IMPACT OF ELECTRONIC PROCUREMENT PRACTICES ON ORGANINAZION PERFORMANCE.

CASE STUDY TUSKYS SUPERMARKET.

 \mathbf{BY}

DANIEL MAPENDO
FAITH MUTUKU
CECILIA MUSAU

A MANAGEMENT RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILLMENT OF REQUIREMENT FOR THE AWARD OF BACHELOR OF BUSINESS ADMINISTRATION (PROCUREMENT OPTION) AT RIARA UNIVERSITY

DECEMBER 2020

DECLARATION

We declare that this project is our original work and has not been presented in any other

institution of learning for an academic award. This research has been completed by references-

by-references sources duly acknowledged. Where text or tables have been borrowed from

sources that are duly referenced using the APA format and per anti-plagiarism regulations.

Signature..... Date.....

DANIEL MAPENDO: 18ZAD103697

FAITH MUTUKU: 19ZAD103959

CECILIA SEKONYO MUSAU: 19ZAD104214

This project has been presented for examination with our approval as the university

supervisors.

Signature...... Date.....

THAISAIYI ZEPHANIA OPATI

RIARA UNIVERSITY.

ii

DEDICATION

We dedicate this research to our Almighty God for the strength and breathe to accomplish it. Special dedication to our families for their support, encouragement, and prayers.

ACKNOWLEDGEMENT

At the very outset of this project, we would like to extend our sincere and heartfelt obligation towards all the personages who have helped us in this endeavor. Without their active guidance, help, cooperation, and encouragement we would not have made headway in this project.

We are ineffably indebted to MR OPATI for conscientious guidance and encouragement to accomplish this assignment.

Any omission in this brief acknowledgment does not mean a lack of gratitude.

ABBREVIATIONS AND ACRONYMS

E-Procurement: Electronic procurement

E-sourcing: Electronic sourcing

E-Tendering: Electronic tendering

E-Payment: Electronic payment

SCM: Supply chain management

TABLE OF CONTENTS

DECLA	RATIO	N	ii		
DEDICA	ATION		iii		
ACKNO	WLED	GEMENT	iv		
ABBRE	VIATIO	DNS AND ACRONYMS	v		
CHAPT	ER ON	E: INTRODUCTION	1		
1.1	Ba	ckground of the study	1		
1.2	Sta	tement of the Problem	1		
1.3	Ob	jectives of the study	2		
1.	3.1	General Objective	2		
1.	3.2 Sp	ecific Objectives	2		
1.4	Re	search Questions	2		
1.5	Sig	nificance of the study	2		
1.6	Sco	ope of the study	3		
1.7	Lir	nitation of the study	3		
1.8	Or	ganization of study	4		
CHAPT	ER TW	O: LITERATURE REVIEW	5		
2.1	Int	roduction	5		
2.2	Th	eoretical literature	5		
2.	2.1	Dell Electronic Procurement Theory	5		
2.3	En	ppirical literature	6		
2.	3.1	E-sourcing	6		
2.	3.2	E-tendering	7		
2.	3.3	Efficiency	8		
2.	3.4	E-payment	10		
2.4	Su	mmary of literature and Research Gaps	11		
2.5	Co	nceptual Framework	12		
CHAPT	ER TH	REE: RESEARCH METHODOLOGY	14		
3.1	Int	roduction	14		
3.2	Re	Research Design			
3.3	Op	erationalization and Measurement of Variables	14		
3.4	Ta	Target Population			
3.5	Sai	Sampling Design			
3.6	Da	Data Collection			
3.7	Da	Data Collection Procedures			
3.8	Da	Data Analysis Presentation 17			

3.9	Ethical Consideration	18			
CHAPTER	R FOUR:RESEARCH FINDINGS AND DISCUSSIONS	18			
4.1	Introduction1				
4.2	Sample Characteristics	18			
4.2.	1 Response Rate	18			
4.2.	2 Gender	19			
4.2.	3 Age	19			
4.2.	4 Period of working in the Organization	20			
4.2.	5 Education Level	20			
4.3	E-Sourcing	21			
4.3.	1 Costs reduction	21			
4.3.	2 Time-Saving	22			
4.3.	3 Relationship with suppliers	22			
4.4	E- Payment	23			
4.4.	1 Costs Reduction	23			
4.4.	2 Time-Saving	24			
4.4.	3 Certainty of payment	24			
4.4.	4 Competitive Advantage	25			
4.4.	5 Confidence and Security	26			
4.4.					
4.5	E-tendering	27			
4.5.					
4.5.					
4.5.					
CHAPTER	R FIVE: SUMMARY OF FINDINGS CONCLUSIONS AND RECOMMENDATIONS				
5.1	Introduction				
5.2	Summary of Findings				
5.3	Conclusions				
5.4	Recommendations 3				
5.5	Suggestions for Further Studies				
	naire				
Questi01		32			

ABSTRACT

This research focused on the impact of E-procurement practices on Organization performance.

The main purpose of the study was to investigate the impact of Electronic procurement practices on performance, significantly on organizations efficiency. The specific objectives were to determine the impact of E-sourcing on organization efficiency, to establish the impact of E-payment on organization efficiency, and to determine the impact of E-tendering on the efficiency of the organization.

This study was driven by the increasing settings of more Tuskys supermarkets everywhere; the trend has had significant change due to the adoption of E-procurement practices in running their supply chain as a tactic. Data were drawn from Tusky supermarket branches in NAIROBI. This research used descriptive research to describe the situation and case of the study and understand the need for our research better.

Its primary data collected from the management team of Tuskys supermarket by use of questionnaires and from a few employees of the organization to also get more detailed information. The data were analyzed and presented in tables. A regression was performed to establish the relationship of our variables which were E-procurement practices that consist of E-sourcing, E-tendering, E-payment, and Efficiency.

CHAPTER ONE: INTRODUCTION

1.1 Background of the study

The arrival of Electronic procurement as means of purchasing has served as a medium for major changes in the operational status of organization performance. This is very evident as (Nelson etc. al.2010) that E-procurement has transformed the way organizations operate. The current phase in the development of procurement has seen the establishment of special procurement technologies that have enabled the organization to interact with its most crucial suppliers.

According to (Presutti, 2013); E-procurement refers to a system of organizational purchasing that depends upon a certain information technology which is considered as at the input side of a supply chain management. It has been revealed that business Organizations are massively integrating technologies like e-procurement along with other factors for developing and improving the organization's performance (Vaast & Walsham, 2009).

According to Epic technologies (2010) report, E-Procurement technology in an organization enables it to do its operations in controlling cost keeping an open line of communication with potential suppliers during an organization's process. organizational performance encompasses firm objectives, outcomes performance in sales and marketing. (Hardy, 2007). Many firms consider performance as key since it's responsible for an organization to run effectively and efficiently. Continuous improvement is a major concern for organizations since its objectives are in a continuous cycle. Performance usually entails softer methods of measurement like customer satisfaction surveys used to give feedback on the take of customers. Many organizations must plan their operations to ensure profitability and efficiency. According to Oliva and Smith, (2000), the rise of E-procurement has led to the development of new opportunities related to outsourcing and new product design.

1.2 Statement of the Problem

E-procurement has had a large impact on organizations performance thus has had disruption come in on operations of the firms. Many large organizations have changed into more sophisticated ways of doing their services thus not been a good take on the side of customers who are not yet well informed about the systems that adoption of E-procurement has brought with, others have relocated opting to serve a specific market finding themselves doing damages on their profitability instead. Some of the E-procurement systems are complicated and also expensive thus bringing high operation costs. Any organization must have a strategy that

focuses on identified objectives to gain favor and be useful, the strategy should be able to meet customer satisfaction. The impact of e-procurement is still uncertain, so it is good to do the research and draw some great findings.

E-procurement does the activity of tendering sourcing and purchasing, or it creates regardless of some resistance to change from the revolutionized-to-revolutionized Baten burg (2007) as Evan's researched that some organizations have not yet adopted E-procurement. Lack of knowledge on how organizations should assess their value chain on how to run. A lot of studies have indeed been done on E-procurement, but I chose this topic because I needed to address Tuskys supermarket in detail that why it is the case study and hopefully the outcome to be of great help.

1.3 Objectives of the study

1.3.1 General Objective

This study aims to assess the impact of E-procurement on organization performance.

1.3.2 Specific Objectives

- 1. To determine how e-sourcing impacts the organization's efficiency.
- 2. To assess how e-payment has affected the organization's efficiency.
- 3. To determine how to what extent e-tendering affects the organization's efficiency.

1.4 Research Ouestions

- 1. To what extent has E-sourcing affected organization efficiency?
- 2. What is the effect of E-payment on organization efficiency?
- 3. To what extent does e-tendering have on organization efficiency?

1.5 Significance of the study

This study will help know the relationship between e-procurement, performance government policy attitude organization culture. The study will provide valuable information to stakeholders and also help others conduct. The findings of the study will equally enable managers to formulate E-Procurement policies that will give positive output to strategic performance of organizations the study will also enable organizations to understand the benefits of implementing e-procurement. As the researcher, it will also enable benefit from the findings by getting additional knowledge to the existing one of E-procurement. The study of Tuskys may also serve as a benchmark to help draw some conclusions of how other organizations have adopted E-procurement and working on it. The study will enable analyze the effect of e-procurement on the performance of organizations whether positive or negative.

The study will also help us analyze how organizations do their outsourcing and tendering for their operations to run smoothly with the help of e-procurement.

1.6 Scope of the study

His study is limited to the impact of E-procurement on organizational performance focusing on Tuskys supermarket (T-mall) Nairobi. The target population will be officers under the supply chain of Tuskys and also include other employees from the marketing, finance, and administration department for more detailed information. Tuskys is the researcher's case study since it's booming and doing well in the economy amongst other organizations. The study is based on only E-procurement and performance of organizations sampling with Tuskys supermarket Nairobi.

The study also narrows down to establish the benefits of E-procurement and all positive vibes that it is giving organizations after adopting the technology. The study will use closed questionnaires for it since it seems to encourage honesty and interest in giving full information without fear of being judged by anyone since opinions differ

The study is not going to cover all organizations but the information drawn might be used to make a few conclusions that may be of importance for the research either now or in future. The research is likely to take at least 3 months for great findings and also come up with valid and detailed information.

The study is likely to cover the independent and dependent variable which is E-procurement and performance and also might be interested to touch on sourcing and E tendering too of the organization since they are a part of the independent variable and also cover organizational culture a bit for the great analysis. The research is not to cover all organizations because it's going to increase the area of coverage of which it's going a longer period. The aim is not to spend all our time on the research but to retrieve information that is going to help in building the economy. The research findings will be relevant to organizations that are supermarkets of likes of Tuskys strategic plan and operational plan that will give measurements to integrate E-Procurement with the help of surveys that will be used in form of multiple choice and some questions measured on a 7 point like scale.

1.7 Limitation of the study

The negative attitude of the respondents is one of the limitations we are likely to face. Respondents may withhold some information which will, in turn, affect our findings thus it is a limiting factor. Some respondents may exaggerate information which will, in turn, lead to exaggerated findings and this will affect our findings. Policy changes within the period of

research may be a limitation to our research. The weather will also constitute a barrier to conduct the research. The limited knowledge of some respondents on the concept of electronic procurement and how it is applied by organizations will also constitute a limitation to the study.

1.8 Organization of study

This study is divided into five chapters. The first chapter covers the background of the study, statement of the problem, objectives of the study, research questions, significance of the study, limitations of the study, and the scope. The chapter further addresses the impact of E-procurement on organization performance focusing on Tuskys supermarket whose objectives will be to determine how e-sourcing impacts the organization's efficiency to assess how e-payment has affected the organization efficiency and to determine how at what extent e-tendering affect the organization efficiency on Tuskys supermarket.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter provides an overview of relevant literature knowledge thus introduces the framework for the case study. It entails theoretical literature (Dells for this case), empirical literature summary, and the gaps and conceptual framework.

2.2 Theoretical literature

This study seeks to evaluate the most common benefits of electronic procurement implementation where efficiency is improved according to a study conducted by Pani et al. (2011) specifically Tuskys supermarket in Nairobi well known as T-mall. The theoretical framework for the study is based on one theory on E-procurement particularly E-sourcing, E-tendering, and E-payment on the efficiency of organizations. Theories are formulated to explain, predict and understand phenomena.

2.2.1 Dell Electronic Procurement Theory

This theory is very influential on procurement mainly where integrated systems are involved after Dell computer corporation (2006). According to Amit and Zolt (2007), there is a relationship between e-procurement and organization performance on the efficiency of service and works in organizations. This theory emphasizes the trend of adoption of electronic procurement in terms of customer service, delivery, and cost reduction on operations in organizations. Gekonge (2006) says that Dell can ship computers to a customer within the shortest time possible as short as within twelve hours of receiving an order. Dell's business models of made-to-order rely completely on electronic procurement systems where their integration helps connect to suppliers helping in the exchange of real-time information making it easier for a buyer to source for suppliers on goods and services. Dell's primary focus was to provide innovative ways to empower customers to do more

Smeltzer (2001) says that before the introduction of E-procurement; buyers had to deal with individual transactions. They had to negotiate with suppliers, convert purchase requests into purchase orders, handle queries and make sure to give correct allocations of invoices received. In the operational workload, some strategic aspects were neglected and buyers had little influence over the choice of suppliers and purchased products. Negotiating power was limited as decisions of buying were made by the authorizer

Dell (2006) also examined that the key enabler of e-procurement was the ability of systems to communicate across organizational boundaries, while the technology for electronic

procurement provided the basic means, benefits from organization processes, resultant and perspectives. This was further possible through an extensible mark-up language (XML). This theory has the benefits: where E-procurement can provide information flow through real-time market intelligence and information's such as finding the best price and quality points across a large range of suppliers through the use of market places, order status, and tracking, reduces inventory levels. Second e-procurement reduces maverick purchasing thus where purchases are made outside the organization's contractual agreements, also increases efficiency by being able to aggregate purchasing across multiple departments or divisions without taking away any needed individual control De Boer (2007).

Dell premier solutions enable customers to connect procurement systems, from the catalog to checkout, to optimize the buying process. Davilla et al. (2003) firms using e-procurement solutions receive about 42 percent in purchasing transaction cost. While the cost savings are significant De Boer et al (2001) argued that the total volume of purchases needed to be high as well as the total customers to reach high savings. Through Dell's model, Tuskys can monitor at all times where their suppliers have originated and how each of the inventories from the different suppliers performing in terms of sales.

Dell goes ahead and explains that supermarkets can use the model and monitor all times with supplier's origination and how each inventory from different suppliers are performing in terms of sales. They can tell when procurement personnel source for supplies from other contractors apart from the normal ones.

2.3 Empirical literature

This is a review that deals with research studies in particular to provide answers to many questions of current research. This review will focus on E-payment, E-sourcing, E-tendering, and efficiency.

2.3.1 E-sourcing

According to Jae et al. (2010), E-sourcing is a key procurement tool that allows companies to connect, screen and shortlist suppliers. Also went ahead and defined e-sourcing as the process of identifying new suppliers for a specific category of purchasing requirement using technology. Puranam, Gulati and Bhattacharya, (2013) defined e-sourcing as the internet-enabled application and support tool that facilitates interaction between buyer and supplier through the use of online negotiations, online auctions, reverse auctions, and similar tools. E-sourcing as by Katok (2006) is especially associated with online auctions to enable price

reduction by introducing the element of a competitor. Garran (2005) considers that e-sourcing should prioritize organizational requirements, understand the supply market select the best supplier s establish organizational needs/establish and manage relationships with suppliers.

Laugen and Fleury, (2012) ascertain that e sourcing avails organizations the opportunity to concentrate core competencies on definable and provided and preeminence business area and provide a unique value for customers. Hashai (2016) notes that e sourcing works through some tools which he mentions as follows, Request for information that he says it's used by buyers to collect and evaluate initial high-level information about potential suppliers. Request for a proposal which he explains that lays out significant detail what they are looking for to purchase and ask the bidder. Request for a quotation which he typically asserts that it's the final step of E-sourcing where the buyer negotiates the final terms of an agreement. The potential net benefit of E-sourcing depends greatly on the tradeoff between the advantages and disadvantages that it provides Musau (2020)

Kotabe et al. (2008) give a positive say about E-Sourcing where he claims that E-sourcing saves time and boost efficiency by speeding up the time it takes to award a contract through reduction of the amount of time procurement specialist takes. E-sourcing also leverages supplier information by improving transparency between buyers and suppliers Hascaryani, (2013).

However, E-sourcing has its negative part According to Thompson (2018) E-sourcing brings about over-reliance on technology thus disabling due diligence thus leading to supply chain disruption. E-sourcing has brought complexity thus lacking strategic value due to managerial struggles in using data analytics.

2.3.2 E-tendering

Betts et al. (2006) define electronic tendering as the process undertaken to get offers to form a contract between a client and a contractor.

Tindsley and Stephenson (2008) define e tendering as the use of internet technology in the purchasing process. This definition excludes old purchasing applications, such as ordering by telephone or by fax and instead includes an invitation to tender, awarding of tender, issuing contract, and monitoring performance. This meaning that tender queries, tender extras, updates, evaluation for labor before payment, and notifications are all exchanged electronically in an online platform via a website. Wang et al. (2016) gives an example of e tendering as where ordering office supplies by using a supplier's website catalog

Dawson et al (2006) say that e tendering relates to the issue and receipt of tender documentation through electronic means which facilitates the procurement of organizations and awarding of contracts. The main driver behind e tendering environment is competitive advantage achieved through improved work processes the elimination of previous difficulties. Nagurney et al. (2011) give some drivers of e tendering that include, price reduction, reduction in time to source materials, improvement in communication, and enhancement of decision making and market intelligence.

The largest barrier to the adoption of e tendering environments is employees themselves opposed to technological barriers, this barrier includes lack of awareness no quantifiable measurements or indicators of success, limited skilled worker's transparency, and a fragmented supply chain. E tendering brings up benefits; it tries to eliminate paper by reducing the time taken to submit and respond to queries. Clarifications are issued electronically and distributed automatically, thus reducing the risk of errors and increasing the visibility of responses to all interested parties. This increases the accuracy of tenders while reducing the cost of managing the tender process Brooks (2008).

Walker and Walker (2015) also mentions more benefits of electronic tendering; they say that e tendering increases integrity and transparency in the tendering process reasonably high return on invested funds on such technology improved quality of tender specification and supplier response, provision of quality management information. It is interesting to further note that electronic tendering increases the level of security and authentication of the tender process Musau (2020)

2.3.3 Efficiency

Efficiency signifies a peak level of performance that uses the least number of inputs to achieve the highest amount of output. According to an economist (Eugenes, 1970), he went ahead and shows how efficiency can be used in a variety of ways to describe various optimization processes. For example, he described the market efficiency which he stated that an investor can't outperform the market, and the market anomalies should not exist because they will immediately be arbitraged away.

E-Procurement has the power to consolidate the supply chain function under a single roof resulting in inefficiency, satisfaction, and improved performance for the organization. The ultimate goal of each organization is to cut coast, improve the quality of its products and services offered for sale, build customer loyalty, and boost performance in terms of

profitability, Return on capital, growth, and expansion. E-Procurement is also the use of information communication technology and (ICT) applications. Gattron (2010) identified E-Procurements as one of the dynamic procurement processes because of the strategic innovative and responsive procurement processes. In the procurement of goods and services by individuals and organizations. E-Procurement through its application of rapid data processing, electronic technology provides a means to improve efficiency within specific areas of the supply chain and integrated systems and processes enable buyers and sellers to share valuable information including demand signals, price quotations, forecast inventory, and transportation. Ageshin(2009). Distributions means are stated to enable goods to reach buyers at the time they are needed when they are still in good conditions and fresh in case they are highly perishable.

Distribution is addressed and better logistics means are employed because it provides improved efficiency across the supply chain thereby extracting several tangible and quantifiable benefits corpsi(2006). E-Procurement systems also allow more efficient and integration of supply chain with other department and provides better organization and tracking of transactions records for easier acquisition and monitoring of procurement, transactions can also be standardized and all provide solutions to some of the challenges encountered. Also, the transaction can be standardized and all bids for goods and services tracked more easily allowing organizations to use such knowledge to obtain better and more economic prices for their inputs and inventories. Electronic procurement has been initially explored by global by public procurement focusing on the initial time of sprucing and during the of industrial development for upgrading the system to professional efficiency.it is the internet that mainly affects the industrial procurement practices and following the innovation of B2B (business to business) flea market, supply chain networking through the internet, procurement based internet, and procurement through communities and hubs on the internet. The electronic procurement system has been distributed on which has transformed the whole supply chain and procurement system. Slowly and gradually, his innovative system is replacing and substituting the conventional procurement and supply chain into it.

The system has significantly improved the procurement effectiveness and efficiency while decreasing the procurement/supply chain cost along with maintaining the quality requirement of the organization. It's the tendering process happening through the help of the internet which saves efforts, time, and cost compared to manual procurement system watuleke(2017). The two important trends that increased procurement through the internet are multi-vendor catalog and decentralized procurement. In the past few years, the electronic procurement system was

promoted to be a strategic supply chain management view Nelson, moody, and Stegner (2012). This agreement has a rationale that is in line with concrete and practical implementation.

2.3.4 E-payment

Gundawati (2007), defined e payment as a technology innovation system, used to provide tools for online payment. Electronic payment is also defined as an inter-organization type of information that relates to different transaction systems linking together various associations linking to individual customers. Hascaryani (2013). Electronic payment is considered as an innovative new payment system that many procurement entities choose to use while doing business transactions.

This is since; technology is still improving and facilitating our ways of transacting business. According to the Federal Financial Institutions Examination Council (2010), electronic payment is a new payment practice for retail where a merchant retrieves payment information for goods and services and places this information in an electronic template that creates electronic files for processing over the network.

Handayani (2015), identified 4 types of electronic payment and defined them as follows. Electronic cash is where transactions are done via an electronic currency exchange. Prepaid cards, these are repaid cards for a certain amount used by the customer. They involve making entries from unique card numbers on merchant sites.

Credit cards are servers that authenticate consumers and verify the bank whether sufficient funds are available before purchasing, The debit card is the customer maintains a positive balance in the bank account and the money deducted by the account when the debit transaction is made, an electronic check is an electronic institution completing the transaction between the buyer's and the seller's bank in the form of an electronic check.

Thanks to its significant growth alongside technology, the business organization is embracing e-procurement since it is increasing the speed and convenience of business payment. Thompson (2018) stated that e payment is more convenient comparing to traditional payment methods because it eliminates the security risks associated with a cash payment. E-payment is also known for its great advantage in helping the business organization to reduce transaction costs and transaction time. Thanks to electronic payment, customers no longer need to spend their precious time waiting for their turn to do the transaction; this helps the organization to offer a better service to these customers.

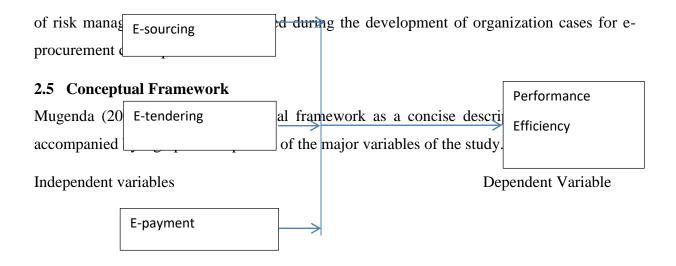
2.4 Summary of literature and Research Gaps

This chapter reviews the theory that informs the independent and dependent variables. It also explores the conceptualization of the variables by analyzing the relationship of the variables also the empirical literature in a wide range of studies conducted have considered organization performance as the measurement of basic among used to determine the progress. Njogu, (2012) explains that some organizations have successfully implemented the use of E-procurement like for example the Nation Media group that uses its digital platform commonly known as Nsoko that has enabled customers to purchase products online.

He also goes ahead and asserts that the role of electronic procurement in purchasing has been based on a new strategic view of supply chain management previous studies have focused on the use of information communication technology more. Njihia and Magutu (2013) conducted a study on critical factors and challenges in E-Procurement adoption among large-scale Manufactures in Kenya and concluded that Most have adopted ICT in procurement and not E-procurement so our research will try to confirm if that's the case with Tuskys supermarket.

The review of relevant research of organization performance after the adoption of eprocurement shows that E-procurement constitutes a very important information technology
managerial tool that has the potential of interesting various functions across the organization
Ngeno &Omwenga (2010). E-procurement helps in the reduction of maverick purchasing for
example purchases made outside the organization's contractual arrangements. The ability to
aggregate purchasing across multiple departments or divisions without taking away any needed
individual control or introducing time-wasting authorization routines. E-Procurement reduces
transacting costs through automation of requisitioning, purchase order management, and
accounting processes by the use of internet technology including online ordering.

The literature reviewed indicates that No studies can be carried out on the effects of E-Procurement. There is a need to validate the findings of past studies in the context of developing countries since the implementation of e-procurement might have an adverse effect. According to lysons (2003), E-procurement has been touted as a revolutionary tool in value chain operations. E-procurement helps drive future both internal and external risk. The implementation of e-procurement risks one of the primary risks is missing opportunities to implement strategies that improve procurement management. On the supply side, there is a risk that suppliers will not cooperate with the use of E-procurement tools for example some suppliers are sufficiently powerful to insist on the use of paper-based systems. Normal methods



Operationalization of Variables

<u>Variable</u>	<u>Definition</u>	Operationalization
E-Procurement	Using e-commerce for	E-procurement is the process
	procurement, a business tool	of purchase and sales
	and enabler, involving the use	through the web interface
	of electronic technologies to	
	automate and streamline the	
	procurement process	
	(Davilla,2008)	
E-Sourcing	Internet-enabled application	An application associated
E-Sourcing		**
	and support tool that	with online auctions
	facilitates interaction between	

	1 1 1 1 1	
	buyer and supplier through	
	online	
	negotiations(Puranam,2013)	
E-Payment	A system that helps to provide	E-payment is simply paying
	tools for online payment	for goods and services online
	(Hascaryani,2013)	
E-Tendering	The process is undertaken to	The process where contract
	get offers to form a contract	documents are published
	between a client and	electronically
	contractor(Tindsley 2008)	
Efficiency	The act of being able to	In short producing results
	accomplish something with	wanted without waste
	the least of time and effort,	
	competency in	
	performance(Watuleke2017)	

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This chapter presents all aspects of research methodology in the study, includes research design, operationalization, and measurement of variables, target population, sampling design, data collection, data analysis and presentation, and ethical considerations.

3.2 Research Design

Creswell (2007) notes that a research design is the structure of the research that holds all the elements in a research project together. The research will make use of an effective research design, which is considered to measure the relationship between variables. In this research, our variable is e-procurement as the independent variable that its adoption brings impact to organization performance the dependent variable Musau (2020). This design will help create greater confidence due to the internal validity of the variables. Using both qualitative and quantitative approaches to generate quality information to identify and explain the impact of electronic procurement in organization performance at the Tuskys supermarket. A structured questionnaire will be made and used to enable the researcher to collect important information about the unit under study.

3.3 Operationalization and Measurement of Variables

Table 3.1 Operationalization and Measurement of Variables

Variable	Nature of	indicators	Measurement	Data	Method of
	variable		scale	collection	data
					analysis
E-sourcing	Independent	Value/quantity	Nominal scale	questionnaires	Percentage/
					frequencies
E-	Independent	Contract	Nominal scale	questionnaires	Percentage
tendering		awards/			/frequencies
		suppliers			
E-payment	Independent	Cost	Nominal scale	questionnaires	Percentage /
		transactions			frequencies
Efficiency	Dependent	Output/input	Nominal scale	questionnaires	Percentage
		of			and
		organization			frequencies
		employees			

Variable	Definition	Operationalization
E-Procurement	Using e-commerce for	E-procurement is the process
	procurement, a business tool	of purchase and sales through
	and enabler, involving the	the web interface
	use of electronic	
	technologies to automate and	
	streamline the procurement	
	process (Davilla,2008)	
E-Sourcing	Internet-enabled application	An application associated
	and support tool that	with online auctions
	facilitates interaction	
	between buyer and supplier	
	through online negotiations	
	(Puranam,2013)	
E-Payment	A system that helps to	E payment is simply paying
	provide tools for online	for goods and services online
	payment (Hascaryani,2013)	
E-Tendering	The process is undertaken to	The process where contract
	get offers to form a contract	documents are published
	between a client and	electronically
	contractor (Tindsley 2008)	
Efficiency	The act of being able to	In short producing results
	accomplish something with	wanted without waste
	the least of time and effort,	
	competency in performance	
	(Watuleke2017)	
	l .	1

Source Musau (2020)

3.4 Target Population

According to Cooper and Schindler (2008), a population is defined as the total collection of elements under study whereby references must be made. However, the population is the complete collection to be studied. McLeod (2019), defined target population, as the individual group from which the sample will be drawn. In this case, our sample will refer to the people who will take part in our investigation. The research intends to pose the questionnaires to fifteen

low-level employees in the business, one to the head of procurement in the business, and five questionnaires to employees at the management level.

3.5 Sampling Design

The sample size is a given number of cases from the accessible population which is carefully selected to be representative of the whole population with the relevant characteristics. A sample is therefore small groups obtained from the accessible population mugenda (2003). This research intends to use convenience sampling. Rhodes (2013) conducted research using the same design and seemed to work out in his research so we thought of adopting it. Tuskys supermarkets have a total number of 60 employees which makes 20% randomly selected. A sample frame was prepared made up of employees in four departments of the Tuskys supermarket.

Supermarket	Tuskys	Targeted employees
Department	Number of employees	Number of employees
Procurement	20	10
Finance	5	10
Marketing	30	3
Administration	5	15
		2
	-	
Total	60	30

3.6 Data Collection

Rhodes (2013), defined data collection as the process of obtaining information and measuring them based on the variables of interest, using questionnaires that will require answers from the respondents. A questionnaire as defined by McLeod (2019) refers to a research instrument that is constituted by several questions to be answered by respondents to get information. So, a questionnaire is also known as a written interview. The research will use a questionnaire to collect data which will be personally issued to respondents, who will be randomly selected from the procurement practitioners at the Tuskys supermarket branches in Nairobi.

3.7 Data Collection Procedures

The research will use a stratified sampling procedure to get a sample that represents the business's workforce at the Tuskys supermarket. The researcher will seek a research permit letter of research from Riara University, which will enable the researcher to freely deliver the questionnaires to the chosen respondents and easily collect data from them. The researcher will use email and hand to hand delivery to distribute the questionnaires to the chosen respondent at Tuskys supermarket, after this, the respondent will be given 5 days of completing their answers, and then the data will be collected using the same distribution method.

3.8 Data Analysis Presentation

Data analyses refer to examining what has been collected and making inferences and deductions, Kombo and Tromp (2006). The statistical method used in this study is descriptive and inferential statistics. Closed questions were analyzed using quantitative analysis while open-ended questions will be analyzed by use of the qualitative method. The analytical model that was used to determine the impact of e-procurement on organizational performance was expressed in the equation below.

$$y = \alpha + \beta_1 \chi_1 + \beta_2 \chi_2 + \beta_3 \chi_3 + \beta_4 \chi_4 + \mu$$

y: organizational performance of Tuskys supermarket.

a: the constant term

The coefficient β was used to measure the sensitivity of the dependent variable to unit change of the predictor variable

 μ = Error term that modifies all variables

 X_1 =e-sourcing as a percentage reduction in sourcing inputs at an economic price

X₂=e-tendering measured by the percentage reduction in pouring inputs of economic prices

X₃=e-payment as a measured percentage reduction in payments of inventory

X₄=efficiency as measured by the percentage increase in records maintained of transactions done.

The strength of the relationship between the dependent and independent variables was measure by carrying out an F-test. The level of significance and level of confidence from β_1, \ldots, β_4

are significantly different from zeros and so it was concluded that there is a strong relationship between the dependent and independent variables.

3.9 Ethical Consideration

Research ethics can be defined as the application of moral rules and professional codes of conduct to the collection of analysis, reporting, and publication of information about research subjects Holborn (2016). The research ethics also refers to standards of conduct International civil service Jan (2002) to observe ethics in research, the research will look at Issues that are likely to face the research study. This is the issue of informed consent, before data collection Tuskys the research should receive some guaranteed performance. The respondents of the study will be made to understand what the expected and will be given opportunities. The study will address confidentiality and privacy by letting the respondents give or withhold at will. This study will also identify some ethical issues that may be associated with e-procurement for example exaggeration of buyers and suppliers problem to achieve the desired outcome, preferential treatment to purchasers or suppliers that top management has because now with the computerized system can be a bit tricky for the management to engage in such cooper et al. (2000)

CHAPTER FOUR: RESEARCH FINDINGS AND DISCUSSIONS

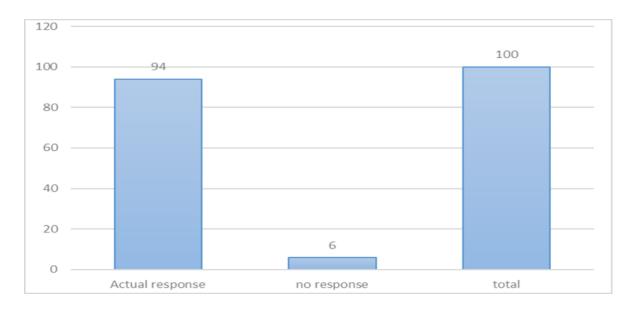
4.1 Introduction

This chapter presents the data analysis and findings from the research that was conducted at Tuskys supermarket. The sample was drawn from the employee of the supermarket. The findings have been presented in the form of pie charts, tables, and graphs where necessary. The target sample was 100 respondents, but the actual response is formed by 94 respondents.

4.2 Sample Characteristics

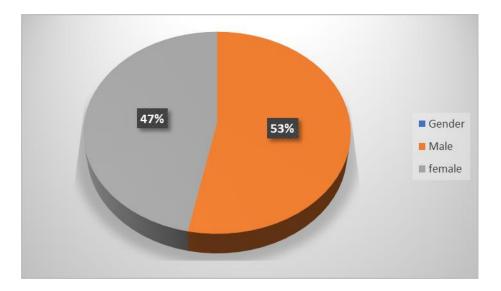
4.2.1 Response Rate

Out of the 100 questionnaires we sent, 92 were returned answered and 6 were returned with no answers. The 92 answered questionnaires will help the research to come up with the conclusion according to the answers provided by respondents.



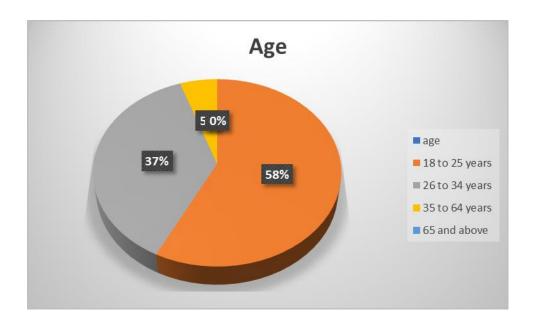
4.2.2 Gender

50 0f our respondents were male and 44 of them were female respondents.



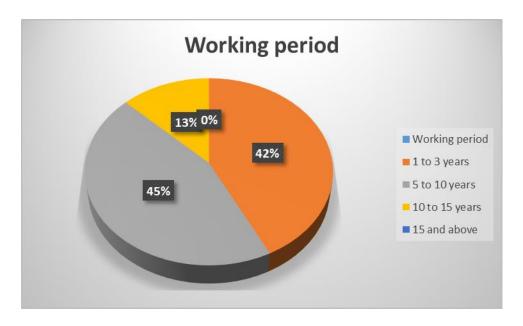
4.2.3 Age

58% of our respondents were between the ages of 18 to 25 years, 37% of them were between 26 to 34 years old and only 5% of them were aged between the age of 34 and 64 years old.



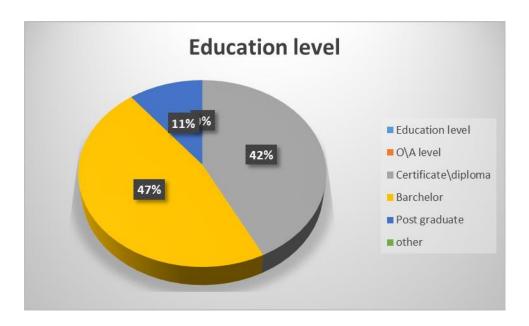
4.2.4 Period of working in the Organization.

From the questionnaires received, 42% of our respondents have been working with their company for a period of 1 to 3 yeas, 45% of them from a period of 4 to 10 years and 13 % of them from a period of 10 to 15 years.



4.2.5 Education Level

47% of our respondents held a degree certificate, 42% of our respondents had a certificate or a diploma, and 11% of them were at the postgraduate level.



4.3 E-Sourcing

According to Jae et al (2010) e-sourcing is the key procurement tool that allows the company to connect, screen and shortlist suppliers.

4.3.1 Costs reduction

By helping businesses to prevent duplicate spending, E-procurement helps the organization to save more money. Electronic helps the organization to save money by reducing multiple costs such as the ones associated with paperwork. From the 94 data received, 64 respondents agreed that e sourcing helped to reduce the organization's costs to a large extent; 20 of them went farther by affirming that e sourcing impacted the costs reduced to a very large extent and 10 of them with the moderate extent.



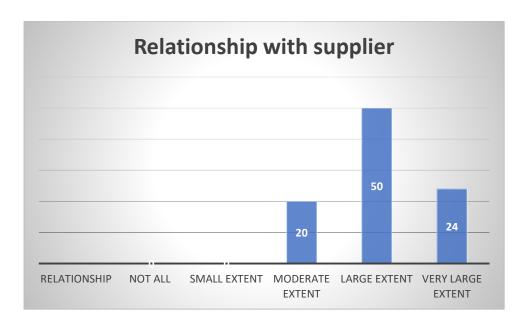
4.3.2 Time-Saving

Electronic sourcing is an important part of e-procurement practices. It has a great impact on the organization's efficiency and helps the procurement management team to speed up the time it takes to award a contract with potential suppliers. The process of e sourcing, therefore, helps the team to spend less time on a given task. From the findings collected, 65 respondents confirmed these benefits provided by e sourcing by agreeing that e sourcing impacted the organization efficiency in term of time savings to a large extent, 21 of them said that the impact was at a very large extent and 8 of them stayed at a moderate extent.



4.3.3 Relationship with suppliers

Among the benefits provided by e sourcing in terms of helping relationships with suppliers, e sourcing helps to improve transparency between buyers and suppliers. Therefore, the risks of fraud and corruption are limited. For the question on the impact of e sourcing in improving relationship with suppliers in terms of openness and transparency the responses were as follow; 20 of our respondents said that the impact was at a moderate, 50 of them of said it was at a large extent and 24 respondents said it was at a very large extent.

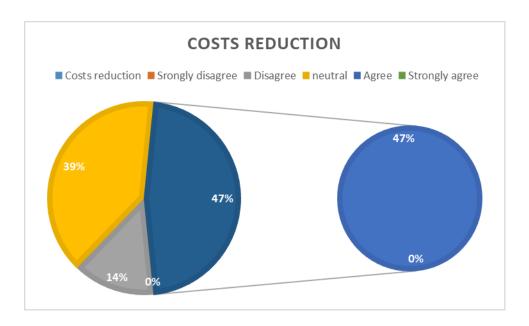


4.4 E- Payment

Gundawati (2007) defines e-payment as a technology innovation system used to provide tools for online payment. Also defined as an intern organization type of information that relates to different transactions system linking together various associations linking to the individual customer. Hascaryani (2013). E payment is one of the most used e-procurement practices. The business organization has embraced the use of electronic payment such as online banking payment, mobile payment, etc. To gain the benefits of ensuring reduction of costs, to save more time, to ensure certainty of payment, and to gain a competitive advantage. The followings are feedbacks provides by our respondents on how e payment impacted their Organization efficiency in term of:

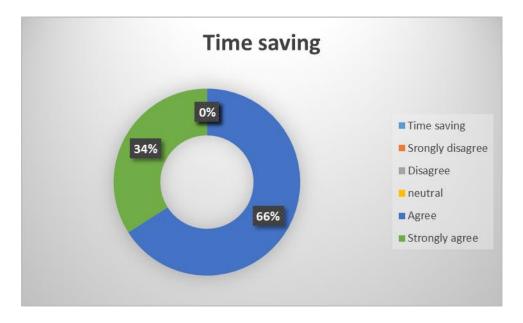
4.4.1 Costs Reduction

E payment practices such as the use of M-Pesa, Online payment, credit cards, and others have been helping some use in terms of reducing the costs of transacting money and therefore increase business profits. An example of these costs includes the transportation cost to bring money to finance. However, not all people agree with this statement since they found e payment practices come with some extra costs such as the transaction costs required by banks or mobile payments.



4.4.2 Time-Saving

Time-saving is one of the most identified advantages of E payment practices. It offers most business organizations the advantage of spending less time while making money transactions. This the reason why several organizations ensure that they make their Banking account number or mobile payment account details to their customers or business partners to make payment faster for everyone. 62 of our 94 respondents agreed with this statement while 32 of them strongly agreed.

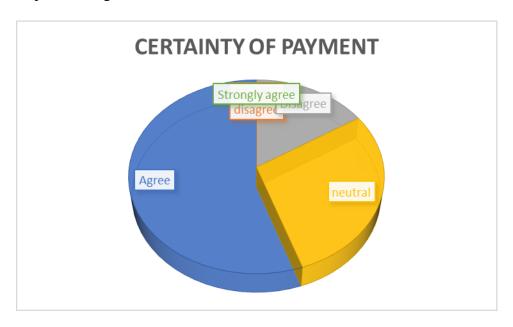


4.4.3 Certainty of payment

Being the last step in the process of trading, the Customer wants to make sure that the payment transaction has been done successfully done. For this reason, e payment is mostly preferred from the use of cash since it gives proof that the transaction has been made and therefore limits

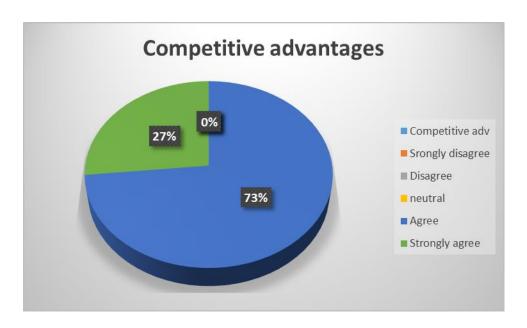
the risk of losing money. However, due to reliance on the telecommunication infrastructure, e payment may not offer the same payment to all its users depending on their level of telecommunication infrastructure.

For the question of the certainty of payment while using the e payment method, the responses were as follows: 15 of our 94-respondent disagreed, 27 of them agreed and a majority of 52 respondents agreed.



4.4.4 Competitive Advantage

E payment practices such as online banking payment, allows the company to gain advantages over the competitors who do not use the payment practices by allowing the company to produce and to sell more goods and services faster and cheaper than its rivals. All our respondents supported this statement through their responses were by 69 respondents agreed that e payment practices offered a competitive advantage to their Organization and 25 of them strongly agreed.



4.4.5 Confidence and Security

Confidence and security are what we all need in the first place when making money transactions, e payment offers o its users an amount of confidence and security to transact their payment. However, some users do not feel confident while doing their payment electronically due to several obligations required proceeding, and others feel even less secured due to the possible risk of getting their money lost in the case of just making few mistakes such as righting the wrong pay bill number. The following are the responses from our 94 respondents in terms of how the thoughts of the statement of e payment offering more confidence and security to their organization.



4.4.6 Minimized risk of fraud.

E payment comes with the advantage of offering the company a minimized risk of fraud in terms of reducing corruption, illegal transactions, etc. However, fraud might still occur in the

case of limited control. Some of these frauds might come from cyber-attacks performed by cybercriminals, online scams, merchant identity fraud, etc.

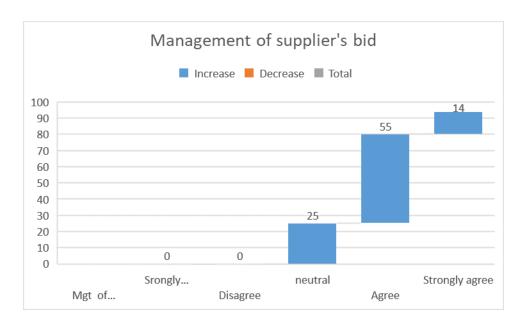


4.5 E-tendering

Tindsley and Stephenson (2008) define e- tendering to be the use of internet technology in the purchasing process. E tendering is one of the E procurements practices that help the contracting authorities can open tender or request for participation electronically. It helps the Company to manage the supplier's bid, to reduce time to procure and the different costs, and to gain full audit and process intelligence.

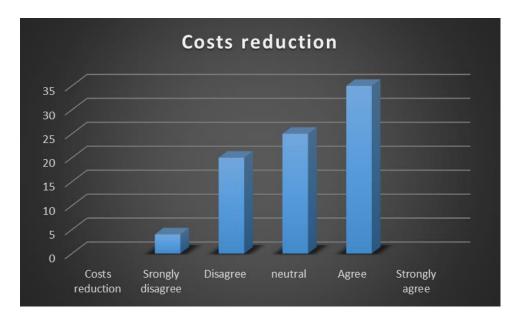
4.5.1 Management of supplier's bid

Running the process of tendering online helps business organizations to clearly organize the process and therefore this will automatically. Most of our respondents are in agreement that the management of responses through the system helps to streamline the comparison and evaluation of bids by requiring granular responses. Among our 94 respondents, 55 agreed that e tendering helped to manage the supplier's bid, 14 of them strongly agreed and 25 of them chose to remain neutral.



4.5.2 Costs Reduction

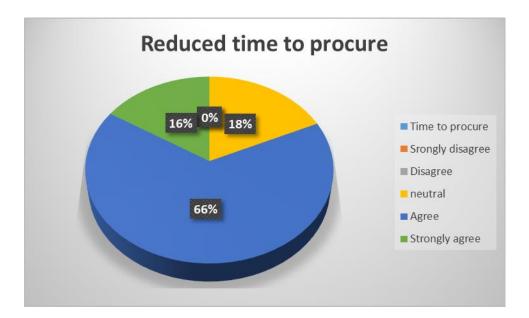
By reducing the need to printing and posting multiple copies, e-tendering helps the organization to achieve efficiency in terms of cost reduction. However not all the respondents agreed with this statement since e-tendering may come with some complexity which will increase the costs of implementation. This explains why 4 of our respondents strongly disagreed that e tendering helped to reduce costs, 20 of them disagree with that same stamen, and 25 of them chose to stay neutral while 35 agreed that the e tendering process helped to achieve efficiency in term of costs reduction.



4.5.3 Reduced time to procure.

One of the main objectives of e tendering is to reduce the time to procure. According to John (2013), it is estimated that the e-tendering process reduced the time to procure by 30%. 62 of

our 94 respondents supported this argument by agreeing that e tendering helped their Organization to reduce time to procure, 15 of them even strongly agreed and 17 decided to stay neutral.



CHAPTER FIVE: SUMMARY OF FINDINGS CONCLUSIONS AND

RECOMMENDATIONS

5.1 Introduction

The purpose of the study was to find out the impact of e-procurement practices on organization performance. This chapter gives a summary of the findings, giving conclusions and recommendations which reflect the answers to specific questions for possible actions and suggestions for his further study.

5.2 Summary of Findings

The general objective of the research was to establish the impact of E-procurement on organization performance from the perspective of a chosen supermarket Tuskys supermarket mostly known as T-mall. The research made an inference from research questions on E-sourcing, E payment, E tendering and efficiency, regardless of the situation that Tuskys is current on it was manageable to get from the branch named above since it was still operating. The research revealed that the adoption of e-procurement had helped a lot in the supply chain and most operations on the firm. The study indicated that most operations were efficiently utilized and had a lot of benefits with it since it was clear that transparency on supplies was on point which increased the accountability in case of any mess.

Adoption of e-procurement for Tuskys was a game-changer for information flow from top management and service through real-time market intelligence got Tmall running, for it was clear that they are aware of the best prices and quality points across a range of suppliers through market places. Their transaction cost of purchasing orders is low due to the adoption of e-procurement. Tuskys is also able to aggregate purchasing across multiple departments without taking away any needed individual control thus curbing time wastage with authorization routines. According to the results of the study, most respondents agreed with the statement that adoption of e-procurement has an impact on the performance of the organization since adoption on the fact that e sourcing helped save time, information has been a real time, interactions with customers. E payment came in reducing time in doing transactions.

The study recognized the relationship between e tendering and performance of the firm since there was coordination between the suppliers and the firm since the different suppliers had been allocated via internet their contract and for how long and also enabled resource planning eliminating the need for customers reordering obviating stock-outs. E tendering reduced the time to procure by 30% since the majority of the respondents agreed. A large extent of the

respondents agreed with the statement. The study ascertained that there was more positive influence from the adoption of e-procurement than the negatives. The research also established an agreement with Jae et al (2010) on E-sourcing, Wang, et al, (2010) on E tendering, and Hascaryani (2013) on E payment as per the empirical literature of the study.

5.3 Conclusions

The purpose of this study was to examine the impact of e-procurement practices on organization performance. The results were analyzed using descriptive statistics. It's concluded that using e-procurement in a supermarket has a positive and significant effect on the performance of the organization. It's also noted that e-souring influences the performance of the organization as it enhances the effective selection of suppliers from a wider region and hence enhancing effective competitiveness in the process. The study also concludes that by using e-tendering the firm's performance is likely to be enhanced because through e-tendering the Tuskys supermarket can process the tenders fast and efficiently hence this will boost their performance. The study also concludes that the use of e- payment plays an important role in enhancing the performance of the tusks supermarket. It was revealed that by the use of e-payment the procedures involved are reduced making the entire process very efficient and hence improved performance. A study also concludes that there is a strong positive correlation between efficiency/record keeping and performance of the organization then e-procurement is seen to play a significant role in the performance of Tuskys supermarket.

5.4 Recommendations

Firms that seek to enhance their performance must ensure that they adopt the use of e-procurement in all their operations as it facilitates the various activities leading to higher performance and profitability in the firms. Failure to adhere to e-procurement fully by supermarket staff and the management giving full support could therefore affect their organizational performance negatively. It's also recommended that firms should adopt the use of e- souring will be able to expand sourcing scope hence attract more competent people to offer them effective and efficient services. This will then enhance their performance but failure to adopt it could adversely impact their performance.

5.5 Suggestions for Further Studies

This study is not conclusive on the impact of e-procurement on the organization's performance. It's open for further research on the concept of e-procurement and on all the supermarkets in Nairobi county.

Questionnaire

We are degree students in Business administration at Riara University; we are researching the impact of electronic procurement on organization performance, a case study of Tuskys supermarket.

We kindly request your input by filling this questionnaire. Please note that your honest responses will be confidential and only used for this academic research purpose. Your help in accepting to complete this questionnaire is greatly appreciated. Please tick where appropriate

what is your gender?					
□ Female		□ Male			
1. What is yo	our age?				
□18 to 25		□ 60 to 64			
□ 26to 34		□ 65 and over			
□ 35 to 49					
2. How long	have yo	u been working at Tuskys supermarket?			
1-3 years					
4-10 years					
10-15 years					
Over 15 years					
3. Level of education					
O\A level					
Certificate\dip	oloma				
Bachelors'					
Postgraduate					
Others specifications					

SECTION B: EXTENT OF E PROCUREMENT PRACTICES AT Tuskys supermarket

4. How long have your company been using the electronic procurement practices

1 – 5	5 Years \Box		
6 – 1	10 Years □		
11-	15 Years □		
Abo	ve 16 Years		
a.	E-sourcing		
5. I	From the 1 to	5 indicat	e the extent to which e sourcing has impacted the efficiency of
7	Γuskys supern	narket in te	erms of reducing the costs
1.	Not at all		
2.	Small extent	t 🗆	
3.	Moderate ex	tent □	
4.	Large extent	t 🗆	
5.	Very large e	extent	
6. I			indicate how e sourcing impact the efficiency of your organization
	n terms of tim		
1.	Not at all		
2.	Small extent	t 🗆	
3.	Moderate ex		
4.	Large extent		
5.	Very large e		
			hich E-sourcing improves the relationship with suppliers in terms
	of transparency		
1.	Not at all	_	mess.
2.	Small extent		
3.	Moderate ex		
4.	Large extent		
5.	Very large e	xtent	
	E-payment.		
			t the efficiency of my organization in terms of costs reduction
1.	Strongly Dis	sagree	
2.	Disagree		
3.	Neutral		
4.	Agree \square		

٥.	Strongly agree \Box
9.	E-payments affect my organization's efficiency in terms of time savings.
1.	Strongly disagree
2.	Disagree □
3.	Neutral
4.	Agree
5.	Strongly agree
10.	There is a certainty of payment when my organization process electronic transaction.
1.	Strongly disagree
2.	Disagree □
3.	Neutral
4.	Agree
5.	Strongly agree
11.	Electronic payment offers my Organization a competitive advantage.
1.	Strongly disagree
2.	Disagree □
3.	Neutral
4.	Agree
5.	Strongly agree
12.	E-payments may impact the efficiency of my organization in terms of offering more
(onfidence and security
1.	Strongly disagree
2.	Disagree □
3.	Neutral
4.	Agree
5.	Strongly agree
13. ′	There are minimized risks of fraud when our customers choose to use electronic payment
1	nethods.
1.	Strongly disagree
2.	Disagree □
3.	Neutral
4.	Agree
5.	Strongly agree
c.	E-tendering

14. E	E-tendering impacts my	y organization's efficiency in terms of managing supplier's bids.
1.	Strongly disagree	
2.	Disagree □	
3.	Neutral	
4.	Agree	
5.	Strongly agree	
15. E	E-tendering helps my o	rganization in reducing its costs and run sustainably
1.	Strongly disagree	
2.	Disagree □	
3.	Neutral	
4.	Agree	
5.	Strongly agree	
16. E	E-tendering helps my o	rganization to reduce the time to procure
1.	Strongly disagree	
2.	Disagree □	
3.	Neutral	
4.	Agree	
5.	Strongly agree	
17. T	The E-tendering proces	s helps my organization to gain full audit and process intelligence
1.	Strongly disagree	
2.	Disagree □	
3.	Neutral	
4.	Agree	
5.	Strongly Agree	

References

Gattorna, J., (2010). Dynamic supply chain: Delivering value through people. New Edition

Mose James, M., (2012). *E-procurement adoption among large scale manufacturers in Nairobi*, Kenya, unpublished MBA Thesis UON.

Ageshin, E. (2001). E-Procurement at work, a case study, production, and inventory. *Management journal*, 3-4.

Amit, R. &. (2001). value creation in e-business. *Strategic management journal*, 22-67. corpsi M. (2006). E-procurement overview.

Dawn H.P, D. B. (2010). Using electronic procurement to facilitate supply chain integration. *An exploratory study of US-based firms, American journal of business, Emera land publisher vol 28ISS*, 831-857.

Dina wilkster A. (2010). A survey of e-commerce strategies ad models in Kenya. unpolished MBA Thesis University of Nairobi (UON).

Gattorona., J. (2010). Dynamic supply chain. In delivering value through people. New edition.

Gekonge, C O., (2006). supply chain management. Newsline-. *The professional journal of KASNEB Issue number 2*.

Kothari R. (2004). Research methodology. New Age international publishers, New Delhi. India.

Loukis, Sapoumas, and Milionis. (2009). the effects of ICT, investment, and strategies alignment on Greek firm performance. *journal of money, investment, and banking's*, 145-188X Issue9.

Moses James, M., (2012). E-procurement adoption among large scale manufactures in Nairobi. Kenya, unpublished MBA Thesis UON.

Mugenda M. Olivia& Mugenda Abel G. (2003). research methods; quantitively and qualitative approaches. Nairobi Kenya Act press.

Parida, U & Parida V. (2005). E-procurement. Lulea university of technology, Sweden, An Indian and Swedish perspective, Master's Thesis.

Peleg, B, Lee, H.& Hauman W.H. (2002). Short term e-procurement strategies versus long term contractors. *production operations management journal*, 458-479.

Saleemi N.A. (2006). Commerce simplified. In s. p. ltd. Nairobi Kenya.

Sinder, K and Rendon, R. (2001). public procurement, public administration, and public service perspective. *A journal of public Affairs Education*.

T S Gandawati 2007 *Analisis Proses Adopsi Electronic Payment System dengan menggunakan UTAUT model* (Makasar: Universitas Gunadarma)

T D Hascaryani 2013 Analisis Faktor Yang Mempengaruhi Preferensi dan Aksesibilitas Terhadap Penggunaan Kartu Pembayaran Elektronik (Jurnal Ilmiah Mahasiswa FEB)

A. N Hidayanto, L S Hidayat, P I Sandhyaduhita & P W Handayani 2015 Examining the relationship of payment system characteristics and behavioral intention in e-payment adoption: a case of Indonesia (International Journal of Business Information Systems) 19(1) 58-86

Jayne Thompson, Advantages & Disadvantages of E-Payment

Loukis, Sapounas, and Milionis, (2009). The Effects of ICT, Investment and Strategic Alignment on Greek Firms Performance. *Journal of Money, Investment and Banking*. ISSN 145-188X Issue 9.