

# ***THE INTERNATIONAL JOURNAL OF BUSINESS & MANAGEMENT***

## **Effects of E-procurement Adoption on Preference Regulation in Kenyan State Corporations: A Case of Kenya Power and Lighting Company Limited**

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### **Abstract:**

*E-procurement adoption and its use in state corporations in Kenya has been on the rise over the past few years. Its adoption has led to efficiency, transparency, reduction in costs among public institutions in Kenya. Government has employed procurement preference as both a strategic tool for economic development as well as an equity tool to ensure that the resources are being equally distributed. Procurement preference helps to develop and support local industries which in turn will lead to job creation and sustainability in public procurement. To ensure the success of this preference, there is need therefore to ensure compliance and also to regulate the processes within which the preference is being done so as to be able to seal loopholes that can be exploited by scrupulous employees and external parties to divert contracts from the intended persons. This study therefore sought to examine how e-procurement adoption will benefit regulation of procurement preference. The study was a case study research design. The target population of the research encompassed staff from procurement department, supply chain department, ICT department finance department and stores department at Kenya Power head office in Nairobi. The study adopted stratified random sampling as a sampling technique in selecting the sample. Data collection instrument were structured questionnaire to collect primary data. The study also made use of secondary sources of data. Data was analyzed using SPSS version 21. Multiple linear regression results have shown that four predictors can explain 76.3% of change in preference regulation namely: information access, government policy, customer satisfaction and cost reduction. Following the outcome this research, it is worthwhile concluding that there is a positive relationship between e-procurement adoption and preference regulation. Through information access, government policy, customer satisfaction and cost reduction, Kenya power has been able to achieve procurement preference regulation. It is therefore crystal clear that e-procurement adoption in state corporations and other public sector institutions can be used to achieve far more benefits than the one previously forecasted to achieve.*

**Keywords:** *Electronic procurement, Preference regulation, Information access, Public procurement*

### **1. Introduction**

There has been a shift from the traditional way of doing business to the online platform of linking businesses with customers. According to Shale (2014), the arrival of technology in the market place have resulted to creation of e-markets in all business sectors. The introduction of e-procurement is as part of the technology invasion and it is a process whereby an organization conducts the entire procurement cycle from planning, requisitioning, tendering, receiving and payment is done online. This is made possible by seamless internet connectivity and the availability of supplier portals as well as internet security. The value of e-procurement is not only saving of costs, but it also it brings about transparency, efficiency as well as a platform for conducting regulations. Also the need to support the procurement managers in achieving value and productivity is one of the major drivers of e-procurement adoption. According to Smart (2009), the applications which are ingredients of e-procurement landscape are tailored in a way that they computerize the acquisition cycle, enhance spend, improve process and workflow and support bidding.

Croom and Bandon-Jones (2004) see e-procurement as the utilization of ICT technologies for purposes of undertaking single or all the stages of procurement process such as sourcing, negotiating, placing orders, receiving as well as post purchase reviews. According to Kalakota and Robinson (2000) have come up with advantages in cost minimization, enhancement of efficiency, measurement and single data entry, subsequently the three components constitute reagents that are the key drivers of growth in the electronic

procurement field. E-procurement as an IT application encompasses helpful tool for managers to save financial resources as well as increment of institutions' effectiveness and efficiency.

The use of preference procurement on the other hand has been growing steadily among many countries around the world and it has been employed as a tool to empower the disadvantaged groups both economically and to achieve equitable distribution of resources. It is being used to achieve a strategic goal of inclusiveness by the governments by allowing these groups to do business with the government. This is driven by the fact that a government is the largest consumer of good in any given state. According to Watermeyer (2000), Public procurement have the potentiality of being used as policy instrument due to its size and its impact on the economy generally.

According to Bolton (2006) government acquisition is and has frequently been utilized to advance points which are, apparently, auxiliary to then essential point of procurement. Ngeno *et al*(2014) says that, as per the estimates drawn from National Accounts Data, Governments in OECD member States generally spend 12% of their GDP on Public procurement. As per the estimation of Thai and Grimm (2000), government's collective acquisition stands at around 20% of GDP for developed nations while, (Nicol 2003) argues that for developing countries, it's 15%. In Kenya it takes up about 10% of GDP (World Bank, 2012, Ngeno *et al* 2014).

The adoption of e-procurement plays a key responsibility in ensuring the success of this policy as it will help to gather and analyze information which will assist the relevant institution on the implementation and regulation of the preference regulation. It is therefore of importance to be in the know concerning the impacts of variation of information expertise on e-procurement utilization, business performance as the attainment of the organization objectives as well as its regulation. It is critical for the institution to measure the key benefits from time to time as this is key to successful delivery of business project.

Introduction of the internet and e-procurement has changed the buying process considerably with major benefits including costs saving, reduction in management expenditures, boosted market data and enhanced receptiveness to change in client demand and the reduction in procurement cycle and these benefits have shifted the role of procurement from operational to a strategic function. E-procurement has also helped in improving the visibility of the supply chains as well as the collaboration among the members of the chain. Organizations in Public sector make use of e-procurement in order for agreements to attain benefits including improvement in efficiency and cost minimization in government acquisition as well as enhance transparency, for instance reducing graft, in acquisition system. The Public Procurement and Asset Disposal Act (PPAD, 2015) indeed provides for the use of e-procurement as one of the procurement procedures through Electronic reverse auction. Electronic reverse auction is defined by PPAD (2015) as an online real-time acquisition strategy that procuring entity uses in selecting the successful submission entailing the presentation by tenderers, vendors, contractors of successively lowered bids at the time of scheduled period of time as well as the automatic evaluation of tenders. This is in line with the government objective of streamlining public procurement activities through the use of Integrated Financial Management Information System (IFMIS) which aims at ensuring that there is transparency and saving of taxpayer's money.

In Kenya, the public procurement is regulated by The Public Procurement and Asset Disposal Act (PPAD 2015) which defines procurement as the acquisition by purchase, rental, lease, hire purchase, license, tenancy, franchise or by other contractual means of any types of works, assets, services or goods. Locally, the government has employed public procurement as a tool to meet various social objectives which aims at achieving a sustainable public procurement. Public procurement represents close to 80% of all the government expenditure in Kenya, and this represent an enormous amount of resources. Given the volume of resources consumed by numerous government agencies and corporations through public procurement, preference procurement need to be at the heat of the economic development and transformation (Ngeno *et al*2014).

Through the Public Acquisition and Disposal (preference and Reservations) Conventions (Amendments) (2013), via the Access to Government Procurement (AGPO), the government has created an avenue for empowering the youths, women and person with disabilities (PDA). Public Procurement and Disposal Act (PPDA, 2005) under the principles of the act allows for the preferment of local manufacturing and economic expansion through the use of public procurement. While public acquisition procurement and Disposal (Preference and Reservations) Regulations (Amendments) (2013) creates the platform for public institutions to practice procurement preference with the aim of creating economic and social empowerment among the youth, the women and persons with disabilities with the minimum threshold being 30% of all the procurement in that entity. Preference and Reservations applies to Underprivileged Groups (Young people, Women, and Persons with Disability), Small ventures Micro Enterprises, Citizen Contractors, Local Contractors, Citizen Contractors in Joint-venture or Sub-contracting arrangements with foreign suppliers.

According to Martin & Stehmann, (1991),Bolton( 2006), Preferential procurement policies offers favorable circumstances over more straightforward techniques for help since it doesn't raise open spending specifically and is more productive than expense financed State help which scarcely achieves beneficiaries. While Watermeyer (2000) contends that, focused on obtainment gives livelihood and business chances to marginalized/impeded people and groups. It empowers social targets to be connected to procurement in a reasonable, straightforward, impartial, aggressive and cost effective.

Procurement preference and preservation is therefore one of the affirmative action as envisaged under article 55 of the supreme law the country(GoK, 2010) which allows the government to undertake relevant and adequate measures to protect its citizen from extreme state of poverty and to allow them to participate in economic development. Aiming at enhancing monetary prospects as a key to attaining external goal in acquisition, preference can be particularly crafted as a tool for mediating equity concerns by focusing on economic opportunities at particular groups in form of geography, historical disadvantages in economic chances or uneven economic need. This helps to ensure that the resources are distributed equitably as well as resulting in job creation and social empowerment (Nijaki and Worel 2012). Faced with the high level of unemployment, the need for sustainable programs as well as ensuring that the

government taps into the vast entrepreneurial skills among the youth, women and person with disabilities as well as to be able to reduce the financial burden through direct support, the government embarked on these programs.

### 1.1. Statement of Problem

Public institutions play a vital responsibility in the success of any economy and their contribution cannot be underestimated. They provide essential services that are of utmost important to the country which cannot be left to the private sector, while others are there to play a facilitative role as a link between the government and the private sector. In Kenya, state concerns was at estimated 20 percent of the Kenya's GDP and created employment opportunities to about 300,000 people in the formal sector and 3.7 million individuals in the informal sectors of the economy (GOK, 2004). Public procurement on the other hand represents close to 80% of all the government expenditure. Currently, the rate of joblessness in the country stands at 40% with the huge number of unemployed, 70%, being young people between the ages of 15 and 35. And in trying to address this issue, the GoK has preserved that a minimum of 30% of all the government procurement at the central government, counties as well as all other public institutions to be awarded to the minority groups.

E-procurement is best suited to play the role of preference regulation because of information access, transparency cost reduction as well as automation which helps to measure the success of the program as the indicators. In developing world, e-procurement measures have been embraced in a much faster pace leading to immediate benefits. A good example to illustrate this is Korea where in excess of 60% of the country's public procurement, equivalent to 124billion USD was conducted via e-procurement system (Chang, 2011). E-procurement adoption is also part of the larger campaign which aims to achieve a workable public procurement. Sustainable procurement can be explained as a process whereby institutions get an opportunity to attain their needs for goods, services, works as well as utilities in a manner that help them accomplish value for money on a whole life basis with regard to generating benefits for the organization and the society as a whole while at the same time reducing the level of damage to the environment.

Various researchers have investigated e-procurement implementation in Kenya. Mose, Njihia and Magutu (2013) conducted a study on the critical success factors as well as shortcomings in e-procurement implementation amid large scale manufacturers in Kenyan capital. The study arrived at a conclusion that majority of large scale manufacturing organization have agreed on the use of e-procurement. Odago and Mwajuma (2013) did a study on factors that influence the effective implementation of e-procurement implementation amid large scale manufactures in the Kenyan Capital. The study found that management support is very crucial in implementing e-procurement in the county governments, top management is so important because it acts as the driving force behind the whole implementation process. Otieno, Muthoni and Mungai (2013) did a survey on aspects impacting on the use of e-procurement in Kisii Town Kenya. The study arrived at conclusion that the worth of e-procurement impacts on the use of e-procurement being a driving force in the utilization of e-procurement in terms of on-time supply, cost saving on acquisition, wide source of vendors, enhanced buyer-vendor relationship, high profitability and increased firms' competitiveness. Mambo *et al* (2015) did a study on factors influencing implementation of e-procurement in the national government and particularly in the Ministry of Interior and Co-ordination. However these studies did not address effects of E-procurement adoption on preference regulations in state corporations. This study therefore seeks to investigate the effect of e-procurement adoption on preference regulation in Kenyan state corporations.

### 1.2. Objectives

The general objective of the study was to investigate the effects of e-procurement adoption on preference regulation in Kenyan state corporations. The specific objectives of this study were:

- 1) To establish the effect of information access on preference regulation in state corporations.
- 2) To evaluate the effect of government policy on preference regulation in state corporations.
- 3) To establish the effect of customer satisfaction on preference regulation in state corporations.
- 4) To establish the effect of cost reduction on preference regulation in state corporations.

### 1.3. Research Questions

- 1) To what extent does information access affect preference regulation?
- 2) To what extent government policy affects preference regulation?
- 3) To what extent does customer satisfaction affect preference regulation?
- 4) To what extent does cost reduction affects preference regulation?

## 2. Theoretical Background

### 2.1. Agency Theory

All the stakeholders in public procurement can better comprehend the task they undertake in giving incentives used in buying decisions by cooperatives through a certain theory in this procurement field. This theory is the Agency theory researched by Jansen's and Meckling's (2006), which this project will be based on. It states that an agency relationship is an agreement whereby an individual(s) who happens to be the principal(s) delegates someone else(agent) to perform or undertake a task or tasks on their behalf. In this case the agent has the power to even make his own decisions. Within the course of undertaking their duties in this form of relationship, the agent has to make a choice regarding their actions that have repercussion not only for them but also for their principals. The outcome of such choices can be positive or negative and the welfare of both is normally at stake. At most times, then

agent-principal interaction comes into place as a result of the former being more endowed in terms of skills, abilities and/or time in performance of the required activities (Cane, 2004). This research paper utilizes the concept of principal-agent; the government in this relationship is the principal body providing public services to the public while the agents are the bidders (contractor, supplier) who act on behalf of the government in provision of goods and services. The main responsibility of the principal, in this case the government, is formulation of policy options that aid in the regulation and development of public procurement, monitors the various procurement activities, the regulation and maintenance of principles of acquisition, building the required capacity, professional development, information management, as well as dissemination. Similarly, Agents' roles are to tender for the Principal's works and services, conform with statutory, legal as well as award necessities comparative to the work and services, undertake all the given tasks as per the costs agreed, ensure quality is maintained or improved in addition to completing all duties within agreed timelines (Dawson *et al.* 2010).

### 2.2. Institutional Theory

The chief tenants of this theory approach put in place methods through which organization-environment relationships can be analysed with focus on social norms, expectations, as well as values as the sources of stress on companies. This hypothesis is founded on the tenancy of validity as opposed to competence or efficacy as the key institution's objective (Doug and Scott, 2004). The setting is theorized as the company's field which has the representation of the institutions which may encompass regulatory structures, state agencies, courts, professionals, professional norms, interest groups, public opinion, laws, rules as well as social values. The assumption of this theory is that organizations adapt to its environment. However, several fundamental tenants of organizational environments and activities are not properly addressed by this theory making the approach problematic for entire understanding of credit reference bureaus together with their environment; the company being reliant on outside resources as well as its ability to conform or even have the ability of changing its environment (Doug and Scott, 2004). Some key figures who has been involved in nourishing the Institutional theory include Meyer and Rowan (1991), DiMaggio and Powell (1983). According to these theorists the institutional environment have a strong influence on the formulation of formal structure in an institution which at most times is more profound than pressures in the market place.

In Kenya, procurement by Government entities uses the guidelines of the PPAD Act 2015 in addition to regulations and policies which are issued often by the Public Procurement Oversight Authority. Public entities have to comply with these regulations as they are without modifying them. Public procurement regulations (2006) as well as guidelines directing procurement activities comes up with regulation aimed at guiding procurement activities. Drawing from the key pillars of institutions advocated by Scott (2004), organizational culture, social influence, organizational incentives as well as enforcement which are identified as antecedents of compliance to procurement regulations (Makau, 2014)

### 2.3. Transaction Cost Theory

Information and technology has helped in the subsidization management prizes that has been widely discussed in Bakker et al (2008) works. Electronic shops of instance, aided through IT has decreased the price of looking for extracting data based on the contributions and prices of products and items. Moreover, collaboration aided by info sharing have the ability to minimize transactional costs, specifically the costs for coordinating things, meaning companies are able to reduce supply chain variations and in extension the cost of contracting as argued by Shale (2104). An example can be used to illustrate this: when the supplier fails to precisely predict the cost of their products inputs, reluctance of entering into a contract and locks it into a fixed cost for a lengthy period of time (Arrowsmith, 2002).

As per the assertions of Shale (2014), coming to terms the aspect of unpredictability from TCE perspective have the ability to provide more awareness into the worth of sharing of info between entities. The unpredictability concept is at the heart of TCE, which hold that households have constrained reasonableness and therefore this makes them act unscrupulously. The early transaction cost research failed to provide a distinction that exist between various forms of uncertainty. The freshest works has disaggregated the construct of uncertainty (Melville *et al.*, 2004). For instance (Wendin, 2001) whose research used Khalifa and Shen (2008) work as a basis differentiated between primary and behavioral unpredictability. Primary uncertainty can be explained as the underlying transaction and comes up majorly from external sources such uncertainty that relates to natural events, consumer preferences, regulations as well as technology (Suleket *al.*, 2006).

### 2.4. E-Technology Perspective Theory

As per Shale (2014), E-procurement is devoid of general definition as it entails an all-inclusive variety of organization activities. For example, Choy and Rungtusanatham (2001), express that e-procurement is still an original idea with regard to purchasers and ought to advance into electronic sourcing and finally into e-collaboration. While Davila et al (2003) then again says that, E-procurement alludes to the utilization of electronic strategies in each phase of the buying procedure from Identification of necessities through installment and possibly to contract administration. E-collaboration make it possible for clients and providers to enhance their coordination via the web with regard to administration of inventory, administering demand as well as generating purchase orders (Lee, 2003). This encourages the so-called frictionless acquisition worldview (Brousseau, 2000). This study perceives the broad way of e-procurement and utilizations the definition gave by (Min and Galle 2002,) where e-procurement is a business-to-business (B2B) buying rehearse that uses electronic acquirement to recognize potential wellsprings of supply, to buy products and administration, to exchange installment, and to cooperate with suppliers.

The web has been broadly embraced by organizations with the point of enhancing exhibitions both in inside procedures and in procedures going past their limits (Barratt & Rosdahl, 2002). In spite of the way that business-to-business (B2B) exchange has delighted in a calmer presence online than business-to-customer (B2C) (Barratt & Rosdahl, 2002) the benefits of e-acquisition in a B2B arrangement are enormous (Min and Galle, 2001). With certainty it has been established that e-procurement has developed into the incentive that encourages enterprises to at long last incorporate their source fastens from end-to-end, from provider to the end client, with common valuing, convenience and accomplishment information that allows purchasers and providers to work to idyllic and commonly gainful costs and time lines (Morris et al, 2000).

### 2.5. Conceptual Framework

Mugenda and Mugenda (2003) saw conceptual framework as a clear account of the phenomenon under study accompanied by a graphical or visual depiction of the major variables of the study. Therefore, it is a research tool that can be used to create awareness and bring understanding of the relations of the variables of the study

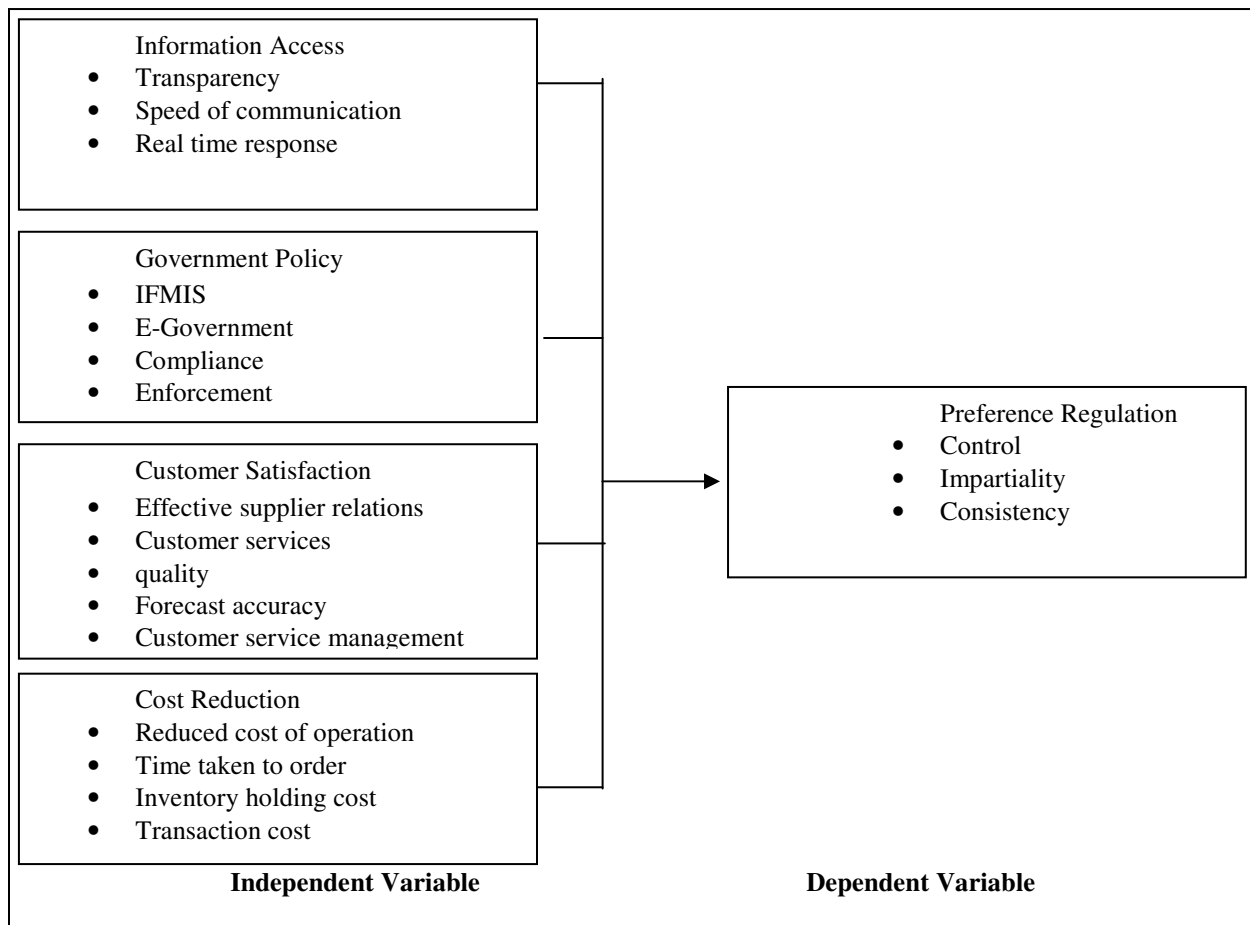


Figure 1: Conceptual framework

### 2.6. Information Access

Information is one of the major drivers of the supply chain. The use of information technology helps to improve the visibility of the supply chain which leads to improved decision making. According to Shale (2014), of the different advantages as outlined in literature, the most common being transaction cost and minimization of the cost of acquisition, shortening of process, improvement of information exchange and control. Access to information allows for a transparent procurement process and this has a positive impact on cost effectiveness, accountability transparency, and reducing the collusion of vendors. The transparent process consists of the determination of procurement product/service features specification including the priorities of purchased products receive services, and the appropriate method of procurement (Rotchanakitumnuai 2013). Information access allows for knowledge sharing and this also supports the learning process which is part of the buyer-supplier relationship. Creation of awareness/Information access also contributes greatly to youth participation in government tenders.

In cognizant of this, the government of Kenya has put in place avenues through which the youth can access information on government tendering: There is continuous capacity building on how to write formal tenders by the government through the PPOA. Through suppliers' forums, the bidders are also enlightened on the public procurement system and the continuous improvements the government is undertaking to make it easy for the SME's. This helps in changing the public perception that the public procurement system is complex, costly and time consuming. The government has also required all public procuring entities give feedback to unsuccessful bidders, indicating why they did not win a certain tender. This not only motivates them to participate more, but also helps

them improve on the areas that made them not win the tender. High value contracts are published on daily papers and departmental websites, (GoK, 2013). There is also a requirement from the PPOA that procuring entities post their tender opportunities within certain thresholds in the PPOA website. (PPOA, 2007, Wangai, 2014).

### 2.7. Government Policy

Governments must figure out if procurement decisions depend on tight qualities of value, conveyance and execution or depend on national financial advantages as far as occupations made, innovation gained and level of fares included (Ngeno et al, 2014). Nijaki and Worrel (2012) contends that moving past most minimal cost minimization, acquirement has filled financial advancement needs, and also upgraded value and social equity values through supporting interest for privately created products and enterprises by means of "purchase nearby" inclinations. As indicated by the E-government Strategy Paper 2004, e-obtainment was one of the medium term destinations which should be actualized by June 2007, yet the usage procedure was seen to be moderate (GoK, 2004). The National Treasury is the service in government which is initiating the public finance management reforms. Inside the service, there is an office called the Integrated Financial Management Information System (IFMIS) Department which has the mandate of designing, spearheading and managing the Integrated Financial Management Information System re-engineering process in all central government ministries, county governments and all government agencies (Mambo et al 2015).

The national treasury is also mandated with issuing various government policies regarding the public procurement. These policies focuses on ensuring that there is adherence to the law governing procurement in the public sector as well as regulating the use of public funds. These policies include circulars, ministerial directives and guidelines. PPOA (2014), makes it mandatory for public procuring entities to dispense no less than 30% of its acquirement spend with the end goal of procurement of getting products, works and administrations from miniaturized scale and small and medium enterprises possessed by youth, women and people with disability(PDA). The administration of Kenya has set up strategies to guarantee youth advantage from government procurement contracts. Such arrangements incorporate the public procurement and transfer directions 2011, gazette through legal notice number 58 of 2011, the administration's governmental policy regarding minorities in society putting aside 10% of government contracts for the young and people in general acquirement and transfer controls, 2013 putting aside 30% of the general population acquisition contracts for the adolescent (GoK, 2005).

As indicated by public procurement controls 2011, procuring entities are permitted to unbundle products, works and administrations in practicable amounts as per Section 31(7) of the PPDA, 2005 with the end goal of guaranteeing most extreme interest of disadvantaged members of the society, small and medium entities in Public sector tendering processes (GoK, 2005). Small and micro enterprises or undertakings that are in possession of disadvantaged groups partaking in acquisition procedures are additionally exempted from the need of having tender securities. Under the controls, Procuring entities are approved to make utilization of existing structure contracts with disadvantaged groups, small and micro enterprises as necessary to ensure provision of an efficient, cost effective as well as flexible means of purchasing goods, works as well as services that are required more than once or continuously in a given time span (GoK, 2005).

### 2.8. Customer Satisfaction

Satisfaction of the internal consumers, by utilization of E-Procurement capacity can normally add to the competitive position of any organization in numerous courses than first through cost minimization. For an association to be genuinely viable, each and every piece of it, every division, every action and every individual and every level must work legitimately together, in light of the fact that each individual and each action influences and thusly is influenced by others (Murambi, 2005). Key to this is the idea of the internal client "all aspects of an association adds to outside consumer satisfaction by fulfilling its own interior clients" (Shalle 2014, Heijden et al, 2003). Van Weele (2005) presents a couple of these was, for example, lessening of value cost – e-acquisition can diminish quality expenses by ensuring that those providers convey a result of administration that does not surpass broad quality control.

Be that as it may, the use of notion that the internal client benefit level system to e-procurement is moderately new. The effect of e-procurement on an association procedure and schedules has focused principally on the inner arrangement attributes of frameworks and practices inside IT/IS system (Shalle 2014, Venkatraman, 2001). Dependable acquisition choices cannot be made without market insight and each is dependent on the other with the end goal of this study these two are viewed as together as enhanced Market Intelligence and Enhanced Decision making (Eadie et al 2007).

Muhiaand Afande (2015) says that as the present commercial center turns out to be more focused, clients have a tendency to wind up increasingly demanding. In case of difficulties, for example, escalating worldwide rivalry, the constant increment in client desires and clients resulting requests as the nature of administration enhances (Palaniswamy and Tyler, 2000), benefit firms not able to viably oblige the necessities and needs chance losing disappointed clients to contenders, as well as extreme disintegration of benefits and thus, disappointment. To be sure these difficulties are compelling associations to break free from the convention consumer satisfaction paradigm, to embrace proactive techniques which will help them in building and supporting a focused edge (Hines, 2004). One methodology that has been identified with accomplishment in administration level is the idea and nature of administration. As per (Aberdeen Group, 2001) benefit level quality has turned into a huge differentiator and the most capable focused weapon which numerous driving administration associations have.

### 2.9. Cost Reduction

Electronic acquirement frameworks represents an imperative improvement for the buying procedure (Neef, 2001), offering advantages to the association through procurement process, effectiveness picks up and price diminishments. Croom and Brandon-Jones, (2005)

contends that e-acquisition has been worried with the economies of data (Evans and Wurster, 2000), specifically the acknowledgment of cost improvements accomplished as a consequence of value-based and process efficiencies. These efficiencies emerge through more prominent open door at lower costs from providers; from the diminishment in process action expected to finish the aggregate 'order to installment' handle; through the expanded speed of the acquirement procedure and better basic leadership as a consequence of enhanced administration data. E-Procurement is the system that includes products acquirement robotization by utilization of web. This procedure prompts critical lessening in both cost and time (Mose et al, 2013).

As per Mose et al (2013), cost saving, enhanced proficiency and control, are the three impetuses driving development in the e-procurement arena. It is additionally trusted that there is more advantage to obtained through utilization of e-trade for sourcing, as opposed to for exchange administration (Kalakota and Robinson, 2000). It is conceivable to decrease purchasing and administration costs through item institutionalization. For instance, all computers requested for staff are in pre-characterized setups just, and from one provider just, so costs could be arranged once every year. The volume and estimation of requests is unsurprising, so different costs, for example, administration and guarantee expenses, are recorded and added into the purchasing cost to decide the aggregate cost. Required information identified with the purchasing costs and conditions are in the framework, so it is conceivable to contrast providers from different nations with decide the less expensive provider who can give items to the entire district and for more than only one nation. Provider seeking expenses are decreased (Piotrowicz and Irani, 2009). Shale 2014 opines that, with e-acquisition reception, provider's expenses in reacting to solicitations to delicate (ITT) are likewise lessened as the delicate procedure cycle is fundamentally abbreviated. E-offering offers an open door for mechanizing the majority of the offering forms, from help with setting up the delicate particular; promoting, delicate collection; to the assessment and putting of the agreement.

### *2.10. Preference Regulation*

The legal framework for public procurement incorporates; Public Procurement and Asset Disposal Act, 2016, Public Procurement and Disposal Regulations 2006. It additionally guarantees that the state entities records quarterly reports on the usage of preference acquisition at their institutions

To guarantee consistence, section 158 of PPAD (2015) asserts that the procuring entities should incorporate preferences and reservations in their acquisition plans which might submit to the Authority the part in its acquisition plans exhibiting utilization of preferences and reservation conspires in connection to procurement spending plan inside sixty days after initiation of the budgetary year. All acquirement grants by procuring entities where a preferences or reservation plan was connected should be accounted for with disaggregated information to the Authority on a quarterly premise.

Adherence to public acquisition strategies is basic to guarantee that public assets are utilized as a part of the most ideal way. There must along these lines be a sound requirement component that guarantees procuring entities agree to the controls. Public Procurement and Assets Disposal Act (2015) requires the national treasury to frame a secretariat to be responsible for acquisition preferences and reservations. The secretariat might be in charge of enrollment, prequalification and affirmation of the people, classifications of people or gatherings as accommodated in under section XII. The secretariat likewise embrace preparing and limit working of the above target bunches; giving specialized and advisory help to procuring entities in the usage of the inclinations and reservations under this Act; and observing and assessing the execution of the preferences and reservations under this Act

## **3. Research Methodology**

### *3.1. Research Design*

In any project the research design provides the building rock of the whole project as it provides the mode by which data collection will take place as well as how the data will be measured and analysed (Kothari, 2005). The research design was a case study of Kenya Power. The merit of using a case study is that it allows an in-depth understanding of the behavior pattern of the concerned unit. Additionally, a case study allows the person conducting the study to be able to use one or a combination of a number of research methods as per the dictation of the circumstances. The choice of this research design was motivated by the awareness of the appropriateness of case studies in examination of processes thorough which events unfold in addition to exploring causal relationships. They also come up with a holistic understanding of phenomena (Kitay & Callus, 1998).

Population can also be used in reference to the larger group from which a sample is derived from (Orodho, 2003). The target population of interest in this study consisted of staff members at Kenya Power headquarters in Nairobi and precisely procurement department, supply chain, finance, ICT and stores department. The target population was 450 members of staff.

The sample was drawn from the population that represented the employees of Kenya Power.

This research embraced a stratified random sampling technique in selecting the sample. According to Mugenda and Mugenda (2003) 10% of the target population represents an adequate sample for the study. Therefore, a sample of 45 members of staff were selected for the study.

As per the assertion of Mugenda and Mugenda (2003) data collection refers to the means through which information is derived from a given subject of investigation. The major data collection instrument in this research was structured questionnaire that made it possible to obtain uniform responses to questions. Questionnaires give the research comprehensive data on a wide range of factors. Both open-ended and closed-ended items were used. Questionnaires allow for greater uniformity in the way questions are asked, and ensure greater compatibility in the responses. A Likert scale was used for the closed ended questions. The intent of the Likert scale is that the statement represents different aspects of the same attitude (Brace, 2004). The Likert scale also enhances the production of highly

accurate results during analysis. The study also made use of secondary sources of information such as books, newspapers and online business journals.

Before the actual study, the questionnaire was discussed with supervisors. The feedback from the supervisors and the experts helped in modifying the questionnaires. Validity refers to the precision as well as meaningful of inferences arrived at and this is determined by the study outcomes. The reliability of the instrument that was used in this study was determined through the use of test re-test technique. This encompassed administration of the same test twice for a similar group of respondents who had been predetermined for the purpose.

The data was evaluated to ensure its complete, accurate, free of error in responses obtained, ensure there were no omissions in addition to any other lack of constituency. This was followed by coding of data to quantify it in numeric form to allow for easier analysis and reduce categories. The data analysis was conducted through the use of SPSS version 21 software. This preceded classification, tabulation and summarization of data through descriptive statistics including percentages, mean, standard deviation as well as frequency distribution tables while the findings of the study were presented in form of tables. Pearson correlation analysis was employed to know the relationship between variables. The equation was expressed as follows:

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \varepsilon$$

Where:

$Y$  =Preference Regulation

$\beta_0$  =Constant

$X_1$  = Information access

$X_2$  = Government policy

$X_3$  = Customer satisfaction

$X_4$  = Cost reduction

$\beta_1, \beta_2, \beta_3, \beta_4$ =Are regression coefficients and  $\varepsilon$  is the error term.

#### 4. Research Findings and Discussion

The researcher targeted 45 respondents from Kenya Power. However, 34 questionnaires were filled correctly and returned. This translates to 75.5%. This praiseworthy response rate was made an authenticity after the researcher made personal visits to remind the respondent to fill-in and return the questionnaires. This response rate was considered adequate as recommended by Babbie (2002).

Category	Frequency	Percent
Response	34	75.5
Non response	11	24.5
<b>Total</b>	45	100.0

Table 1: Response Rate

##### 4.1. Results of Pilot Study

A pilot study was conducted with the aim of pretesting data collection tool for validity and reliability. The study applied the Cronbach's alpha as a method of testing reliability as well as validity of the instrument used in the determining the internal consistency of the scale used. Cronbach's alpha for every value was derived through the use of SPSS application and was gauged against the other at a cut off value of 0.7 which Cooper and Schindler (2008) affirms is very acceptable. Cronbach's Alpha is a reliable coefficient that indicates how well items are positively related to one another. The average Cronbach's Alpha value was 0.848 as shown in Table 2 meaning the items under each variable were consistent.

Variable	Cronbach's Alpha	No of Items
Information access	.975	4
Government policy	.962	4
Customer satisfaction	.887	4
Cost reduction	.819	4
Preference regulation		3
<b>Average Cronbach's Alpha</b>	.600	

Table 2: Reliability Test

##### 4.2. Descriptive Analysis

Descriptive statistics can be referred as a fixed brief of descriptive coefficients utilized in summarizing a data set and can apply to the whole population or a sample. The measures that are used in description of the data set are measure of central tendency as well as measures of variability or dispersion.



#### 4.3. Information Access

The study sought to establish the effect of information access on preference regulation in state corporations in Kenya. Information is one of the major drivers of the supply chain. The use of information technology helps to improve the visibility of the supply chain which leads to improved decision making.

Information access	Not at all	Small extent	Moderate extent	Great extent	Very great extent	Mean
Transparency in tender processes affect preference regulation	0%	8.8%	5.9%	8.8%	76.5%	4.53
Speed of communication in an organization affects preference regulation	5.9%	0%	5.9%	14.7%	73.5%	4.50
Real time response to procurement issues	0%	11.8%	0%	14.7%	73.5%	4.50
Improved contract compliance	2.9%	5.9%	5.9%	11.8%	73.5%	4.47

Table 3: percentages distribution of respondents' perception on information access

From Table 3, a bigger percentage of the participants were in agreement concerning the fact that information access affects preference regulation in the state corporations. This is evident from the table where 5.9% to a moderate extent agreed that transparency in tender processes affects preference regulations followed by 8.8% who agreed to small extent while another 8.8% agreed to a great extent and 75.6% agreeing to a very great extent. The findings are in agreement with Shale (2014) who opines that access to information allows for a transparent procurement process and this has a positive impact on cost effectiveness, accountability transparency, and reducing the collusion of vendors. When asked whether the speed of communication in an organization affect preference regulation in state corporations, 5.9% said not at all, 5.9% agreed to a moderate extent, 14.7% agreed to a great extent while 73.5% agreed to a very great extent. When asked whether real time response to procurement issues in an organization affect preference regulation in state corporations, 11.8% agreed to a small extent, 14.7% agreed to a great extent while 73.5% agreed to a very great extent. Generally, a real time response to procurement issues means there is faster and efficient flow of communication between the company and its suppliers and this helps in disseminating information which is a major driver of the supply chain. Information makes the supply chain to be visible. When asked whether improved contract compliance in an organization affect preference regulation in state corporations, 2.9% said not at all, 5.9% agreed to a small extent, 5.9% agreed to a moderate extent. 11.8% agreed to a great extent while 73.5% agreed to a very great extent.

#### 4.4. Government Policy

The study sought to establish the effect of government policy on preference regulation in state corporations in Kenya

Government Policy	Not at all	Small extent	Moderate extent	Great extent	Very great extent	Mean
Introduction and use of IFMIS	2.9%	5.9%	5.9%	14.7%	70.6%	4.44
Use of e-government in state corporations	2.9%	2.9%	11.8%	17.6%	64.7%	4.38
Compliance with the laid down public procurement laws	2.9%	8.8%	5.9%	20.6%	61.8%	4.29
Enforcement of public procurement laws	2.9%	5.9%	8.8%	20.6%	61.8%	4.32

Table 4: percentages distribution of respondents' perception on government policy

From Table 4, a bigger percentage of the participants were in agreement concerning the fact that government policy affects preference regulation in the state corporations. This is evident from the table where 2.9% said not at all, 5.9% agreed to small extent that the introduction and use of integrated financial management information systems in an organization affects preference regulation followed by 5.9% who agreed to a reasonable extent, 14.7% agreed to a great extent and 70.6% agreeing to a very great extent. The findings are in agreement with Nyile (2016), who opines that this is in line with the government objective of streamline public procurement activities through the use of Integrated Financial Management Information System (IFMIS) which aims at ensuring that there is transparency and saving of tax payer's money. When asked whether the use of e-government affect preference regulation in state corporations, 2.9% said not at all, 2.9% agreed to a small extent, 11.8% agreed to a moderate extent. 17.6% agreed to a great extent while 64.7% agreed to a very great extent. They agree to the fact that the use of digital government platforms helps to increase service delivery and help to achieve a certain level of control as the procurement systems can be monitored easily. The findings are in agreement with The Public Procurement and Asset Disposal Act (PPAD, 2015) which provides for the use of e-procurement as one of the procurement procedures through Electronic reverse auction. Electronic reverse auction is defined by PPAD (2015) as an online ongoing acquisition method used by the procurement entities to choose the successful submission, which includes the presentation by tenderers, vendors or contractual workers of successful brought down offers during scheduled period and the programmed assessment of offers.

When asked whether compliance to the laid down public procurement laws affect preference regulation in state corporations, 2.9% said not at all, 8.8% agreed to a small extent, 5.9% agreed to a moderate extent. 20.6% agreed to a great extent while 61.8% agreed to a very great extent. The findings are in agreement with PPAD (2015) which says that devotion to public procurement techniques is of

importance in ensuring that public funds are used in the most optimal way. There should therefore be a sound execution mechanism that make sure procuring entities comply with the regulations. When asked whether enforcement of public procurement laws in an organization affect preference regulation in state corporations, 2.9% said not at all, 5.9% agreed to a small extent, 8.8% agreed to a moderate extent, 20.6% agreed to a great extent while 61.8% agreed to a very great extent.

#### 4.5. Customer Satisfaction

The study sought to establish the effect of customer satisfaction on preference regulation in state corporations in Kenya

Customer satisfaction	Not at all	Small extent	Moderate extent	Great extent	Very great extent	Mean
Improved supplier relationship	0%	8.8%	44.1%	38.2%	8.8%	3.47
Level of customer service quality	8.8%	11.8%	44.1%	32.4%	2.9%	3.09
Level of forecast accuracy and procurement planning	0%	23.5%	52.9%	17.6%	5.9%	3.06
Level of customer service management	5.9%	29.4%	52.9%	5.9%	5.9%	2.76

Table 5: percentages distribution of respondents' perception on customer satisfaction

From Table 5, a bigger percentage of the participants were in agreement concerning the fact that customer satisfaction affects preference regulation in the state corporations. This is evident from the table where 8.8% agreed to small extent that improved supplier relationship in an organization affects preference regulation followed by 44.1% who agreed to a moderate extent, 38.2% agreed to a great extent and 8.8% agreeing to a very great extent. The findings are in agreement with Shale (2015) who said that as organizations transact with the vendors using electronic means, the vendors has high likelihood to award discounts as their administration costs are minimal. Through minimization of "maverick buying" vendors are more committed to their contracts due to the availability of more assurance of getting a bigger share of the organizations.

When the respondents were asked whether the level of customer service affects preference regulation, 8.8% said not at all, 11.8% agreed to a small extent, 44.1% agreed to moderate extent, 32.4% agreed to a great extent while 2.9% agreed to a very great extent. E-Procurement has the ability of reducing the costs of quality by ensuring that the components procured are free of defects and this reduce number of complaints emanating from the users be it the internal departments or the final consumer.

Majority of the respondents were in agreement that the level of forecast accuracy and procurement planning affects preference regulation with 23.5% agreeing to a small extent, 52.5% agreed to a moderate extent, 17.6% agreed to a very great extent while 5.9% agreed to a very great extent. This is supported by the fact that procurement planning and forecasting helps the organization to set aside the minimum amount of contracts to be awarded to the targeted groups during the financial year. Procurement planning is one of the requirements by the Public Procurement and Assets Disposal Act (PPDA, 2015) which stipulates that the public institution should have in place procurement plans before the commencement of the financial year. This was in agreement with (Morris *et al*, 2000, Shale 2015) that the proper application of accurate forecasts between customers and suppliers leads to collaboration, access and sharing of information between different parties and players in the supply chain arena and this therefore supports procurement performance in state corporations in Kenya.

When asked whether the level of customer service management in an organization affect preference regulation in state corporations, 5.9% said not at all, 29.4% agreed to a small extent, 52.9% agreed to a moderate extent, 17.6% agreed to a great extent while 5.9% agreed to a very great extent. The findings are in agreement with shale (2014), who says that e-procurement has a huge potentiality for companies who want to cut their costs and enhance their customer service level strategy performance. In the contemporary competitive market, organization face the pressure of attaining high customer service levels strategy by utilizing less resource for instance, inventory, expedited shipment as well as overtime.

#### 4.6. Cost Reduction

The study sought to establish the effect of cost reduction on preference regulation in state corporations in Kenya

Cost reduction	Not at all	Small extent	Moderate extent	Great extent	Very great extent	Mean
Reduced cost of operations in procurement processes	5.9%	11.8%	41.2%	35.3%	5.9%	3.24
Reduction in time taken to place orders in an organization	2.9%	23.5%	32.4%	38.2%	2.9%	3.15
The amount of inventory holding costs	8.8%	20.6%	47.1%	23.5%	0%	2.85
Amount of transaction costs in procurement processes	0%	41.2%	35.3%	23.5%	0%	2.82

Table 6: percentages distribution of respondents' perception on cost reduction

Participants were requested to show the extent the reduced cost of operation procurement processes affect preference regulation in state corporations. From the Table 6, a bigger percentage of the participants were in agreement that by reducing the cost of operation

involved in procurement processes affect preference regulation. This is indicated by 41.2% agreeing to a moderate extent, 35.3% to a great extent too agreed, 5.9% agreed to a very great extent while 11.8% and 4.1% agreed to a small extent and not at all respectively. This is because by reducing procurement costs like tender document costs helps to increase the number of targeted groups which participate in procurement preference. The findings are in an agreement with a study by Chan & Lu, (2004) which found out that those institutions that have adopted strategies of e-procurement have minimized their costs using transactional and process efficiencies and consequently enhancing the performance of procurement.

When asked whether reduction in time to place orders in an organization affects preference regulation, 2.9% of the respondents said not at all, 23.5% agreed to a small extent, 32.4% agreed to a moderate extent, 38.2% agreed to a great extent while 2.9% agreed to a very great extent. E-procurement offers requisitions fast and easy ways through which a requisition can be directly raised online. This is followed by automatic routing to the appropriate authorizers before being converted into a purchase order in addition to electronic submission to the supplier. This make it possible for automatic checking of requisition against the pre-installed settings and electronic authorization. This does not only fasten the entire process but also makes it possible to completely analyze the procurement cycle to enable the procurement employee identify challenges that are often and determine the possibility of delays coming from external forces (Shale ,2015, Lu *et al*, 2009). The findings are in tandem with Thai (2001) who found that adoption of e-procurement measures must be seen in the light of effort to enhance the acquisition objectives which at most time encompass quality; timeliness; cost; minimizing business, financial as well as technical risks; improving completion as well as maintenance of integrity.

Majority of the respondent (47.1%) are in agreement to a moderate extent that the amount of inventory holding costs affect preference regulation in an organization while another 23.5% agrees to this fact by a great extent. When asked whether the amount of transaction costs in procurement processes in an organization affects preference regulation, 41.2% of the respondents agreed to a small extent, 35.3% agreed to a moderate extent, while 25.3% agreed to a great extent. The findings are in agreement with Davila *et al.*, (2003) who said the benefits of e-procurement are many and encompass minimized transaction costs, minimal staffing needs, reduced purchasing cycles, minimized stock levels, enhanced degree of transparency as well as improvement in communication between supplier and vendor institutions.

#### 4.7. Preference Regulation

Respondents were asked the extent to which the company has attained preference regulation as a result of e-procurement adoption. From the findings in the Table 7 below its evident that the company has realized a wide range of benefits resultant from e-procurement adoption in Kenya power. Among the listed include; control, impartiality and consistency in procurement preference implementation

Preference regulation	Not at all	Small extent	Moderate extent	Great extent	Very great extent	Mean
control	2.9%	8.8%	23.5%	47.1%	17.6%	3.68
Impartiality	0%	5.9%	20.6%	35.3%	38.2%	4.06
Consistency	0%	11.8%	32.4%	38.2%	17.6%	3.62

Table 7: percentages distribution of respondents' perception on preference regulation

A bigger percentage of the participants were in agreement concerning the that e-procurement adoption has brought about control in preference regulation. 47.9% agreed to this fact by a great extent and 17.6% agreed by a very great extent. 23.5% of the respondents agreed to a moderate extent while 8.8% and 2.9% agreed to a small extent and not at all respectively. The findings are in agreement with Shale (2015) who says that e-procurement helps to improve the organizational efficiency and control over the procurement activities and the need. The use of e-procurement as a regulatory tool is very important because it helps to streamline all the procurement processes and improves the visibility of the supply chain as all checks and control can be administered from a central point. Sharing of information is a key tool in ensuring that control of procurement contract awards among the targeted groups is being achieved.

When asked whether e-procurement adoption has helped to achieve impartiality in preference regulation in state corporations, 35.3% of the respondents agreed to a great extent, 38.2% agreed to a very great extent, while 20.6% and 5.9% agreed to small extent and no extent respectively. When asked whether e-procurement adoption has helped to achieve consistency in preference regulation state corporations, 11.8% agreed to a small extent, 32.4% agreed to a moderate extent, 38.2% agreed to a great extent while 17.6% agreed to a very great extent.

#### 4.8. Inferential Analysis

Inferential statistics induce from the example to the populace. They decide likelihood of qualities of populace in light of the attributes of the specimen. Inferential insights evaluate quality of the relationship between the independent factors and the dependent factors.

#### 4.9. Correlations of the Study Variables

Table 8 illustrates the correlation matrix among the independent variables. At most times, correlation is utilized in exploration of the relationship in a given group of variables (Pallant, 2010), and consequently aiding in the test for Multicollinearity. In the event that the correlation values are not anywhere close to either +1 or -1 this indicates that the factors are substantially varied measures of separate variables as explained by Farndale, Hope-Hailey & Kelliher, 2010).

Correlations		Information access	Government policy	Customer satisfaction	Cost reduction	Preference regulation
Information access	Pearson Correlation	1				
	Sig. (2-tailed)					
	N	34				
Government policy	Pearson Correlation	.822**	1			
	Sig. (2-tailed)	.000				
	N	34	34			
Customer satisfaction	Pearson Correlation	.462**	.465**	1		
	Sig. (2-tailed)	.006	.006			
	N	34	34	34		
Cost reduction	Pearson Correlation	.238	.168	.471**	1	
	Sig. (2-tailed)	.176	.341	.005		
	N	34	34	34	34	
Preference regulation	Pearson Correlation	.706	.534	.431	.511	1
	Sig. (2-tailed)	.000	.004	.023	.003	
	N	34	34	34	34	34

Table 8: Correlations of the Study Variables

Table 8 indicated that customer satisfaction and information access have significant weak positive relationship as attributed by the correlation coefficient of 0.462 and p-value of 0.006. Logically it is expected if internal customers have access to procurement preference information their levels of satisfaction is high. The results shows presence of a positive and significant weak relationship between government policy and customer satisfaction as proved by the p-value and the correlation coefficient ( $r=0.465$ ,  $p=0.006$ ). Normally the policies formulated by the government have direct effect to internal customers cum users in terms of their acquisitions and requirements.

The correlation matrix table shows presence of strong and significant positive relationship between information access and government policy ( $r=0.822$ ,  $p=0.000$ ). This is because the government policies formulated impacts on how preferred groups have access to reserved contracts. There is an evidence of insignificant weak relationship between information access and cost reduction as attributed by the p-value and correlation coefficient ( $r=0.238$ ,  $p=0.176$ ). Furthermore, the results of the table show presence of a significant moderate positive relationship between cost reduction and customer satisfaction as proved by the Pearson correlation coefficient of 0.471 and a p-value of 0.005. This is because reduced costs of acquiring and holding goods brings along improved customer satisfaction.

From the table, all the independent variables are positively related to preference regulation as attested by the respective correlation coefficients: information access ( $r=0.706$ ), government policy ( $r=0.534$ ), customer satisfaction ( $r=0.431$ ) and cost reduction ( $r=0.511$ ). All the relationships are rendered significant since their p-values are less than 0.05. Accordingly, the ranking of the independent variables with their contribution to preference regulation was: information access contributed more to preference regulation in Kenya power (70.6%), followed by government policy (53.4%), followed by cost reduction (51.1%) and finally customer satisfaction (43.1%).

#### 4.10. Regression Analysis Results

A manifold linear regression analysis was done to examine the relationship of the independent variables with the dependent variable. The adjusted  $R^2$  is the coefficient of determination. This value explains how preference regulation varied with information access, cost reduction, government policy and customer satisfaction. The model summary table shows that four predictors can explain 76.3% of change in preference regulation namely information access, cost reduction, government policy and customer satisfaction an implication that the remaining 23.7% of the variation in  $v$  could be accounted for by other factors not involved in this study.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.885 <sup>a</sup>	.783	.763	.939
a. Predictors: (Constant), Information Access, Cost Reduction, Government Policy and Customer Satisfaction.				

Table 9: Model Summary

#### 4.11. ANOVA

Analysis of variance (ANOVA) was done to establish the fitness of the model used. The ANOVA table shows that the F-ratio ( $F=1.665$ ,  $p=.000$ ) was statistically significant. This means that the model used was appropriate and the relationship of the variables shown could not have occurred by chance.

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5.235	4	1.309	1.665	.000 <sup>b</sup>
	Residual	22.795	29	.786		
	Total	28.029	33			
a. Dependent Variable: Preference regulation						
b. Predictors: (Constant), Information Access, Cost Reduction, Government Policy and Customer Satisfaction.						

Table 10: ANOVA

The estimated coefficients ( $\beta$ s) show the contribution of each independent variable to the change in the dependent variable. The coefficients table results show that information access ( $\beta=.456$ ,  $p=.002$ ) positively and significantly affected preference regulation in Kenya power. The results also show that government policy ( $\beta=.637$ ,  $p=.020$ ) positively and significantly affected preference regulation in Kenya power. Customer satisfaction ( $\beta=.140$ ,  $p=.000$ ) and cost reduction ( $\beta=.218$ ,  $p=.001$ ) also were found to be positively and significantly affecting preference regulation in Kenya power

Co-efficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.646	.801		3.304	.003
	Information access	.458	.263	-.523	-1.743	.002
	Government policy	.637	.264	.725	2.410	.020
	Customer satisfaction	.140	.241	-.124	-.581	.000
	Cost reduction	.218	.198	.211	1.101	.001
a. Dependent Variable: preference regulation						

Table 11: Coefficients of Determination

The above table gives the results for the regression coefficient for the multiple linear equation (

$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \varepsilon$ ) which by supplying the coefficients becomes:

$$Y = 2.646 + 0.458 + 0.637X_2 + 0.140X_3 + 0.218X_4$$

where:

$Y$  =Preference regulation

$X_1$  = Information access

$X_2$  = Government policy

$X_3$  = Customer satisfaction

$X_4$  = Cost reduction

According to the regression equation established, holding all independent factors a constant then Preference regulation will be 2.646 units. From the regression equation holding all other independent variables a constant, a unit increase in information access will lead to a 0.458 increase in preference regulation; a unit change in government policy will lead to a 0.637 increase in preference regulation; a unit increase in customer satisfaction will lead to 0.140 increase in preference regulation and a unit increase in cost reduction will lead to a 0.218 increase in preference regulation.

However, at 5% level of significance and 95% level of confidence Information Access, Cost Reduction, Government Policy and Customer Satisfaction have a significance influence on the preference regulation with p-values of 0.002, 0.020, 0.000 and 0.001 respectively and therefore their coefficients should be retained in the final model.

The results further infers that of all the predictors considered in this study government policy contributes the most to preference regulation followed by information as implicated by their larger coefficients.

## 5. Conclusion and Recommendations

### 5.1. Summary of Findings

Multiple linear regression results have shown that four predictors can explain 76.3% of change in preference regulation namely: information access, government policy, customer satisfaction and cost reduction.

The findings have revealed that Kenya Power has in place communication channels of sharing information with suppliers. This is because the company has put in place adequate measures which ensure that the target group(s) can access the relevant information

pertaining procurement preference. The findings shows that Kenya power operates and open door policy which allows suppliers to access the procurement offices for any questions they have relating to procurement preference. The use of suppliers' portals allows also for easy, real time and fast dissemination of information. The results revealed that information access affect preference regulation at Kenya power. The results have also shown that information access positively and significantly affected preference regulation at Kenya power.

The study also showed that Kenya Power adheres to various government policies relating to preference regulation. The company has put in place appropriate mechanisms which ensure that the targeted groups do benefit from the reserved contracts as per the government regulations on public procurement. The company is also going a step further to ensure that the 30% reservation is attained by inviting the target groups to participate in these reservation schemes. Through the e-procurement system and by large extend IFMIS, the objective of consistent and sustainable contract development can be achieved by enabling pre-qualified vendors the opportunity to access other government departments (Mambo *et al*, 2015)The results have revealed that Government policies affect preference regulation at Kenya Power. Government policy was also found to positively and significantly affect preference regulation at Kenya Power.

The study establishes that customer satisfaction affects preference regulation. Internal customers are the ones who come up with requests on what they need to be procured. The findings indicate that supplier relationship management can help to achieve preference regulation within an organization. By closely working with its suppliers and managing the relationships, an organization can be able to streamline its operation and therefore achieving a certain level of control and managing risks. The results have also revealed that customer satisfaction affect preference regulation at Kenya Power. Customer satisfaction was also found to positively and significantly affect preference regulation.

The results have revealed that cost reduction has an effect on preference regulation at Kenya power. The amount of money that the organization saves when it adapt e-procurement cannot be overlooked by any organization that is out to reduce its operation overheads. Cost reduction was also found to positively and significantly affect preference regulation at Kenya Power. Lastly, the study found out that Introduction of the internet and e-procurement has changed the buying process considerably with major benefits including costs saving, reduction in administration costs, enhanced market data and improved responsiveness to change in customer demand and the reduction in procurement cycle and these benefits have shifted the role of procurement from operational to a strategic function

### 5.2. Conclusions

From the ensuing outcomes of the study, it is worthwhile to concluding that there is a positive relationship that is in existence between e-procurement adoption and preference regulation. Through information access, government policy, customer satisfaction and cost reduction, Kenya power has been able to achieve procurement preference regulation. It is therefore crystal clear that e-procurement adoption in state corporations and other public sector institutions can be used to achieve far more benefits than the one previously forecasted to achieve. It provides means for achieving efficiency and control as well as a tool for regulation. Public entities make the use of e-procurement for contracts to attain key benefits including improved efficiency as well as cost saving.

E-procurement adoption in state corporations is also part of the sustainable public procurement. It aims at achieving efficiency gains as well as value for money. There is likewise an expanding concentrate on transparency at all phases of the acquisition procedure, and fighting corruption on the granting of agreements. Likewise, public procurement, the world over, is today being sorted out electronically, and this is accounted for to have enormously encouraged transparency. It additionally empowers partners to be better educated on acquirement procedures and mindful of criteria and the substance of bids.

### 5.3. Recommendations

Given the role e-procurement adoption have on preference regulation, it is imperative that state corporations start to view e-procurement as strategic in value: that they will not only change the future of their organizations but will also impact positively on implementing procurement reservations as stipulated by the public procurement law and thus being compliant.

Since most respondents agreed that e-procurement adoption has led to increasing the level of preference regulation, all state corporations and public institutions should be encouraged to adopt e-procurement practices since it will assist them attain preference regulation apart from achieving their strategic function of procurement.

The adoption of e-procurement plays a critical role in ensuring the success of this policy as it will help to gather and analyze information which will assist the relevant institution on the implementation and regulation of the preference regulation. It is therefore critical to understand the effects of changing information technologies on e-procurement usage, business performance, and the achievement of business goals and its regulation. It is significant for the organization to continuously measure the key benefits since it is vital to the successful delivery of a business project. Measurement drives behavior and is a key to making the change a success (Birks *et al.*, 2001).

Public sector institutions should allow easy information access between them and their suppliers so as to ensure that there is efficient communication which in turn it will reduce the procurement cycle. Government policies should be implemented so as to ensure that preference regulation is achieved in the public institutions. Internal customer satisfaction plays a key in achieving preference regulation and therefore state corporations should ensure that the internal customers are satisfied. Cost reduction plays a key role in achieving preference regulation, consequently, state corporations should ensure that the procurement related costs are reduced so as to achieve preference regulation.

#### 5.4. Areas for Further Research

This study was not exhaustive by any means and therefore it is recommended that another study be replicated in other sectors of the economy, such as ministries, county governments etc. This is because the implementation of e-procurement adoption in public institutions is still at infancy stage and therefore it provides a rich research field that is still evolving. A similar research in public sector institutions will also need to be carried out over time to see if they validate, support or contradict the findings of this particular study

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