

MAKERERE UNIVERSITY

MAKERERE UNIVERSITY BUSINESS SCHOOL

MANAGEMENT READINESS, TECHNOLOGY COMPETENCE AND E-PROCUREMENT READINESS OF PUBLIC UNIVERSITIES IN UGANDA

BY

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PLAN A

DECLARATION

I, **Akareut Jackline**, hereby declare that this dissertation is my own original piece of work and has not been submitted for any degree or examination in another University or any other institution of higher learning. In all cases where other people's ideas have been used, they have been duly acknowledged by complete references.

Signed ....Akareut..... Date....19 April 2022....

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APPROVAL

This dissertation prepared was under our guidance as academic supervisors and is now ready for submission.

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DEDICATION

I dedicate this work to my friends, family members and supervisors whose guidance, support and time I always cherish.

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First, I thank the Almighty God for his Miracle towards my healing, his love, mercy and protection, knowledge, wisdom and resources that have enabled me reach this far in completing my master's studies. Special thanks go to Dr. Levi Kabagambe and Dr. Rogers Mwesigwa for the timely assistance and encouragement they have given me all the way. I acknowledge the moral support from my father, mother, my family members, Francis and friends. Finally, I thank all people involved in one way or another, in my endeavor to complete this study, especially lecturers and colleagues in the research team.

Table of Contents

DECLARATION i
APPROVAL ii
DEDICATION iii
ACKNOWLEDGEMENT iv
LIST OF TABLES viii
LIST OF FIGURES ix
ABSTRACT x
CHAPTER ONE 1
INTRODUCTION 1
1.0 Overview 1
1.1 Background to the study 1
1.2 Problem statement 3
1.3 Purpose of the study 4
1.4 Research objectives 4
1.5 Research questions 5
1.6 Scope of the Study 5
1.6.1 Geographical scope 5
1.6.2 Conceptual scope 5
1.6.3 Time scope 5
1.7 Significance of the study 5
1.8 Conceptual frame work 6
CHAPTER TWO 8
LITERATURE REVIEW 8
2.0 Introduction 8
2.1 Technology acceptance model 8
2.1 E-procurement readiness 9
2.2 Management readiness and e-procurement readiness 10
2.3 Technology competence and e-procurement readiness 11
2.4 Management readiness, technology competence and e-procurement readiness 13
CHAPTER THREE 15
METHODOLOGY 15

3.0 Introduction 15
3.1 Research design 15
3.2 Study population 15
3.3 Sample size 16
3.4 Sampling procedure 17
3.5 Data collection instrument 17
3.6 Data collection procedure 17
3.7 Measurement of study variables 18
3.8 Validity and Reliability tests 18
3.9 Data processing, analysis and presentation 20
3.10 Ethical considerations 20
CHAPTER FOUR 21
PRESENTATION AND INTERPRETATION OF FINDINGS 21
4.1.1 Gender 22
4.1.2 Distribution by the Age of the respondents 22
4.1.3 Distribution by the level of Education 23
4.1.4 Distribution by position of respondents 23
4.1.5 Distribution by internet knowledge level 23
4.2.1 Distribution by institution representative 24
4.2.2 Institution size 25
4.2.2 Institution age 25
4.2 Pearson Correlation 26
4.2.1 Management readiness and e-procurement readiness 26
4.2.2 Technology competence and e-procurement readiness 27
4.3 Regression model 27
CHAPTER FIVE 29
DISCUSSION, CONCLUSION AND RECOMMENDATIONS 29
5.0 Introduction 29
5.1 Discussion of findings 29
5.1.1 Management readiness and e-procurement readiness 29
5.1.2 Technology competence and e-procurement readiness 31
5.1.3 Management readiness and technology competence on e-procurement readiness 32
5.2 Conclusion 32

5.3 Recommendations.....33
5.4 Limitations of the study and areas for further research 34
References.....35
Appendices.....40
a) Data collection instrument.....40

LIST OF TABLES

Table 1: Public universities in Uganda 16
Table 2: Content valid index 19
Table 3: Reliability 19
Table 4: Response rate 21
Table 5: Gender of the respondents 22
Table 6: Age of the respondents 22
Table 7: Level of Education of the respondents 23
Table 8: Position of the respondents 23
Table 9: Internet knowledge 24
Table 10: Institution representatives 24
Table 11: Institution size 25
Table 12: Institution size 25
Table 13: Correlation results 26
Table 14: Hierarchical Regression model 27

LIST OF FIGURES

Figure 1: Conceptual framework 6

Figure 2: Technology acceptance model 9

ABSTRACT

The study aimed at examining the relationship between management readiness, technology competence and e-procurement readiness of public Universities in Uganda. The study population and sample constituted nine public universities in Uganda using a cross-sectional survey design. The procurement managers, procurement officers and the user departments participated in this study. Data was collected using a self-administered questionnaire and then analyzed using Statistical Package for Social Sciences (SPSS). Correlation and regression analysis were performed to explain the relationships between the study variables and the extent to which the independent variables were associated with the dependent variable. The empirical findings from the study revealed that there is a significant positive relationship between management readiness, technology competence and e-procurement readiness of public universities in Uganda. The study also revealed that the combined effect of management readiness and technology competence on e-procurement readiness is 40.4%. This indicates that other than management readiness and technology competence, there are other factors that influence e-procurement readiness of public universities. Overall, management readiness was the most influential factor in explaining the e-procurement readiness compared to technology competence. Therefore, it is recommended that the management of public universities support e-procurement interventions, provide IT infrastructure, and equip their staff with IT knowledge and skills. This will ultimately translate into readiness of their institutions to adopt e-procurement.

Key words: *Management readiness, technology competence, e-procurement readiness, public universities in Uganda*

CHAPTER ONE

INTRODUCTION

1.0 Overview

This chapter presents the background of the study, problem statement, purpose of the study, study objectives, research questions, scope of the study, significance of the study and the conceptual framework.

1.1 Background to the study

Globally, governments have recognized e-procurement as a key strategic tool to foster competitiveness of their countries. E-procurement is the process of purchase and sale of goods or services through electronic methods, primarily the Internet (Hassan, Tretiakov, Whiddett & Adon, 2014). Ibem and Laryea (2015) added that e-procurement refers to the use of Internet-based (integrated) information and communication technologies (ICTs) to carry out individual or all stages of the procurement process including searching, sourcing, negotiation, ordering, receipt, and post-purchase review. Morsinkhof (2018) indicated that e-procurement use promotes increased efficiency and cost saving, faster and cheaper in-government procurement and improved transparency, and reduces corruption in procurement services by eliminating interaction with suppliers. Given the relevance of e-procurement, developed and developing countries including Uganda are promoting e-procurement (Shatta, Shayo & Layaa, 2020).

Accordingly, some government commercial agencies such as Uganda Revenue Authority (URA), National water and sewerage cooperation (NWSC), Uganda National Roads authority (UNRA) and National Social Security Fund (NSSF) have at least partially integrated e-procurement in their operations at different levels (Byaruhanga, 2016). However, public universities in Uganda such as Makerere University, Makerere University Business School

and Kyambogo University among others have not yet exhibited readiness to adopt and incorporate e-procurement in their operations despite its importance. This is likely to increase conventional procurement challenges in these institutions characterized by corruption, non-compliance with the procurement Act and Regulations, un-standardized procurement processes across Procuring and Disposal Entities, continuous delays in delivery of supplies and services, and wastage of resources through uncompetitive and closed purchases (Ssebanakita, 2012).

Thus, e-readiness is used to indicate the preparedness of the public and private sector in providing services and participating in the networked world using systems such as e-procurement (Alsagoff et al., 2006). E-procurement readiness is a measure to which an organization may be ready, prepared, or willing to adopt, use and derive benefit from the e-procurement (Naseebullah et al., 2011). E-procurement readiness is also the current use and potential levels of adoption of e-procurement in government, shaped and constrained by technological and institution environments and events at the local, national and transnational levels (The Australian Government, Department of Finance and Administration, 2005).

As such, the technology acceptance model (TAM) is one of the models that predicts e-procurement readiness (Marangunić & Granić, 2015). TAM argues that readiness to adopt a system is affected by two beliefs that is perceived usefulness and perceived ease of use (Kim & Shin, 2015). Perceived usefulness is the degree to which an individual believes that using a particular system would enhance his or her productivity and performance (Dwivedi, Rana, Jeyaraj, Clement & Williams, 2019). As such, when employees believe that using e-procurement is important and can foster their performance, it will ultimately translate into e-procurement readiness. Additionally, perceived ease of use indicates the degree an individual believes that using a particular system would be free of effort (Fathema, Shannon & Ross,

2015). Thus, when employees believe that using a certain system is easy and simple to use, they will support it and ultimately be ready to adopt and integrate it into their operations.

Several studies have been conducted on e-procurement in Uganda. For example, Basheka and Oluka (2012) conducted a study on the critical success factors for the implementation of the e-procurement in PPDEs in Uganda; Ahimbisibwe, Tusiime and Tumuhairwe (2015) also studied records management performance in PPDEs in Uganda; Alionzi (2018) also investigated the key factors that influence the implementation of the e-procurement in public institutions; Uba, Sharifai, Mubaraka & Agaba (2013) further studied e-procurement and the performance of service entities. Ahimbisibwe, Tusiime, Tumuhairwe (2016) further investigated willingness, readiness and challenges to the adoption of e-procurement in Uganda. However, extant literature has paid less attention on e-procurement readiness of public Universities in Uganda focusing on management readiness and technology competence using the technology acceptance model. Dwivedi et al (2019) and Aboelmaged (2010) indicated that TAM enables countries like Uganda to predict readiness to adopt e-procurement, this results into reduced cost of procuring supplies, services, and contracts; greater efficiency and promotes innovation in the procurement process. It is upon that backdrop that this study was conducted to examine the relationship between management readiness, technology competence and e-procurement readiness of public Universities in Uganda.

1.2 Problem statement

The effectiveness of e-procurement system has enabled some government commercial agencies in Uganda to adopt and incorporate e-procurement in their operations (Byaruhanga, 2016). However, public universities have not yet exhibited readiness to adopt and incorporate e-procurement in their operations despite its importance. Accordingly, these institutions are

still undertaking procurement activities such as needs recognition, purchase requisition, review of request, budget approval, quotation requests negotiation and contract and receive goods/services manually. This is likely to escalate procurement issues in these institutions such as corruption, non-compliance with the procurement Act and Regulations, un-standardized procurement processes across Procuring and Disposal Entities, continuous delays in delivery of supplies and services, and wastage of resources through uncompetitive and closed purchases (Hamba, 2016; Ssebanakita, 2012). Insufficient readiness to adopt and implement the e-procurement system into the operations of the public universities could be attributed to limited management readiness to support usage of e-procurement and the insufficient technology competence of the procurement managers, officers and staff of the user departments. This provided a motivation for the study to develop a model that can catalyze e-procurement readiness of public Universities in Uganda.

1.3 Purpose of the study

The purpose of this study was to examine the relationship between management readiness, technology competence and e-procurement readiness of public Universities in Uganda.

1.4 Research objectives

i. To establish the relationship between management readiness and e-procurement readiness of public Universities in Uganda.
ii. To examine the relationship between technology competence and e-procurement readiness of public Universities in Uganda.
iii. To examine the combined effect of management readiness and technology competence on e-procurement readiness of public universities in Uganda.

1.5 Research questions

i. What is the relationship between management readiness and e-procurement readiness of public Universities in Uganda?

ii. What is the relationship between technology competence and e-procurement readiness of public Universities in Uganda?

iii. What is the combined effect of management readiness and technology competence on e-procurement readiness of public universities in Uganda?

1.6 Scope of the Study

1.6.1 Geographical scope

The study was conducted on public Universities in Uganda. This is because most public universities are distributed in different parts of the country and have not yet integrated e-procurement systems into their operations. As such, it is relevant to investigate their readiness to adopt e-procurement given its relevance as compared to the conventional procurement system.

1.6.2 Conceptual scope

The study focused on management readiness and technology competence as the independent variable and e-procurement readiness as the dependent variable of the study.

1.6.3 Time scope

This study was cross sectional in nature and therefore data considered herein was collected at one point in time.

1.7 Significance of the study

The findings of this study will;

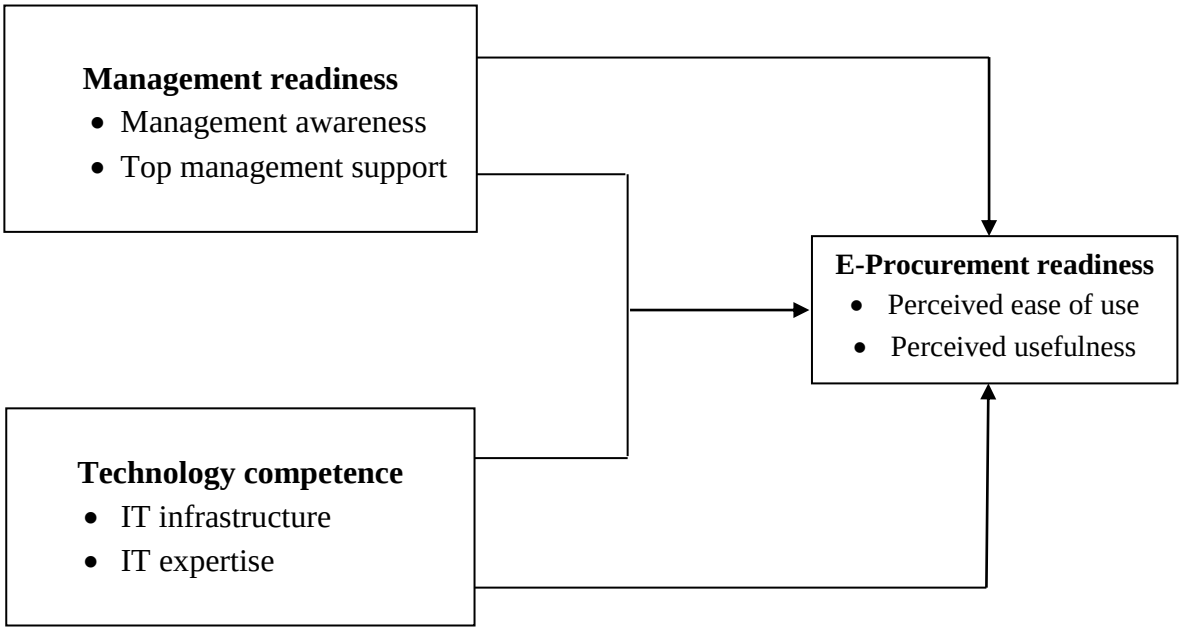
1) Enable the government to understand the extent to which public Universities in Uganda are ready to adopt and integrate e-procurement system into their operations.
2) Help public universities to be ready to adopt and integrate e-procurement practices into their operations.

3) The study will add new knowledge to the existing literature about the antecedents of e-procurement readiness in the Ugandan context.

1.8 Conceptual frame work

A conceptual frame work indicates the relationship between study variables diagrammatically. The conceptual framework demonstrates the relationship between management readiness, technology competence and e-procurement readiness. As such, management readiness and technology competence are the independent variable and e-procurement readiness is the dependent variable as presented in Figure 1.

Figure 1: Conceptual framework



Source: Adapted from Naseebullah, Basri, Dominic, & Jehangir, (2012) and Davis (1986)

Figure 1 indicates that when management in public universities is aware of e-procurement and supports its implementation, it translates into organizational e-procurement readiness. Similarly, when the university staff (procurement managers, officers and user departments) have information technology competences in form of IT infrastructure and IT competences, it fosters e-procurement readiness of public universities in Uganda. More so, when

management readiness is combined with technology competence, both are likely to strengthen readiness of public universities in Uganda to adopt e-procurement.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

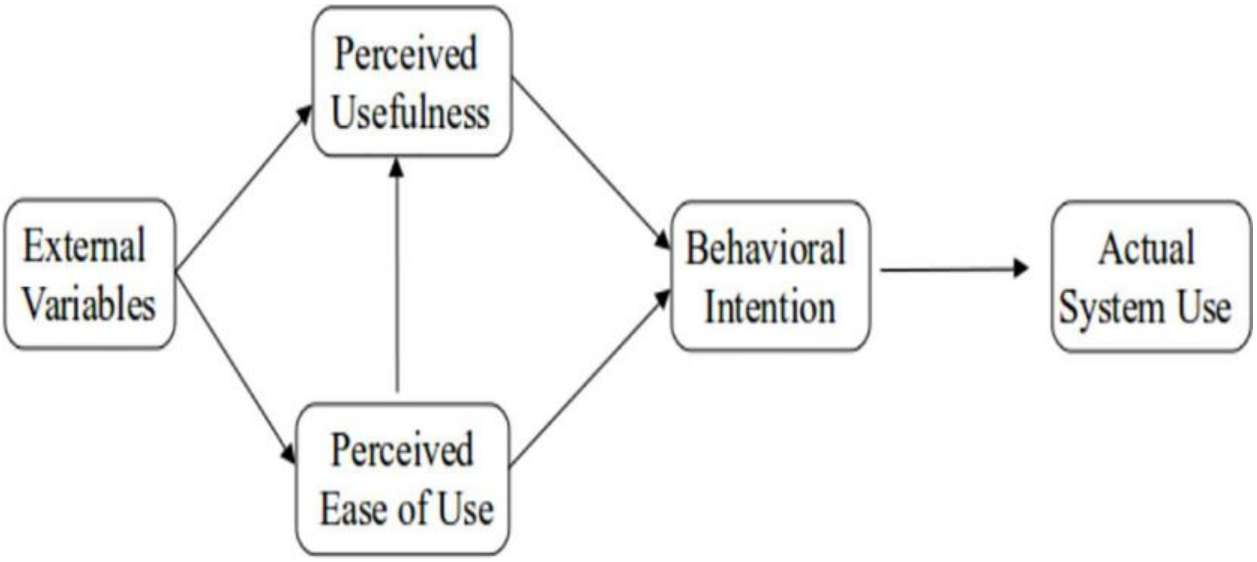
This chapter contains review of the existing literature following study objectives.

2.1 Technology acceptance model

The theory of technology acceptance is one of the models used in understanding readiness to adopt computer technologies (Davis, 1986; Brandon-Jones & Kauppi, 2018). The purpose of this model is to predict the readiness to accept a tool or a certain technology and to identify the modifications which must be brought to the system in order to make it acceptable to users. This model suggests that the readiness to accept an information system is determined by two main factors: perceived usefulness and perceived ease of use (Scherer, Siddiq & Tondeur, 2019).

Perceived usefulness is viewed as the degree to which a person believes that the use of a system will improve his performance. Perceived ease of use refers to the degree to which a person believes that the use of a system will be effortless. Several factorial analyses demonstrated that perceived usefulness and perceived ease of use can be considered as two different dimensions (Dwivedi, Rana, Jeyaraj, Clement & Williams, 2019). According to Ramkumar, Schoenherr, Wagner and Jenamani (2019), this theory brings an understanding that acceptance and use of new technology is a function of the users' feelings about the system and its perceived benefits as illustrated in figure 2.

Figure 2: Technology acceptance model



Source: Marangunić and Granić (2015).

2.1 E-procurement readiness

Adopting and implementing e-procurement in organizations needs an assessment of organizational e-readiness. E-readiness is defined as a measure to which an organization or business may be ready, prepared or willing to adopt, use and benefits that arise from the digital economy (Lou and Goulding, 2010). Dada (2006) added that e-readiness is a measure of the degree to which a country, nation or economy may be ready, willing or prepared to obtain benefits which arise from information and information technologies. It is also used to indicate the preparedness of the public and private sector in providing services and participating in the networked world using systems such as e-procurement (Alsagoff et al., 2006). As such, e-procurement readiness is defined as a measure to which an organization or business may be ready, prepared, or willing to adopt and the benefits that arise from the digital economy such as e-procurement. The impact of e-procurement readiness success is also based on readiness assessment (Naseebullah et al., 2011).

The Australian Government, Department of Finance and Administration (2005), defined e-procurement readiness as the current use and potential levels of adoption of e-procurement in government, shaped and constrained by technological and institution environments and events at the local, national and transnational levels. This concept addresses why particular e-procurement activities have been implemented, incorporating issues such as the procurement environment–structures (e.g centralized versus decentralized), drivers (whole-of-government or e-government initiatives) and levels of support; the legal environment – national and international jurisdictions; the economic environment – supplier and buyer market forces; organizational environment – planned levels of adoption and financial considerations such as access costs for buyers and suppliers; technological environment – existing infrastructure available at varying levels. This study will measure e-procurement readiness in terms of perceived ease of use and perceived usefulness (Marangunić & Granić, 2015).

2.2 Management readiness and e-procurement readiness

Management readiness is the awareness and willingness of organizational leaders to support e-procurement initiatives (Naseebullah et al., 2012). This study will operationalize management readiness in terms of management awareness and top management support (Naseebullah et al., 2012). Management awareness means understanding knowledge about technologies that is, e-procurement and its potential benefits to the organisations. According to Molla and Licker (2005), management awareness refers to "an understanding of e-commerce technologies, business models, requirements, benefits, threats and projection of the future trends of e-commerce and its impact". Management awareness is the first step to take initiative, without knowledge, idea and understanding to technology benefits, no one can think about implementing technology. The major barrier in understanding the benefits of e-procurement is the lack of awareness among organisations (Simpson and Docherty, 2004). Management awareness is the prime source for technology implementation. As such, if the

management is aware about e-procurement, then this will highly influence the readiness of the organization to adopt e-procurement.

Similarly, top management support and commitment have been considered crucial in shaping organizational readiness to adopt and implement computer based technology (Yu-hui, 2008). The readiness to adopt e-procurement in an organization is significantly dependent on managerial attention, without appropriate support it is impossible to get approval from the top management (Klein, Conn & Sorra, 2001). The lack of top management support will delay and ultimately affect e-procurement readiness (Orina, 2013). Top management is one that has the authority to pass the budget for the rebuilding of any activities in the organization, so in the case of e-procurement implementation, the top management has the right to decide Yes or No. Top management support is essential in overcoming barriers and resistance to change (Teo, Lin and Lai, 2009), without the support and commitment of top management, it is impossible to promote e-procurement readiness and the eventual implementation of e-procurement (Klein et al., 2001; Yu-hui, 2008). Therefore, management support and readiness may show a significant influence for e-procurement readiness in public universities in Uganda.

2.3 Technology competence and e-procurement readiness

Extant literature indicates that technology competence has been consistently identified as a crucial factor for successful adoption of e-procurement. Soares-Aguiar and Palma-dos-Reis (2008) define technology competence as the physical and intangible resources of an organization, since IT expertise is a complement of physical assets that is IT infrastructure. As such, technology competence indicates that availability of technology resources and possession of information technology skills and knowledge needed in fostering e-procurement readiness of an organization. Thus, we postulate that technology competence

can stimulate readiness of an organization to adopt e-procurement. This study will measure technology competence in terms of IT infrastructure and IT competence.

IT infrastructure of a firm refers to a set of tools and resources, which provide a platform or foundation to the business applications (Benitez, Ray & Henseler, 2018). IT infrastructure has often been identified as a successful predictor of e-procurement readiness (Aduwo, Ibem, Uwakonye, Tunji-Olayeni & Ayo-Vaughan, 2016). Organisations without robust IT infrastructure may not want to take risk of technology adoption (Yu-hui, 2008). An efficient and effective IT infrastructure is the base of implementing e-procurement. E-procurement readiness of an organization mainly relies on a reliable IT infrastructure (Wang, 2010). Organizational readiness and IT infrastructure has often been identified for successful e-procurement adoption (Oh, Yang & Kim, 2014). IT infrastructure has been considered a positive factor for e-procurement readiness (Aduwo er al., 2018; Yu-hui, 2008; Carayannis and Popescu, 2005).

Additionally, IT competence refers to knowing how to operate IT applications for business processes (Capon and Glazer, 1987). IT expertise describes firm intensity of specific knowledge and skills in the field of IT to handle and operate day-to-day business applications and activities. Organizations with high levels of IT technical expertise have potential for e-procurement readiness (Wu et al., 2007). Without robust IT expertise, organisations may not be ready and willing to implement e-procurement (Yu-hui, 2008). A study by Gunasekaran and Ngai (2005) stated that many companies do not have IT experts or skilled workers to perform tasks. Such lack of IT experts may create a problem for organizations to handle and operate e-procurement systems. However, organizations with technical expertise in the field of IT have more chance and are more ready to implement e-procurement. Therefore, IT

expertise reflects a positive relationship with organizational e-readiness for e-procurement implementation.

2.4 Management readiness, technology competence and e-procurement readiness

Literature reveals that several scholars have examined management readiness and technology competence. Nevertheless, insufficient research has focused on the combined effect of management readiness and technology competence on e-procurement readiness. As such Naseebullah et al. (2012) argues that if the management is aware about the competitor's technology such as e-procurement, then this will highly encourage organizational leaders to invest in IT infrastructure and equip staff with the necessary knowledge and skills that are relevant in fostering an organization's e-procurement readiness. In this case, the management readiness and technology competence are compulsory to know whether they have the knowledge and ready to implement e-procurement or not. Additionally, the readiness of an organization to adopt and implement technology significantly depends on managerial attention, without appropriate support, it is impossible to get approval from the top management on issues of acquiring IT infrastructure and training of employees that is relevant in promoting e-procurement readiness of an organization (Klein et al., 2001).

In another study conducted by Soares-Aguiar and Palma-dos-Reis (2008) on the adoption of e-procurement systems, it was revealed that technology competence that includes not only physical assets, but also intangible resources fosters adoption of e-procurement system. This implies that organizational management with skills and knowledge of e-procurement will easily support employees to become technologically compliant which will eventually promote e-procurement readiness of an organization. Additionally, Dooley and Purchase (2006) reported that internal factors such as staffing levels, training in new technologies; encouragement from management and other departments (in particular information systems) sufficient financial and resource backing and adequate budget allocations to ensure all

requirements are met. This indirectly shows that management readiness and IT competence as internal organizational factors facilitate e-procurement readiness of organizations.

CHAPTER THREE

METHODOLOGY

3.0 Introduction

This chapter presents the research method that was used to carry out this study. It covers the research design, study population, sampling design, data collection methods, measurement of variables, reliability and validity tests, data processing, analysis and presentation and ethical considerations.

3.1 Research design

The study adopted a cross sectional research design that seeks to examine the variables under investigation at one point in time (Salkind, 2016). This approach was selected because it is flexible in quantitative data collection. As such, a quantitative research design was adopted and the study gathered data for testing study objectives (Creswell & Clark, 2017). Descriptive studies were also carried out to examine the characteristics of the selected public Universities in Uganda and the respondents.

A cross Sectional Research Design involves studying data from a population at a specific point in time. The MBA program is time bound for two years, therefore, the researcher selected a cross sectional research design to enable her collect data and submit the research within the two years duration. It is also less costly to perform, does not require a lot of time, and contains multiple variables at the time of the data snap shot.

3.2 Study population

A total of nine (9) public universities in Uganda (see table 1) were considered in this study. While a university is an entity; it's adoption of any new procedure or systems such as e-procurement is driven by the ability of its employees to adopt the required change and initiatives. For this perspective, the unit of interest (unit of Analysis) as well as measurement (unit of inquiry) were the employees in the public university. This is because the public

Universities merely provided a study context. As such, the unit of analysis in this study doubled as the unit of inquiry. This is common in extant study (see; Kimuli, Sendawula and Nagujja, 2021; Nkundabanyanga, Tauringana, Balunywa and Emitu, 2013). The population of the study was therefore 54 employees in the public universities in Uganda. Specifically, the procurement manager (01), procurement officer (01) and the user departments (04) were engaged, totaling to six (06) respondents per university. These respondents were engaged since they have a clear understanding of procurement issues in their institutions and were in position to provide reliable information on the study phenomenon. Additionally, the participation of user departments enabled the research to generate more important information on e-procurement readiness of their institutions given that they are more informed about the procurement practices of their respective institutions.

Table 1: Public universities in Uganda

SN	University	Location
1.	Makerere University	Makerere
2.	Kyambogo University	Kyambogo
3.	Mbarara University of Science and Technology	Mbarara
4.	Soroti University	Soroti
5.	Kabale University	Kabale
6.	Lira University	Lira
7.	Gulu University	Gulu
8.	Muni University	Arua
9.	Busitema University	Busitema

Source: National Council for Higher Education

3.3 Sample size

Using Krejcie & Morgan's sampling table (Krejcie & Morgan, 1970), a sample size of 48 employees from the public universities in Uganda. Specifically, the procurement manager, procurement officer, and the user departments were engaged.

3.4 Sampling procedure

Purposive sampling was used to select employees from the nine public universities to participate in the study. According to (Creswell & Clark, 2017) purposive sampling is a non-probability sampling where the sample selected depends on the objective of the study and characteristics of the population. Purposive sampling technique is also referred to as judgemental, selective, or subjective sampling. Therefore, employees were purposively selected from each university since they had a clear understanding of e-procurement readiness of their institutions.

3.5 Data collection instrument

Questionnaires were used to collect data from the target respondents. As such, questionnaires were issued to staff of the public universities in Uganda to provide information in relation to the study on behalf of the entity. The questionnaires had close ended questions and were designed according to the objectives of the study to enable the researcher elicit information from respondents on all the aspects of study (Patten, 2016). The questionnaire was adopted because it is anticipated to give the respondents freedom to fill at their convenience. The instrument has a capacity to motivate the respondents to participate in the research survey with ease (Brace, 2018). Additionally, the instrument enabled the researcher to get information from a wide geographical area. The questionnaires further enabled the researcher to reach many respondents in a short time. Accordingly, a 5-point Likert Scale from 1 (strongly disagree) to 5 (strongly agree) was adopted. This required respondents to select the most appropriate response and tick.

3.6 Data collection procedure

After the approval of the proposal, the researcher followed the administrative procedure to obtain an introduction letter from the Makerere University Business School to get permission to collect data from the eleven public universities in Uganda. Using the introduction letter,

the researcher distributed the questionnaires to the target respondents. Phone calls were made to confirm the readiness of the questionnaire to be collected. After collecting all completed questionnaires, the researcher analyzed the collected data using Statistical Package for Social Scientists (SPSS) version 23.

3.7 Measurement of study variables

E-procurement readiness was measured using perceived ease of use and perceived usefulness (Davis, 1986), management readiness was operationalized in terms of Management awareness and Top management support (Naseebullah *et al.,* 2012) whereas technology competence was measured using IT infrastructure and IT expertise (Naseebullah *et al.,* 2012).

3.8 Validity and Reliability tests

Validity is the extent to which research instruments measure what they are intended to measure (Saunders et al., 2003). According to Sekaran and Bougie (2016) content validity test ensures that the measures include an adequate and representative set of items that tap the concept. The more the scale items represent the domain of the concept being measured, the greater the content validity. The test was conducted at the questionnaire development stage where the draft questionnaire were given to six different experts (4 academicians and 2 practitioners) to assess the appropriateness of the items to capture the study variables. Validity was determined using content Validity Index (CVI).

$$\text{CVI} = \frac{\text{Number of items rated relevant}}{\text{Total number of items}} \times 100\%$$

As such, results in Table 2 indicate that the instrument is valid since the CVI for all study variables are above the minimum threshold of 0.7 as recommended by Saunders et al. (2003).

Table 2: Content validity index

Variable	Anchor	No. Items	CVIs
Management readiness	2 point	16	0.829
Technology competence	2 point	19	0.769
E-procurement readiness	2 point	17	0.875

Source: Expert opinion

Reliability assesses the extent to which the factors in a questionnaire generate consistent responses over several trials with different populations in the same setting or circumstances (Noble & Smith, 2015). Reliability test indicates the extent to which the questionnaire is without bias or error free, and hence ensures consistent measurement across time and across the various factors in the questionnaire. In this study, Cronbach's alpha coefficient was employed to determine the internal consistency of the questionnaire (Heale & Twycross, 2015). According to Tabben, Coquart, Chaabène, Franchini, Chamari and Tourny (2014), a certain number of items that were found to affect the reliability of the scales were deleted to improve the reliability. According to Sekaran and Bougie (2016), some professionals as a rule of thumb, require a reliability of 0.70 or higher (obtained on a substantial sample) before they use an instrument. The Reliability of the instrument was gauged by computing the Cronbach's Alpha coefficients using the inter-item test method (Saunders et al., 2007). The alpha coefficient of 0.7 and above were accepted and considered sufficient in determining the reliable scales (Neumann, 2006) as presented in Table 3 below.

Table 3: Reliability

Variable	Anchor	Cronbach Alpha Value
Management readiness	5 Point	0.802
Technology competence	5 Point	0.734
E-procurement readiness	5 Point	0.778

Source: Primary data

3.9 Data processing, analysis and presentation

Data collected from the field was tabulated, sorted, edited, classified and coded into a coding sheet. The cleaned data was summarized and converted into frequencies and percentages using the category system. The researcher then used Statistical Package for Social Scientists to (SPSS), version 20, to analyse the data collected. The data analyzed was presented using frequency distribution tables for easy interpretation. Pearson's Correlation Coefficients was run to establish the relationship among the study variables as set in the objectives and regression analysis on the other hand enabled the research to establish the explanatory power of the independent variables on the dependent variable.

3.10 Ethical considerations

The researcher acquired an introduction letter from the University together with the identity card presented to the organizations under study as well as the respondents. Assurance was given to management and staff that the information needed is for academic purposes and would be handled with confidentiality. The assent issue was resolved by obtaining an informed consent informing target respondents of the purpose of the study, the expected participation from them and any other information about the research that they would want to know. Confidentiality of the respondents was paramount except in the case where they would give permission to be cited in the study.

CHAPTER FOUR

PRESENTATION AND INTERPRETATION OF FINDINGS

4.0 Introduction

This chapter presents the results of the various analyses performed and their interpretations therein. Specifically, descriptive and results on inferential analyses are presented. The chapter starts with descriptive on the demographic and institution characteristics, followed by correlation and regression results.

4.1 Response rate

The target response was 48 respondents. Out of these, 48 questionnaires were received from the study's unit of inquiry. Through data cleaning, 41 questionnaires were retained as usable, accounting to a response rate of 85.4% as indicated in Table 4. This response rate was sufficient to support study results.

Table 4: Response rate

Item	**Questionnaires**
Target	48
Received	48
Usable response	41
Response rate	**85.4%**

Source: Primary data

4.2 Demographic Characteristics of the respondents

Respondents were asked to provide information regarding their demographic profile which included gender, age bracket, level of education, position in the organization and internet knowledge level as follows: -

4.1.1 Gender

Information was sought on the gender distribution of the respondents. The results are presented in Table 5.

Table 5: Gender of the respondents

Item	Frequency	Percent
Male	19	46
Female	22	54
Total	**41**	**100**

Source: Primary data

The results in Table 5 indicate that majority of the respondents were female (54%) and the male were 46%. This suggests that procurement activities in public universities in Uganda are dominated by the female as compared to their male counter parts especially in the user departments. As such, when female employees are prepared, they are likely to be ready to support e-procurement activities in their respective units as compared to male employees.

4.1.2 Distribution by the Age of the respondents

The age of the respondents was distributed as indicated in Table 6.

Table 6: Age of the respondents

Item	Frequency	Percent
18-24	3	7
25-29	4	10
30-34	12	29
35-39	13	32
40 and above	9	22
Total	**41**	**100**

Source: Primary data

Study results in Table 6 indicate that majority of the respondents were between 35-39 years at 32%, these were followed by those who were between 30-34 years at 29% and the least group were between 18-24 years at 7%. This indicates that procurement actions in public universities are undertaken by the youth who are capable of supporting uptake of e-procurement in public Universities in Uganda.

4.1.3 Distribution by the level of Education

The level of education of the respondents was distributed as indicated in Table 7.

Table 7: Level of Education of the respondents

Item	Frequency	Percent
Diploma	4	10
Bachelor	18	44
Masters	19	46
Total	**41**	**100**

Source: Primary data

The results in Table 7 indicate that majority of the respondents have a master's degree (46%), these were followed by those who have bachelor's degree at 44% and the least have a diploma at 10%. This indicates people handling procurement in public Universities have enough knowledge that can facilitate uptake of e-procurement.

4.1.4 Distribution by position of respondents

The positions of respondents were distributed as indicated in Table 8.

Table 8: Position of the respondents

Item	Frequency	Percent
Procurement Manager	9	22
Procurement Officer	9	22
User department	23	56
Total	**41**	**100**

Source: Primary data

The results in table 8 indicate that majority of the respondents were from user departments at 56% and the least were procurement managers and officers at 22%. This suggests that procurement activities in different organizations are managed by few individuals who are responsible to serve the entire organization, indicating their willingness to support e-procurement readiness interventions to ease their procurement duties and responsibilities.

4.1.5 Distribution by internet knowledge level

Internet knowledge level of the respondents was distributed as indicated in table 9.

Table 9: Internet knowledge

Item	Frequency	Percent
Average	1	2
Good	11	27
Very Good	29	71
Total	41	100

Source: Primary data

Study results in table 9 indicate that majority of the respondents are very good at internet usage (71%) and the least were average at 2%. This implies that public Universities have manpower with internet knowledge that is capable of supporting usage of e-procurement systems once integrated into their operations.

4.2 Characteristics of Public Universities

Respondents were asked to provide information regarding characteristics of their institutions which included name of the university, number of employees and organizational age as presented below: -

4.2.1 Distribution by institution representative

The representatives of the public institutions were distributed as indicated in table 10.

Table 10: Institution representatives

Item	Frequency	Percent
Makerere	5	12
Kyambogo	5	12
Mbarara	5	12
Soroti	3	7
Kabale	5	12
Lira	5	12
Gulu	4	10
Muni	4	10
Busitema	5	12
Total	**41**	**100**

Source: Primary data

Results in table 10 indicate that majority of the respondents were from Makerere, Kyambogo, Mbarara, Kabale, Lira and Busitema university at 12%. The least came from Soroti University at 7%.

4.2.2 Institution size

The size of the institution was distributed as indicated in Table 11.

Table 11: Institution size

Number of employees	Frequency	Percent
Over 200	9	100
Total	**9**	**100**

Source: Primary data

Study results in Table 11 indicate that all the nine public Universities in Uganda employ over 200 people. This indicates that several procurement activities are undertaken in these institutions to serve their staff, justifying the need for e-procurement to quicken the procurement processes.

4.2.2 Institution age

The age of the institution was distributed as presented in Table 12.

Table 12: Institution size

Item	Frequency	Percent
Less than 5 years	3	32
5-10 years	1	10
10-15 years	1	12
15-20 years	2	22
More than 20 years	2	24
Total	**9**	**100**

Source: Primary data

Results in Table 12 indicate that majority of public universities have been in operation for less than 5 years at 32%. This is not surprising because universities such Soroti, Kabale and Lira have been recently recognized as public universities. These were followed by universities that have been in operation for more than 20 years at 24% such as Makerere University and Mbarara University of Science and Technology. This suggests the need for public universities especially the ones that have been recently recognized to be prepared to adopt e-procurement before their operations become complex.

4.2 Pearson Correlation

Pearson's Correlation analysis was conducted to measure the strength of linear associations between the study variables and is denoted by r. The Pearson correlation coefficient, *r*, can take a range of values from +1 to -1. A value of 0 indicates that there is no association between the two variables. A value greater than 0 indicates a positive association; that is, as the value of one variable increases, so does the value of the other variable. A value less than 0 indicates a negative association; that is, as the value of one variable increases, the value of the other variable decreases. The study variables were measured on a continuous scale, and thus Pearson correlation was found to be the most appropriate to test the relationships between the variables.

Table 13: Correlation results

Variable	1	2	3	4	5	6	7	8	9
Mgt Awareness (1)	1								
Mgt Support (2)	.525**	1							
Mgt_readiness (3)	.914**	.825**	1						
Infrastructure (4)	.290	.459**	.411**	1					
Expertise (5)	.399**	.602**	.551**	.518**	1				
Tec Competence (6)	.406**	.622**	.565**	.805**	.924**	1			
Usefulness (7)	.480**	.648**	.628**	.399**	.511**	.532**	1		
Ease of use (8)	.417**	.401**	.468**	.460**	.338*	.440**	.508**	1	
E-Readiness (9)	.519**	.616**	.638**	.491**	.498**	.564**	.893**	.842**	1

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

4.2.1 Management readiness and e-procurement readiness

The results in Table 13 show that there is a positive significant relationship between management readiness and e-procurement readiness of public universities in Uganda ($r=.638^{**}$, $p\leq.01$). This means that any positive change in management readiness is associated with a positive change in e-procurement readiness. In addition, all the dimensions of management readiness that include management awareness and management support have a positive significant relationship with e-procurement readiness of public Universities in Uganda.

4.2.2 Technology competence and e-procurement readiness

The results in Table 13 show that there is a positive significant relationship between technology competence and e-procurement readiness of public universities in Uganda ($r=.564^{**}$, $p\leq.01$). This means that any positive change in technology competence is associated with a positive change in e-procurement readiness. Similarly, all the dimensions of technology competence that include IT Infrastructure and IT Expertise have a positive significant relationship with e-procurement readiness of public Universities in Uganda.

4.3 Regression model

Hierarchical linear regression analysis was used to determine the percentage contribution of each independent variable on the dependent variable (e-procurement readiness). The regression model in the table below was presented so as to examine the level to which the predictors (namely management readiness and technology competence) can predict the e-procurement readiness of public Universities in Uganda.

Table 14: Hierarchical Regression model

Variable	Model I	Model II	Model III
Constant	3.980	1.794	1.345
Control Variables			
Institution age	.287	.193	.137
Independent Variables			
Management readiness		.529**	.288**
Technology Competence			.445**
Model summary			
R	0.287	0.595	0.697
R Square	.082	.354	.485
Adjusted R Square	.059	.320	.444
R Square change	**.082**	**.272**	**.132**
Model F	3.500	10.408	11.634
Durbin Watson			1.767

Source: Primary data

In Model I**,** the control variables were regressed against e-procurement readiness. The results in table 14 indicate that the control variable that is institution age ($\beta = .287$, $P>0.05$) has an insignificant contribution in explaining e-procurement readiness of public universities in Uganda. The model accounts for 8.2% of the change in e-procurement readiness. This seems

to suggest that institution characteristics have no significant effect on e-procurement readiness of public universities in Uganda.

In Model II, management readiness was introduced in the equation. The results in table 14 indicate that management readiness contributes 27.2% change in e-procurement readiness. This implies that for a unit change in management readiness, e-procurement readiness will improve by .529 units. The results show that Management readiness is a significant predictor of e-procurement readiness of public universities in Uganda ($\beta = 0.529$, $p \leq 0.01$).

In Model III technology competence was added to the equation. The results in table 14 indicate that technology competence contributes 13.2% change in e-procurement readiness of public universities in Uganda. Thus for a unit change in technology competence, e-procurement readiness would improve by .445units. The results show that technology competence is a significant predictor of e-procurement readiness of public universities in Uganda ($\beta = 0.445$, $P \leq 0.01$).

Finally, the combined effect of management readiness and technology competence on e-procurement readiness is 44.4%. This indicates that other than management readiness and technology competence, there are other factors that influence e-procurement readiness of public universities. In addition, comparing the two independent variables entered in the model, the results indicated that management readiness contributes much to e-procurement readiness as compared to technology competence.

CHAPTER FIVE

DISCUSSION, CONCLUSION AND RECOMMENDATIONS

5.0 Introduction

This chapter presents the discussion of the results generated in chapter four. Conclusions and recommendations on management readiness, technology competence and e-procurement readiness of public universities in Uganda are presented below by comparing what was established in this study with what other scholars have established before in the literature review. It helps to draw conclusions, recommendations and identify areas for future research. The discussion is based on the study objectives.

5.1 Discussion of findings

This research was carried out basing on three objectives. Findings in relation to these objectives were thus obtained. In this section, these findings are further discussed to check their relevance and contribution to existing literature. The discussions are aligned to study objectives in relation to key findings obtained from data analysis process.

5.1.1 Management readiness and e-procurement readiness

Study results demonstrate that there is a positive significant relationship between management readiness and e-procurement readiness of public universities in Uganda. This implies that any positive change in management readiness is associated with a positive change in e-procurement readiness. Similarly, all the dimensions of management readiness that include management awareness and management support have a positive significant relationship with e-procurement readiness of public Universities in Uganda. Thus, when e-procurement is in the university's strategic plan and top management gives priority, there is a likelihood that University management will become more committed to fully implement e-procurement. Moreover, management will provide sufficient financial support to facilitate e-

procurement usage as well as considering IT competences when recruiting employees for the procurement department.

This finding is consistent with Naseebullah *et al.,* (2012) who revealed that management readiness facilitates awareness and willingness of organizational leaders to support e-procurement initiatives. Molla and Licker (2005) add that management readiness is the prime source for technology implementation. As such, if the management is ready and aware of e-procurement, then this will highly influence the readiness of the organization to adopt e-procurement. Similarly, top management support and commitment have been considered crucial in shaping organizational readiness to adopt and implement computer based technology (Yu-hui, 2008). The readiness to adopt e-procurement in an organization is significantly dependent on managerial attention, without appropriate support it is impossible to get approval from the top management (Klein, Conn & Sorra, 2001).

However, study results are contrary to Orina (2013) who demonstrated that top management is not positively associated with e-procurement readiness. As such, lack of top management support limits e-procurement readiness. This is because top management is one that has the authority to pass the budget for the rebuilding of any activities in the organization, so in the case of e-procurement implementation, the top management has the right to decide Yes or No. Top management support is essential in overcoming barriers and resistance to change (Teo, Lin and Lai, 2009), without the support and commitment of top management, it is impossible to promote e-procurement readiness and eventually implement e-procurement (Adjei-Bamfo, Domfeh, Bawole, Ahenkan, Maloreh-Nyamekye, Adjei-Bamfo, & Darkwah, 2020; Yu-hui, 2008).

5.1.2 Technology competence and e-procurement readiness

Study results also show that there is a positive significant relationship between technology competence and e-procurement readiness of public universities in Uganda. This suggests that any positive change in technology competence is associated with a positive change in e-procurement readiness. Similarly, all the dimensions of technology competence that include IT Infrastructure and IT Expertise have a positive significant relationship with e-procurement readiness of public Universities in Uganda. This indicates that when the university has e-procurement software, internet, intranet, groupware tools and enough computers. These can facilitate e-procurement readiness of the public universities. This becomes true if employees in the universities have information technology expertise needed to use the technologies to enhance e-procurement readiness.

Study findings are in line with Soares-Aguiar and Palma-dos-Reis (2008) who indicated that technology competence are critical resources and possession of information technology skills and knowledge needed in fostering e-procurement readiness of an organization. This implies that technology competence can stimulate readiness of an organization to adopt e-procurement. Benitez, Ray and Henseler (2018) also added that technology competence in form of IT infrastructures are vital tools and resources, which provide a platform for an organization's e-procurement readiness goals. This demonstrates that organizations with robust IT infrastructure are ready to support uptake of e-procurement. As such, Wang (2010) revealed that an efficient and effective IT infrastructure is the base of implementing e-procurement. This is further supported by Wu *et al.*, (2007) who indicated that organizations with high levels of IT technical expertise have potential for e-procurement readiness.

On the contrary, Yu-hui (2008) argued that entities without robust IT expertise may not be ready and willing to implement e-procurement. In the same direction, Gunasekaran and Ngai

(2005) stated that many companies do not have IT experts or skilled workers to perform tasks. The lack of IT experts may create a problem for the organization to handle and operate e-procurement systems and thus constraining their e-procurement readiness.

5.1.3 Management readiness and technology competence on e-procurement readiness

Study results further revealed that management readiness and technology competence jointly predict e-procurement readiness. This suggests that for public universities to be ready to take on e-procurement, management of these institutions should be ready to support e-procurement interventions. Similarly, their employees should be competent enough to implement e-procurement systems with ease.

This finding is supported by Naseebullah et al. (2012) who argue that if the management is aware about the competitor's technology such as e-procurement, then this will highly encourage organizational leaders to invest in IT infrastructure and equip staff with the necessary knowledge and skills that are relevant in fostering an organization's e-procurement readiness. In this case, the management readiness and technology competence are compulsory to know whether they have the knowledge and ready to implement e-procurement or not. This is also supported by Adjei-Bamfo, *et al.*, (2020) who revealed the readiness of an organization to adopt and implement technology significantly depends on managerial attention, without appropriate support it is impossible to get approval from the top management on issues of acquiring IT infrastructure and training of employees that is relevant in promoting e-procurement readiness of an organization.

5.2 Conclusion

The findings and discussion on management readiness and e-procurement readiness lead to the conclusion that management support in terms of recruiting employees with e-procurement knowledge, providing computer facilities, offering e-procurement training opportunities to staff members improves e-procurement readiness of the public universities in Uganda.

Furthermore, study results on technology competence and e-procurement readiness of public universities in Uganda lead to the conclusion that technology competence improves e-procurement readiness. This is because technology competences enable employees in public universities to get enough expertise needed to successful operate information technologies that support e-procurement operations and thus promoting e-procurement readiness.

Similarly, findings and discussion on management readiness and technology competence on e-procurement readiness lead to the conclusion that public university management readiness and technology competence both facilitate e-procurement readiness of public universities. This is due to the fact that university management provides the necessary support in terms of employing workers who have the required expertise that ultimately make these institutions ready to take on e-procurement.

5.3 Recommendations

Study results indicated that management readiness contributes much to e-procurement readiness as compared to technology competence. It is therefore recommended that management of public universities in Uganda need to;

1) Support e-procurement initiatives by providing sufficient financial support to facilitate e-procurement usage, considering IT competences when recruiting employees for the procurement department and supporting acquisition of both software and hardware facilities needed for e-procurement readiness. This will enable employees to support e-procurement initiatives of their institutions and thus attaining e-procurement readiness in public universities in Uganda.
2) Strengthen the technology competencies of their staff by providing enough IT infrastructures such as the e-procurement software, computer systems, hardware and software for security protection, access to internet, groupware tools and video

conferencing. Using this IT infrastructure and the competences of their staff, it will be possible for public universities to attain e-procurement readiness.

5.4 Limitations of the study and areas for further research

1) The study adopted a cross-sectional design where data was collected at one point in time. The findings from such studies are always limited to the current period only; hence future studies should look at a longitudinal research design where universities are monitored for an extended period.
2) The study was restricted to a quantitative approach using a structured questionnaire to produce information from the respondents. Other features that can be observed were not included in the findings. Thus future research should incorporate qualitative design for data enhancement using interview guides.
3) Furthermore, the combined effect of management readiness and technology competence on e-procurement readiness is 40.4%. This indicates that other than management readiness and technology competence, other factors influence e-procurement readiness of public universities. As such, further research should explore other antecedents of e-procurement readiness. If possible, other variables need to be combined with these variables to stimulate e-procurement readiness of public universities in Uganda.

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Appendices

a) Data collection instrument

MAKERERE UNIVERSITY BUSINESS SCHOOL

Dear Respondents,

I am a student undertaking a study on "*Management readiness, technology competence and e-procurement readiness of public universities in Uganda*". The information provided for this study is purely for academic purposes. All responses will be treated with utmost confidentiality.

SECTION A: Background Information of the respondent

Please tick the appropriate box for the items below;

1. Gender: Male ☐ Female ☐
2. Age group

18-24	25-29	30-34	35-39	40 & above

3. Level of Education

Certificate	Diploma	Bachelor	Masters	PhD

4. Position in the organization

Procurement manager	Procurement officer	User department
1	2	3

5. Internet knowledge level

Poor	Average	Good	Very Good

SECTION B: Background Information the public universities Uganda

Please fill in/tick the most appropriate option

1. Name of the institution

Makerere	Kyambogo	Mbarara	Soroti	Kabale	Lira	Gulu	Muni	Busitema
1	2	3	4	5	6	7	8	9

2. Number of employees

Less than 50	Between 50 and 100	Between 100 and 200	Over 200
1	2	3	4

3. Organizational age

Less than 5 years	5-10 years	10-15 years	15-20 years	More than 20 years
1	2	3	4	5

SECTION B: E-procurement readiness

Please indicate by ticking in the appropriate box the extent to which you agree / disagree with the most suitable response that are rated as follows; **(1= Strongly Disagree; 2= Disagree; 3= Not sure; 4= Agree; 5= Strongly Agree).**

CODE	Perceived usefulness	SD	D	NS	A	SA
PU1	Using e-procurement improves the quality of the work I do.	1	2	3	4	5
PU2	Using e-procurement gives me greater control over my work.	1	2	3	4	5
PU3	E-procurement enables me to accomplish tasks more quickly.	1	2	3	4	5

PU4	E-procurement supports critical aspects of my job.	1	2	3	4	5
PU5	Using e-procurement increases my productivity.	1	2	3	4	5
PU6	Using e-procurement improves my job performance.	1	2	3	4	5
PU7	Using e-procurement allows me to accomplish more work than would otherwise be possible.	1	2	3	4	5
PU8	Using e-procurement enhances my effectiveness on the job.	1	2	3	4	5
PU9	Using e-procurement makes it easier to do my job.	1	2	3	4	5
PU10	Overall, I find the e-procurement is useful in my job.	1	2	3	4	5
	Perceived Ease of use					
PE1	I find e-procurement simple to use.	1	2	3	4	5
PE2	Interacting with the e-procurement is interesting.	1	2	3	4	5
PE3	Interacting with e-procurement requires less mental effort.	1	2	3	4	5
PE4	E-procurement is easy to understand.	1	2	3	4	5
PE5	E-procurement is easy to use.	1	2	3	4	5
PE6	My interaction with e-procurement is clear and understandable.	1	2	3	4	5
PE7	I find e-procurement to be flexible to interact with.	1	2	3	4	5

C: Management readiness

Please indicate by ticking in the appropriate box the extent to which you agree / disagree with the most suitable response that are rated as follows; **(1= Strongly Disagree; 2= Disagree; 3= Not sure; 4= Agree; 5= Strongly Agree)**

MA	Management awareness	SD	D	NS	A	SA
MA1	Adoption of e-procurement is in the university's strategic plan.	1	2	3	4	5
MA2	E-procurement usage is a top management priority.	1	2	3	4	5
MA3	Management considers e-procurement usage as its responsibility.	1	2	3	4	5
MA4	E-procurement usage is considered to be one of the ways to reduce costs operating the university.	1	2	3	4	5
MA5	Management understands that e-procurement is vital for the smooth functioning of the university.	1	2	3	4	5
MA6	E-procurement is perceived by management as an asset for achieving a competitive edge.	1	2	3	4	5
MA7	Management understands that e-procurement can support effective communication among the user departments.	1	2	3	4	5
MA8	Management is aware that usage of e-procurement reduces corruption.	1	2	3	4	5
MA9	Management understands that e-procurement reduces un necessary delays in supply what is needed by the university.					
TMS	**Top management support**					
TMS1	University management is commitment to fully implement e-procurement.	1	2	3	4	5
TMS2	Management provides sufficient financial support to facilitate e-procurement usage.	1	2	3	4	5
TMS3	E-procurement implementation is catered for in the annual budget of the University.	1	2	3	4	5
TMS4	The university consider IT competences when recruiting employees for the procurement department.	1	2	3	4	5
TMS5	Employees in the procurement and other user departments are given training in e-procurement usage.	1	2	3	4	5
TMS6	Management outsource e-procurement experts to support the internal team.	1	2	3	4	5
TMS7	Management supports acquisition of both soft and hardware facilitates needed for e-procurement adoption.	1	2	3	4	5

SECTION D: Technology competence

Please indicate by ticking in the appropriate box the extent to which you agree / disagree with the most suitable response that are rated as follows; **(1= Strongly Disagree; 2= Disagree; 3= Not sure; 4= Agree; 5= Strongly Agree)**

ITI	IT infrastructure	SD	D	NS	A	SA
ITI1	Our University has the e-procurement software.	1	2	3	4	5
ITI2	Our University has enough computers to support e-procurement in all user departments.	1	2	3	4	5
ITI3	Our University's hardware and software have security protection.	1	2	3	4	5
ITI4	Our University has access to internet.	1	2	3	4	5
ITI5	Our University uses the intranet.	1	2	3	4	5
ITI6	Our University uses emails.	1	2	3	4	5
ITI7	Our University uses groupware tools.	1	2	3	4	5
ITI8	Our University uses video conferencing.	1	2	3	4	5
ITE	**IT expertise**					
ITE1	I have all the IT expertise needed to support e-procurement adoption.	1	2	3	4	5
ITE2	I understand the benefits of e-procurement usage.	1	2	3	4	5
ITE3	In this University, we have adequate knowledge about e-procurement.	1	2	3	4	5
ITE4	I can We have a manager responsible for e-procurement.	1	2	3	4	5
ITE5	I have the ability to provide technical support to members of staff in the user department.	1	2	3	4	5
ITE6	I have core technical e-procurement skills.	1	2	3	4	5
ITE7	I can send emails internally.	1	2	3	4	5
ITE8	I can send emails externally.	1	2	3	4	5
ITE9	I can browse internet sites.	1	2	3	4	5
ITE10	I can browse the intranet.	1	2	3	4	5
ITE11	I can communicate via video conferencing.	1	2	3	4	5

Thank you for your time!