EFFECTS OF ELECTRONIC PROCUREMENT ON ORGANIZATIONAL PERFORMANCE: A CASE STUDY OF MAJOR SUPERMARKETS IN NAIROBI COUNTY

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ABSTRACT

The study focused on the effects of electronic procurement on organizational performance: A case study of major supermarkets in Nairobi County. The general objective of the study was: To determine the effects of e-procurement on organizational performance: A case study of major supermarkets in Nairobi County. The specific objectives of the study were: To determine the effects of e-sourcing on the performance of major supermarkets in Nairobi County; To establish the effects of e-tendering on the performance of major supermarkets in Nairobi County; To determine the effects of e-payment on the performance of major supermarkets in Nairobi County and finally to determine the effects of e-archiving/e-records on the performance of major supermarkets in Nairobi County. Nairobi County had a total population of 26 hypermarkets and supermarkets excluding the minimarkets. Supermarkets can be referred to as major in relation to their size and number of branches. A supermarket chain can be termed as major if it has ten or more branches (Cox et al 2000). The major supermarkets in Nairobi County are Naivas, Nakumatt, Tuskys and Uchumi. The research study was therefore undertaken on these four major supermarkets which have at least five or more branches operating in Nairobi County and other branches spread out in different parts of the country. These four major supermarkets have a wide capital base, big branches occupying large floor areas, stocking a wide variety of Fast Moving Consumer Goods (both locally and foreign manufactured) from competing manufacturers and employ electronic procurement and other information communication technologies in their operations. Two stage cluster sampling was used to randomly select a total of 124 respondents from a total population of 619 employees working in the major supermarkets in the departments of finance, marketing, procurement and administration. The sample selected was 20% of the total population. E-procurement is the use of information communication technologies to enhance the supermarkets procurement process and bring about online interaction between the supermarkets and her suppliers of inputs and other requirements. This helps in saving time, cutting costs, checking frauds, corruption and providing records to facilitate the carrying out of transaction trails to enhance transparency and accountability in her operations. This is bound to bring about increase in organizational performance in terms of: increase in customer base, branches, branch networking, more sales and profitability.

Key Words: e-sourcing, electronic payment, procurement, supermarket, records, electronic tendering, electronic archiving

INTRODUCTION

Electronic procurement, popularly referred to as e-procurement is one of the recognized procurement best practices. It plays a central role to the performance of the procurement function and that of the organization because other best practices like green purchasing, partnering, Total Quality management (TQM), Just-In-Time (JIT) and risk management apply the concept of e-procurement or Information Communication Technology (ICT) applications. Gattorna (2010) identified e-procurement as one of the dynamic procurement processes because of its strategic, innovative and responsive procurement process; it can influence outcomes of performance and
drive improvement in the whole supply chain. Employment of e-procurement requires an overhaul of the whole supply chain process. The process involves automation of the procurement process of requirement identification, sourcing, bidding, payment, records and supplier management relationship (Ageshin, 2001). E-procurement has the power to consolidate the supply chain function under a single roof resulting in efficiency, satisfaction and improved performance of the organization. The ultimate goal of each organization is to cut costs, improve quality of her products and services offered for sale, build customer loyalty and boost performance in terms of profitability, return on capital, growth and expansion.

Prior to the emergence of using the internet in procurement, Electronic Data Interchange (EDI) had been providing automated purchasing transactions between buyers and sellers since it was launched in the 1960’s. In the 1970’s we had the Enterprise Resource Planning (ERP), followed by the commercial use of the internet in the 1980’s. In the 1990’s came the universal application (Saleemi, 2006). The buying of goods and services in an organization is a continuous process throughout the life of an organization (Parida et al., 2005). Procurement entails the different ways through which private and public organizations acquire goods and services needed for their day to day operations. Procurement of goods and services is a function that takes place in the upstream part of the supply chain. It ensures the needed products and services are bought and availed to the users within the organization and the ones they trade in are offered for sale to their customers. Through procurement large amounts of money of an organization are spent (Snider et al., 2001). Procurement is important to any organization since through it the strategic objectives of organization can be met when well-co-ordinated and linked to other sectors. Measures are put in place to check losses arising through procurement of substandard goods and also procuring goods and services at very high prices. With the advent of e-procurement organizations have embraced it to help check the shortcomings of the initial traditional procurement methods (Snider et al, 2001).

E-procurement is the use of Information Communication Technology (ICT) 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 provides solutions to some of the challenges encountered. Integrated systems and processes enable buyers and sellers to share valuable information including demand signals, price quotations, forecasts inventory and transportation. Distribution means are stated to enable goods to reach buyers at the time they are needed, when they are still in good condition and fresh in case they are highly perishable. Means that could hinder distribution are addressed and better logistics means are employed. It provides improved efficiency across the supply chain thereby extracting a number of tangible and quantifiable benefits (Corpsi, 2006). E-procurement systems allow more efficient and integration of supply chain with other departments and provides better organization and tracking of transaction records for easier acquisition and monitoring of procurement. Transactions 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.

E-procurement process has four broad phases of sourcing, tendering, payment and maintenance of records. Sourcing involves the surfing of the internet to get potential suppliers, what they offer for sale, terms of sale, negotiation of prices and determining the best price at which to buy. The tendering deals with buyers selecting the suppliers of goods/services, raising and placing orders for goods needed. Payment is the collection of invoices, approving them and arranging for payment. Finally archiving maintains vital but relevant information on their suppliers and customers in their buyer, seller relationships. E-procurement integrates the four processes to create efficiency and synergy in procurement by organizations and making procurement enjoyable and a memorable experience.

E-sourcing is the process of identifying potential suppliers, getting to know what they sell, their prices and the terms of sale (Swaminathan et al., 2003). Individuals and firms through e-sourcing are able to identify potential qualified suppliers and hence expedite procurement process timely. Peleg, et al. (2002) classifies suppliers in e-procurement into auction based (of short-term relationship), long-term relationship or a combination of both. In auction, all possible suppliers and the prices they offer or their catalogues are electronically provided, thereby making it easy for the buying organization to make comparisons before making a decision as from which supplier to place orders with. Long term relationship is the strategic alliance or partnership whereby two firms undertake joint planning through sharing information on procurement process electronically. A combination of auction and strategic alliance occurs when an organization settles on an exclusive supplier for the most part and orders any remaining amount from that firm with whom they have a strategic alliance.

THEORETICAL FRAMEWORK

Dell’s Electronic Procurement Theory

A model developed by Dell Corporation which helps to bring about efficiency in its operations, processing orders received and acting on them to ensure deliveries are made on time. Dell can ship computers to a customer within twelve hours of receiving an order (Gekonge 2006). E-procurement not only brings efficiency in the way the company operates but also helps the company to change its business model entirely. Dell’s business model of make to order relies completely on its e-procurement systems, which connects to its suppliers helping in the exchange of real time information making it easier for the buyer to source for suppliers of goods/services and his other inputs using the internet (Dell Computer Corporation, 2006). The buyers are able to browse through the web to find out the various suppliers of inputs that they utilize, the prices at which they sell their products, terms of sale and the specific quality or standards of these products and services and the delivery lead time once orders have been placed.
With such information in hand the buyer is able to determine from which of these suppliers to place a purchase order from, basing on terms of sale, needs of the organization, prices, quality of the goods and delivery lead time. This theory has the advantages of; e-procurement can provide real time business intelligence to the vendor as to the status of customer’s needs, (Dell Computer Corporation, 2006). For example, a vendor may have an agreement with a customer to automatically ship materials when the customer’s stock level reach a certain low point, thus bypassing the need for a customer to ask for it. Companies can track purchases being made in all departments and ensure compliance to standards. For example a marketing agent may be instructed to go to a local supply chain store, purchase a laptop and submit the receipt back to the company for re-imbursement of the money spent. Such purchases may be difficult to track manually, but with an electronic procurement system in place, the entire purchase runs through approval work flows and the person who approves of such request ensures the laptops bought only for the configuration needed in business use.

Through the model the supermarkets are able to monitor at all times where their supplies have originated and how each of these inventories from the different suppliers are performing in terms of sales. They are able to tell when their procurement personnel source for supplies from suppliers other than their normal suppliers, the prices charged, terms of purchase and how they perform in terms of sales and profitability. Explanations can be sort and reasons given as to why supplies for inventories were supplied from the sources they were ordered from as a way of being transparent and accountable by the procurement personnel. The management can determine whether the organizations procurement procedures are being adhered to by the procurement department and whether the supermarket as the procuring entity is getting value for her money. Since all the information is availed through such a model it brings about checks and balances in the procurement department to ensure they always act bona-fide. It brings about transparency, accountability and integrity among the procuring employees of the supermarket and ensures the supermarket can meet their customers’ demands on time and win customer loyalty.

**E-Sourcing**

Traditional geographical limitations are no longer present in e-sourcing since sending and receiving e-mail and other information from the World Wide Web is fast and efficient. With e-sourcing, organizations are able to increase the sources of their potential suppliers at no cost as they do not only depend on those vendors and suppliers they can physically visit their premises since they interact on-line and they are able to get whatever information that they need with the pressing of a button of their computers. They can source for their inputs from any part of the world in the comfort of their offices. They interact via the internet and partner with suppliers and buyers online, and this enhances their operations (Dinda, 2010). Computers can be used to track
supplier details and purchases, and all this requires minimal investment in form of computers and internet airtime or subscription (Saleemi, 2006).

As one sources for supplies via the internet queries can be raised online with potential suppliers and clarifications provided in form of feedback almost immediately before orders are placed or samples can be requested for. This promotes faster procurement of goods and services from the best suppliers (Chopra et al. 2006). Loukis et al. (2009) on Performance of Greek firms through use of ICT concluded that it made a positive and statistically significant contribution to both output and labour productivity. Adam et al. (2004) in a study conducted on Pension Funds in Tanzania, concluded that automation of business operations generally tends to improve processing speed, accuracy and reduced cost per transaction. It also enabled organizations to systematically identify suppliers, acquire inputs, store, analyse, distribute and re-use information and knowledge from a wide range of sources in order to enhance organizational performance and competitiveness.

**RESEARCH METHODOLOGY**

**Research Design**

Research design is the plan and structure of investigation so conceived so as to obtain answers to research questions. Descriptive survey design is concerned with determining the frequency in which something occurs or the relationship between variables (Cooper et al. 2003). This includes fact finding, inquiries of different kinds in an attempt to describe current state of affairs (Kothari, 2003). A descriptive survey design is most appropriate when conducting comparative research and is used to determine relationships between two or more variables under study (Cooper et al, 2003). It also facilitates the determination of characteristics and predictions. The research applied descriptive methods to study the effects of e-procurement on Organizational Performance: A case study of major supermarkets in Nairobi County, where a both quantitative and qualitative approach to analyze the data was employed. Questionnaire was the main instrument of collecting data.

**Target Population**

The target population of the study was the 619 employees working in the departments of procurement, marketing, finance and administration of the four major supermarkets in Nairobi County namely; Naivas, Nakumatt, Tusks and Uchumi. These are the large supermarkets in Nairobi County and have ten or more branches of each supermarket chain operating within the Country, further they have employed information communication technologies in their procurement operations. The supermarkets were determined on the basis that they are the large supermarkets in Kenya which have at least ten or more branches operating in Kenya. According to Coxel al (2006), a supermarket is referred to as major when it has ten or more branches operating in a country, so in Kenya the four are major supermarkets.
Sampling Design

Sample size is a given number of members or cases from the accessible population which is carefully selected so as to be a representative of the whole population with the relevant characteristics. A sample is therefore a smaller group obtained from the accessible population (Mugenda et al. 2003). The four major supermarkets have a total of 619 employees working in finance, marketing, procurement and administration departments’, from this population a sample of 124 employees which is 20% was randomly selected. A sample frame was prepared made up of employees in four departments of the major supermarkets. Table 1 gives the population of employees in the departments of procurement, finance, marketing and administration in each of the four major supermarkets and finally their totals.

Table 1: Sampling (Departmental clusters of the major supermarkets)

<table>
<thead>
<tr>
<th>Supermarket</th>
<th>Naivas</th>
<th>Nakumatt</th>
<th>Tuskys</th>
<th>Uchumi</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Department</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Procurement</td>
<td>43</td>
<td>56</td>
<td>48</td>
<td>36</td>
<td>183</td>
</tr>
<tr>
<td>Finance</td>
<td>32</td>
<td>39</td>
<td>34</td>
<td>27</td>
<td>132</td>
</tr>
<tr>
<td>Marketing</td>
<td>38</td>
<td>52</td>
<td>41</td>
<td>30</td>
<td>161</td>
</tr>
<tr>
<td>Administration</td>
<td>30</td>
<td>45</td>
<td>35</td>
<td>33</td>
<td>143</td>
</tr>
<tr>
<td>Total</td>
<td>143</td>
<td>192</td>
<td>158</td>
<td>126</td>
<td>619</td>
</tr>
</tbody>
</table>

Two stage cluster sampling was used. A simple case of multi-stage is obtained by selecting cluster samples in the first stage and then selecting sample elements from every sampled cluster (Pfeffermann et al. 2009). To select the sample 20% of the respondents were randomly selected from each of the clusters of the major supermarkets under study. Each supermarket contributes a representative sample of 20%. Table 2 is made up of a sample 20% of the employees in the departments of procurement, finance, marketing and administration from each of the four major supermarkets and their totals.

Table 2: Cluster Sampling (Cluster random sampling of the respondents)

<table>
<thead>
<tr>
<th>Supermarket</th>
<th>Naivas</th>
<th>Nakumatt</th>
<th>Tuskys</th>
<th>Uchumi</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Department</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Procurement</td>
<td>9</td>
<td>11</td>
<td>10</td>
<td>7</td>
<td>37</td>
</tr>
<tr>
<td>Finance</td>
<td>6</td>
<td>8</td>
<td>7</td>
<td>5</td>
<td>26</td>
</tr>
<tr>
<td>Marketing</td>
<td>8</td>
<td>10</td>
<td>8</td>
<td>6</td>
<td>32</td>
</tr>
<tr>
<td>Administration</td>
<td>6</td>
<td>9</td>
<td>7</td>
<td>7</td>
<td>29</td>
</tr>
<tr>
<td>Total</td>
<td>29</td>
<td>38</td>
<td>32</td>
<td>25</td>
<td>124</td>
</tr>
</tbody>
</table>
Research Instruments

The study employed a self-administered questionnaire as a sole means of data collection from respondents. The first section comprised general questions while the second section comprised questions on the effects of e-procurement on performance of supermarkets and the third section was answered by senior management. The general information questions will comprise of structured questions and those whose answer could be yes or no. Section two questions were five-point Likert scale format while those of section three are structured.

Data Collection and Analysis

The researcher sought permission from the management of the major supermarkets in Nairobi County. The researcher’s next step was to get a letter from Maasai Mara University as a confirmation of the purpose of the research. Two qualified field assistants were recruited and trained for 3 days to ensure accurate data collection. They were trained on introductory techniques to respondents, questionnaire interpretation, data collection techniques, data recording, basic field ethics and introduction to instrument reliability and validity concept. Data was analysed using descriptive statistics. Closed questions were analyzed using quantitative analysis while open ended questions were analyzed using qualitative methods. The analytical model that was used to determine the effects of e-procurement on organizational performance was expressed in the equation below:

\[ Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \mu \]

Where:
- \( Y \) = organizational performance of major supermarkets in Nairobi County measured by percentage growth in profitability
- \( \alpha \) = the constant term
- \( \beta_1 \) to \( \beta_4 \) were used to measure the sensitivity of the dependent variable to unit change of the predictor variables
- \( \mu \) = error term that modifies all variables
- \( X_1 \) = e-sourcing as a percentage reduction in sourcing inputs at economic prices
- \( X_2 \) = e-tendering measured by a percentage reduction in procuring inputs at economic prices
- \( X_3 \) = e-payment as measured by percentage reduction in payments for inventories
- \( X_4 \) = e-archiving as measured by a percentage increase in records maintained of transactions done

The strength of the relationship between the dependent and independent variables were measure by carrying out an F-test and student’s t-distribution test at 5% level of significance and 95% level of confidence. \( \beta_1 \) to \( \beta_4 \) are significantly different from zeros and if so, it was concluded that there was a strong positive relationship between the dependent and independent variables.
As a result of the hypotheses given in 1.4 the following measurements are derived:

\[ P_1 = \alpha + \beta_1 X_1 + \mu \]
\[ P_2 = \alpha + \beta_1 X_1 + \beta_2 X_2 + \mu \]
\[ P_3 = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \mu \]
\[ P_4 = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \mu \]

Where:

- \( P_1 \ldots P_4 = \) organizational performance of major supermarkets in Nairobi County
- \( \alpha = \) the constant term
- \( \beta_1 \ldots \beta_4 = \) slope that is used to measure the sensitivity of the dependent variable to the unit change of the predictor variable.
- \( X_1 = e\)-sourcing as a measure by percentage change in performance of major supermarkets
- \( X_2 = e\)-tendering as a measure by percentage change in performance of major supermarkets
- \( X_3 = e\)-payment as a measure by percentage change in performance of major supermarkets
- \( X_4 = e\)-archiving as a measure by percentage change in performance of major supermarkets
- \( \mu = \) error term that modifies all variables

**RESEARCH RESULTS**

The results were computed to produce percentages, frequencies, mean and standard deviation for efficiency in interpretation. Qualitative analysis was conducted to supplement the quantitative analysis.

**Effects of e-sourcing on the performance of major supermarkets in Nairobi**

The study sought to establish whether e-sourcing has an effect on the performance of major supermarkets in Nairobi County. The results of the study showed that most of the respondents agreed with the statement on the effects’ of e-sourcing on the performance of supermarkets operating in Nairobi. The results show that e-sourcing saves time in sourcing potential supplies of goods to be stocked with a mean respond of (\( M= 4.70 \); \( SD= .580 \)), It is also noted that most of the respondents (\( M= 4.63, SD = .697 \)) noted that e-sourcing enables the supermarkets to get information about the goods suppliers. Most of the respondents (\( M=4.73, D=.613 \)) also indicated that e-sourcing facilitates accessing pricelists and catalogues from suppliers. On whether e-sourcing enables the supermarkets to interact with their customers and suppliers online, majority of the respondents (\( M=4.67, SD=.524 \)) agreed with the statement, majority (\( M= 4.72, SD=.480 \)) of the respondents also agreed that e-sourcing enables the supermarkets to find out what their customers want. It was also noted that most of the respondents (\( M=4.79; SD=.467 \)) agreed that e-sourcing facilitates comparing of information by supermarkets from different suppliers.

The results also shows that most respondents (\( M=4.73, SD=.500 \)) noted that e-sourcing facilitates faster decisions making by supermarkets using sourced information. It was also noted that most of the respondents (\( M= 4.73, SD=.525 \)) agreed that e-sourcing helps in the
utilization of sourced information can enhance the supermarket performance. On whether e-sourcing facilitates getting information from a large number of potential suppliers, majority of the respondents (M=4.70, SD=.511) agreed with the statement which implies that effective e-sourcing is very important in enhancing information flow between the buyers and the suppliers. It is also noted that majority of the respondents (M=4.70; SD=.486) agreed that e-sourcing enables the supermarket to take advantage of available opportunities in the market efficiently. The results also shows that most of the respondents (M=4.70, SD=.511) agreed with the statement that e-sourcing reduces to a large extent sourcing costs, similarly, most of the respondents (M=5.365; SD=.604) agreed that e-sourcing enhances the supermarkets ability to stock quality products.

On whether e-sourcing enhances chances of increasing sales at the supermarket majority of the respondents (M= 4.81, SD=.422), agreed with the statement. It is also noted that most of the respondents (M=4.78; SD=.500) agreed with the statement indicating that e – sourcing helps organizations to take advantages of available opportunities hence profits are increased. It is also noted that majority of the respondents (M=4.86, SD=.345) agreed with the statement that when sourced information is put to good use it gives supermarkets a competitive advantage over the rest. It was also noted that majority of the respondents (M=4.80, SD=.431) agreed that e-sourcing facilitates faster procurement of goods demanded by their customers.

**Pearson correlation analysis**

The correlation coefficient is a number between –1 and 1 that determines whether two paired sets of data are related. The closer to 1 the more ‘confident’ we are of a positive linear correlation and the closer to −1 the more confident we are of a negative linear correlation which happens when, for example one set of numbers tends to decrease when the other set increases . For this study the correlation will be between e-sourcing and the performance of supermarkets. The study sought to test the hypothesis which stated:

Hypothesis 1: There is no significant relationship between sourcing and the performance of supermarkets. Pearson’s correlation analysis was used and the results presented in table 3.

**Table 3: Pearson’s Correlation Analysis**

<table>
<thead>
<tr>
<th>Performance of supermarket</th>
<th>Pearson Correlation</th>
<th>Sig. (2-tailed)</th>
<th>E-sourcing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performance of supermarket</td>
<td>1</td>
<td>.423**</td>
<td>1</td>
</tr>
<tr>
<td>N</td>
<td>81</td>
<td>.000</td>
<td>81</td>
</tr>
<tr>
<td>e-sourcing</td>
<td>Pearson Correlation</td>
<td>.423**</td>
<td>1</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>81</td>
<td></td>
<td>81</td>
</tr>
</tbody>
</table>
P< .05 (2-tailed); df = 81; critical r = .250; a = 0.05.

The results in Table 4.3 with 79 degrees of freedom (df) the critical r = .166 at an alpha level of 0.05. The results show an r of .423 which is more than .250. The results indicate that there is a strong and positive correlation between e-sourcing and Performances of supermarkets in Nairobi County. This implies that e-sourcing is very important in enhancing the performance of supermarkets. The hypothesis that there is no relationship between e-sourcing and performance of supermarkets is therefore rejected. Meaning that e-sourcing has a very great influence on the performance of supermarkets, a similar result was established by Mose, (2012) and Dawn, et al., (2010) who also noted that there is a significant relationship between e-sourcing and the performance of organizations.

**Regression analysis Model Summary (P1=α +β1X1+μ)**

The regression analysis was established for the objective in order to establish the magnitude of the effect of e-sourcing on the performance of supermarkets.

**Table 4: Regression Analysis**

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of Estimate</th>
<th>Change Statistics</th>
<th>F</th>
<th>df1</th>
<th>df2</th>
<th>Sig. F</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.423&lt;sup&gt;a&lt;/sup&gt;</td>
<td>.179</td>
<td>.168</td>
<td>.262</td>
<td>.179</td>
<td>17.171</td>
<td>1</td>
<td>79</td>
<td>.000</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), e-sourcing

The results helped to establish the regression model where it is noted that the (R= 0.423; R squared = 0.179, F = 17.171, and p< 0.05). The critical F-value = 2.33. This shows that e-sourcing contributes 17.9% to performance of supermarkets.

**ANOVA**

**Table 5: Analysis of Variance**

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>1.179</td>
<td>1</td>
<td>1.179</td>
<td>17.171</td>
<td>.000&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
<tr>
<td>1</td>
<td>Residual</td>
<td>5.424</td>
<td>79</td>
<td>.069</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>6.603</td>
<td>80</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The study also shows that the mean square between the regression and the residual model was noted to have very low variance. This shows that the relationship between e-sourcing and a firm’s performance is not just by chance but it is very significant.
The regression model was $P_1 = \alpha + \beta_1 X_1 + \mu$ which translated as:

$$P_1 = 3.650 + 0.241 X_1 + 0.423$$

This shows that when e-sourcing is at zero level the performance of supermarkets is only 3.65 with an error of 0.423. However, e-sourcing will enhance performance by 24.1% and the effect will not just be by chance since t value is 4.144 which is more than 2 and the p-value is 0.000 indicating that the effect is very significant.

**DISCUSSION OF FINDINGS**

The results of the study showed that most of the respondents agreed with the statement on the effect of e-sourcing on the performance of supermarkets operating in Nairobi. The results show that e-sourcing saves time, enables the supermarkets to get information about the goods suppliers, facilitates accessing pricelists and catalogues from suppliers, it enables the supermarkets to interact with their customers and suppliers online and enables the supermarkets to find out what their customers want. Additionally it was established that e-sourcing facilitates faster decisions making by supermarkets using sourced information, which helps in the utilization of sourced information to enhance the supermarket performance, it facilitates getting information from a large number of potential suppliers, this enhanced information flow between the buyers and the suppliers and reduced to a large extent sourcing costs. The findings indicated that all the statement items that were used to describe the effects of e-sourcing on the performance of the supermarket since the mean value of the statements is all above 4.0 meaning that more than 75% of the respondents agreed with the statements. This agreed with the findings of Loukis et al. (2009) and Saleemi, (2006) who indicated that e-sourcing influences the performance of the organization.

**CONCLUSIONS**

The purpose of this study was to examine the effect of e-procurement on the performance of supermarkets based in Nairobi. The results were analyzed using both descriptive and inferential statistics. It is concluded that using e-procurement in supermarkets has a positive and significant effect on the performance of the supermarkets. It is also noted that e-sourcing influences the
performance supermarkets as it enhances 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 firms' performance is likely to be enhanced because through e-tendering, the supermarkets are able to 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 supermarkets; it was revealed that by using e-payment, the procedures involved are reduced, making the entire process very efficient and hence improved performance. The study also concludes that since there is a strong positive correlation between e-archiving/record keeping and performance of supermarkets, then e-procurement is seen to play a significant role in the performance of supermarkets in Nairobi county.

RECOMMENDATIONS

The study therefore gives the following recommendations:

1. 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.

2. It is also recommended that firms should adopt the use of e-sourcing will be able to expand sourcing scope and 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 on their performance.

REFERENCES


