EFFECT OF INFORMATION AND COMMUNICATION TECHNOLOGY ON PROCUREMENT PERFORMANCE IN KENYA

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ABSTRACT
Information and Communication Technology (ICT) in procurement is the automation of processes, controls, and information production using computers, telecommunications, software and other gadgets that ensure smooth and efficient running of procurement activities. Private and public sector organizations have been utilizing IT systems to streamline and automate their purchasing and other processes over the past years. It is only in the past decade that ICT systems have attracted attention. Apart from offering accommodation and various hospitality services, it encourages the inflow of tourists from other parts of the world thereby boosting our economy in the tourism industry. This study fills a gap that existed in the previous knowledge, in these areas of research whereby many studies have not exploited the effect of information and communication technology in procurement performance in star rated hotels. The researcher addressed the effect of information and communication technology in procurement performance in star rated hotels. The review indicates that a number of independent variables exist and have been adequately not been studied by past researchers. The study tries to bring these variables into the limelight in order to fill the existing gaps.

Key Words
Electronic tendering, Web-based enterprise resources planning, Strategic sourcing, Procurement, Strategic plan, Strategic procurement planning.

INTRODUCTION

The chapter comprises of the various parts, background of the study, statement of the problem, objectives of study, research questions, and significance of study, scope of the study and limitation of the study.

Information and Communication Technology (ICT) in procurement is the automation of processes, controls, and information production using computers, telecommunications, softwares and other gadgets that ensure smooth and efficient running of procurement activities. It is a term that largely covers the coupling of electronic technology for the information needs of procurement at all levels. ICT has surpassed the role of support services or only electronic data processing; its fields of applications are slightly global and unlimited (Teo, 2008).

The rise of e-business in the late 1990's led to the development of new opportunities related to procurement: e-procurement, spend management, outsourcing and joint product design. The advent of the Internet as a business systems platform has been a catalyst for major changes in the operation and status of organizational procurement. Information Technologies have changed the way organizations and governments operate. The majority of organizational spending consists of purchasing. In order to decrease the total costs spent on purchasing process, internet technologies are used and e-Procurement has become popular to implement in the latest era by both governments and private enterprises (Nelson et al, 2009).

Although the opportunities for improvement seem abound, both private and public sector are still cautious as far as the adoption of electronic technologies is concerned. Ward and Peppard (2003) indicate that 60% of Information Technology application in procurement initiatives and projects do not deliver the expected benefits.Procurement performance provides a basis for effective control and stewardship of resources and demonstrates the value of the procurement function. Most organizations have no performance measures in place for assessing procurement efficiency and effectiveness. Of the few that did have measures, many were qualitative statements rather than specific targets to achieve (Adams, 2008).

Global Perspective of Procurement Performance

In a competitive and globalized business environment, corporate sectors and business houses need to be abreast with new technological developments as well as manage reduction of operational costs while meeting the organizational goals and objectives. Emerging technologies, such as the newly commercialized Internet and its hypertext-based multimedia-supporting,the World Wide Web, are raising high hopes of finally changing the picture of costly, time-consuming, and inefficient procurement processes by enabling major improvements in terms of lower administrative overhead, better service quality, timely location and receiving of products, and increased flexibility. With most organizations spending at least one third of their overall budget to purchase goods and services, procurement holds significant business value (Killen &Kamauff, 2005).

The use of Information Communication Technologies (ICTs) has dramatically changed services, business models and people's expectations of the quality and efficiency of

information sharing and service delivery. Development in information and communication technology, especially the Internet helps the application of alliances used by businesses to become more effective through the integration of firm's information technology (IT) infrastructure. One of the information systems that helps revolutionize the supply chain activities is e-procurement(Brown, 2005; Maniam, 2005).

The application of ICT in procurement is one of the most world existing developments in supply chain management in recent years. Its application cuts across both the public and private sectors. However, in most African countries the ultimate use of ICT in procurement system is still in the development stage and will evolve over time (Bardi, Coyle & Langley, 2003).

Several case studies highlight the successful implementation of a state-wide use of ICTplatform across several government departments, public sector units, urbanlocal bodies in developed countries such as Malaysia and the quantifiable benefits that delivered to the suppliers and the government directly, and to the society indirectly. This path-breaking initiative has provided transparency, fairness and equalopportunity to private entrepreneurs who are now able to submit bids online onanywhere and anytime basis for government contracts and sell products or expertise togovernment agencies through the e-procurement portal. Additionally, wherever ICThas been applied, potential benefits have been acquired such as reduced costs, as itenables volume purchases, allows wider choice of buyers and suppliers, brings aboutbetter quality, improves delivery, reduces paperwork, lowers administrative costs andsaves time (Mrisho, 2010).

A good e-procurement system helps a firm organize its interactions with its suppliers. It provides those who use it with a set of built-in monitoring tools to help control costs and assure maximum supplier performance. It provides an organized way to keep an open line of communication with potential suppliers during a business process and ensuring smooth flow of materials(Vendor Management Inventory). The system allows managers to confirm pricing, and leverage previous agreements to assure each new price quote is more competitive than the last. It appears that during the past few years purchasing has begun to play an ever more important role in the strategy of the firm (Weele, 2010).

Kenyan Perspective of Procurement Performance

Studies have shown that while over 70 percent of American buyers use internet technologies at work (Caridi et al, 2004), the percentage of procurement conducted electronically is relatively low – ranging from 10 percent to 20 percent (Kulp et al, 2006). This disconnect is evident in a recent study by Gunasekaran and Ngai (2008). In this study, 80 percent of industry respondents agreed that the use of the internet was important in procurement; however, only 20 percent had actually adopted EPTs.

According to Ombaka (2009), buyers participating in tenders posted online see e-procurement as a source of problems of confidentiality (65%) and security (56%). E-procurement has not gone beyond the invitation to tender phase. Thus, technical failings and a lack of confidence as regards confidentiality have resulted in a very low number of

electronic replies to invitations to tender have been downloaded electronically, thus, the performance of the state corporate has not improved at all (Arasa&Achuora, 2012).

Locally, Magutu P. O., Njihia J. M, and Mose J. M. 2013;" studied on The Critical Success Factors and Challenges in E-Procurement; Ngugi et al 2010 studied performance of public procurement function in Kenya. On the same note, Otieno, Nancy and Simon, August 2013 studied: Factors Affecting Use of E-Procurement: A Surveying Selected Firms inKisii Town, Kenya. Rwoti (2005) conducted a study on procurement performance measurement systems a survey of large manufacturing companies in Nairobi and found that monitoring procurement performance is dogged by among others poor data management and operation of manual systems in procurement a survey conducted on the factors influencing the implementation of e-procurement among firms listed on the Nairobi Stock Exchange and found that most corporations have not implemented e- procurement and that e-procurement features could improve efficiency of the business operations (Kiburi, 2008).

Procurement Performance

Private and public sector organizations have been utilizing IT systems to streamline and automate their purchasing and other processes over the past years. It is only in the past decade that ICT systems have attracted attention. There is no doubt that its use in Procurement provides several advantages over earlier inter-organizational tools. For example, Electronic Data Interchange has been providing automated purchasing transactions between buyers and their suppliers since it was launched in the 1960s. Enterprise Resource Planning (ERP) followed in the 1970s, and then came the commercial use of the Internet in 1980s. It was only in the 1990s that the World Wide Web the multimedia capability of the Internet - became widely enabled and provided the essential resource for the automation of procurement.

As emphasized by Thai (2009), one of the most significant challenges in developing countries procurement is how to best use IT in an age of communications revolution. Numerous researchers have looked into this challenge under the label “e-procurement.” The issue has been discussed both from a technological viewpoint and a managerial standpoint (Devadoss et al, 2003).

Among various categories of e-Commerce, B2B e-Commerce is the most important one as it accounts for the majority of electronic transactions in the business world and, therefore, has enjoyed a rapid progress in the last decade in terms of applications development and the adoption rate. One of the relatively recent B2B e-Commerce applications developed in the past decade is e-procurement system. Through the utilization of the Internet, e-procurement system improves the efficiency in various stages of procurement process including searching for sellers, processing (product request, approval and order generation), controlling procurement process and coordinating the exchange of information internally and externally with trading partners. (Forrester Research 2000)

As a result, cost savings can be obtained through lower transaction cost, increased procurement process quality (accuracy), shorter cycle time, better inventory management,

while relationships with trading partners can be enhanced, risk can be better controlled and strategic sourcing can be exploited. For any organization to change its focus and become more competitive, procurement performance is a key driver to improving quality of services while its absence or use of inappropriate means can act as a barrier to change and may lead to deterioration of the purchasing function. None the less, most developing countries are facing a problem of rapid changes in procurement requirements (Amaratunga&Baldry, 2002).

The changes are impacting pressure on how the procurement function performs its internal and external processes and procedures in order to achieve its objectives.Performance measurement is crucial in enhancing the performance of organizations because whatever gets measured gets done. According to Van Weele (2006) purchasing performance is considered to be the result of two elements: purchasing effectiveness and purchasing efficiency. Performance provides the basis for an organization to assess how well it is progressing towards its predetermined objectives, identifies areas of strengths and weaknesses and decides on future initiatives with the goal of how to initiate performance improvements (Lardenoije et al, 2005).

Procurement leaders have organized procedures, resources and systems to consistently employ and align all procurement strategies that are related to business objectives. Overall, enterprises employing these approaches in a consistent and integrated method outperformed peers in cost savings, expenditure under management, compliance, supplier integration, and greater contribution to enterprise value (Lester, 2007). Contract management is a process undertaken to: ensure timely delivery of goods and services; achieve the full benefits of the procurement process and contract; minimize costs associated with risks arising during the term of the contract; improve the benefits flowing to customers and suppliers; promote innovation and continuous improvement; create additional benefits for both parties through good relationships; and achieve value for money in the procurement of goods and services.Information is crucial to the performance of a supply chain because it provides the basis on which supply chain managers make decisions and for effective control of today's multifaceted procurement function. Information technology consists of the tools used to gain awareness of information, analyze this information and execute it to increase the performance of the supply chain (Chopra &Meindl, 2008).

Statement of the problem

Businesses face many challenges in today's fast-changing uncertain global climate (Lee and Gebauer, 2006). Many organizations have turned their attention to Electronic Commerce (ecommerce /EC) technologies to improve the efficiency of their business processes. It automates an organization's purchasing process, reduces transaction costs, improves inter-organizational coordination within the supply chain, improves relationships with business partners and offers competitive sourcing opportunities for the buyer organizations (Subramaniam and Shaw 2002).

The widespread adoption of e-procurement systems by organizations in both private and public sectors leads to national performance improvement and productivity growth and it has the potential to increase the gross domestic products (GDP) significantly (Hawking and Stein

2004). In Australia, for example, only 10% of large Australian businesses are trading through some form of e-procurement systems (Stein and Hawking 2004).

At the moment, there has been little evidence on the realization of e-procurement benefits since the involvement of multiple parties/stakeholders in e-procurement systems presents challenges in measuring the impact (Subramaniam and Shaw 2002).In November 2011, Price Water house Coopers conducted a Global Economic Crime Survey. Kenya recorded the highest level of economic crimes among 78 countries surveyed, with an incidence level of 66 per cent, which is almost twice the global average of 34 per cent.Despite significant recent increases in internet sales in many countries, total business-to-customer plus B2B internet commerce still only represents 2.2 per cent of turnover in Australia, 1.3 per cent in Canada and ranges from 0.01 to 17 per cent for European countries (OECD, 2007).

Adopted e-procurement strategies have reduced costs through transactional and process efficiencies and thereby promoting their procurement performance. Most of the costs incurred are due to non-value added activities such as manual data re-entry, fixing errors, premium buys due to the inability to find competitive suppliers, inefficient search and evaluation of suppliers and their product offerings and the long process in reaching an agreement and obtaining approval before orders can be placed (Muffatto&Payaro 2004; Turban et al. 2006).

It is against this background that seeks to bridge the gap by seeking answers to the following research question: what is theeffect of information and communication technology in procurement performance in star rated hotels in Nairobi, Kenya?

Conceptual Framework

According to Bogdan and Biklen (2003) a conceptual Framework is a basic structure that consists of certain abstract blocks which represent the observational, the experiential and the analytical/synthetically aspects of a process or system being conceived. The interconnection of these blocks completes the framework for certain expected outcomes.

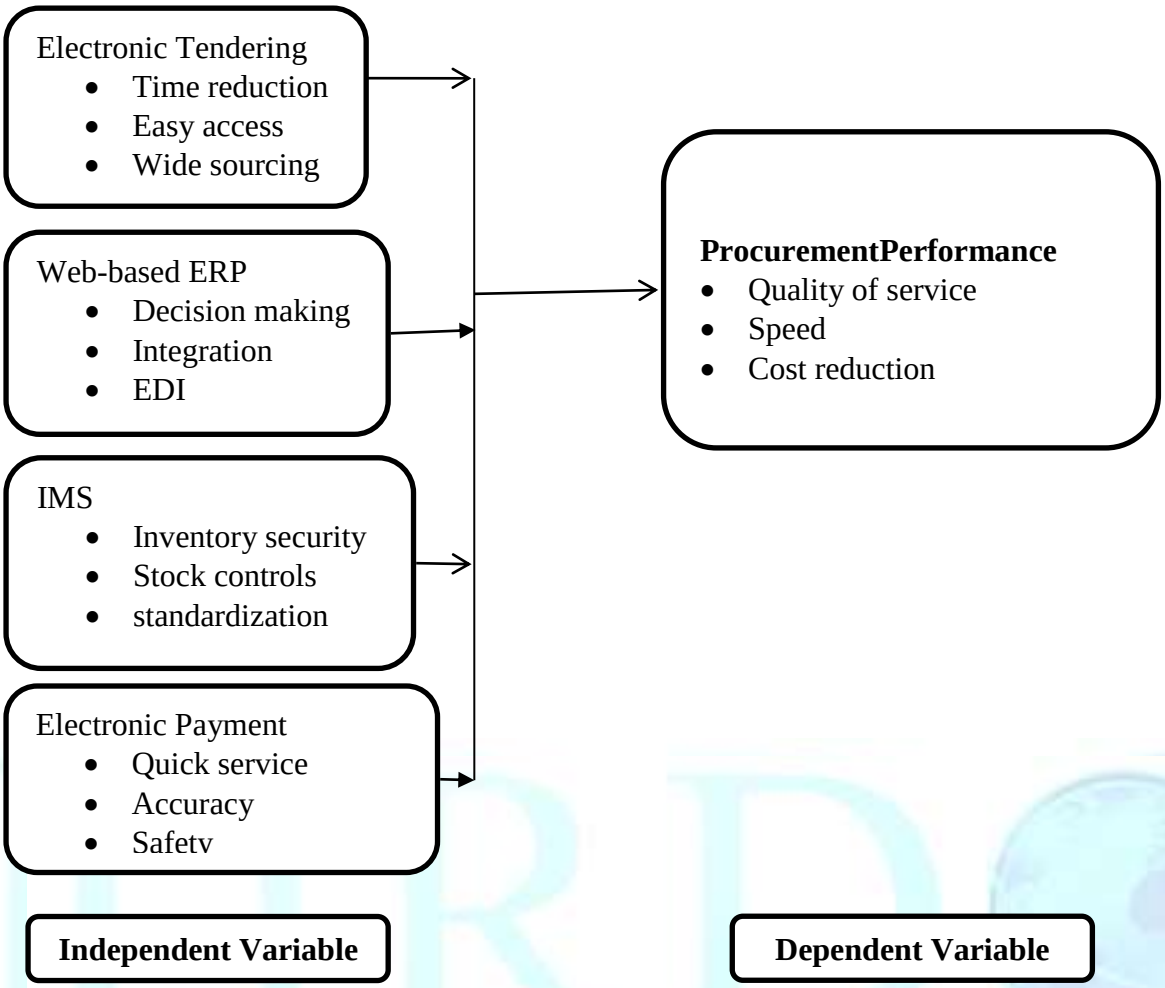

Figure 1: Conceptual framework

Factors of ICT that affect Procurement Performance

Electronic-Tendering (e-Tendering)

Nowadays, large organizations usually have to handle multiple procurement needs by applying different kinds of information systems developed by various suppliers. Such process will become inevitably long and cumbersome in conventional e-tendering systems when the categories of products are not well sorted out. In order to realize better cost savings and increase efficiency, replacing the manual paper-based tender procedures by electronic-facilitated system has become an essential element in process re-engineering (Croom& Brandon-Jones, 2007).

With a highly automated e-Tendering system, tender specification, advertising, tender aggregation as well as the evaluation and placing of the contract can be prepared at ease.E-procurement allows for payments to be done online. Typically, a web based transacting tool is used where items are selected from pre-sourced catalogs and submitted for electronic approval. There is then a link to the back end ERP system for entry, payment of invoices, and collation of management information. Huge time savings and efficiencies are realized as a result of electronic processing due to: global automated processes incorporating best practice

and eliminating unnecessary activities; an e-enabled relationship with suppliers which speeds procurement cycle times and facilitates supplier performance improvements and greater data accuracy which minimizes ordering inaccuracies and provides the essential foundation for management through measurement and analysis.

According to Teoet al (2009), an e-Tendering System (or Electronic Tendering System) facilitates the complete tendering process from the advertising of the requirement through to the placing of the contract. This includes the exchange of all relevant documents in electronic format.Buyers can cut and paste data from the electronic tender documents for easy comparison in a spreadsheet. Evaluation tools can provide automation of this comparison process.

Tender Tailor e-Tendering System offers an opportunity for automating most of the tendering process: from help with preparing the tender specification; advertising; tender aggregation; to the evaluation and placing of the contract. The business benefits include reduced tender cycle-time, fast and accurate pre-qualification and evaluation, which enables the rejection of suppliers that fail to meet the tender specification, faster response to questions and points of clarification during the tender period, reduction in the labor intensive tasks of receipt, recording and distribution of tender submissions, reduction of the paper trail on tendering exercises, reducing costs to both councils and suppliers, improved audit trail increasing integrity and transparency of the tendering process, improved quality of tender specification and supplier response and provision of quality management information (Vaidyanathan and Devaraj, 2008).

Web-based Enterprise Resource Planning

Web-based Enterprise Resource Planning systems integrate internal and external management of information across an entire organization embracing finance/accounting, manufacturing/ inventory, sales and service, customer relationship management (Bidgol, 2004).

Organizational competitive impact consists of the impacts of an ERP system implementation on the company's operating cost, customer service level, overall productivity gains, and the realization of particular ERP implementation objectives. Implementing ERP software assists companies with standardized data formats, better customer service and retention, and enhanced management decision-making. Moreover, Al-Mashariet al (2003) noted that the general goal of an ERP system is basically to advance business performance by integrating a variety of business processes across the diverse functional departments and beyond enterprise boundaries. This integration allows for well-organized information flow within the firm as well as between the company and its customers and suppliers.

The fact that key information such as cost center and commodity codes is hard coded against the user dramatically reduces coding errors and provides highly detailed and easily accessible data. This is very important in maximizing the potential benefits of strategic sourcing (Mishra et al, 2007). A successful e-procurement implementation will provide high quality, detailed

management information and will negate the need for data warehousing or resource heavy data mining.

Despite the potential of ERP system to improve Organization performance, effectiveness and efficiency, many organizations are still unable to fully exploit these benefits. The benefits of ERP systems are often matched with high levels of risks associated with ERP projects. Implementing ERP systems involve organizations to acquire one of the ERP software packages i.e. oracle and PeopleSoft and seeking implementers who are usually consultancy firms to turn around the organization in readiness for the migration of processes , data and people to the selected system. The consultancy service costs huge sums of money and the organization have also to undergo an extra cost through purchase of a license. Further, once the ERP system has been implemented and validated, the organization must continue maintaining the system which is extremely expensive (Fang et al, 2007).

At its simplest, customer service is being influenced and revitalized by information technology resulting in a larger customer base for the companies which are leaders in the adoption of new technology (Ko and Kincade, 2003). Regardless of how one visualizes customer service, either from a logistics or marketing perspective, information technology now assumes an important role in customer service. Information technology is a powerful tool or enabler in the arena of customer service. Information technology is essentially in the process of migration, from the support function to the front-line functions where the customer is served, as indeed is customer service itself.

Inventory Management systems

Inventories include any raw materials, packing materials, spare parts, components, or finished goods associated with agriculture, manufacturing, or commerce. Raw materials are essential for a firm to produce finished goods inventory (Muller, 2011).

Keeping these raw materials secure is challenging, yet necessary especially in retail company nowadays which are providing all services customers require world class procurement at a one stop. When raw materials are received at the receiving dock, the receiving clerk should manually inspect the items for damage and also with the use of modern ICT applications like CCTV cameras before placing them in designated bins or warehouse sections (Walsh and Farrington, 2009). Limiting access to areas where raw materials are stored is a best practice and the security of this is enforced with the installation at designated locations cameras monitored effectively. Additionally, monthly inventory counts are conducted with the use of scanners like barcodes or Radio frequency Identification to ensure that raw materials are not being stolen or misappropriated either by internal staff, or external customers (Walsh, 2009).

Securing finished goods inventory is a paramount best practice for companies to follow, as these items are ready for shipment to retailers or consumers. Some companies go as far as to store their finished goods inventory at an off-site warehouse operated by a third party to ensure the safety of the stock by a service provider (Ross, 1998). This is not a viable option for all companies, as it can be expensive due to high transportation costs and warehousing costs. If off-site storage is not an option, it is imperative that the finished goods be stored securely in the firm's warehouse or production facility and highly monitored with the use of

technologies. Limiting access to these areas by use of swipe cards and monitoring the area with closed circuit cameras are safe and affordable ways to secure this inventory (Baram, 2007)

Work in process, or WIP, is usually considered materials that are in the state of being converted from raw materials to finished goods. While it is primarily considered to be an accounting concept, WIP inventory that has real value must be secured. While it is unlikely that raw materials will be stolen directly from the production line, some companies have closed circuit cameras monitoring these materials (Bannister, Mackenzie & Norris, 2009).

Corporate theft occurs when employees steal items from their employers. According to (Buildings.com, 9th June 2013), the best way to prevent corporate theft is to have secure supply areas. As with other types of inventory, one of the best ways to limit theft of supplies is to restrict access to these types of items. Closed circuit cameras are effective means of limiting theft of supplies from a company's supply room (Von Silva, 2011).

EDI and VMI technologies save a company money by providing an alternative to, or replacing, information flows that require a great deal of human interaction and materials such as paper documents, meetings, faxes, (Clemons&Kimborough 1986). Even when paper documents are maintained in parallel with EDI exchange for example printed shipping manifests, electronic exchange and the use of data from that exchange reduces the handling costs of sorting, distributing, organizing, and searching paper documents (Wilson &Vlosky, 1998).

EDI and similar technologies allow a company to take advantage of the benefits of storing and manipulating data electronically without the cost of manual entry (Sanders&Premus, 2005). Another advantage of EDI is reduced errors, such as shipping and billing errors, because EDI eliminates the need to rekey documents on the destination side (Saeedet al, 2005). Also a merit of EDI over paper documents is the speed in which the trading partner receives and incorporates the information into their system thus greatly reducing cycle times. For this reason, EDI can be an important component of just-in-time production systems thus also greatly reducing on the inventory insecurity of storage for long period and expiries (Sabath, et al 2001).

Every action is recorded as an information block with subtitles that explain the performed operation. This helps to track the actions of workers, especially when they are making critical financial transactions, such as correcting or cancelling of a sale, withdrawing money or altering personal information, when a customer is shopping and is malicious for exiting with unpaid goods from the store (Monk& Wagner, 2009). Actions which the management of retail industry may wish to monitor could include: Scanning of goods, selection of goods, introduction of price and quantity, input and output of operators in the system when entering passwords, deleting operations and modifying existing documents, implementation of certain operations, such as financial statements or operations with cash by internal employees, moving goods, revaluation scrapping and counting, and even change of settings, reports and other official functions (Bannister, et al 2009).

Electronic Payment

E payment is a subset of an e-commerce transaction to include electronic payment for buying and selling goods or services offered through the Internet. Electronic Point of sale (also called as POS or Checkout) is the place where a retail transaction is completed. It is the point at which a customer makes a payment to the merchant in exchange for goods or services (Khosrow, 2006). At the point of sale the retailer calculates the amount owed by the customer and provides options for the customer to make payment.

The merchant can also normally issue a receipt for the transaction (Bisson, 2008). The POS in various retail industries uses customized hardware and software as per their requirements. Retailers may utilize weighing scales, scanners, electronic and manual cash registers, EFTPOS terminals, touch screens and any other wide variety of hardware and software available for use with POS (Karen, 1995). For example, a grocery or candy store uses a scale at the point of sale, while bars and restaurants use software to customize the item or service sold when a customer has a special meal or drink request (Gigi, 2008).

The modern electronic point of sale is many times called as the Point of Service because it is not just a point of sale but also a point of return or customer order (Karen 1995). Additionally it includes advanced features to cater to different functionality, such as inventory management, CRM, financials, warehousing, and many more all built into the POS software (Chang, et al, 2000). Prior to the modern POS, all of these functions were done independently and required the manual re-keying of information, which can lead to entry errors (Shields, 2000).

Critique of the existing literature

Procurement performance is an important means to reduce costs and to enhance the competitive advantage by first reaching the needs of the other departments (internal customer service) which in turn benefit the external customer. Procurement is an important internal service found in organizations and can be responsible for a large amount of spending, for example, on material components, facilities, subcontract capacity, IT equipment and supplies, consumables, stationery, travel, and insurance (Croom, 2007).

The adoption of electronic procurement systems is necessitated by the need to reduce costs and encourage purchases in large quantities, thereby limiting the number of contracts. That internal customer satisfaction is central to the success of e-procurement deployment and is a significant determinant of the costs to be gained from its adoption. The paper proposed that internal customer satisfaction is determined by the levels of service delivery achieved by e-procurement processes. Internal customer satisfaction is an important determinant of process compliance (Johnston, 2003).

E-procurement influences the internal customers' perceptions of the service quality they receive. However, this study is limited, so far, by the fact that this is merely a pilot study and that further data collection is necessary before they can posit statistically significant conclusions. Nevertheless, at this stage in the research, the initial indications are: that e-procurement enhances internal customer service satisfaction in those aspects of service

quality directly related to the design of the system and that internal customers expressed dissatisfaction in the aspects of the delivery of the process.

Although overall adoption rates of ICT use in procurement technology are still a relative unknown, most researchers agree that the full impact of e-procurement has not yet been realized and that the adoption and integration of ICT in procurement into the business mainstream is occurring at a much slower pace than expected (Davila et al., 2003).

Indeed, studies have shown that while over 70 percent of American buyers use internet technologies at work, the percentage of business procurement conducted electronically is relatively low – ranging from 10 percent to 20 percent (Kulpet al., 2006).

This disconnect is evident in a recent study by Gunasekaran and Ngai (2008). In this study, 80 percent of industry respondents agreed that the use of the internet was important in procurement; however, only 20 percent had actually adopted (e-Procurement technologies) EPTs.

According to Talluriet al. (2006), managers recognize benefits of e-procurement such as: better coordination with suppliers, quicker transaction times, higher flexibility, better supplier integration, and lower costs.

E-Procurement is based primarily on the following three factors: Reducing off-contract spending by using technology to increase user awareness of existing contract facilities and by making it easier to order against them; Leveraging buying power by using technology to support the identification of opportunities for aggregation and by facilitating the aggregation of user requirements within and across organizations and reducing transaction costs by using technology to automate processes which are currently paper based, and to streamline and standardize processes and documentation.

Summary

In evaluation of the previous studies on the effect of information and communication technology in procurement performance in star rated hotels. In order to achieve value for money and to effectively contribute to the efficient service delivery star rated hotel. Information Technologies have changed the way organizations and governments operate. As noted by Nelson et al (2009), the majority of organizational spending consists of purchasing. The use of Information Communication Technologies (ICTs) has dramatically changed services, business models and people's expectations of the quality and efficiency of information sharing and service delivery.

E-procurement allows for payments to be done online. Typically, a web based transacting tool is used where items are selected from pre-sourced catalogs and submitted for electronic approval. There is then a link to the back end ERP system for entry, payment of invoices, and collation of management information. Despite the potential of ERP system to improve Organization performance, effectiveness and efficiency, many organizations are still unable to fully exploit these benefits.

The ability to prove to the suppliers that you are using e-procurement as a tool to ensure end users do honor their contract status will enhance ability to negotiate down prices through: greater enhanced capture and therefore reliability of spending information and increased

confidence that spending volumes can be guaranteed from increased compliance with system, thus allowing volume price breaks and discounts to be achieved.

REFERENCES

Adams, F.K. (2008). Construction Contract Risk Management: A Study of Practices in the United Kingdom. *Cost Engineering,* Vol. *50*.

Amaratunga, D. and Baldry, D. (2002).Moving from Performance Measurement to Performance Management.*Facilities, 20* (5/6).

Andersen, T.J., Segars, A.H. (2009), "The impact of IT on decision structure and firm performance: evidence from the textile and apparel industry", Information and Management, Vol. 39 No.2.

Arasa, R. M. andAchuora, J. O. (2012). Antecedents to Successful Adoption of e-Procurement in Textile and Apparel Firms in Kenya. International Journal of Scientific& Engineering Research.

Atkinson, W. (2006). New buying tools present different ethical challenges. *Purchasing, 132 (4)*.

Babbie, E. (2004). *Survey research methods* (2nded.). Belmont: Wodsworth.

Baily, P., Farmer, D, Jessop, D., Jones, D., (2005), Purchasing principles and management, 7th ed., Pitman, London.

Bannister, J., Mackenzie, S. and Norris, P. (2009).*Public Space CCTV in Scotland Scottish Centre for Crime and Justice Research* .(Research Report).

Baram,M. (2007). *Eye on the City: Do Cameras Reduce Crime?ABC News. Retriev*.

Brown, D. (2005). Electronic Government and Public Administration.*International Review of Administrative Sciences*.

Byrd, T.A., Davidson, N.W. (2003), "Examining possible antecedents of IT impact on the supply chain and its effect on firm performance", Information and Management, Vol. 41.

Carayannis, E.G. and Popescu, D. (2005), "Profiling a methodology for economic growth and convergence: learning from the EU e-procurement experience for central and eastern European countries", Technovation, Vol. 25.

Chandran, E. (2004).*Research methods*: A quantitative approach with illustrations from Christian ministries. Nairobi: Daystar University

Chopra, S. and Meindl, P. (2004): Banking Management, Second Edition, Baba BarkhaNath Printers, India.

Clemons, E.K. and Kimborough (1986).IS for Sustainable Competitive Advantage.*Information & Management* 11 (3).

Croom, S. and Brandon-Jones, A. (2007).E-Procurement: Key issues in e-Procurement adoption and operation in the public sector", *13thInternational Purchasing & Supply Education & Research Association (IPSERA)* Conference, April 4-7, Catania, Italy.

Dai, Q. and Kauffman, R.J. (2001). Business Models for Internet-Based E Procurement Systems and B2B Electronic Markets: An Exploratory Assessment. A paper presented at the Thirty-Fourth Annual Hawaii International Conference on Systems Sciences, Maui, HI.

Gunasekaran, A., Ngai, E.W.T. (2008), Adoption of e-procurement in Hong Kong: an empirical research, *International Journal of Production Economics*, 113(1).

Hunja, R. (2003). Obstacles to public procurement reform in developing countries. In S. Arrowsmith and M. Trybus (Eds.).*Public Procurement: The Continuing Revolution*. Dordretch, The Netherlands: Kluwer Law International

Javier, Y., Lorenzo, F. andInken, T. (2010). Total quality management implementation frameworks: comparison and review, *Total Quality Management*, Vol. 11 No. 3.

Kehoe, D. and Boughton, N. (2001), "Internet based supply chain management", International Journal of Operations & Production Management, Vol. 21.

Killen, K. H. and Kamauff, J. W. (2005).*Managing Purchasing - Making the Supply Team Work*, McGraw Hill, New York, NY.

Koorn, R., Smith, D. and Mueller, C. (2001).*e-Procurement and Online Marketplaces*. Amsterdam, The Netherlands: Compact.

Kothari, C. R. (2004). *Research methodology: Methods and techniques* (2nded.). India: New Age International (P) Ltd.

Kulp, S.L., Randall, T., Brandyberry, G. and Potts, K. (2006). Using organizational control mechanisms to enhance procurement efficiency: how GlaxoSmithKline improved the effectiveness of e-procurement, *Interfaces*, 36(3).

Kvint, Vladimir (2009). The Global Emerging Market: Strategic Management and Economics.Routeledge.

Maniam, K. (2005). *Networking Government: E-Government in Malaysia*. Paper presented (keynote speaker) at Conflux 2005, The Grand Hotel, New Delhi, India.

Monk, E. and Wagner, B. (2009).*Concepts in Enterprise Resource Planning*.3rd.ed.Course TechnologyCengageLearning.Boston, Massachusetts.

Mrisho S. Y. (2010). Adoption of e-Procurement System in Tanzania Construction Industry: Prospects and Challenges. Unpublished Undergraduate Degree Dissertation, School of Construction economics and Management, Ardhi University, Dar es Salaam.

Mugenda, M., O., and Mugenda, G., A., (2003).*Research methods*: quantitative and qualitative approaches. Nairobi: Kenya. Laba-Graphics Services.

Muller M. (2011*).Essentials O f Inventory Management (2nd Ed).* New York: Broadway

Nelson, R., Moody, E., and Stegner, J. (2009). The Purchasing Machine: How the Top Ten Companies Use Best Practices to Manage their Supply Chain, New York: The Free Press.

OECD (2007), OECD Science, Technology and Industry Scoreboard Highlights, Organisation for Economic Co-operation and Development, available at: www.oecd.org/dataoecd/61/50/39525781.pdf

Pires, G. and Stanton, J. (2005), "A research framework for the electronic procurement adoption process: drawing from Australian evidence", Journal of Global Business and Technology.

Rasmus F. O. and Lisa M. E., (2012).A Portfolio Approach to Supplier Relationships, *Industrial Marketing Management* 26.

Rosss D. F. (1998).*Competing Through Supply Chain Management*. Kluwer Academic Publishers: New York

Sabath, R. E., Autry, C. W., and Daugherty, J. P. (2001). Automatic replenishment programs:The impact of organizational structure," *Journal of Business Logistics*, Vol. 22, No. 1.

Saeed, K. A., Malhotra, M. K. and Grover, V. (2005). Examining the impact of interorganizational systems on process efficiency and sourcing leverage in buyer- supplier dyads," *Decision Sciences, Havard Business Journal*. Vol. 36.

Sanders, N., R. and Premus, R. (2005).Modeling the relationship between firm IT capability, collaboration and performance.*Journal of Business Logistics*, Vol. 26.

Shibanda, G.G. and Musisi-E.I. (2011). Managing and developing the strategy for Africa's information in global computerization. *Library management*, *21* 95), 228-234.

Subramaniam, C. and Shaw, M.J. (2002) "A Study of the Value and Impact of B2B E-Commerce: The Case ofWeb-Based Procurement", International Journal of Electronic Commerce 6(4): 19-40.

Stein, A. and Hawking, P. (2004) "2B or Not 2B: The real story of b2b e-procurement", Australian CPA, March,pp.30-34.

Teo, T.H. (2008). Adopters and non-adopters of e-procurement in Singapore:An empirical study, Retrieved from http:// www.elsevier.com /locate /omega.htm Accessed on January, 2010.

Thai, K.V. (2004) *Introduction to Public Procurement (IPP).* Washington D.C.: National Institute of Government Purchasing (NIGP).

UN Procurement Division (2007), United Nations Procurement Manual, UN Procurement Division, New York, NY, available at: www.un.org/Depts/ptd/pdf/pm_english_07.pdf

Walsh B.C. and Farrington D.P. (2009).Effects of Closed-Circuit Television on Crime.*The Annals of the American Academy of Political and Social Science* 587 (1).

Walsh B.C. and Farrington D.P. (2009). Public Area CCTV and Crime Prevention: An updated systematic review and meta-analysis". *Justice Quarterly* 26 (4).

Ward, J. and Peppard, J. (2003).Strategic planning for information systems. England: Chichester, Wiley.

Weele, A. J. (2010). *Purchasing and Supply Chain Management.* Hampshire: Cengage Learning EMEA.

Williams, T. (2003). Assessing Extension Of Time Delays On Major Projects. *International Journal of Project Management, 21*.

Wilson, D., T. and Vlosky, R., P. (1998).Interorganizational Information System Technology and Buyer Seller Relationships.*The Journal of Business & Industrial Marketing*, Vol. 13.

Wittigv, G. (2010). Distribution Channels as Political Economies: A Framework for Comparative Analysis, *Journal of Marketing*, Vol. 44.