

The Influence of E-Ordering on Procurement Performance in Geothermal Development Company in Kenya.

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Abstract

The objective of this study is to establish the influence of e-ordering on procurement performance in a Geothermal Development Company in Kenya. The study adopted the technology acceptance Model theory. A descriptive research design was adopted in this study. The target population included the total number of employees working in procurement and logistics departments in the GDC Nakuru region. There are a total of 170 procurement as well as logistics employees in GDC. A multi-stage sampling method was used where 97 respondents were selected as the study respondents. Questionnaires were used to collect primary data. The instrument was tested for validity and reliability where Cronbach's alpha was used to test the reliability of the instrument. The alpha values for all the variables were above 0.8 well above the recommended threshold of 0.7. Thus the instruments were deemed reliable for data collection in the study. Data collected was analysed using Statistical Package for Social Sciences (SPSS). Findings were presented in form of descriptive statistics and inferential statistics and presented in tables accompanied with relevant discussion. The study established that e-ordering had a positive ($r=.634$) significant relationship with procurement performance in the geothermal development companies. This study, therefore, concluded that e-ordering was demonstrated to greatly enhance procurement performance in Geothermal Development Company. The study recommends that the company should exploit the use of online platforms in placing their orders for suppliers to enhance their order efficiency and enhance procurement performance.

Key Terms: E-Ordering, Procurement Performance, e-procurement, e-board management system, Procurement Performance.

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INTRODUCTION

Electronic procurement is very important when it comes to improving procurement performance and by extension organizational performance. Procurement is strategic in nature since it links the organization's suppliers to the strategic objectives of the organization. Procurement translates the strategic objectives of an organization into the sourcing needs that can enable the organization achieve the same. E-procurement has been promoted as one way of improving procurement efficiency and effectiveness (Musau, 2015). Through e-procurement, an organization is able to directly or indirectly buy the raw materials at a relatively lower price. It also enhances and strengthens transparency and the level of competitive positioning of the firm (Kenneth & Bricu, 2012).

A full transition to e-procurement could generate savings for an organisation in a great deal. Indeed e-procurement has been the trending word in the public procurement profession in recent years (Alsac, 2017). E-procurement has been widely recognized for carrying the potential to significantly increase the buyers' and sellers' benefits. Also, research also shows that e-procurement results in reduced lead time, supply cost, and transparency. The advent of technological invasion into the market place, have created e-markets in every business sector. This paved way for a faster connectivity between B2B, B2C and B2G exchanges (Alsac, 2017).

In their discussion of competitive purchasing strategies required for the twenty first century, (Morosan & Jeong, 2008) stated that firms must maximize the use internet based technologies (including e-procurement) in every aspect of the business, linking across all members of the supply chain, increasing the speed of information transfer and reducing non-value adding tasks. Although e-procurement has many operational and financial attractions, these can only be realized, if the ground has already been well prepared through the cultivation of

facilitators and the elimination of all impediments such as: security breaches; cultural mismatch; non participation by key suppliers and regulatory difficulties (Trkman & McCormack, 2010).

Geothermal energy was identified as one of the pillars and enablers of vision 2030 (Moinkett, 2015). Therefore, it is paramount that the organizations enhance efficiency in their performance for them to achieve their goals. However, the organization has been lagging behind in adopting e-solutions in their operations. It is until January 2019 that the organization advertised for a tender for supply and installation of an e-board management system (BMS) with a web interface (GDC Records 2019). As evidenced in their tender advertisements, most of their tender application and communications are done manually through hardcopies thus no ICT application and feedback processes. Through these manual processes, the public procurement oversight authority (PPOA) observed that procurement units preoccupy about 90 per cent of their time in processing procurement operations (Waswa & Juma, 2015). According to Nyongesa and Wagoki (2015), GDC has continuously spent large sums of money and time on its tendering processes and supplier evaluation exercises in the recent past.

This has compromised the achievement of the organization's objectives especially with regard to the reduction of total procurement cost and lead-times in procurement processes. E-procurement has been espoused to ease procurement processes by strengthening search ability, ensuring there is faster and also transmission of accurate data, offer quick and more information and reduce transactional costs (Nyairo, 2016). Further Waswa and Wagoki (2015) studied the influence of framework contracting on procurement performance of geothermal development company in Kenya. Additionally, Munyao and Moronge (2018) examined the influence of e-procurement on the performance of procurement in public universities in

Kenya. Whereas e-procurement adoption has been shown to have an impact on procurement performance, state corporations have still been recording poor performance in procurement performance. Nonetheless, studies have not addressed how e-procurement implementation influences procurement performance especially in Geothermal Development Company. Hence, this study established the influence of e-ordering on procurement performance in Geothermal Development Company in Kenya.

LITERATURE REVIEW

Traditionally, ordering process between various parties was organized through mail, phone, fax and electronic data interchange (EDI) and more recently internet. E-ordering has evolved into the use of electronic technologies to streamline and enable the ordering activities of an organization (Munyao & Moronge, 2018). The benefit of e-ordering has contributed great saving in bottom line procurement costs of many companies worldwide and hence technology use is a significant tactic in most companies' e-business strategies. It is claimed that a company engaging in e-ordering can cut procurement cost by 8 to 15 per cent (Munyao & Moronge, 2018).

A study was carried out to establish the influence of electronic procurement practices on supply chain performance of sugar processing firms in Kenya guided by specific objective, to establish the influence of electronic order processing practice on supply chain performance Biraori et al. (2018). The results revealed that there is significant relationship between electronic order processing practice and supply chain performance. The study concludes that electronic order processing practice enhances supply chain performance. The study recommends that Sugar firms in Kenya need to incorporate all the electronic order processing practices into the system to enable improve their supply chain performance.

Evans et al. (2018) study investigated the electronic order processing influence on performance of supply chain of

Kenya sugar processing firms. Mixed research design was applied and the population target entailed 12 sugar processing firms in Kenya with a target population of 7,584. Stratified random sampling was employed to produce a 367-sample size. Data was gathered by a self-administered drop and pick questionnaire, interviews and observation. The results revealed the relationship that significantly existed amid processing practice of electronic order and performance of the supply chain. The study concludes that electronic order processing practice enhances supply chain performance.

A study investigating e-ordering and e-informing on performance of supply chain in Kenyan state corporations in Nairobi County was carried out using explanatory research design in the undertaking of this research (Nancy, 2017). Using 262 officers of procurement from 112 state corporations of Kenya, the findings of the model of multiple regression findings indicated that e-ordering has a significant and positive impact on performance of supply chain. The study makes a conclusion that e-ordering that is the element of the dimensions of procurement raises the performance of supply chain.

Rotich and Okello (2015) analyzed use of e-procurement on performance of the procurement functions of county governments in Kenya. This study aimed at examining the relationship between e-procurement and procurement performance of County Governments in Kenya. The results revealed that e-procurement is positively related with performance of supply chain function of County Governments in Kenya. The study therefore recommended that the Government come up with policies on adoption of e-procurement practices and provide critical resources and leadership in adoption of e-procurement.

RESULTS AND FINDINGS

E-Ordering Descriptive Statistics

Respondents' views were further sought regarding e-ordering process. The findings from the analysis were as presented in Table 1.

Table 1: Descriptive Statistics on E-Ordering

	SA (%)	A (%)	U (%)	D (%)	SD (%)	Mean	Std. Dev
Our suppliers are able to receive the purchase order information electronically	4.0	14.7	4.0	70.7	6.7	2.39	.957
We conduct online order requisition	1.3	10.7	4.0	66.7	17.3	2.12	.869
We electronically order for receipt for payment of goods and services supplied	2.7	12.0	6.7	64.0	14.7	2.24	.942
Our company purchase for or goods and services online	2.7	6.7	4.0	60.0	26.7	1.99	.908
Our prospective suppliers submit their proposals online	1.3	6.7	5.3	62.7	24.0	1.99	.830
Valid N (list wise)	75						

Results established that majority of the respondents disagreed that their suppliers are able to receive the purchase order information electronically. 70.7 per cent of the respondents disagreed while 6.7 per cent of them strongly disagreed recording a mean of 2.39 and a standard deviation of 0.957. In addition, respondents disagreed that they conduct online order requisition where 84 per cent of the respondents strongly and/or disagreed with the statement. This statement recorded a mean of 2.12 and a standard deviation of 0.869. Additionally, they disagreed that they electronically order for receipt for payment of goods and services supplied. 64 per cent of the respondents disagreed while 14.7 per cent of them strongly disagreed registering a mean of 2.24 and a standard deviation of 0.942. Further, 60 per cent of respondents disagreed while 26.7 per cent of them strongly disagreed that their company purchase for or goods and services online. This aspect had a mean of 1.99 and a standard deviation of 0.908. Respondents disagreed with the statement that their prospective suppliers submit their proposals online. 86.7 per cent of the respondents strongly and/or disagreed with a mean of 1.99 and a standard deviation of 0.830.

The Relationship between E-Ordering and Procurement Performance

The study also examined the relationship between E-ordering process and procurement performance in GDC. The findings from the analysis were presented as shown in Table 2.

Table 2: Correlations between E-Ordering on Procurement Performance

		E-Ordering Process
Procurement Performance	Pearson Correlation	.634**
	Sig. (2-tailed)	.000
	N	75
** Correlation is significant at the 0.01 level (2-tailed).		

The findings indicated the existence of a strong significant ($r=.634, p=.000$) relationship between e-payment process and procurement performance. This means that e-ordering has a significant role in determining procurement performance in the company. Therefore, e-ordering is an important determinant in procurement performance in

GDC. Biraori et al. (2018) in their study established a positive significant relationship between e-ordering and performance of supply chain department, findings confirmed by the current study. Similar findings were established by Evans et al. (2018) in their study to investigate the electronic order processing influence on performance of supply chain of Kenya sugar processing firms. The correlation coefficient(r) value in this study is double that established by Muhia (2015) whose correlation coefficient between e-ordering and procurement performance was 0.313 units. Hence this study depicted a greater correlation between e-ordering and procurement performance. Thus, e-ordering plays a paramount role in determining procurement performance.

Results established that majority of the respondents disagreed that their suppliers are able to receive the purchase order information electronically. In addition, respondents disagreed that they conduct online order requisition. Additionally, they disagreed that they electronically order for receipt for payment of goods and services supplied. They also disagreed that their company purchase for or goods and services online. Respondents disagreed with the statement that their prospective suppliers submit their proposals online.

Findings revealed that there exists a significant relationship between e-ordering and procurement performance in GDC. Therefore, e-ordering process plays a significant role in procurement performance in GDC. Regression analysis demonstrated that e-ordering does not significantly account for the overall variation in procurement performance. Therefore, enhancing e-ordering capacity does not enhance procurement performance in geothermal development company in Nakuru Kenya.

CONCLUSION AND RECOMMENDATION

Conclusion: E-ordering was demonstrated to greatly enhance procurement performance in Geothermal Development Company. A positive relationship exists between e-ordering and procurement performance in Geothermal Development Company. Nevertheless, despite having a positive relationship, e-ordering did not have a significant influence on procurement performance. As such, determination of the appropriate e-ordering may not necessarily enhance procurement performance of GDC.

Recommendation: E-ordering had relatively average significant relationship with procurement performance in GDC. As such the study recommends that the company should exploit the use of online platforms in placing their orders for suppliers to enhance their order efficiency and enhance procurement performance.

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