

Effect of Perceived ICT Payment System on Customer Satisfaction at the Kenya Power and Lighting Company

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Abstract

The study sought to investigate the effects of perceived ICT payment system on customer satisfaction at the Kenya Power and Lighting Company (KPLC), Eldoret based on Kano customer satisfaction model. The study adopted descriptive survey design involving quantitative research and targeted KPLC customers in Eldoret Central Business District. These customers were classified into three segments: large power (20), corporate (500) and domestic (300), all totalling 820. Probability random and stratified random sampling techniques were used to sample out 10 large power customers, 250 corporate customers and 150 domestic customers. The study used both primary and secondary sources of data. Questionnaires and interview schedules were the research instruments used. Data obtained from the field was analyzed using descriptive and inferential statistics (multiple regression analysis and Pearson correlation). The correlation results of the findings indicated that payment service quality (X_1) is positively and statistically significant ($r = 0.618$, $P = .000$ (2 - tailed) at 1% level of significance). This implies there is no relationship between perceived payment system through ICT and customer satisfaction. The author recommended that KPLC should put more emphasis on perceived payment system quality in order to enhance customer satisfaction, to other scholars, this study forms a basis of further study since it dwelled on small area and specific region. The study clarifies the role played by ICT in enhancement of customer satisfaction hence indicating that to fully satisfy customers one needs to embrace ICT services. This study would be of significance to service industries as it will point out how customer service delivery can impact on their organization performance. The study will help KPLC management understand the challenges facing their customers and their expectations. The findings will also help improve the quality of services offered to customers.

Keywords: effect, perceived payment system, ICT, customer satisfaction, Kenya power, lighting company

INTRODUCTION

Information and Communication Technology (ICT) may be defined as computer hardware and software and telecommunications technology. ICT is the World's fastest growing economic activity; the sector has turned the globe into an increasingly interconnected network of individuals, firms, schools and governments communicating and interacting with each other through a variety of channels and providing economic opportunities transcending borders, languages and cultures. ICT has opened new channels for service delivery in areas such as e-government, education, e-health, and information dissemination. Rapid development of ICT accompanied by the convergence of telecommunications, broadcasting and computer technologies is creating new products and services, as well as new ways of learning, entertainment and doing business (Wirtz & Lihotzky, 2003). At the same time, more commercial, social and professional opportunities are being created through the unique opportunity provided by ICT. As a result, the world is undergoing a fundamental transformation as the industrial society that marked the 20th century rapidly gives way to the information society of the 21st

century. The new society promises a fundamental change in all aspects of human lives, including knowledge dissemination, social interaction, economic and business practices and political engagement.

The rapid development within society of the use of information and communication technologies has meant a revolution in the way businesses work, as indeed it has changed the way in which very many people work. Information technology generally means the convergence of computers, hardware, software, telecommunications, Internet, electronics and the resulting technologies and it can be measured through the inventory of applications that organizations have. Information and communication technology includes networks, computers, other data processing and transmitting equipment, and software. Nowadays people need to have skills and competences to be able to use information and communication technologies. The development of the knowledge society is raising demand for the key competences in the personal, public and professional spheres.

The companies' investments in modern information technology systems and processes are firmly rooted in the business strategy. ICT has enabled companies meet customer needs, plan on expansion strategies and to build values into services offered. Programs like Integrated Customer Systems (ICS), Design Customer Systems (DCS), have been designed to enable quick and easy access to and follow-up of customer job flow and to increase efficiency in delivery of customer oriented services.

Studies have revealed that ICT service delivery qualities influence consumer evaluation and drive purchase intention. Factors include customization, interactivity, care, cultivation, community, choice, convenience, and character (Srinivasan *et al.*, 2002); content, context and infrastructure quality (Lu & Lin, 2002); Complexity, novelty and interactivity (Huang, 2003); community, convenience, free services, individualization and technical integration (Wirtz & Lihotzky, 2003); connectivity, information quality, interactivity. Within a business environment, Information and Communication Technology (ICT) has become an important enabler in disseminating and sharing of knowledge and supporting services to the core business. Thus, in this era, it is important that the body responsible for delivering the ICT services within a business is to re-orientate the mode of delivery to that of a service provider.

Information and Communication Technology (ICT) connectivity (PCs and Internet) is very widespread in businesses of all sizes. As is the case with all technologies, small businesses are slower than large ones in adopting new ICTs. Potential businesses benefits and firm and sector-specific strategies drive the adoption and use of ICTs. Furthermore, sectors are increasingly becoming global and dominated by large firms and the structure of their values chains and operations shape opportunities for small and medium size enterprises (Srinivasan *et al.*, 2002). This also applies to the Kenya Power and Lighting Company. The principal reasons for non-adoption are lack of applicability and little incentive to change business models when returns are unclear. The Kenya Power and Lighting Company also faces generic barriers to adoption including trust and transaction security concerns, and challenges in areas of management skills, technological capabilities, productivity and competitiveness. The Company has to foster appropriate business environments for e-business and ICT uptake (e.g. to diffuse broadband, enhance competition), and target programmes to overcome market failures to the extent that they are needed in particular areas (e.g. skill formation, specialized information). KPLC has a range of e-business and Internet use programmes. However, commercial considerations and potential returns are the principal drivers of small business adoption and profitable use.

Payment System Quality and Customer Satisfaction

Payment system quality is the processing quality of an IS, which is measured in terms of ease of use, functionality, availability, flexibility, reliability and response time (Delone & Mclean, 2003; Shih, 2004). Nowadays, the modernization and growth of information technology has affected almost all of aspects of the human life, including business. In the old days, business transactions were done physically as the customers had to meet with suppliers. The information technology has made it possible to carry out business transactions virtually using Internet or electronic commerce (e-commerce). This is because people are able to make enquiry, place order and make payment through the Internet. In order to make the e-commerce of a company successful, an Electronic Payment System is needed for that company. The main driving motivation for the implementation of the Electronic Payment System for KPLC is the enhancement for transaction effectiveness.

A consumer perception is considered in terms of general and common support functions of online transactions provided by an ICT as a measurement of perceived payment system quality. By using ICT, both suppliers and customers can benefit from transaction cost savings. The magnitude of the transaction cost savings on the customer side depends to a larger extent on the convenience and reliability of an offering. Payment system quality, thus, is driven by factors such as fast page loading, clear presentation, and simple, intuitive navigation processes are also very important to the completion of transactions. Thus, scholars suggest that system quality is the key to creating a successful e-retailing business (Burke, 1997; Donthu & Garcia, 1999; Sinioukov, 1999; Wirtz & Lihotzky, 2003). The electronic payment as a form of ICT system enables consumers to pay electronically for goods and services purchased. ICT payment systems form an integral part of e-commerce. One of the major reasons for the widespread of e-commerce transactions is perhaps the rapid development and growth of various electronic payment systems which KPLC has adapted in transacting its business. Payment systems are central to the efficient operation of the economy and it brings about customer satisfaction since they determine how quickly and how securely a seller of goods and services will receive payment. The KPLC ICT payment systems have enabled bills to be paid at different locations country wide. All Major Banks and some Mobile telephone companies have entered into agreement with the organization to give them partial access to the KPLC ICT system to enable the collection of payments of electricity bills, service line contributions, and Meter deposits hence enhancing service quality. These services are developed in such

a way that the servers of the individual banks and that of KPLC are linked at a specific time daily to allow for upload of, and transfer of payment data and relevant customer details, thus allowing the customers transactions to be reflected in the KPLC system and increasing the customers convenience. This strategy was developed to bring services closer to the customers and reduce the burden of having the customers travelling long distances to pay their bills at KPLC banking hall.

Need for Quality ICT Payment System

One of the key roles of businesses is to retain and have customer confidence through building customer satisfaction. Companies that want to maintain a competitive edge, both now and in the future, are realizing that reactive customer interaction services must be replaced by a more proactive approach that recognizes the growing user-centricity of consume communications networks. The Kenya Power and Lighting Company's customer base has been increasing tremendously and as a result has led to increased transactions. This has led to the rapid technological changes in the ICT industry and to cope up with the growth in customers, there has been need to determine the optimal capacity and quality to meet the short term and long term corporate requirements. The paradigm is shifting, and KPLC can move quickly to respond to this change and gain market share, as well as reduce customer churn, by enhancing the experience of customers who now expect anytime. Information and Communication Technology (ICT) connectivity (PCs and Internet) is very widespread in businesses of all sizes. The Kenya Power and Lighting Company is determined to foster appropriate business environments for e-business and ICT uptake, and target programmes to overcome market failures to the extent that they are needed in particular areas (e.g. skill formation, specialized information). The KPLC has adopted an ICT system in transacting business with their customers; in so doing they expect to gain customer confidence and customer satisfaction (KPLC, May 2006). It is on this basis that this paper examines the effects of KPLC's ICT payment service delivery on customer satisfaction.

MATERIALS AND METHODS

The study was conducted at the Kenya Power and Lighting Company (KPLC) in Eldoret town of the Rift Valley Province. It adopted explanatory research design. Specifically, the study targeted customers of the Kenya Power and Lighting Company in Eldoret Central business district. The customers of the Kenya Power and Lighting Company were classified into three segments: i.e. large power customers who are 20, corporate customers 500 and domestic customers who were 300 bringing a total of 820 (KPLC Information Desk, 2010). The respondents were randomly selected after considering factors such as

accessibility and the significance of the study information to the researcher and other stakeholders. Therefore, these target population provided the required sample size for the study. The author adopted stratified sampling technique and used both primary and secondary sources of data. The instruments of data collection used were: questionnaires, interview schedules and author's personal observations. The data was analyzed quantitatively. A statistical package for social sciences (SPSS) was used to analyze both descriptive and inferential statistics. Descriptive statistics were presented in form of frequency distribution tables, bar graphs and pie charts. The inferential statistics that were used were correlation and multiple regression. Multiple regressions were used to examine the way a number of independent variables relate to one dependent variable.

RESULTS AND DISCUSSION

Overall Factors Affecting Customers Level of Satisfaction with KPLC Services

An examination of the questionnaire responses as to the factors affecting customer's level of satisfaction with KPLC services revealed the information presented in Figure 1 below.

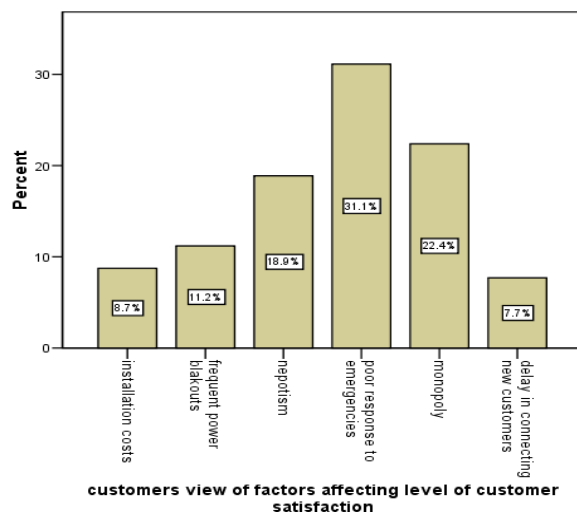


Figure 1: Customers view on factors affecting level of satisfaction

As shown from the figure, six key factors were identified. The main factor noted was poor performance to customer needs (31.1% response). Other factors identified included: Monopoly (22.4%), nepotism (18.9 %), frequent power blackouts (11.2%), high installation costs (8.7%) and delay in connecting near customers (7.7%). These factors identified by the customers seemed to be supported by the findings of the interview scheduled for senior management staff. As shown in Figure 2, over 45% of the senior management staff concurred that due to poor infrastructure it may have been difficult to

connect new customers promptly. Close to 21 percent conceded that due to inadequate resources, service provision has been hampered by frequent power blackouts. Over 15 percent of the management staff cited the problem of untrained staff as being responsible to reported incident of nepotism. Close to 12% decried frequent vandalism of the KPLC property particularly the transformers which case has led to delayed or poor services in some areas. Cases of uncooperative customers were also reported (6.4%).

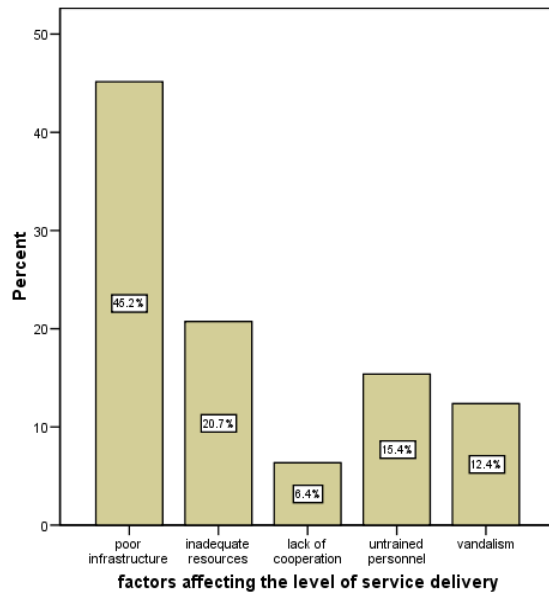


Figure 2: Customers view on factors affecting level of service delivery

Table 1: Payment System Quality at KPLC Eldoret, 2010

Payment System Quality Items	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean	Standard deviation
The ICT system is user friendly	44(10.8%)	58(14.2%)	28(6.9%)	168(41.2%)	110(27%)	3.59	1.310
The system takes good care of me	50(12.3%)	97(23.8%)	59(14.5%)	156(38.2%)	46(11.3%)	3.13	1.245
I can rely on the system to transact with KPLC	48(11.8%)	81(19.9%)	45(11.0%)	175(42.9%)	59(14.5%)	3.28	1.265
Navigation through the system is very interactive	59(14.8%)	77(19.3%)	110(27.5%)	111(27.8%)	43(10.8%)	3.01	1.222

Source: Survey Data, 2010

These findings reflect those from the management's interviews pertaining to improvements in service delivery as a result of the ICT payment system. As presented in Figure 1, over 33 percent of the management staff reported that the rate of rendering services had increased. Close to 21% pointed to the system as being prompt and reliable. Close to 15% reported that the system was convenient and efficient. Close to 12% indicated that the system allows for customer feedback. Other improvements noted were: enhanced coordination between the company and customer (9.6%) and reduced levels of corruption (8.5%).

Payment System Quality

Responses related to payment system quality were arranged into four items: (1) the ICT system is user friendly; (2) the system takes good care of me; (3) I can rely on this system to transact with KPLC, and (4) navigation through this system is very infinitive. The number of customers responding on the scale of strongly disagree, disagree, neutral, agree and strongly agree are represented in Table 1 below.

As shown from the table, 27% of the customers sampled strongly agreed that the ICT system is user friendly, 41.2% agreed. Consequently, a cumulative total of 68.2% tended to agree that the ICT system was user friendly. Similarly, a cumulative total of 49.5% agreed that the system took good care of them against a cumulative total of 36.1% who tended to disagree.

On whether or not one could rely on the system to transact with KPLC, a cumulative total of 57.4% of the customers sampled agreed while a cumulative total of 31.7% disagreed. The item regarding navigation through the system had an alarming high proportion (27.5%). Cumulatively, a total of 38.6% agreed with infinitive navigation. These results show high levels of customer acceptance of the KPLC ICT payment system. The positive response regarding the systems user-friendliness, care and reliability indicate that most customers have embraced the system. The high proportions that were neutral in the navigation item could be as a result of the word infinitive being unclear to most of them.

The regression analysis led to the author to conclude that there is no relationship between perceived payment system through ICT and customer satisfaction. From the findings, it is indicated that the Beta coefficients (payment system) were so that: $B = .344$, $t = 5.835$, $p = .000$. This means that there is a relationship between the payment system and customer satisfaction.

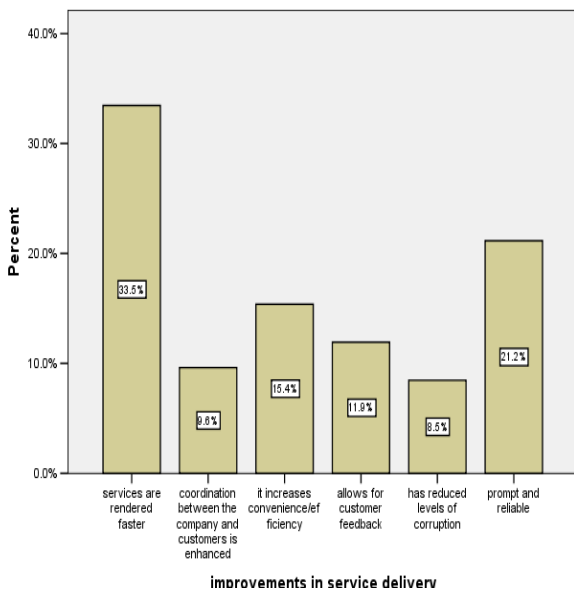


Figure 3: Improvements in service delivery

In summary, from the findings on the effects of perceived payment system through ICT on customer satisfaction, the study established that a big proportion of the customers have accepted the ICT payment system. In particular, the study established that the customers found the system user friendly, reliable and convenient. It is clear that payment system quality is positively and statistically significant ($r = 0.618$, $p = 0.00$) to customer satisfaction. In addition, it is indicated by the Beta Shopper. Journal of Advertising Research, 39(3): 52-coefficients, (service quality), $\beta = .432$, $t = 7.336$, $p = .000$, 58. that there is a relationship between the payment system and customer satisfaction. Consequently, as more functions of KPLC are ICT enabled, the higher the levels of customer satisfaction. These findings are consistent with the views of Delone and Mclean (2003), and supported by Shih (2004), that payment system quality is the processing quality of an IS, which is measured in terms of ease of use, functionality, availability, flexibility, reliability and response in time.

Moreover, sustaining the quality of the KPLC ICT payment system is bound to increase the KPLC's customer base. This concurs with the views of other scholars, such as Burke (1997), Donthu and Garcia (1999), Sinioukov (1999), and Wirtz and Lihortzky (2003). In these views, it is suggested that system quality is key to creating a successful e-retailing business.

CONCLUSION AND RECOMMENDATIONS

Information Technology at the KPLC is finding fast usage. However, despite the improvement of information technology infrastructure in KPLC and although information technology is perceived as critical in ensuring information quality, service quality and payment system quality compared to

other organization in the region, the Company lags behind its counterparts. Its level of information technology usage remains low. This situation is largely attributed to many factors such as: the lack of access to credit, inadequate information make informed decision, the lack of expertise, digital illiteracy, high cost of access to information technology infrastructure and high taxation.

The adoption of a user friendly, reliable and efficient ICT payment system translates into declining queues at the KPLC offices and better still results in less time and manpower thereby being cost effective. Based on the findings, the author recommends that there is need for effective customer care training to be done to enable effective quality service delivery through use of ICT payment system. Furthermore, the KPLC needs to carry out cost benefit analysis to ensure that the ICT payment system services are beneficial to the customer's vis-à-vis the whole organization.

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