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RESEARCH ARTICLE

THE IMPACT OF PROCUREMENT PROCESS AUTOMATION ON THE PROCUREMENT ENTITY'S INTERNAL CUSTOMERS SERVICE DELIVERY: A CASE OF CITAM

***Omasso So, Kibet Yusuf and Dr. Douglas Musiega**

School of Human Resources Development, Jomo Kenyatta University of Agriculture and Technology, Nairobi, Kenya

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ABSTRACT

Though, the opportunities for improvement as a result of procurement automation seem abound, 60% of information technology application in procurement initiatives do not deliver the expected results. One such area greatly affected, in many procurement entities, is customer service. Thus, customer service delivery, in many procurement entities, remains a great challenge. For few, if any, consider procurement as a service function, and emphasize into procurement automation is often focused on the cost efficiency rather than service delivery. This study, therefore, examined the impact of procurement automation on procurement entities' internal customer service delivery, adopting a case study design with a single-case descriptive approach targeting 43 customers using purposive sampling and thereafter the resultant selected divisions used as study clusters (second-stage cluster sampling). A 30% sample size was selected with descriptive statistics and statistical test: Pearson's (r) and chi-square being used. The study findings indicate that procurement automation positively impacts the procurement entities' customer service delivery according to 69.8% of the respondents, and there is a significant relationship (with *r* values ranging from 0.118 to 0.313) between procurement automation and procurement entities' customer service delivery. Consequently, procurement automation can be viewed as an enabler of the procurement entities' internal customer service delivery. Hence, procurement automation initiatives must focus, also, on ensuring procurement entities' provide a high customer service levels.

INTRODUCTION

Background of the study

Procurement is common to all types of business operations and an important function found in all organizations, including religious organizations. For, procurement does play a key role in contributing to the bottom line of any organization (Rudzki, Smock, Katzorke, and Stewart, 2006). The use of ICT has dramatically changed services, business models and people's expectation of the quality as well as efficiency of information sharing and service delivery (Brown 2005; Moniam 2005). And in today's unpredictable business environment most of the modern business functions are challenged by the reality that, providing a positive service experience for the customer can be a challenging task. In addition,customer service delivery has become too important to leave to business as usual tactical approaches (Olowokudejo and Adeleke, 2011; Goodman, 2009). Hence, the modern day procurement office increasingly looks to ICT as the driver for many of its business and operational improvements (Dreman, 2012). For, as more organizations strive to gain the competitive advantage, procurement automation through ERP implementations is one of the strategies of choice (Allan, 2004). Since, it has the potential to provide better focus and access to customers, greater availability of information and improved business processes (Kalakota and Robinsion 2002, as cited in Greunen *et al*., 2010). Indeed, many mention ERP as an enabler for procurement performance (Yang and Su (2009).Consequently, around the globe a number of private and public sector organizations have been utilizing Information Technology (IT) systems to streamline and automate their purchasing processes over the past years (Mose, 2013).However, this has not been without challenges for, many business process automation projects have been difficult, lengthy and over budget with 60% of information technology application in procurement initiative not delivering the expected results (Somers and Nelson, 2004; Ward and Peppard, 2003). (Burt, Petcavage and Pinkerton, 2010) worse still, since the procurement function has always been considered to account for a huge portion of the total cost that organizations incur, many researches have over the past years been done, with much of the existing published research into the impact of procurement automation being focused on the cost efficiency. In addition, many researchers and academicians for example: (Lysons, 2005; CIPSA, 2007; Burt *et al*., 2010; Handfield, Monczka, Guinipero and Patterson, 2011) in their definitions of procurement have failed to emphasize on procurement as a service function.

****Corresponding author: Omasso So,***
School of Human Resources Development, Jomo Kenyatta University of Agriculture and Technology, Nairobi, Kenya.

Consequently, procurement automation as a customer service enabler and perhaps the role it would play in developing strategic customer service intent is not fully realized in many organizations in the world over. The study therefore sought: to find out the impact of procurement automation on the procurement entity's internal customer service delivery, and to establish the relationship between procurement automation and procurement entities' customer service delivery.

CITAM

CITAM (Christ Is The Answer Ministries) is a church organization founded in 1959 when NPC (Nairobi Pentecostal Church) was founded as an English-speaking multi-racial church with the vision "*Kenya and the rest of the world impacted with the gospel of our Lord Jesus Christ in the power of the Holy Spirit.*" (CITAM, 2009) organizationally, CITAM has a very strong policy environment with well-developed and documented policies and systems that cover key areas of its ministry and operations. In procurement the organization has hybrid procurement system encompassing both centralized and decentralized system as predefined in CITAM's procurement policy and procedure manuals (CITAM, 2006). CITAM, despite its focus on enhancing its ICT capacity and business process automation through WAN and Intranet, web-based ERP system and lately, unified communication implementation (CITAM, 2007). The organization's procurement entity has continued to face customer service delivery challenges with complaints from its internal customers ranging from late deliveries, quality of supplies, poor logistical communication, and prolonged order cycle times to claims of high acquisition costs of supplies.

Statement of the problem

Though the opportunities for improvement as a result of procurement automation seem abound, 60% of information technology application in procurement initiative do not deliver the expected results (Zeng *et al.*, 2004). One such area greatly affected, in many procurement entities, is customer service. Thus, customer service delivery, in many procurement entities, remains a great challenge. For few, if any, consider procurement as a service function, and emphasis into procurement automation is often focused on the cost efficiency rather than service delivery (Gian *et al*., 2008). Yet, the modern day procurement entity is a service function that must view its suppliers and user departments as customers, to whom it has customer service obligations to, and as such procurement automation must, also, be focused on enhancing the entities' customer service delivery.

Significance of the study

While top on the list of beneficiaries of this study will be the procurement entity of CITAM which will be able to identify and analyze the impact of its procurement automation project on customer service delivery. On the worldwide scope, the study will immensely contribute into many acknowledging the procurement function as a service function. Hence, provoke informed discussions on how procurement automation initiatives can also be focused on the procurement entities' customer service delivery.

Limitations of the study

Since study adopted a case study design, the findings may not accurately represent procurement automation in other institutions, other than the case study. However this could be at very minimal level as the questionnaires sought specific answers for the purpose of achieving the objectives of this study.

DEFINATION OF CONCEPTS

Procurement as service function

(Simchi *et al.*, 2009) the procurement function is responsible on one hand for the identification of the end-user's needs and, by utilizing suppliers, meeting them. By its very nature therefore, procurement is a "service" function (Ishola, 2010). Hence, in this paper we define procurement as a service function provided by a dedicated team of professionals operating at the interface between the organizations' suppliers and the end-user department(s) in order to effectively and efficiently meet the supplies needs of the organization. According to Ellaram *et al.* (1989) in procurement customer service outcome exists in two domains; the supplier activity domain and the end-user response domain. We, thus, identify two customers to the procurement function: internal and external i.e. the end users and the suppliers respectively. In a procurement process therefore, efforts must be dedicated to ensuring the complete satisfaction of not only the end-user or customer of a product and/or service, but, also the satisfaction of the suppliers whose products or service are incorporated into the end- user /customer order and whose performance impacts the end user satisfaction (Gordon, 2009).

Procurement automation and its impact

Though procurement automation is a general term that covers wide assortment of techniques and procurement automation solutions, for this study the definition according to De Boer *et al.* (2001) is appropriate: "using internet technology in the purchasing process." According to Allan, (2004) as more and more organizations strive to gain the competitive advantage, procurement automation through ERP implementations is one of the strategies of choice. However, no single ERP solution can satisfy all the business needs of an organization; thus, organizations may have to implement custom applications in addition to the ERP software (Mahalakshmi, 2012). ERP systems are defined as ''information systems packages that integrate information and information-based processes within and across functional areas in an organization'' (Kumar and Hillegersberg 2000). (Mahalakshmi, 2012) define ERP as business operating system that enables better resource planning and execution, and improves delivery of value- added pr;oducts and services to customers. He further adds ERP's are not mere software systems; they affect how a business conducts itself. Earl, (1989, as cited in Deraman, 2012) asserts that, ICT has been deployed, in procurement, as a strategic weapon to obtain a competitive edge, improve productivity and performance, and better manage and organize new businesses. Information technology now enables procurement managers to rethink how they conduct business, for, it is critical in managing the

increasing complexity of the purchasing function (Drake, 1992; Mentzberg, 2009).

Internal customers

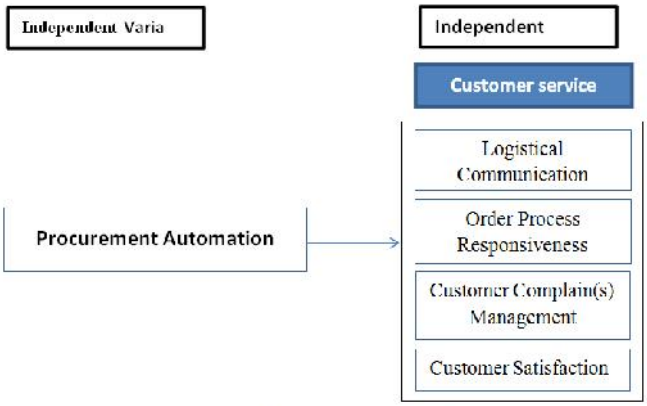
The employees of the business can be viewed as the "internal suppliers" and "customers" of the business (Voss, Calantone and Keller, 2005; Berry, 1981). A key premise underlying "employees as customers" concept is that similar to external customers, internal customers desire to have their needs satisfied (Ahmed and Rafiq, 2003). (Palmatier, Dant, Grewal and Evans, 2006) asserts that the "logic of satisfying the needs of internal customers", places the business "in a better position to deliver the quality desired to satisfy external customers". On the other hand it is prudent to note that, satisfied suppliers can help companies achieve high customer satisfaction, both internal and external (Gordon, 2008).

Customer service delivery

According to Holberton (1991, as cited in Armstrong, 1999) customer service are the activities involved in ensuring that a product or a service is delivered to the customer on time and in the right quantity by the order taking department of the organization. On the other hand, Helmsing (1995) in his study defines service delivery as a deliberate obligatory decision by the elected or appointed officials to serve or deliver goods and services to the recipients. Thus, considering the above definitions, we define customer service delivery as the deliberate obligatory management of activities involved in ensuring customer service by means of meeting the needs and expectation of the customer, as defined by the customer. For according to Khattab (2005) a major role of any business is to meet its customers' needs and expectations. Failure to which is assumed to result in customer dissatisfaction. Thus any business function looking for success in today's market place must be customer centered –aim at delivering superior value to its target customer. Since the objectives of the procurement function are: to buy the right quality, in the right quantity from the right source, delivered to the right place at the right time and at the right price (Lysons, 2000). (Christopher, 2002) asserts that in general the main variables, therefore, in each purchasing process and decision are: quality, delivery and price service package. It is against these variables that the procurement entity has basically to function within in order to satisfy its internal customers, the end-users. Parasuram *et al.* (1985, as cited in Wagube, 2011) gave the indicators of service delivery to include: responsiveness (the willingness or readiness to provide services) and communication (keeping the customer informed in a language they understand and listening to them). (Kakura, 2004) adds completeness (should contain all the features that satisfy the customers' expectations). While Balunywa (1998) adds conformance (this is the degree to which a service design and operating characteristics meet established standards).In this study, therefore, we focused on determining the impact of procurement automation on four variables of customer service delivery in a procurement process as conceptualized below:

METHODOLOGY

The study adopted a case study design employing a single-case descriptive approach with a target of 43 internal customers using purposive sampling and thereafter the resultant selected divisions were then used as study clusters (second-stage cluster sampling). A 30% sample size was selected. Descriptive statistics and statistical test: Pearson's (r) and chi-square were used. Structured questionnaires were adopted for ease capturing of the study's objectives as well as for easy of data analysis.



(Source: Author 2013)

Figure 1. Conceptual framework showing the relationship between independent and dependent variable

RESULTS AND DISCUSSION

Impact of procurement automation on logistical communication

(a)The degree of change in information provided on the expected delivery-date of goods/service: The findings indicate that, 66.7% of the customers indicated an increase of over 100%, with 25% indicating an increase of over 51% and 8.3% indicating an increase of between 26% and 50%. None of the respondents indicated that there was neither no change nor a decrease. Thus, 100% of the customers indicated an increase of between 26% to over 100%.

(b)The degree of change to which updates on order progress is communicated: the findings show an increase of between 51% and 100% from 58.3% of the customers, while 25% indicated an increase of over 100%, and 8.3% reported there was no change. Never the less 91.7%, which is a majority, of the customers reported an overall increase.

(c)The degree of change in reliability of the information provided in (a) and (b) above increased by between 51%and 100% as represented by 66.7% of the customers while further 33.3% indicated an increase of over 100%. Consequently all the respondents indicated an increase in the reliability of information.

Impact of procurement automation on the responsive of the order process

(a)The change in the degree to which the order process is flexible to accommodate urgent order(s) requests: The findings did indicate that 58.3% of the customers reported over 100% increase, while 41.7% indicated an increase of between 51% and 100%.Thus, 100% reported an increased change in the flexibility of the order process.

(b)The change in the degree to which the order process meets urgent order delivery-dates requirements: 83.3% of customers indicated that there was increment of between 51% and 100% and 16.7% indicated an increase of over 100% on the same. In general, there has been a positive change in the order process conforming to the urgent delivery-date requirements.
(c)The degree to which the goods delivered or service offered against urgent order conforms to specifications: 58.3% indicated a 100% increase, 25.0% indicated an increase of between 51% and 100% while 8.3% indicated that it remained about the same. On the other hand, a further decrease of over 25% was reported by 8.3% of the respondents. Never the less, 83.3% reported an increase of at least over 51%.

Impact of procurement automation on customers' complaints management

(a)The change in the frequency of internal customers' complains after procurement automation: 25% indicated a drop of over 25%, 33.3% indicated a drop of between 10% and 25%, with 16.7% indicating remained it the same. On the other hand, 16.7% of the respondents did indicate that there was an increase of between 51% - 100%, with 8.3% of the respondents indicating an increase of over 100%. Therefore, the study did indicate that there was a 58.3% decrease.
(b)The degree of change in the ease of accessing the procurement office to launch customer complaint: 58.3% of the customers indicated an increase of over 100% and a further 41.7% indicated an increase of between 51% and 100%. Thus, 100% of the respondents indicated an increase of 51% to over 100%.
(c)The degree of change, to which the response to complaints address the customers' complaint: 41.7% indicated an increase of between 51% and 100%, 33.3% indicated an increase of over 100% and 8.3% indicated an increase of between 10% and 25%. On the contrary a small percentage of 8.3% did indicate there was no change and another 8.3% indicated a decrease of between 10% and 25%.Overall,
(d)The degree of change in the speed, at which customers' complaints are addressed: 58.3% did indicate an increase of over 100%, 25% indicated an increase of between 51% and 100% while 8.3% indicated there was no change in the speed. In addition, a decrease of over 25% was reported by another 8.3% of the customers. Therefore, 83.3% of the customer did indicate an increase of over 51%.

Customer satisfaction

Based on the 5Rs principle of procurement i.e. Buy at the; Right Time, Right Price, Right Quality, Right Quantity from the Right Source) the customers rated the change post automation as: 8.3%,16.7% and 41.7% rated the buy at the right time as excellent, very good and good respectively. 25%,16.7%58.3% rated the buy at the right price very good, good and not bad respectively. 25%, 25%, 33.3% and 16.7% rated the buy from the right source as very good, good, bad and very bad respectively.50% and 50% rated the buy right quality as excellent and very good respectively while 91.7% and 8.3% also rated the buy right quantity as excellent and very good. Overall, procurement automation enhanced the entity's conformance to the rest of the *rights* except the price and source which had 58.3% and 50% respectively reporting otherwise results.

The relationship between procurement automation and the procurement entities' customer service delivery

From a summary of the chi-square test, a *chi-square of* 36.581 and *df* of 4.00 at the significance level of less than 0.05 meant that the hypothetical statement (*there is no relationship between procurement automation and procurement entity's customer service delivery during the procurement process*) could be rejected on the basis of the significance level of 0.000, implying there is a relationship between procurement automation and customer service delivery during the process of procurement. In addition, a summary of t*he Pearson Correlation* (of between was r=0.118, r=0.126 and r=0.313) did indicate that there is a clear direct relationship between; procurement automation and the procurement entities' customer service delivery.

Conclusion and Recommendations

In conclusion the study did establish that procurement automation does to a large extent, but in varied proportions to the various elements of customer service in the procurement process, positively impact on the procurement entities' customer service delivery, and there is a direct positive relationship between procurement automation and customer service delivery. The study therefore recommends procurement automation as a key input towards improving the procurement entities' customer service delivery. During procurement automation projects or initiatives organizations need to emphatically consider, also, procurement as a service function with its own unique set of customers to which it has obligations to. Finally, to academicians, the study recommends a need for focused investigation on factors that strengthen the relationship between procurement automation and customer service delivery.

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