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EFFECT OF E-PROCUREMENT ON STRATEGIC SOURCING IN SACCOS IN KENYA: A CASE OF UNITAS SACCO, KENYA

Tonny Kiluta Kaseme[1], Dr. Samson Nyang'au Paul [2]

Jomo Kenyatta University of Agriculture and Technology P. O Box 62000-00200 Nairobi, Kenya

Abstract: **The objective of the study was to determine the effect of e-procurement on strategic sourcing in Saccos in Kenya: a case of Unitas Sacco. Specifically, the study sought to identify the effect of e-tendering, e-informing, e-sourcing on the strategic sourcing process at Unaitas, Kenya. The research was guided by three theories; namely dynamic capability theory, innovation of diffusion theory and transaction cost theory. A descriptive research design was employed and to determine how e-procurement impacts on the strategic procurement process. The research target population was 417 employees working at Unaitas head office. A questionnaire was the main data collection instrument in which both open and closed ended questions was used. A drop and pick later method was used to administer the questionnaires to the respondents. Upon data being collected, it was cleaned to remove any inconsistencies after which data was analyzed using descriptive measures of mean and standard deviation. The research further employed regression model to establish the relationship between e-procuring and strategic sourcing. The study established that the Sacco had improved its just-in-time purchasing practice and that the Sacco had been able to send requests for information and prices via the internet technology. The study found that the e-informing had facilitated regular communication among departments. The study established that the firm published more information about the Sacco through the e-procurement system and this increased transparency in the organization. The study established that the Sacco e-procurement system had facilitated processing of electronic invoices with integration to suppliers' supply chains and buyers' financial systems. The Sacco was found to be able, courtesy of e-procurement, to access preferred suppliers' products and services online and purchase the same directly. Further, the study established that e-sourcing procurement tools had enhanced visibility of potential suppliers and this has increased the level of transparency as well as reduce the costs of managing purchasing processes increasing economies. The study recommended the need to enhance e –procurement through reducing costs to minimize the complexity of the procurement process. The study also recommended that there was need to improve e- tendering which enhances just-in-time purchasing practice and send requests for information and prices via the internet technology in the Sacco.**

Keywords: **e-tendering, e-informing, e-sourcing and strategic sourcing process.**

1. INTRODUCTION

1.1 Background of the Study

Business operations and delivery of services has changed tremendously due to the introduction and application of Information Communication Technologies (ICTs) in various human life phenomena and as a result, positive impacts and perception on the quality and information sharing capacity has dramatically improved leading to high expectations, convenience and effective service delivery of a firm (Brown, 2012). In the organizational activities, one of the areas that information technology has found use is the purchasing function whereby integration of firm's activities with that of its downstream and upstream supply chain led to the reduction of operational cost and consequently to improved

performance. A firm should aim to minimize cost intensive operational sequence which causes non-negligible administrative expenses on the interface between buyer and supplier (Charles and Omwenga, 2018). One of the strategies to minimize these expenses is to simplify the procurement process through, for example, the introduction of the electronic procurement (e-procurement) (Johnson & Whang, 2012).

As one of the e-business technology, e-procurement, e-commerce and e-collaboration represents situations in which information technology has been applied in the business world. Adoption of information technology is associated with many benefits to a firm and its business partners. Besides the cost saving for the supplying firm, e-procurement is associated with higher switching for buying firms emerge due to customer integration. According to Carter and Narasimhan, (2010) the strategic importance of the purchasing function has increasingly been identified due to the critical role that it plays in the management of cost as Croom and Brandon-Jones (2014), opine, up to 60% of a total firm costs is associated with the purchasing function. Therefore, streamlining of the purchasing function will result in an improved firm performance.

E-procurement is an information and communication technologies (ICT)-based solution for the business-to-business purchasing of goods and services and is aimed at streamlining the procurement processes and improve firm productivity and efficiency (Piderit, Flowerday and Solms, 2011). On their part, Croom and Brandon-Jones (2014) is of the view that e-procurement is defined as application of information from the internet in evaluation of individual procurement phases or the entire stages which include search, sourcing, negotiation, ordering, receipt, and post-purchase review with the help of information communication technology (ICT). E-procurement will be perceived as a broad operational tool that will provide an end to end solution of streamlining the business operation in the entire organization unlike the conventional procurement processes that focuses mainly on specific procurement phases for instance, e-Auction/Reverse Auction, e-Tendering, e-Catalogue/Purchasing and e-Marketplace.

Organizations can use information technology solutions in the management of supplier networks(Charles and Omwenga, 2018), facilitating traceability and managing distributions networks. Companies in the current market set up do not compete with other companies for market share but rather, competition is based on how a company has mechanized its supply chain department. Therefore firms have opt to improve their supply chain process in order to strategically compete with other companies both locally and internationally (Piderit, Flowerday & Solms, 2011). The resulting effect of supply chain globalization strategy has pushed companies to go after effective means that will guarantee proper flow of goods and services to and from the company by ensuring that there is an inter-link between multiple supply chain strategies, competency in supply chain and the effective implementation processes to reduce lose of resources which is common with the fragmented system of supply chain (Ochara, 2011).

Indeed, the use of information technology in supply chain management has been adopted in various parts of the world. For example, countries such as the UK, US and Canada have for long employed information technology in the management of their procurement and logistics. In India Moharana et al., (2013) argue that organization should make use of information technology a friendly tool for routine business operation and exhaust its potential benefits by making sure that the entire process of data collection, collation and cleaning is automated for convenient delivery of quality service and information to the stakeholders. Information technology is the best tool that facilitates proper integration and flow of information within the network of an organization. In Finland, Auramo et al., (2012) argued that apart from the effective flow of information, IT has other benefits which include efficient processing of complex supply chain transactions, strategic planning and coordination of supply chain, as well as tracking and delivery of orders to specific destination. In addition, a study conducted by Taghva et al., (2012) in Iran showed that different dimensions of Information Security Management Systems that is incorporated in the e-procurement system affect four main supply chain dimensions, namely; customers, financial, internal processes and learning and growth in three levels of organizations operations - strategic, technical, and operational.

In Kenya, Mwangi and Kagiri, citing Nagery (2012) and Chirchir (2014) find that various organizations that operates as either private entity or public entity, employ the technique of information and communication technology in supply chain management. Nagery (2012) highlight that the British American Tobacco Kenya Ltd adoption of ICT had enhanced processing and execution of suppliers' information thereby reducing uncertainty and redundancy level. In addition, Chirchir (2014) argues that adoption of IT systems like Radio Frequency Identification (RFID) and Global Positioning Systems (GPS) in supply chain significantly influence the performance of supply chain.

Sislian and Satir (2010) identify that one of the purchasing function that has been affected by the e-procurement system is the strategic sourcing area Charles and Omwenga, (2018)opined that strategic sourcing is a comprehensive procedure of acquiring inputs while managing sustainable supplier relations through long term achievements of the company. Narasimhan and Das (1999) perceived strategic sourcing as the achievement of the company's objectives through strategic manufacturing and design of products according to the capabilities of the supplier. Sislian and Satir (2010) defined strategic sourcing as a concept that helps the management in decision making with regard to purchase of goods and services taking into account competitive advantage as the major driving factor. Similarly, Anderson and Katz (1998) opined that strategic sourcing is a framework that is used in procurement process with total ownership cost thereby enabling firms to gain value and competitive edge in the market. In summarizing the definition of strategic sourcing from the definitions provided above, the outstanding role that strategic sourcing is centered on is depicted by various factors such as efficient sharing of information with suppliers, identifying the strategic role of purchasing, efficient control of internal coordination between operations in purchasing line, strengthening and management of the supply base and supplier development (Kocabasoglu and Suresh, 2014).

Fredricksson and Jonsson (2014) suggest that implementation of the e-procurement is associated to improve sourcing activity and the combination of the two is expected to generate synergistic benefits. E-procurement provides room for procurement resources and efforts, enhancing a more key approach, other than bringing about cost reserve funds, improves the measure of performance quality of supply, contracts between the supplier and the company which reduces the cost of purchase, and capturing more information on purchase to build the volume (Corini,2010). E-procurement configured purchasing to more productively execute mechanized transaction forms and diminish process durations, which allows purchasing to center around more key sourcing exercises. E-procurement changes all routine purchasing behavior with high proficiency prompting all other sourcing capacities concentrating on strategic sourcing exercises.

1.2 Statement of the Problem

Procurement function contributes to the efficiency and effectiveness of the organization. However, in Kenya Chirchir (2014) highlights that without proper controls, procurement might become a major conduit through which firms might lose significant amount of resources through fraud in procurement. Considering that up to 60% of the organizations budgets entail a procurement function, inefficient procurement will be expected to impact negatively on the overall organization performance and associated supply chain activities. One of the strategies to improve firm procurement efficiency level is through automation of the procurement function and generally the sourcing activity. As a result, the understanding of the effect of e-procurement on the strategic sourcing of a firm will be of importance to all the players in Kenya's financial system including Saccos.

Several researches have been done with the aim to comprehend the concept of e-procurement and application of interfaces in linking the buyer and suppliers operating in different sectors of the economy. Besides, these studies have not represented the banking industry as expected. Especially for service sector, there is a major potential to increase the efficiency of their purchasing and operations processes through the adoption of e-procurement. Wu et al., (2013) carried out a study that aimed at establishing the effects associated with the behavior of firms, rigorous market environment and the influence of e-business on the performance of construction companies in Germany and the findings of the study recommended that the incorporation of e-procurement by the companies was accompanied by both indirect and direct impacts of perceived efficiency benefits. Johnson et al., (2007) while investigating application of e-business technologies in the Food processing manufacturing firms in Britain observed that the sole objective of e-business strategy is to minimize the costs that may arise as result of coordination of activities hence facilitating the financial performance of the firms. On their part, Devaraj et al.(2007) opine that with the introduction of e-business, companies will conveniently improve their operations because e-business supports customer and suppliers integration thereby supply chain performance will be automatically effective.

Locally, Mburu (2011) ought to establish the role that e-Procurement play in facilitating effective service delivery in telecommunication industry (A case study of Safaricom Limited Company – Kenya). The findings showed that telecommunication has a positive impact of the success of e-procurement. Kakwezi and Sony (2010) in their study discovered that strategic procurement planning is a factor that contributes towards delivery of services but the research failed to emphasize on sophisticated measures that are fashioned against minimization of procurement cost that will increase the profitability of strategic nature of procurement. However, it is very important to revolve around the layout of

the study in order to establish the applicable recommendation and benefits that will suit SACCOs in Kenya. Hassan (2012) recommended that strategic planning of procurement process among the humanitarian organizations have a positive significant effect on the level of performance in terms of delivery of emergency and relief services. But objectively, the study did not recommend the possible strategic approaches that will allow firms to realize the benefits that will accompany strategic procurement planning.

On the basis of the above studies and the availability of a developing body of innovative skills on the effect of strategic independent sourcing and e-procurement process, one should also have the concept that explains properly the interrelationship between the strategic sourcing and e-procurement. As a result, this research endeavored to establish the effect of e-procurement on the strategic sourcing of Saccos in Kenya with a case study of Unaitas Sacco.

1.3 Objective of the Study

1.3.1 General Objective

This study aimed at determining the effects of e-procurement on strategic sourcing in Sacco's in Kenya. A case study of Unitas Sacco

1.3.2 Specific Objective

i. To determine the effect of e-tendering on the strategic sourcing of Sacco

ii. To establish the effect of e-informing on the strategic sourcing of Sacco

iii. To determine the effect of e-sourcing on the strategic sourcing of Sacco

1.4 Research Questions

The research questions that guided the study were:

i. What is the effect of e-tendering on the strategic sourcing of Sacco?

ii. What is the effect of e-informing on the strategic sourcing of Sacco?

iii. What is the effect of e-sourcing on the strategic sourcing of Sacco?

2. LITERATURE REVIEW

2.1 Theoretical framework

The debates relating to the relationship between e-procurement and strategic sourcing by a firm has attracted different explanations and postulates. The popular theories that relate to e-procurement and sourcing are anchored by the Dynamic Capability Theory, Innovation Diffusion theory and Transaction Cost Theory. These theories at the same time attempt to explain the reasons why organizations adopt a new technology in their operations.

2.1.1 Dynamic Capability Theory

Dynamic capability theory was advanced by Teece, Pisano and Shuen (1997) is applied in the context of organizations purchasing activity by advocating strategic sourcing. The theory argues that by a firm improving its internal resources by implementing strategic sourcing; it is able to find competitive advantages in its operations as compared to other firms in the same industry. The purchasing function in a firm keeps on evolving every time due to the changes that anchors the relationship between its suppliers and customers. The crucial activity that firms need to do is to incorporate and configure its internal and external operations in order to strategically position itself in addressing the dynamic technological environment which is highlighted by the DCT and consequently re-configuration and renewal of the operation of activities in a company is mandated if a company is eager to harness the benefits of its resources and remain sustainable and focus in utilization of the firm's particular resources (Daniel & Wilson, 2013).

Daniel and Wilson (2008) suggest that in order for competitive firms to establish its economical niche and discover new channels that will facilitate business to business (B2B) market environment, a company need to set up and evaluate the implementation of e-procurement system that will bolster the flow of information from different business partner thereby enabling a faster and convenient negotiation and transactions procedures. Thus, firms will gain competitive advantage

benefits through implementation of strategic sourcing. Studies show that performance of firms with regard to supply chain, financial matters and general operation of activities have improved tremendously through the introduction of Strategic sourcing technique. From the concepts discussed here about the dynamism of the business environment, this study will therefore comply with the provisions that dynamic capabilities provides, that is, it ought to find out the effect that e-procurement and strategic sources have on performance of an organization basing the fact that the market is changing rapidly in terms of technology. Secondly, the adoption of e-procurement is strategic in nature and this theory is suitable for this study because it recognizes firms' strategic capabilities for gaining superior performance.

2.1.2 Innovation Diffusion Theory

Innovation diffusion theory is relevant in understanding the effect of e-procurement on strategic sourcing of firms and hence giving a theoretical background for this study. Diffusion of Innovation (DOI) Theory was advanced by Rogers in 1962 and elaborates how, within a time interval, a concept gains momentum and spreads by means of social platforms. The final outcome of the spread of this idea is that firms, leaving behind the social platform, incorporate a new concept, such as electronic purchasing that is associated with specific benefits. The end result of the adoption process is that a person does something in a unique manner as opposed to the routine way of operation, for example employing a different purchasing procedure. Rogers (2003) further suggest that for diffusion to take place, a person must perceive the new idea, behavior, or product as innovative and is going to improve its current operations.

According to Rogers (2003), the diffusion process encompasses four key elements namely; the staunch prevailing company relationship, the time factor, channels that the concept of innovation will be disseminated and innovation concept itself. The theory further postulate that over the entire dissemination or diffusion process, various features of channels of communication, innovation and the social platform may necessarily have varying degree of impact on diffusion process at different time interval. Consequently, as a result of varying process of diffusion, there is need for alignment of strategies to meet and move according to the rhythm of prevailing market position that matches the phase of diffusion process. Thus, the theory contemplates that the adoption of innovation technique will be based on the ability to offer clear and consistent results that other measures of innovation may not provide (Greenhalgh, 2004).

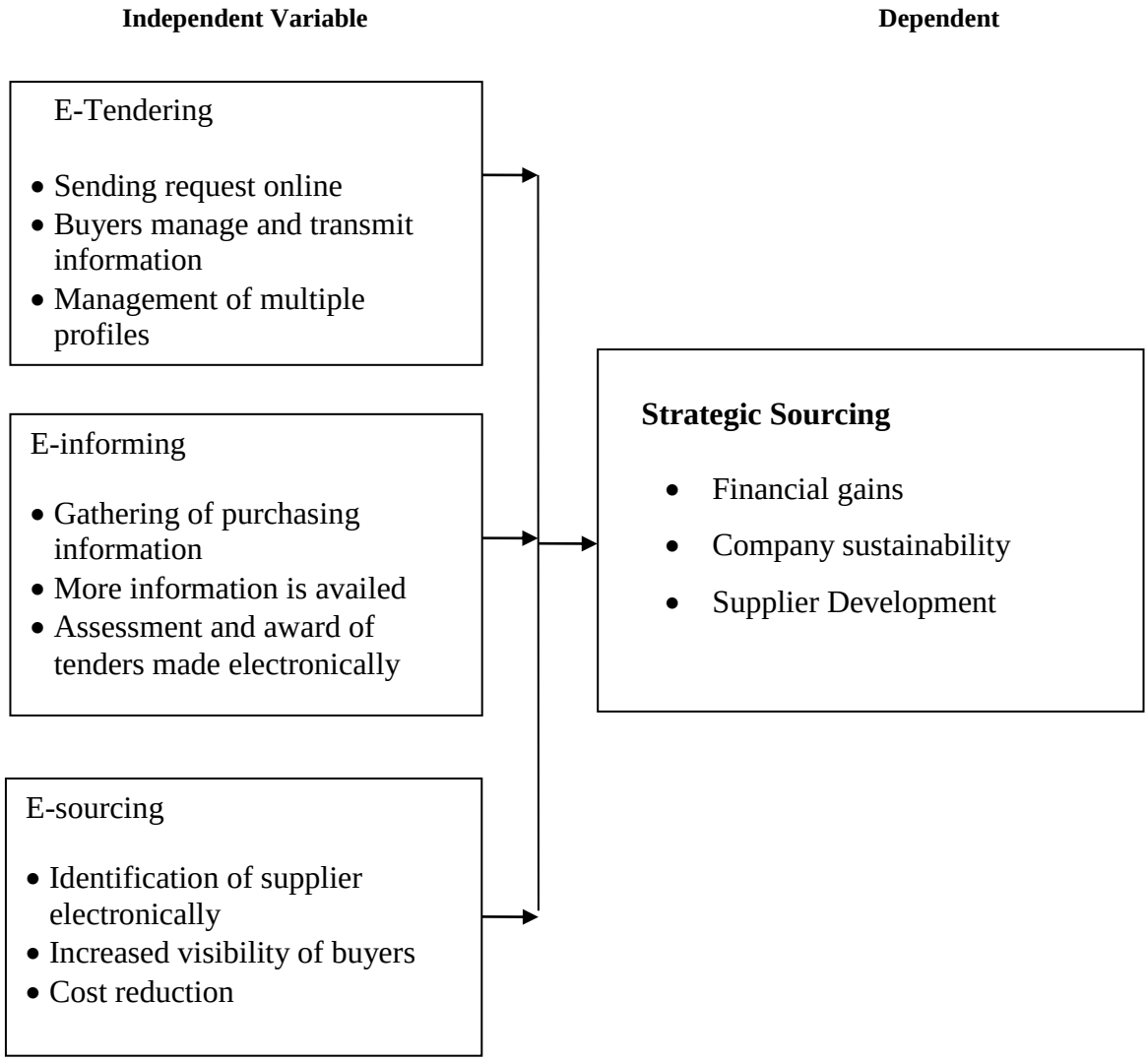
Adoption, implementation and diffusion of innovation technique will result into utilization of e-tendering which is one of the tenets that is brought up by assimilation of e-procurement. Therefore, assimilation of e-procurement can be understood better because the theory of diffusion of innovation elaborates the critical theoretical foundation of adoption of innovative measures in field research on areas of information systems (Tamimi, 2003). The theory of diffusion of innovation states that the factors that affect e-tendering process include compatibility, relative advantage and convenience of the innovative technology which in turn influences significantly the degree of customer satisfaction, the lead time and minimizes the procurement cost.

2.1.3 Transaction Cost Theory

Transaction Cost Analysis (TCA) theory was advanced by Williamson (1975), later it was further improved in subsequent years. The theory emphasizes on the adoption of e-procurement citing that e-procurement will have a positive statistical significant impact on performance and that firms can establish a strong competitive advantage through the role that procurement, an hybrid mechanism of management, plays towards smooth flow of resources (Huo, 2012). The theory further forecast that firms will progress well and achieve the set standards and goals if the system adopted for purchasing of goods and services delivers the required function as stipulated in the objective statement of the company with respect to procurement (Williamson, 2008).

Transaction cost theory is considered to be relevant in understanding the effect of e-procurement on a firm's strategic sourcing of financial institutions in Kenya and hence giving a theoretical background for this study. The use of e-procurement facilitates the reduction of coordination costs between a firm and its suppliers as well as customers. In the case study of e-marketing, expenses that would otherwise be incurred in searching for appropriate market with good product prices is eradicated therefore increasing the saving reserves hence greater financial performance of firms (Tamimi, 1993). In this regard, e-procurement is considered as an effective tool in supply chain because it comes with a lot of benefits that enhances savings on various operations that conventional means could have increased expenses thus providing cost optimization framework.

2.2 CONCEPTUAL FRAMEWORK



Source: Researcher, 2018

Figure 2.1: Conceptual Framework

2.3 Empirical Review

2.3.1 E- Tendering

Ateto et al. (2013) defines e-tendering as a medium of exchange of information about quality and prices of commodities between the buyer and the supplier using internet enabled frameworks. On the other hand, Black *et al.* (2005, as cited in Oyediran, 2011) similarly characterizes e-tendering as a process that involves describing of distribution and receipt of information regarding tenders, expression of interest in the tender, receiving tender paperwork information and other relevant documents, deposit of the tender lump sum and finally the selection of the successful bidder with all the process done online. However, the primary principles of process of tendering remain the same but the means at which transactions and information delivery is advanced to more technological format.

The chartered institute of purchasing and supplies (CIPS) (2006) provides a detail definition of e-tendering as portals (safe dedicated websites, particularly structured for purposes of information sharing and relevant tender papers by use of electronic devises over the internet) and frameworks that enable and gives the buyer exceptional benefits including creating, managing and distributing announcements concerning tenders and contracts in other words, addenda and notices electronically. Multiple e-tendering accounts that have information pertaining expression of interest/ pre qualification can be managed by a single tender advertisers.

Kim, Suresh and Kocabasoglu-Hillmer (2015) conducted a research to establish the impact of e-procurement and strategic sourcing on performance of firms together with factors that moderates the behavior of the business as well as other natural factors that relates to these factors. The study was conducted on US based manufacturing firms and the responses that were used for analysis were obtained from 137 managers of the companies. The approach adopted in analysis of data was the partial least squares based structural equation modeling technique. The findings from the study proposed that both e-procurement and strategic sourcing affects positively the performance of the manufacturing companies. Additionally, e-procurement affected tremendously the process of strategic sourcing in a positive manner. However, the findings further found that the environment and the characteristic of the companies in terms of size, period of existence, the level of competition and unpredictable market behavior significantly moderate these behaviors.

2.3.2 E-Informing

Coleman and Norris (2014) pose it the electronic information involves use of internet in collection and dissemination of information from and to various destinations within and out of an organization. This however, is a feature of electronic information that enables the users to enjoy the services of a two-way means of communication with ease and convenience (Al-Dalou & Abu-Shanab, 2013). The interests of suppliers can be intensified and grow stronger when a firm's purchasing initiatives is occasioned to provide accurate and meaningful information to the suppliers. Macintosh and Whyte (2012) opine that publication of more information about the government and operations that the government is running will improve the level of efficiency, flexibility and transparency among the stakeholders and participation process of the supplier.

Further, fundamental documents such as invitation to Tender (ITT) documents can be electronically distributed, and the evaluation and award of tenders are commonly automated. This shows that the ability to function and process transaction of present e-tendering frameworks are equivalent and attempt, frequently, to reflect the legal principles of a paper tendering framework and still the major parties in the system of e-informing are the Tenderers and the principal.

Zunk, Marchener, Uitz and Learcht (2014) while investigating the role of e-procurement in the Austrian construction industry with the intention of establishing the adoption rate, benefits and barriers to its implementation. A customer survey of 100 construction firms was carried out with the survey being carried out using a questionnaire consisting of 17 questions on customers of major construction firms. Among the benefits of e-procurement identified by the study include improved general conditions of the firm, shorter purchasing process, higher price transparency, lower administrative costs and improved collaboration with suppliers. The results from the study show that e-procurement is not frequently adopted in the Austrian construction industry and that the potential for cost reduction is not exploited to the full.

2.3.3 E-Sourcing

E-sourcing can be defined as the process of establishing new suppliers who will supply particular category of required set of commodities with the use of internet technology. The instruments that support E-sourcing process comprise of applications, ranging from definition of specification to final agreement and selection of supplier. According to Bartezzaghi and Ronchi (2005) the commonly used application extensions include demand for information, proposal, and quotation (e-tendering), and also the reverse e-auctions. The benefits of E-sourcing tools are unlimited but include the following; enhanced visibility of potential suppliers, providing buyers with wide range of choices, and frequently allowing them to pay for products and services at a reduced price (Evans & Wurster, 2011). In addition, e-sourcing tools is believed to have positive future impacts that will minimize the expenses associated with management of purchase process hence improving economies of the scope of supplier.

Mwangi and Kagiri (2014) did a study with the aim of establishing the impact that e-procurement may have on the entire procurement departments in Kenyan hospitality industry: a case study of Sarova chain of hotels. The design of analysis that the study adopted was descriptive research design and the target population was the employees of Sarova chain of hotels specifically in the procurement department with a population size of 112 respondents. The sampling technique for the study was the simple random sampling procedure that applied 10% of the population and questionnaire provided the means in which data was to be collected. The results of the study matched with the summary literature by Rajkumar (2011), which proposed that there is a statistically significance correlation between procurement performance and E-tendering. The results of descriptive statistics further implied that the performance of the procurement process is greatly affected by e-tendering. Furthermore, the literature proposes that e-tendering ensures that tenders are awarded to the right suppliers and at the right point and time.

Ramkumar and Jamanani (2013) investigated on the supply chain nature of sustainability through e-procurement by using a model set up basing on DANP and Liberatore Score. They developed an evaluation model that involved a hybrid framework that combined two multi-criteria techniques used in decision making, namely, decision making trial and evaluation laboratory based analytic network procedure and Liberatore score. The study findings were that e-procurement influenced a firm's centralized procurement governance, automated process, supplier's integration, supplier relationship, spend data analysis and risk.

2.4 Critique of Relevant Literature

The literature has expounded the concept of e-procurement and the theories that underlie the study. It was highlighted that in the bracket of the last 20 years, the technologies of e-business have been adopted by various firms and in the process changed the outlook and layout of the networks of supply, with perceived future benefits comprising of minimized purchasing prices, reduced costs of transaction, and improved service delivery (Slack *et al.*, 2011). However, the literature notes a significant disparity in identified advantages of e-purchasing instrument among firms in different industries and one potential challenge identified could be that research studies that have been conducted have just paid tribute to the relationship between performance and technologies over the entire organization or the whole purchasing system (Gonzalez-Benito,2007) instead of how individual e-purchasing variables affect individual firm performance variables such as operational and financial measures. In addition, the literature has looked at organizational performance from the balance score card perspective of the four measures of performance; more so the financial performance measure without considering the operational performance such as strategic sourcing.

2.5 Research Gaps

From the foregoing literature, the benefits of e-procurement to an organization have been expounded. It became evident that the strategic resources and characteristics of a firm influences configuration of technologies with respect to e-business and that there is a significant relationship between the performance of a firm and the usability of technology. The studies however have tended to assume that adoption of e-procurement is the end in itself but fail to appreciate the fact that technology itself does not provide the necessary competitiveness but rather how it is used in conjunction with complementary capabilities in and outside of the firm. The effect of e-procurement on the firm's operational function has not been captured adequately and this raises the need to determine the aspect of e-procurement on the strategic sourcing at Unaitas Sacco.

3. RESEARCH METHODOLOGY

3.1 Research design

The research used descriptive design of study. In order to obtain clear information about the research topic, researchers ought to utilize descriptive research design because it provides a presentable way in which data can be summarized, presented and interpreted (Orodho, 2003).

3.2 Target Population of the Study

The population of interest in this study comprised of 417 employees of Unaitas Sacco headquarters office. The researcher decided to pick this population because Unaitas Sacco uses the technique of e-procurement and that the employees are considered to possess the knowledge that the researcher is intended to harness information from them to use for the purposes of this study. In the table 3.1 below, departments and the respective number of employees are represented.

Table 3.1: Target Population

Directorate	No. of Employees
Administrators	182
Finance	124
Human Resources	62
Supply chain Management	49
Total	**417**

3.3 Sampling and Sample Size

Selection of sample from the population was done by use of two sampling techniques; simple random and stratified random sampling. To begin with, Unaitas Sacco employee structure is categorized into four distinct grades forming the strata for drawing the samples. The heterogeneity feature of this population facilitated the use of stratified random sampling technique in order to address and analyze the perception of each stratum. Secondly, simple random sampling was used to draw 30% of the sample from each stratum. Adèr (2008) pose it that a well-represented population can even be done by a 10% sample size that is well drawn without bias whatsoever. Similarly, Cooper and Schindler (2003) established that the characteristics of a population can be depicted statistically over a sample size of not less than 30 elements. Hence, 30% in this study will yield a total of 126 individuals making a relevant and considerable sample size that reliable data can be collected from.

The sample number is presented in Table 3.2.

Table 3.2: Sample size

Directorate	No. of Employees	Proportion %	Sample Number
Administrators	182	30	55
Finance	124	30	37
Human Resources	62	30	19
Supply chain Management	49	30	15
Total	**417**		**126**

Source: Researcher (2018)

3.4 Data Collection and Instruments

Data collection methods are classified as either primary or secondary depending on the research objective. For this research both primary and secondary data collecting methods will be used. Primary data was collected through the administration of questionnaires to senior management bank employees. Louis, Lawrence and Morrison, (2007) describes primary data as those items that are original to the problem under study while Ember and Ember, (2009) describe primary data as data collected by the investigator in various field sites explicitly for a comparative study.

3.5 Pilot Testing

With the need to enhance validity of research instruments, a pilot test was conducted. Cronbach's alpha technique was used to analyze the data obtained for the pilot survey to find out the level of internal consistency or overall correlation of particulars in the instrument of survey to establish its degree of consistency and reliability with respect to 0.7 threshold alpha figure to imply that the questionnaire is statistically reliable. Therefore, the interpretation of this coefficient is that, the survey instrument is considered to be more reliable if the coefficient is small and vice versa.

3.6 Data Processing, Analysis and Interpretation Procedures

Analysis of data will be achieved by conducting descriptive statistics. The description of data was arrived and supported by statistical package (SPSS) and the Ms excel. Analysis of data will employ analysis correlation inferential. The relationship between e-sourcing, e-tendering, and e-informing, was obtained by conducting and obtaining regression model. A linear regression function equation was obtained to represent independent variables against the dependent variable.

The form of regression equation assumed the following form;

$$Y= +BiXi+ ε$$

Y = Strategic Sourcing

= Constant (Co-efficient of intercept)

Xi = E-procurement practices

Bi = Regression co-efficient

ε. = Error Term

4. RESEARCH FINDING AND DISCUSSION

4.1 Response Rate

Out of 118 administered questionnaires to the employees working in the administration, finance, human resources and supply chain departments in the Unaitas head office, a total of 90 questionnaires were completely responded to and collected. according to Mugenda and Mugenda (2003), a relevant percentage of response for efficient data analysis and reporting should comprise of 50% of the respondents which in this study, 76% rate of response was registered,; 60% is considered good and 70% is considered very good. The study's response rate of 76% is therefore considered sufficient for drawing conclusions for the study.

4.2 Descriptive Statistics

4.2.1 E-Procurement and Strategic Sourcing

This particular variable sought to find out whether there is existence of various e-procurement practices as well as the strategic sourcing steps that Unaitas implements in its procurement process.

4.2.1.1 Adoption of e-procurement

The results on the question of whether Unaitas employ e-procurement practices in its operation are presented in Table 4.4.

Table 4.1: Adoption of E-procurement

Details	Frequency	Percentage	Cumulative Percentage
Yes	79	87.8	87.8
No	11	12.2	100.0
Total	**90**	**100.0**	

On the question of whether Unaitas had adopted e-procurement in its procurement function, majority (87.8%) of the respondents answered in the affirmative while the rest no. This shows that indeed most of the respondents understood the functioning of the e-procurement process and its effect on the organization performance.

4.2.1.2 Procurement function handled using e-procurement

On the question of which of the procurement functions was being undertaken using the e-procurement platform, majority of the respondents answered to the affirmative as represented in Table 4.2

Table 4.2: E-Procurement services

E-procurement function	Yes	NO
E-tendering	75 (83.3%)	15 (17.7%)
E-informing	90 (100%)	-
E-sourcing	85 (84.4%)	5 (5.6%)

Source: Research Data (2018)

The findings from Table 4.5 shows that all the respondents agreed that Unaitas use e-procurement platform to gather and distribute purchasing information from both the internal and external parties through the e-informing platform (100%). For both the e-sourcing and requisition function of the electronic procurement, 84.4% of the respondents agreed that the present system has been employed to perform the functions.

4.2.1.3 E-procurement Practices

This section investigated the extent to which a number of e-procurement practices had been adopted by the organization. In order to obtain responses, a five-point Likert scale was used hence its range was 'Very low extent **(**1) to 'Very great extent (5). The scores of disagreeing have been taken to represent a variable which had a mean score of 0 to 2.5 on the continuous Likert scale; (0≤ SD <2.4). The scores of 'Neutral' have been taken to represent a variable with a mean score of 2.5 to 3.4 on the continuous Likert scale: (2.5≤SD. <3.4) and the score of both agree and strongly agree have been taken to represent a variable which had a mean score of 3.5 to 5.0 on a continuous Likert scale; (3.5≤ SD. <5.0). A standard deviation of > 1.0 implies a significant difference on the impact of the variable among respondents.

4.2.2.1 E-tendering

This is the capacity of the e-procurement system to facilitate sharing of tender documents and other relevant information over the internet electronically. The findings are shown in Table 4.6.

Table 4.3: E-tendering

Statement	Mean	Std deviation
The Sacco has improved its just-in-time purchasing practise due to the adoption of e-procurement	4.189	.908
The Sacco sends requests for information and prices via the internet technology	4.035	1.058
The Sacco share information between the organization and suppliers in real-time	3.548	.737
Submission of tender sum and final selection of successful tender for contracts via the internet is used by the Sacco	3.481	.829
Receipt of tendering documents is done via the internet technology	3.690	.705
Overall mean	3.789	

Source: Research Data (2018)

The findings on the application of e-tendering procurement practice at Unaitas show that management of waste show that as a result of adopting e-tendering procedure, the Sacco has improved its just-in-time purchasing practice (M=4.189, SD= 0.908) and that the Sacco has been able to send requests for information and prices via the internet technology (M=.4.035, SD=1.058). The high standard deviation in the variable indicates that there was deviation in responses among the respondents on this variable. However, to the least agreed variable in which tendering had achieved in the organization is ability of the process to facilitate receipt of tendering documents via the internet technology (M=3.690, SD= .705). With regard to the other benefits that e-tendering procurement practice had contributed to the organization, the findings was that e-tendering had facilitated the creation and management of multiple profiles of expression of interest suppliers as well as the pre-qualification information of the interested parties.

4.2.3.1 E-Informing

This is concerned with collecting and dissemination of information pertaining purchase of products to both internal and external parties using internet technology. The results on the e-informing procurement practice at the organization are presented in Table 4.4

Table 4.4: E-Informing

Statement	Mean	Std. Deviation
Regular communication among departments is made via the internet	4.351	.633
The firm publishes more information about the Sacco through the e-procurement system and this increases transparency in the organization	4.243	.955
Invitation to Tender (ITT) documents can be exchanged electronically, and the assessment and award of tenders are usually automatic	3.916	1.004
Distribution of purchasing information, both to internal and external users is done via the internet.	3.862	.770
Successful suppliers are informed of their position via the internet	3.802	.866
Overall Mean	4.035	

Source: Research Data (2018)

From the findings in Table 4.4, it was found that e-informing had facilitated regular communication among departments (M=4.351, SD=06335) and has also enabled Unaitas to publishes more information about the Sacco through the e-procurement system and this increases transparency in the SACCO. To an average extent, the results indicates that e-informing had facilitated the distribution of purchasing information, both to internal and external users (M=3.862, SD=0,770) as well as enabled successful suppliers to be informed on their current position on their tender via the internet. Further, the study established the e-informing had enhanced the capacity of the firm to capitalize on their resources, meet needs and achieve time targets because their supply chain operations run smoothly.

4.2.3.1 E-Sourcing

This particular sections seeks to establish whether there is a medium of searching specific category of necessities that facilitate purchasing process using internet technology and consists of tools such as application supporting the sourcing process, specification definition, the final negotiation. The result on the e-sourcing procurement practices is represented in Table 4.8.

Table 4.5: E: Sourcing

Statement	Mean	Std. Deviation
E-sourcing instruments enhance visibility of potential suppliers and this increase the level of transparency	4.324	.606
The Sacco, e-sourcing frameworks have the potential to minimize the expenses of purchasing processes management increasing economies of supplier	4.136	.616
E-sourcing facilitates the identification process of a suitable supplier at a time relevant to the circumstances	3.989	.701
E-sourcing affords the Sacco more option which enhances price negotiation	3.208	.657
Overall Mean	3.914	

Source: Research Data (2018)

The results shown in Table 4.8 imply that the e-sourcing procurement tools have enhanced visibility of potential suppliers and this increase the level of transparency (M=4.324, SD=0.606) and also has a long term potential to minimize the expenses incurred in evaluation of purchasing procedures enhancing economies (M=4.136, SD=0.616). There was high degree of agreement among the respondents as depicted by the low standard deviation value. In addition, the respondents agreed that E-sourcing had enabled the identification of correct supplier at an appropriate time to the circumstances (M=3.989, SD=0.700) as well as afforded the Sacco affords the Sacco more option which enhances price negotiation.

4.3 Regression Analysis

The study utilized regression analysis to determine if there is a relationship between e-procurement and organization strategic sourcing, as well as to find out the power of the relationship between the variables. The researcher made use of the statistical package for social sciences (SPSS V 21.0) to do data entry and analysis and compute multiple regression to obtain the coefficients of correlation. Additionally, analysis of multiple regression was supported by estimation of determination coefficients as part of statistics. Prediction of future behavior of variables is determined by the coefficient of determination. The outcomes and the values predicted correlation coefficient is represented by r^2 which is the squared value of the correlation coefficient. Table 4.10 presents the results of the independent variables that this study employed, and it is clearly indicated from the table that R^2 caters for 66.9% of strategic sourcing. It is an indication that 66.9% success capacity of the strategic sourcing is contributed by the four independent variables discussed in this study while 31.1% of the success of strategic sourcing is facilitated by other factors that were not discussed in the study. The estimate's standard error (S_e) shows that on average, the level of strategic sourcing deviation from the regression line predicted by a score of 0.61229.

Table 4.6: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.818[a]	.669	.628	.61229

Source: Research Data (2018)

a. Dependent Variable: Strategic sourcing performance

Predictor Variable: (constant); X_1 = E-tendering, X_2 = E-informing; X_3 = E-sourcing,

ANOVA (Analysis of Variance)

Table 4.7: Analysis of Variance

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	6.942	3	2.314	6.51	.001[a]
	Residual	26.98	86	0.355		
	Total	33.992	89			

Source: Research Data (2018)

a. Predictors: (Constant), e-tendering, e-informing, e-sourcing and e-market sites

b. Dependent Variable: strategic sourcing

The model summary also indicates that the dependent variable (strategic sourcing) is significantly accurately predicted by the regression model. The regression model statistical significance that was run is shown by the F test. The P=0.001, which is less than 0.05 designates that, generally the regression model significantly and statistically predicts the resulting variable that is good fit for the data. The researcher also sought to determine the relationship existing between e-procurement and strategic sourcing performance by establishing a regression equation. The result is presented in Table 4.8.

Table 4.8: Model Summary of Simple Regression for strategic sourcing

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.108	.235		.379	.863
	X_1	.372	.198	.364	1.879	.023
	X_2	.055	.233	.022	.236	.881
	X_3	.679	.115	.679	5.892	.000

Source: Research Data (2018)

a. Dependent Variable: supply chain performance

b. Predictor Variable: (constant); X_1 = CI, X_2 = WM; X_3 = IS, The overall equation model for strategic sourcing and predictor variables was as follows;

$Y = 0.108 + 0.372X_1 + 0.055X_2 + 0.679X_3 + 0.593X_4$

From the model, in any given time, the organization strategic sourcing process will be 0.108 when all the predictor values are zero. The model indicates that when e-tendering changes by one unit the strategic sourcing will increase by 0.372. Also, when e-informing changes by one unit, the organization strategic sourcing will increase by 0.055 units. In addition, when e-sourcing procurement practice changes by one unit the organization strategic sourcing increases by 0.679.

5. SUMMARY, CONLUSION AND RECOMMENDATION

Summary of the Findings

5.1.1 Effect of e-tendering on the strategic sourcing of Unaitas Sacco

The study established that the Sacco has improved its just-in-time purchasing practice and that the Sacco has been able to send requests for information and prices via the internet technology. The study revealed that the receipt of tendering documents is via the internet technology and sharing information between the organization and suppliers in real-time. Black et al. (2005, as cited in Oyediran, 2011) note that e-Tendering encompasses the process involved in distribution and receipt of information concerning tendering procedures, expression of interests to a particular tender, receipt of tender documents, tender sum submission and finally choosing the winning candidate to be offered the tender contract via internet.

5.1.2 Effect of e-informing on the strategic sourcing of Unaitas Sacco

The study found that the e-informing had facilitated regular communication among departments. The study established that the firm publishes more information about the Sacco through the e-procurement system and this increases transparency in the organization. Macintosh and Whyte (2012) in their perception, proposes that in order to improve service delivery and enhance flexibility, transparency and efficiency of participation of the supplier in the government, publication of more information about government activities should be done.

The study further revealed that e-informing had facilitated the distribution of purchasing information, both to internal and external users. Coleman and Norris (2014) highlight that e-informing is concerned with the process of collecting and disseminating information that elaborates the process of purchasing from both internal and external parties by use of Internet technology.

5.1.3 Effect of e-sourcing on the strategic sourcing of Unaitas Sacco

The study revealed that the e-sourcing procurement tools have enhanced visibility of potential suppliers and this increase the level of transparency and also has the potential to minimize the expenses of purchasing management processes and in turn increase economies. According to Evans & Wurster, (2011) noted that E-sourcing instruments enhances visibility of potential suppliers, providing a wide range of choices to the buyers, and subsequently reducing prices of goods and services.

Further, the study found that E-sourcing had enabled the selection of the right supplier at a time appropriate to the circumstances and E-sourcing affords the Sacco more option which enhances price negotiation.

5.2 Conclusion

This study examined effects of e-procurement on strategic sourcing in Saccos operating institutions in Kenya. Based on the research findings and theoretical discovery of other researchers, it is concluded that e-procurement is a vital tool to organisation adapting strategic sourcing. From the findings, it was revealed that e- tendering improved its just-in-time purchasing practice and send requests for information and prices via the internet technology in the Sacco. On other hand, e-informing had facilitated regular communication among departments thus increases transparency in the organization

The study also concluded that e-sourcing procurement tools have enhanced visibility of potential suppliers and this increase the level of transparency as well as reduces the costs of managing purchasing processes increasing economies. The study further concluded that Sacco e-procurement system can process electronic invoices with integration to suppliers' supply chains and buyers' financial systems and also the Sacco can access preferred suppliers' products and services online and purchase the same directly.

5.3 Recommendation

The study recommends that there is need to enhance e –procurement as it affects strategic sourcing by reducing costs to minimize the complexity of the procurement process. The study also recommends that there is need to improve e-tendering which enhances just-in-time purchasing practice and send requests for information and prices via the internet technology in the Sacco. The study further recommends more e-informing in Sacco because it facilitates regular communication among departments thus increases transparency in the organization.

The study further established that e-sourcing procurement tools have enhanced visibility of potential suppliers which increase the level of transparency and it is therefore recommended that the Sacco need to practice e-sourcing in order to improve the procurement processing in Saccos.

5.4 Suggestion for Further Research

The study centered on the effects of e-procurement on strategic sourcing in Sacco's operating in Kenya. The research suggests that further investigation on the effects of e-procurement on strategic sourcing. A further study should be carried out to establish the effects of e-procurement on strategic sourcing and how this impacts on procurement department.

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