ABSTRACT

The general objective of this study was to examine the relationship between e-procurement practices and performance of logistic firms in Nairobi City County, Kenya. The study was guided by the following specific objectives: to ascertain how E-tendering affects performance of logistics firms in Nairobi County, to determine the effect of E-invoicing in the performance of logistics firms in Nairobi County, to what extent E-Payment affect performance of logistics firms in Nairobi County and finally to establish how E-sourcing affect performance of logistics firms in Nairobi County. The study used descriptive design because it enhanced systematic description that is as accurate, valid and reliable as possible regarding the responses. The study was limited to 8 selected logistic firms in Nairobi County. Being an academic study, the period to be covered was 6 months. This study utilized a sample size of 54 respondents. The use of 54 respondents in the study justified the selection as it was in line with the recommendations of Mugenda and Mugenda who indicated that a descriptive study should include at least 30% of the total population. Since the sample size of 54 represented 30% of the population it was deemed appropriate. The researcher used questionnaires and secondary data as the research instrument to gather the relevant information needed related to the study. The study involved use of professionals and experts to test the validity of questionnaire by trying to assess what concept the instrument is trying to measure and the accuracy of representation of the concept under research. The quantitative data was analyzed using descriptive statistics. In addition, the study used multiple regression analysis to analyze the data. Regarding E-tendering, the study established that E-tendering had a significant positive effect on the performance of logistic firms in Nairobi County. The study also established that E-invoicing had a significant and positive effect on the performance of logistic firms in Nairobi County. The study further established that E-Payment had significant and a positive effect on the performance of logistic firms in Nairobi County. The study finally established that E-sourcing had significant and a positive effect on the performance of logistic firms in Nairobi County.

Keywords: E-tendering, E-invoicing, E-Payment, E-sourcing and performance of logistics firms

I.0 INTRODUCTION

1.1 Background of the Study

In the 21st Century, firms encounter a swift succession of market fluctuations, novel technical advancements, and alterations in government regulations (AbdiK, 2012). In order to achieve success, companies must prioritize innovation and creativity while maintaining a high level of discipline necessary for efficient plan execution. In order to effectively fulfill responsibilities, it is necessary to make changes to organizational structures and utilize Information and Communication Technologies (ICTs) (Kuloba, 2007). ICT plays a crucial role in redefining a company by enabling the procurement of logistic products, which are the most major cost driver. It facilitates the allocation of authority, function, and control to the most efficient locations based on the organization’s mission, objectives, and prevailing culture (Kamotho, 2014). The objective of this is to participate in e-business, which has the potential to generate significant wealth and revolutionize commercial practices. Some of the often-utilized techniques in electronic business are e-Tendering, online request for quotations (RFQ), e-Auctions, e-Catalogues, e-Invoicing, and e-procurement.
E-procurement utilizes internet-based technology to facilitate all aspects of the procurement process, encompassing purchasing, sourcing, vendor selection, shipment tracking, and payment processing. Since the 1980s, it has become widely popular worldwide because to the increase in Electronic Data Interchange (EDI). It is now used as a means to improve speed, efficiency, transparency, and accountability in both corporate and public sectors (Muriuki, Guyo, Odhiambo, & Kinoti, 2019). Countries such as the USA, Italy, and Australia have implemented e-procurement as a means to optimize public procurement processes (Hawking, & Stein, (2002); Leipold, Klemow, Holloway, & Vaidya, (2017). E-procurement in Africa is utilized to combat corruption and enhance public services. However, the adoption rates of e-procurement differ among countries. South Africa and Uganda encounter obstacles such as drug stockouts and limited technology acceptance (Otieno & Achuora, 2018; Muhia, & Afande,(2015).). Kenya's commercial state enterprises have widely embraced e-procurement, however many traditional manual processes still remain in use. E-procurement implementation enhances openness and efficiency in public hospitals and logistics companies (Munyao & Moronge, 2018a; Wasike, & Mugambi, (2015).

1.2 Statement of The Problem
Promotion of e-procurement practices is a vital element in the supply chain (SC) of organizations and government departments: this promotes transparency and good governance in numerous developed and developing nations (Smart, 2010). Over 20 years ago some of the early adopters began implementing e-procurement systems. This promoted Internet and web services to become a primary medium for the exchange and dissemination of information. Therefore robust automated procurement systems which are interlinked to promote enhanced competitiveness and lowered costs (Osir, 2016). For instance, logistic firms are able to strategically achieve their objectives such as operational efficiencies, effectiveness, curability and patient’s satisfaction. For such to be achieved, there is the need to take advantage of Information Technology and the practice of e-procurement process (Shale, 2015).

According Agango & Achuora (2018), logistic firms in Nairobi County in Nairobi City County has estimated loss of between 10% and 18% in revenue due to inventory hiccups. Despite the industry effort to improve the e-procurement system practices among logistic firms, it is still marred by shoddy works due to lack of commitment, untimely delivery of goods and service among others. This is due to the fact that implementation of e-procurement is low in logistic firms(Shale, 2015). Various studies have been done on implementation of e-procurement, challenges of implementation of e-procurement and benefits of e-procurement. Other studies have also related e-procurement with variables like operational and overall organizational performance(Osir, 2016). However, no study has been done on the relationship between e-procurement practices and performance of logistic firms in the context of Nairobi County. Therefore, this study will seek to bridge this gap by investigating the relationship between e-procurement practices and performance of logistic firms in Nairobi County.

1.3 Objectives of the Study
1. To ascertain how E-tendering affects performance of logistics firms in Nairobi City County.
2. To determine the effect of E-invoicing in the performance of logistics firms in Nairobi City County.
3. To find out the extent to which E-Payment affect performance of logistics firms in Nairobi City County.
4. To establish how E-sourcing affect performance of logistics firms in Nairobi City County.
2.1 Theoretical Review

E-procurement has emerged as a crucial component of supply chain management, offering the opportunity to enhance the efficiency and effectiveness of logistics operations (Barngetuny, & Kimutai, 2015). Transaction Cost Theory (TCT) provides a framework to analyze the connection between e-procurement practices and the performance of logistic firms (Hennart, 2022). This theory, developed by Ronald Coase’s approaches in his famous paper published in 1937 and further explored by Oliver Williamson (1985), offers a valuable perspective for examining the influence of e-procurement on logistic firms in Nairobi County. This study delves into the explanation provided by TCT regarding the connection between e-procurement practices and the performance of firms. It specifically focuses on the aspects of cost reduction, efficiency, and transparency (Osir, 2016). Transaction Cost Theory explores the notion that conducting transactions in a market environment incurs certain costs (Cuypers, Hennart, Silverman, & Ertug, 2021). The costs can be categorized into three groups: search and information costs, bargaining and decision costs, and policing and enforcement costs (Osir, 2016). According to Transaction Cost Theory, firms will strategically structure transactions to reduce costs, often resulting in vertical integration or establishing long-term relationships with suppliers (Hennart, 2010). E-procurement utilizes digital technologies to streamline procurement activities, eliminating the reliance on traditional paper-based systems and manual processes. Logistic firms in Nairobi County are embracing e-procurement as a means to enhance operational efficiency and boost overall performance (Barngetuny, & Kimutai, 2015). The shift has been motivated by the necessity of minimizing transaction costs and enhancing efficiency. According to Hennart, (2022) One of the main reasons for implementing e-procurement is to lower transaction costs, as stated by TCT. Digitizing procurement processes can greatly reduce search and information costs for logistic firms in Nairobi County. E-procurement platforms facilitate the efficient discovery and evaluation of suppliers, resulting in significant time and resource savings for firms. In addition, these platforms make it easier to bid electronically and manage contracts, reducing the costs associated with bargaining and decision-making (Rindfleisch, 2020). By implementing e-procurement systems, organizations can effectively reduce policing and enforcement costs. These systems offer a clear audit trail, which in turn enhances transparency and accountability. E-procurement practices have the potential to greatly enhance efficiency for logistic firms operating in Nairobi County (Osir, 2016). Automating procurement processes can enhance transaction speed and accuracy, resulting in quicker order fulfillment and fewer errors. This enhanced efficiency results in improved performance, allowing companies to provide goods and services to their customers with greater reliability. Transparency plays a crucial role in TCT by minimizing the reliance on expensive monitoring and enforcement measures. E-procurement practices enhance transparency by offering a digital record of all transactions (Rindfleisch, 2020). The transparency fosters trust and strengthens the bond between logistic firms and their suppliers, resulting in more dependable and enduring partnerships. In Nairobi County, the focus on e-procurement is crucial in addressing corruption and unethical practices, ultimately reducing transaction costs (Barngetuny, & Kimutai, 2015). Although e-procurement offers numerous advantages, logistic firms in Nairobi County may encounter difficulties when it comes to implementing these practices. Common barriers often encountered include technical infrastructure, staff training, and resistance to change. Nevertheless, these obstacles also offer chances for creativity and advancement (Charles, & Omwenga, 2018). Companies that effectively implement e-procurement can achieve a competitive edge by cutting expenses, enhancing productivity, and fostering stronger partnerships with suppliers. In conclusion, the framework of Transaction Cost Theory can be applied to gain insights into how e-procurement practices impact the performance of
logistic firms in Nairobi County (Barngetuny, & Kimutai, 2015). E-procurement has the potential to greatly enhance the performance of these firms by reducing transaction costs, increasing efficiency, and promoting transparency. Despite the obstacles that still exist, logistic firms can greatly improve their operations and competitiveness in the market by utilizing e-procurement, which offers numerous potential benefits.

2.2 Conceptual Framework

![Conceptual Framework Diagram]

**Independent variables**

<table>
<thead>
<tr>
<th>E-Tendering</th>
<th>Dependent variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Online Supplier registration</td>
<td>Procurement performance</td>
</tr>
<tr>
<td>Online submission of bid document</td>
<td>Efficiency customer service delivery</td>
</tr>
<tr>
<td>Online evaluation of tenders</td>
<td>Profit maximization</td>
</tr>
</tbody>
</table>

**E-Invoicing**

- Verifying online information
- Tracking online Information
- Receiving online verification

**E-Payment**

- Entering e-payment homepage
- Verifying online payment details
- Tracking online payment

**E-Sourcing**

- Supplier Evaluation through online platform
- Selection of the Supplier through online platform
- Performance Monitoring through online platform

2.3 Empirical Literature Review

Vaidya & Callender (2006) conducted a study on Critical Factors that Influence e-procurement Implementation Success in the Public Sector. They found out that despite the efforts put by the governments through reforms towards adoption of e-procurement, adoption of e-procurement still remains a major challenge for many procurement functions. The findings further revealed that successful implementation of
e-procurement established systems and feedback mechanism. They associated e-procurement with improved procurement performance. Findings of study done by McCue, & Roma, (2012), on e-procurement revealed that e-procurement facilitates documentation of the bidding process which in turn enhances transparency and accountancy especially in public procurement. The research further revealed that e-procurement is associated with improved efficiency and enhanced procurement operations. Other benefits of e-procurement include: increased customer satisfaction, improved professionalism in the procurement functions improving public perceptions the procurement function.

Aberdeen Group (2001) found out that e-procurement solutions lead to improved satisfaction of customer demands, improved contract compliance, enhanced supply chain capacity, reduced inventory costs and improved inventory management. The group identified the keys to e-procurement success. They pointed out that e-procurement should not be treated as a strategy, the organization must know what is spent on, the organization must have a plan, the implementation of e-procurement begins by benchmarking, the implementation of e-procurement must be led from the top, the implementation of e-procurement must be supported by other functional areas.

The findings of Brazel & Dang (2008) showed that implementation of ERP enhances flexibility which translates to improved earning management. A part from flexibility, ERP systems enhance management accounting and decision making that in turn enhances management’s ability to manage accruals and other factors that may constrain organizational abilities. She and Thuraisingham (2007) in their study on security for Enterprise Resource Planning Systems established that e-procurement enhances security of management data which may enhance procurement performance. The above finding is in agreement with the findings of Martínez-Martínez, & Campus, (2008) on Procurement Goals, ERP, and Supplier Coordination in the Context of Competition and Global Environment that ERP systems improve customer delivery and enable collaboration with suppliers and customers. Improved supplier and customer relations and enhance achievement of procurements strategic goals.

Research conducted by United Nations in 2011 on E-Procurement: Towards Transparency and Efficiency in Public Service Delivery revealed that e-tendering enabled federal government save over six million dollars by outsourcing the manual duplication and distribution documents. The study showed that implementation of e-procurement itself is not a guarantee for success in the procurement operations. For this system to succeed there is need for regulations and policies if the system is to succeed. The study also noted that a number of e-procurement programs fail because of poor technology and lack of leadership. Other factors that lead to such failures include: lack of awareness, resistance to change, poor coordination of functions and ineffective implementation programs. Nepelski, (2006). in his study on The Impact of E-Procurement on the Number of Suppliers: Where to Move to reported that a lot of empirical literature already exists confirming that e-procurement leads to increased number of suppliers. This study also revealed that different organizations adopt different online strategies for their procurement functions.

Lewis (2004) conducted a study on Essentials of e-Sourcing: A Practical Guide for Managing the RFX Process in an “E” Environment. The study revealed that e-sourcing can be used as a tool to reduce process time, generate sourcing savings and to drive incremental revenues. He further found out that implementation of e-sourcing starts with selection of an e-tool to complement an organizational strength, followed by change management and training of the staff and other stakeholders where possible. Similarly, Vaidya, Sajeev, &
Callender, (2006). Critical conducted a study on the critical factors that influence successful implementation of e-procurement in the public sector and identified end user uptake and training, supplier adoption, system integration, security and authentication, re-engineering process, performance measurement, top management performance, change management program and communication systems as the critical factors that determine the success of implementation of e-procurement.

2.4 Critique of Literature review
In their study (Gold et al., 2010; Ferrel et al., 2012) Presents the differences between efficiency and effectiveness and mentions the importance of timeliness of disbursement of funds to a project’s procurement function like in e-procurement strategy. However, the study fails to link this aspect to effecting performance in public procurement. The Literature above indicates that purchasing efficiency and purchasing effectiveness represent different competencies and capabilities for the purchasing performance, but does not clearly demonstrate the link between Influences of resource allocation and e-procurement project financing (Kovacs, 2014).(Dunheini & Wassema, 2006) argue that demonstrated accountability and transparency reduces the likelihood of unethical behavior, reassures the community and instills confidence in all stakeholders’ concerning the integrity of decisions. This is not the case in Kenya, where demonstrated accountability does not always match the reduction of unethical behavior. For instance, recent scandals such as the Mumias sugar scandal, Anglo-Leasing, Chicken scandal, security contracts, maize importation, sale of Grand Regency Hotel to Libyan, investors without following the due process of law. Kenya also experienced county misappropriation of funds through obsolete tendering process and many other scandals which relate to corruption in public procurement which is worrying (Nguyen et al., 2015). According to Munyasi, (2015) estimates that recent major grand corruption scandals have cost Kenya over KSh9’ billion (£7bn). With these happenings in the public sector, there is need to establish whether organization structure contributes to challenges affecting the implementation of e-procurement in health sector in Kenya. Literature on ICT adoption shows that the public procurement systems that have adopted ICT have effective management systems that support the e-procurement strategy Barratt & Rosdahl, (2007). However, this cannot be generalized to all cases, for instance in Kenya, where public procurement is not fully ICT compliant, thus it remains unclear how this omission is affecting the e-procurement strategy. Literature review shows the important role of the ICT in the management of the E-procurement. An efficiently upheld ICT would mean adherence to the PPDA in Kenya and compliance to set internal policy guidelines.

The literature however, falls short of the ICT effectiveness and its effect on the management of the E-procurement in Kenya. Much of the literatures to date have focused on e-procurement strategy implementation in the developed countries Bigsten & Söderbom (2010). Explored the challenges to e-procurement in private sector and identification of system integration, standardization and immaturity of e-procurement market services as key challenges in e-procurement implementation. Chinoiset (2010) presents three cases of e-procurement implementation in private sector and found that the failure of implementing e-procurement strategy.

2.5 Research Gaps
intend to address this knowledge gap.

3.0 RESEARCH METHODOLOGY

The research design used in this study was a descriptive research design. The study will target 8 major logistic firms located within Nairobi County that will include SDV Transami, DHL Global, Agility Logistics, Andy Forwarders, Sivicom Liners, Buzeki enterprises, Multiple Hauliers and Siginon group. Out of three logistics that will be selected, the study will target a total population of 300 respondent. The study will target a sample of 90 respondents. The use of 90 respondents in the study will be justified as it will be in line with the recommendations of Mugenda and Mugenda (2009) who indicated that a descriptive study should include at least 30% of the total population. Since the sample size of 90 will represent 30% of the population it will be deemed appropriate. Furthermore, the sample size will allow the researcher to collect data from respondents. The sample obtained from the population will be representative of the same population. The researcher used questionnaires and secondary data as the research instrument to gather relevant information needed relating to the study. For this research, both primary and secondary data-collecting methods were used. The researcher carried out a pilot test to test validity and reliability of the questionnaires in gathering the data required for the study. The information gathered from the respondents was of a qualitative and quantitative nature. The SPSS version 24 was used to analyze the collected information. This is because SPSS version 24 provides a simplified analysis that is easy to interpret and present.

4.0 RESEARCH FINDING AND DISCUSSION

4.1 Response Rate

The researcher administered a total of 90 questionnaires and 68 questionnaires were returned resulting to a respond rate of 76% as shown in Table 4.1. This response was good enough to give the findings of the study and therefore the researcher relied on them. However in that case, after filtering and cleaning of the data, it was eventually realized that 5 questionnaires had erroneous responses and were discarded leaving the researcher with 63 well filled questionnaires that proceeded to data analysis. The response was tabled in table 4.1.

Table 4.1: Response rate

<table>
<thead>
<tr>
<th>Category</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Completed and returned</td>
<td>68</td>
<td>76</td>
</tr>
<tr>
<td>Not returned</td>
<td>22</td>
<td>24</td>
</tr>
<tr>
<td>Total</td>
<td>90</td>
<td>100</td>
</tr>
</tbody>
</table>

4.2 Summary of Study Findings

4.2.1 Correlation Analysis

Cooper & Schindler (2011) asserts that, correlation coefficients enable a researcher to quantify the strength of the linear relationship between two or more variables. Correlation is a measure of the degree of relatedness of variables (Bryman, 2012). Ken (2010) states that, Pearson product-moment correlation coefficient r, ranges from −1 to +1 with the sign at the front indicates whether there is a positive or a negative correlation. For this study Pearson Product Moment Correlation was used and the results obtained are summarized in Table 1.

The correlation on the relationship between e-procurement practices and performance of logistic firms in Nairobi County was investigated using Pearson product-moment correlation coefficient. There was positive correlation between the dependent variable and all the four independent variables ($r$>0.4, $p$<.001). Rubin and
Babbie (2010) opined that, the size of the absolute value provides information on the strength of the relationship where; (r=.1 to .29 Small; r=.30 to .49 Medium; r=.5 to 1.0 Large). The strength of the relationship between the independent variables and the dependent variable (performance of logistic firms in Nairobi County) was averagely large medium where; E-tendering (r= 0.482, medium), E-invoicing (r= 0.579, large), E-Payment (r= 0.634, large), and E-sourcing (r= 0.555, large)

Table 1: Correlations Analysis

<table>
<thead>
<tr>
<th></th>
<th>E-tendering</th>
<th>E-invoicing</th>
<th>E-Payment</th>
<th>E-sourcing</th>
<th>Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>E-tendering</td>
<td>Pearson Correlation</td>
<td>.616**</td>
<td>.418**</td>
<td>.623**</td>
<td>.482**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>63</td>
<td>63</td>
<td>63</td>
<td>63</td>
<td></td>
</tr>
<tr>
<td>E-invoicing</td>
<td>Pearson Correlation</td>
<td>.616**</td>
<td>.454**</td>
<td>.553**</td>
<td>.579**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>63</td>
<td>63</td>
<td>63</td>
<td>63</td>
<td></td>
</tr>
<tr>
<td>E-Payment</td>
<td>Pearson Correlation</td>
<td>.418**</td>
<td>.454**</td>
<td>1</td>
<td>.529**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>63</td>
<td>63</td>
<td>63</td>
<td>63</td>
<td></td>
</tr>
<tr>
<td>E-sourcing</td>
<td>Pearson Correlation</td>
<td>.623**</td>
<td>.553**</td>
<td>.529**</td>
<td>1</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>63</td>
<td>63</td>
<td>63</td>
<td>63</td>
<td></td>
</tr>
<tr>
<td>Performance</td>
<td>Pearson Correlation</td>
<td>.482**</td>
<td>.579**</td>
<td>.634**</td>
<td>.555**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>63</td>
<td>63</td>
<td>63</td>
<td>63</td>
<td></td>
</tr>
</tbody>
</table>

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

4.2.2 Regression Results

Regression analysis denotes collection of statistical methods that investigate the relationship between more than one independent variable and one dependent variable (Paul & Zhang, 2010). Regression is often used when the intent of the analysis is prediction. The goal of regression is to arrive at the set of regression coefficients (B values), for independent variables that put the Y values expected from the equation as close to the Y values extracted as far as possible from the measurement. The computed regression coefficients lessen the total of the square deviations between the Y values predicted and obtained as well as refine the correlation between the Y values predicted and obtained for the data set (Paul & Zhang, 2010).

Table 2: Model summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.970*</td>
<td>.941</td>
<td>.937</td>
<td>.33379</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), E-tendering, E-invoicing, E-Payment & E-sourcing

A multiple linear regression analysis was performed to test the effect of the independent variables on the dependent variable. The average ratings for the four independent variables. The coefficient of determination and standard error of the regression model are shown in Table 2 above. Results indicate that R squared was 0.941 indicating that the independent variables explained 94.1% of the performance of logistic firms in Nairobi County. This indicates the model had good explanatory power. Further, the regression output in
Table 4.14 presents the source of variance, mean of variances and the F value. The results indicate that the overall model was significant (f value = 230.691; p < 0.05) and could provide important results. This indicates that the model could provide some predictive significance and was a good fit.

**Table 3: Analysis of Variance of the Regression (ANOVA)**

<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>1</td>
<td>Regression</td>
<td>102.808</td>
<td>4</td>
<td>25.702</td>
<td>230.691</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>6.462</td>
<td>59</td>
<td>.111</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>109.270</td>
<td>63</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: performance of logistic firms in Nairobi County.

b. Predictors: (Constant), E-tendering, E-invoicing, E-Payment & E-sourcing

Further, the regression output on significance of the independent variables is presented in Table 4

**Table 4: Significance of Independent Variables**

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>T</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>.308</td>
<td>.114</td>
<td>2.707</td>
</tr>
<tr>
<td></td>
<td>E-tendering</td>
<td>.885</td>
<td>.052</td>
<td>.909</td>
</tr>
<tr>
<td></td>
<td>E-invoicing</td>
<td>.911</td>
<td>.040</td>
<td>.946</td>
</tr>
<tr>
<td></td>
<td>E-Payment</td>
<td>.926</td>
<td>.034</td>
<td>.962</td>
</tr>
<tr>
<td></td>
<td>E-sourcing</td>
<td>.923</td>
<td>.043</td>
<td>.939</td>
</tr>
</tbody>
</table>

a. Dependent Variable: performance of logistic firms in Nairobi County

The optimal regression model was:

\[ Y=0.308+0.885X_1+0.911X_2+0.926X_3+0.923X_4+\varepsilon \]

The regression equation above has established that taking all factors into account (E-tendering, E-invoicing, E-Payment & E-sourcing) constant at zero, performance of logistic firms in Nairobi County will be 0.308. The findings presented also show that taking all other independent variables at zero, a unit increase in the E-tendering would lead to a 0.885 increase in the scores of performance of logistic firms in Nairobi County. Also, unit increase in the E-invoicing would lead to would lead to a 0.911 increase in the scores of performance of logistic firms in Nairobi County. Furthermore, unit increase in the E-Payment would lead to a 0.926 increase in the scores of performance of logistic firms in Nairobi County. Finally, the findings shows that a unit increases in the scores of E-sourcing would lead to a 0.923 increase in the scores of performance of logistic firms in Nairobi County.

**CONCLUSION AND RECOMMENDATIONS**

Regarding E-tendering, the study established that E-tendering had a significant and positive effect on the performance of logistic firms in Nairobi County. The study also established that E-invoicing had a significant and positive effect on the performance of logistic firms in Nairobi County. The study further established that E-Payment had significant and a positive effect on the performance of logistic firms in Nairobi County. The study finally established that E-sourcing had significant and a positive effect on the performance of logistic firms in Nairobi County.

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