20	11	22
3	Network connectivity resources are not easily available to make the university adopt technology	22	44	5	10	23	46
4	The university is not ready for the adopted of e-procurement because of the laxity of the management to commit to the process of adoption.	38	76	4	8	8	16
5	The university lacks the financial resources to enable the adoption process of e-procurement	24	48	8	16	18	36

Source: Survey 2021

On whether the resources are available or not for the adoption process. It is clear that most of the respondent 44% disagreed that e-procurement requires expensive facilities to enable its adoption which means the facilities are not expensive to affect the adoption of e-procurement. While 21 (42%) agreed with the statement and only 7(14%) were not sure of the statement. This implies that the cost of the e procurement equipment makes it difficult for the university to adopt the e procurement in their procurement process.

The study sought to examine whether the university lacks the appropriate human skills to affect the e-procurement process. The results have shown that 29 (58%) of the respondents agreed, 10(20%) of the respondents were not sure and 11(22%) disagreed with the statement indicating that the university lacks appropriate human resources with skills to effectively utilize the e procurement.

On whether network connectivity resources are easily available to make the university adopt technology, the study noted that majority of the respondents 23(46%) disagreed with the statement, 22(44%) agreed while 5(10%) were not sure of the statement. This implies that the poor network connectivity might have an effect on the adoption of e procurement at Maasai Mara University.

The study also sought to assess whether the university is ready for the adopted of e-procurement because of the laxity of the management to commit to the process of adoption. The results indicated that majority 38 (76%) of the respondents indicated that the university is not ready for the adoption of e procurement, 8(16%) disagreed with the statement while 4(8%) were not sure of the respondents. This implies that the university is not ready for adoption of e procurement due to the laxity in the management commitment and this has affected the operations of the procurement.

The study also sought to examine whether the university lacks the financial resources to enable the adoption process of e-procurement. The results show that most of the respondents 24(48%) agreed, 18(36%) disagreed and the rest 8(16%) were not sure . this implies that though most respondents felt that the university lacks the financial resources to adopt the E procurement process a good number also felt that finance is not the greatest obstacle for the university.

This clearly show that the adoption of e- procurement by the university might not be hindered by the availabilities of financial resources, the respondent feel that the university has the capacity to adopt to the new technology only that there is laxity in the management.

4.6. The Effect of Volume of Transaction Undertaken on Adoption of e-procurement

The last objective of the study was to establish whether the volume of transaction undertaken affected the adoption of e- procurement by the university. The study noted that the effectiveness of e-procurement in the organization was influenced by the volume of traction that were to be undertaken. The view and opinions of the respondent were present in the Table 4.8

Table 4.8: Response on Effect of Volume of Transaction Undertaken on Adoption of E-procurement

Statement	Agree		Not sure		Disagree	
	F	%	F	%	F	%
1 The university does not purchase large volume of supplies to use the e-procurement systems	0	0	9	18	41	82
2 Because of the lack finances it is not possible to have enough volumes for economic use of the e-procurement procurement system	0	0	7	14	43	86
3 The departments use different items which make it difficult to have the required volumes to support the e-procurement	28	56	10	20	12	24
4 E-procurement only be adopted in fewer areas of the institutions hence it is difficult to have appropriate volumes to use e-procurement	2	4	13	26	35	70
Average	8	16	10	20	32	64

Source: survey 2021

The study sought to find out whether the volumes procured by the university have an influence on the need for the university to adopt an E procurement process. The results indicated that majority of the respondents 41(82%) disagreed while 9(18%) were not sure that the university does not purchase large volume of supplies to use the e-procurement systems. This implies that university has large volumes of purchases to be made and hence the volumes might not be contributing factor to the lack of adoption of e-procurement.

The study also noted that majority of the respondents 43(86%) disagreed with the statement that the lack finances have made it impossible to have enough volumes for economic use of the e-procurement system. This implies that the university does not lack finances to ensure they purchase enough volume to enhance the adoption and the use of e procurement system.

On whether the departments use different items which make it difficult to have the required volumes to support the e-procurement. The results show that 28(56%) agreed compared to 12(24%) who disagreed and 10(20%) who were not sure of the statement. This indicated that to an extend the diversity in the procurement volumes of different items makes it difficult for the university to adopt a specific e-procurement system.

On whether E-procurement can only be adopted in fewer areas of the institutions hence it is difficult to have appropriate volumes to use e-procurement. The study established that majority 35(70%) of the respondents disagreed while only 2(4%) agreed. This indicates that though different goods in different quantities are purchased by the university, it does not give justification for the university not to adopt E- procurement.

The results of the study shows that majority of respondents 64% disagreed with most the statement that describes the effect of volume of purchases on e-procurement adoption at the university. While only 16% agreed. This means that the respondents did not believe that the university does not have the required volume to make it adopt to the use of e-procurement. The study therefore indicates that the volume of purchase are not a factor to justify the non-adoption of E procurement technology to enhance the procurement process.

4.7 The Institution readiness on adoption of e procurement

The respondents were also asked to indicate their responses regarding the level of readiness for adoption of e procurement by the university. The responses were presented in table 4.9

Table 4.9 Responses on the readiness of the university on adoption of e-procurement in the future

Responses	Frequency (f)	Percentages (%)
Disagree	0	0
Not sure	27	54.0
Agree	23	46.0
Total	50	100.0

Source: Survey 2021

From the result shown in table 4.9, it is noted that majority of the respondents 27(54%) were not sure on whether the university had plans of adopting e-procurement in order to enhance the procurement process or not. Only 23(46%) of the respondents seemed to be sure of the readiness by the university. This implies that the decision of readiness of the university to adopt e procurement could be known to only few people in the institution.

4.7 Summary

This chapter has presented the views and opinions of the respondents in respect to the four objectives that guided the study. The results which were analyzed and presented in tables and charts. The summary and conclusion of the study were presented in the next chapter five.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The chapter was presented based on the study objectives. The summary, conclusion and recommendations were drawn from the results. The study was guided by the following factors, determine the various e-procurement solutions available for the organization, examine the effect of standardization issues of the e-procurement procedures in the purchasing process, assess whether availability of resources required for e-procurement affects the adoption process and to establish whether the volume of transaction undertaken by public institutions affects the adoption of e-procurement in public institutions. The summary of the findings are presented based on the findings as presented in chapter four.

5.2 Summary of findings

The study established that majority of the respondents who participated were male meaning that the opinions of the males explained the adoption of e-procurement in the public institutions. Most of the respondents were aged between 18-25 years with very few being above 46 years meaning that majority of the work force are young adults and they are in their productive stage and their effort was therefore needed by the university and they understand the role of ICT on procurement adoption process.

On the level of education majority of the employees of the university employees are college level graduates and also a good number were graduates with a few having attained O' level education this shows that the employees were well educated. Majority of the respondents had completed their highest level of education between 4 – 5 years ago while the rest had completed between 2 – 3 years ago.

Since this was procurement projects majority of the respondents were selected from the procurement department with the rest being selected randomly from the other departments. The study also noted that all the respondents were aware of the purchasing process in the organization. And they indicated that the procurement process affects employees work at the university.

5.2.1 Various E-procurement Solutions Available for the Organization

Regarding objective one the study established that most of the respondents disagreed with the statement meaning that the university has not fully adopted the use of e-procurement in its operations. It is also clear that some of the respondents were not sure of whether the solutions heightened existed or not. On the use of e-MRO during the procurement of goods and services, majority disagreed with the statement which means that e-MRO was not used at all at Maasai Mara University.

Regarding web-based ERP only also majority were not sure of its use. From the responses only two solutions seemed to be in use at Maasai Mara University; E-sourcing with some agreeing similar to e-information with a few agreeing, however they still had a high disagreement rate which means that very few employees specifically from the procurement department were aware of the two solutions. The results indicate that the lack of awareness by the respondents of the various e-procurement solutions is a factor that affects the adoption process. This is because a good number of the since the respondents are not aware of the solutions available they may not be in a position to demand that the organization adopts them for use to make the procurement process more effective. It was however established that the adoption of the e procurement solutions is a critical factor in enhancing the procurement process at the university.

5.2.2 Effect of standardization issues of the E-procurement procedures in the Purchasing Process

Standardization is among the factors that were established to affect the e-procurement adoption in the public procurement process. The respondents were asked to respond to various statements that helped to establish the effect of standardization on the adoption of e-procurement. On whether it was possible to standardize the various items required for purchase by the university through e-procurement. The results showed that it was possible for the institution to standardize the various item for e-procurement use. This means that there was a feeling among the respondents that the institution can be able to standardize the various items used by the institution so that they can be used in e-procurement.

On whether e-procurement is considered very flexible since it can be adapted to most functions offered by the institution. The results of the study showed that majority of the respondents' said that e-procurement is very flexible since it can be adapted to most function effectively. The rest of the respondents were not sure whether the e-procurement is flexible since it can be adapted to most function in the institutions.

This shows that the respondents were aware of that e-procurement can be very flexible since it can be adapted to the institutions purchasing process. It was also important to establish whether E-procurement can be made more effective if the standardization process can be appropriately done. Most respondents indicated that e-procurement can be made more effective if the standardization process can be appropriately done. This clearly shows that the respondents were quite aware of the role of standardization in ensuring the adoption of e –procurement in the institution.

5.2.3 The availability of Resources Required for E-procurement Affect the Adoption Process in Public Institutions

The third objective which sought to assess whether the adoption of e-procurement requires high-cost resources for its adoption. Majority of the respondents agreed that the e-procurement requires high-cost resources for its adoption while the rest were not sure of the statement. This means that the university has not yet adopted e-procurement due to high cost of resources required for this adoption.

On whether the university does not have the required human resources with the skills needed, the results indicated that majority of the respondents disagreed that the university lacks the appropriate human skills to affect the e-procurement process. Only a few of the respondents agreed that the university lacks the human skills required for the effective adoption of e-procurement. This clearly means that the adoption of e-procurement is not hindered by the lack of skills in the university.

The results of the study showed that majority of the respondents agreed that the lack of e-procurement adoption at the university may not be attributed to the lack of connectivity resources. The rest of the respondents were not sure of the statement. This clearly shows that the lack of adoption of e-procurement at the university may not be attributed to the lack of network connectivity resources at the university or whether the university is ready or not for the adoption of e-procurement.

The results of the study showed that most of the response agreed that the university was not ready for the adoption of e-procurement, a similar response indicated that they were not sure of whether the university was not ready and the rest of the respondents disagreed that

the university is not just committed to the adoption of e-procurement otherwise this has the required resources for the adoption.

5.2.5 The effect of Volume of Transaction undertaken on Adoption of E-procurement

The last objective of the study was to establish whether the volume of transaction undertaken affected the adoption of e-procurement by the university. The study noted that the effectiveness of the adoption of e-procurement in the organization was influenced by the volume of transactions that were to be undertaken. The views and opinions of the respondents were provided where the study establish that whether the university purchases enough volumes to influence it in the adoption of e-procurement. Majority of the respondents disagreed with the statement that the university does not purchase large volumes to influence it from the use of the e-procurement processes. The other 28% of the respondents were not sure of the statement.

This shows that majority of the respondents were of the opinion that the volumes of purchases of the university were large enough to influence the adoption of e-procurement the lack of adoption may therefore be a result of other factors other than the volumes of purchases. On whether the lack of standardization affects the volumes of purchases required for use of the e-procurement systems. Majority of the respondents were not sure of whether the lack of standardization affects the volume of the purchases that influence the procurement systems for the university. Only few of the respondents agreed that the lack of standardization affects the volume of the purchases. This clearly shows that according to the respondents the lack of standardization might not have an effect on the volume of the purchases and therefore the lack of adoption of e-procurement might not be attributed to the issue of standardization.

On whether the institution has plans of turning to e-procurement in future or not, Majority of the respondents were not sure with very few of them indicating that they were sure of the statement. This might be because the decision to adopt new technologies is a management decision that might not be well known to the rest of the employees in the institution.

5.3 Conclusions

The results on the first objective indicated that majority of the respondents who participated in the study feel that the university is not just doing enough to make use of the procurement systems. The study established that there were various e-procurement solutions available for use by the university the study therefore concluded that the university should ensure that they adopt the e procurement solutions in order to enhance the procurement process.

The study also sought to examine whether lack of standardization is a factor in the adoption of e-procurement at the university. The results have indicated that standardization has an effect on the adoption of e procurement in the university. It is therefore concluded that the university should ensure that there is standardization of the procedures in the procurement process in order to enhance the adoption of the e procurement. Similarly, in regard to whether volumes of items to be purchased by the university has an effect on the factor hindering the adoption of e-procurement by the university.

The study therefore notes as much as the factors defined by the objectives might affect the adoption of e-procurement in an organization but it might not be a factor affecting the adoption at the university. The study has therefore established that the adoption and use of e-procurement is very minimal in public universities.

5.4 Recommendations

Based on the findings of the study this study recommends that;

There is need for Maasai Mara University to make available the various e-procurement solutions which are needed to make the procurement process as effective as possible. Since most of the respondents indicated that the procurement process has an effect on their performance it is important for the university to adopt to the technology to make the process more effective.

It is also important that the Maasai Mara University requires making use of its available resources and adapting to the e-procurement process as it helps in cutting down the cost of purchases since it was noted the purchases take the highest percentage of the university cost.

The Maasai Mara University also needs to standardize its items in order to suite with the available systems of e-procurement so as to ensure effectiveness in the process. This can be adopted by considering what other institutions have done to make the process as effective as possible to the organization.

5.5 Areas for further study

The study only focused on understanding the effect of E- procurement adoption on the performance of public universities. A study to examine the effect of E procurement in other public universities can bring a good stage for comparison of the performance.

A study that can bring out the inferential aspects of the results will add more value to the current study . hence a study with an inferential analysis should be conducted to provide the response .

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APPENDICES

APPENDIX I: LETTER TO RESPONDENTS

Jackson Nchoe

Management University of Africa

Dear respondent,

I am a student taking a Degree in Business and Leadership (Procurement option) at the Management University of Africa. I am currently carrying out a research on the ***factors affecting the adoption of e-procurement in Public Institutions; a case of Maasai Mara University***. I request you to fill the attached questionnaire to the best of your ability.

The information provided be treated as confidential and be used for the purpose of the study.

Thank you for accepting to take part in the study.

Yours faithfully,

Jackson Nchoe

APPENDIX II

QUESTIONNAIRE FOR THE RESPONDENTS

Part A: Demographic Profile of the Employees

1. Indicate your gender Gender?
Male ☐ Female ☐
2. Indicate the age bracket
18 - 25 years ☐ 26 – 35 years ☐
36 – 45 years ☐ above 45 years ☐
3. Please mark your highest education level.
Secondary ☐ Mid-level College (Diploma) ☐
Graduate ☐ Post graduate ☐
Other (specify)
4. Years completed highest education level.
Less than 2 years ago ☐ 2 to 3 years ago ☐
4 – 5 years ago ☐ more than 5 years ago ☐
5. In which department do you work?
6. Are you familiar with the purchasing process in the organization?

Section B: statements factors affecting adoption of e procurement

7. On a scale of 1 – 5 please indicate your level of response regarding the factors affecting adoption of e-procurement used by the university in its procurement process. Where 1 – is strongly disagree, 2 – disagree, 3 – not sure, 4-agree, 5 strongly agree.

Various e-procurement solutions available for use in the university

E-procurement solutions	1	2	3	4	5
The university uses e-MRO during its procurement					
Web-based ERP is available for use in the procurement process					
E-sourcing is used by the university to make procurement process effective					
e-tendering is one of the solutions used by the university in the procurement process					
e-informing is used as a procurement solution to make process more effective					

Statement on Standardization on adoption of procurement	1	2	3	4	5
It is not possible to standardize the various items required for purchase by the organization through e-procurement					
E-procurement is very flexible since it can be adopted to most functions in the university more effectively.					
E-procurement can be made more effective if the standardization process can be appropriately done.					
Difficulty in standardization of the items used in the procurement process at the university makes it difficult to use e-procurement.					
Statement on Resource availability	1	2	3	4	5
E-procurement requires expensive facilities to enable it for its adoption					
The university lacks the appropriate human skills to affect the e-procurement process					
Network connectivity resources are not easily available to make the university adopt the technology					
The university is not ready for the adoption of e-procurement because of the laxity of the management to commit to the process of adoption					
The university lacks the financial resources to enable the adoption process of e-procurement					
Statement on Volume of the purchases	1	2	3	4	5
The university does not purchase large volume of supplies to use the e-procurement systems					
Because of the lack finances it is not possible to have enough volumes for economic use of the e-procurement procurement system					
The departments use different items which make it difficult to have the required volumes to support the e-procurement					
E-procurement only be adopted in fewer areas of the institutions hence it is difficult to have appropriate volumes to use e-procurement					

What is the level of readiness of the University in the Adoption of e-procurement? ----

THE END