THE INFLUENCE OF BUSINESS PROCESS RE-ENGINEERING ON CUSTOMER SATISFACTION IN KENYA POWER AND LIGHTING COMPANY LIMITED

BY

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DECLARATION

This management project is my original work and has not been presented for a degree in any other university.

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This management project has been submitted for examination with my approval as university supervisor

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DEDICATION

To my mother, Beanice Nthenya Nzoka, for introducing me to early childhood education.

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ABSTRACT

The business environment is rapidly changing and thus the long experienced incremental change cannot apply anymore and also the old ways of managing no longer work. Consequently, there is need to not only manage change but create a big change within a short period of time. The study seeks to establish the influence of business process re-engineering practices on customer satisfaction in Kenya Power and Lighting Company Limited.

Business process reengineering is the main way in which organizations become more efficient and modernized. It transforms an organization in ways that directly affect performance. Customers are now very diverse, segmented, and are more expectant and thus competition has intensified to meet the needs of customers in every niche. Change has consequently become pervasive, persistent, faster and in some markets a pre-requisite. Reengineering in this environment helps to facilitate a match between market opportunities and corporate capabilities, and in doing so, it represents a radical shift away from the traditional task-based thinking to process-based thinking.

In this study, two hundred and twenty (220) Kenya Power and Lighting Company Limited customers were selected and interviewed in the subsequent survey. Out of which, sixty (60) belonged to Nairobi North, seventy four (74) Nairobi West and eighty six (86) Nairobi South. The sample was drawn through proportionate stratified sampling technique. This study proposed a frame-work and a methodology for identifying the sub regions where the customers are located. In this study logistic regression analysis was applied.

The results indicated that positive relationship between the KPLC products and services and respondents'; gender, level of formal education, age, account held, length of time the account has been in operation and area of residence. However the most significant was the association between the respondents' residence and the level of satisfaction.

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CHAPTER ONE: INTRODUCTION

1.1 Background

1.1.1 Business Process Re-Engineering

To be a truly world-class organization, a company needs to work as a team and all the functional areas of the business need to be properly integrated, with each understanding the importance of cross functional processes. As the basis of competition changes from cost and quality to flexibility and responsiveness, the value of process management is now being recognized. The role that process management can play in creating sustainable competitive advantage is termed as Business Process Reengineering (Hammer 1990).

The business environment is changing before our eyes, rapidly, radically, perplexingly. The long experienced incremental change cannot apply any more and also the old ways of managing no longer work. Consequently, there is need to not only manage change but create a change infact a big change and very fast (Davenport 1990). In the early 1990s, globalization and the extraordinary pace of the developments in the IT had just begun. The three driving forces namely, Customers, Competition, and Change, resulted with a new approach to the management of processes, termed Business Process Reengineering, that produces radical improvements in performance (Hammer&Champy, 1993).

Reengineering is not about making marginal improvements or modification but about achieving dramatic improvements in performance. There are three kinds of companies that undertake reengineering in general. First are companies that find themselves in deep trouble. They have no choice. Second are companies that foresee themselves in trouble because of changing economic environment. Third are companies that are in the peak conditions. They see reengineering as a chance to further their lead over their competitors. The final keyword is Process. Though the most important in the definition, is the one that gives most corporate managers the greatest difficulty. Most business people are not process-oriented but rather are focused on tasks, on jobs, on people, on structures, but not on the processes. Business Process Re-engineering is a

process used to restructure companies largely to achieve the performance gains promised by quality initiatives, but which could not be delivered in sufficient quantity or quality (Janson 1992).

1.1.2 Customer Satisfaction.

Customer satisfaction is the top priority of every employee and the purpose of every job. Cost-effective, ongoing achievement of customer satisfaction is the foundation of every thriving business. It is crucial for a business to define its objectives, goods and services from its customers' point of view. In order to keep the business in touch with the market place, there is need for the managers to measure the customer satisfaction. The benefits of customer satisfaction to an organization include customers staying with the company for a longer period, their deepened relationship with company, their demonstration of less price sensitivity and customers would recommend company's products or services to others.

1.1.3 Kenya Power and Lighting Company Limited

Kenya Power and Lighting Company Limited is a limited liability company responsible for the transmission, distribution and retail of electricity throughout Kenya. The Company has nearly 10,000 permanent and contract staff who are distributed in 115 depots in the four administrative regions of the Company, namely, Nairobi, Mount Kenya, Coast and Rift valley. Kenya Power and Lighting Company Limited is responsible for ensuring that there is adequate line capacity to maintain supply and quality of electricity across the country. The Company is ISO 9001:2000 certified with an interconnected network of transmission and distribution lines covering approximately 23,000 kilometers.

The history of Kenya Power and Lighting Company Limited traces back to the year 1875, when Seyyied Bargash, the Sultan of Zanzibar, acquired a generator to light his palace and nearby streets. In the year 1908 Harrali Esmailjee Jeevanjee, a wealthy merchant in Mombasa, acquired the generator and transfered it to the Mombasa Electric Power & Lighting Company. Around the same time, an engineer, Mr Clement Hertzel, Was granted the exclusive right to supply electricity to the then

district and town of Nairobi. This led to the formation of the Nairobi Power & Lighting Syndicate. In the year 1922 the two utilities in Nairobi and Mombasa were merged under a new company incorporated as the East African Power & Lighting Company (EAP&L). In 1932 EAP&L acquired a controlling interest in the Tanganyika Electricity Supply Company Ltd. (TANESCO) and In 1936 The EAP&L obtained a generating and distribution licenses for Uganda, thereby entrenching its presence in the East African region. In 1948 The Uganda Electricity Board (UEB) was established by the Ugandan Government to take over distribution of electricity in the country

In 1954 The Kenya Power Company (KPC) was created and was managed by EAP&L for the purpose of transmitting power from Uganda through the Tororo-Juja line. In 1964 EAP&L sold its majority stockholding in TANESCO to the Government of Tanzania. In 1983 With its operations confined only to Kenya, EAP&L is renamed The Kenya Power & Lighting Company Ltd. (KPLC). In 1997 the functions of generation was split from transmission and distribution and KPLC declared a limited liability company responsible for the transmission, distribution and retailing of electricity throughout Kenya. KPLC owns and operates the national transmission and distribution grid, and retails electricity to more than 1,300,000customers throughout Kenya.

The company's vision is to provide world class power that delights its customers. Its mission is to power people for better lives. The company`s quality policy is to provide high quality customer service by efficiently transmitting and distributing high quality electricity that is safe, adequate and reliable at cost effective tariffs. The Board , Management and staff of Kenya Power and Lighting Company Limited are committed to effective implementation and continual improvement of the quality management system that complies with ISO 9001:2000 in order to consistently meet its customers and other stakeholders requirements and expectations. The company`s core values which are geared towards excellent customer service include, team work among the staff, results driven, empowerment of employees, innovation, professionalism, equal opportunity, ethics or integrity, social responsibility and environment friendliness.

The main electricity supplier to Kenya Power and Lighting Company Limited is the Kenya Electricity Generating Company Limited, KenGen. It is the leading electric power generation company in Kenya, producing about 80 percent of electricity consumed in the country. The company utilises various sources to generate electricity ranging from hydro, geothermal, thermal and wind. Hydro is the leading source, with an installed capacity of 677.3MW, which is 72.3 per cent of the company's installed capacity. KenGen is in direct competition with four Independent Power Producers who between them produce about 18 percent of the country's electric power. The national grid is operated as an integral network, linked by a 220 kV and 132 kV transmission network. A limited length of 66 kV transmission lines are also in use. The national grid impacts on the future growth of the energy sector because any new generation capacity must take into consideration the existing network and its capacity to handle new loads. Kenya Power and Lighting Company Limited reinforces the power transmission and distribution network by constructing more lines and substations. Although the network has been growing at an average rate of 4 per cent over the past five years, lack of funds has hampered accelerated expansion. Efficiency of the transmission and distribution network continues to be enhanced in both technical and non-technical aspects. Planned technical improvements include re-conductoring of lines, installation of capacitors, and construction of additional feeders and substations. Non-technical improvements include introduction of electronic meters, improvement of meter reading accuracy, fraud control and resolution of billing anomalies. Kenya Power and Lighting Company Limited is also undertaking a loss-reduction study to complement measures aimed at reducing the total system losses which is currently at around 20 per cent.

It is currently the sole power distributor in the country, and buys electricity in bulk from public and Independent Power Producers. Hydro-power constitutes around 60 per cent of the total electricity generated in Kenya. The bulk of this electricity is tapped from five generating plants along the River Tana. The five stations combined - Kindaruma, Kamburu, Gitaru, Masinga and Kiambere - have an installed capacity of more than 400 MW. Turkwel Gorge Power Station in north-western Kenya has an installed capacity of 106 MW. There are also several small hydro stations - Mesco,

Ndula, Wanjii, Tana, Gogo Falls and Selby Falls - all built before independence in 1963, with a combined generation output of 40 MW. Geothermal energy is generated using natural steam tapped from volcanic-active zones in the Rift Valley. Some 127 MW is fed into the national grid from three plants located at Olkaria. Thermal, which refers to fuel-generated energy is generated in power stations at Mombasa and Nairobi.

1.2 Statement of The Problem

Public corporations in Kenya have traditionally been characterized by inefficient operations and have depended on the exchequer to bail them out whenever they are in financial crisis, and at times they have ended in receivership. The most prominent of such cases in the 1990s are the National Bank of Kenya where Ksh.2 billion of tax payers money was injected to keep it afloat and Kenya Assurance Company which went under receivership. Other corporations such as Rift Valley Railways remain perpetual financial loss makers and have neither noticeable expansion nor improvement of service. There are however some public organizations that have been transformed and started operating in business-like manner to the benefit of both the organization and the society. Such organizations are Kenya Revenue Authority and Kenya Airways.

Public corporations like private organizations exist to fulfill specific objectives. Efficient and effective public services are essential part of a healthy democratic society. The government and the society are stakeholders who should demand satisfactory services from these organizations. Consequently, there is a need for constant business process re-engineering in order to be able to fit in to the constantly changing customer needs. These organizations therefore require to embrace those business processes which translate to a higher value being created to the customer. The need for Business Process Re-engineering in both the government and its corporations cannot be overemphasized since these organizations are impacted by the same dynamic and changing environment as the private firms.

It is essential to study the practice of Business Process Re-engineering in the public sector, in order to learn how it is undertaken and its effect to the customer. Successful cases could encourage this practice in other public corporations where Business Process Re-engineering has not been adopted. There is no doubt that if public organizations applied the practices entailed in Business Process Re-engineering and effectively implemented them, they would be able to better adapt to the environment which keeps changing over time. In this way, their services would be more effective and efficient with benefits creating a ripple effect over the entire national economy.

The study will seek to answer the following questions:

i) What Business Process Re-engineering practices are being undertaken in Kenya Power and Lighting Company Limited.
ii) What is the customer satisfaction level brought about by the Business Process Re-engineering practices.

1.3 Objectives of the Study

The broad objective of this study will be to determine the satisfaction levels of Kenya Power and Lighting Company Limited customers being brought about by the business process re-engineering practices within the company. Specifically, the study intend to:

i) To determine the Business Process Re-engineering attributes perceived as important by customers of Kenya Power and Lighting Company Limited.
ii) To determine the satisfaction levels experienced by various customers served by the company.
iii) To establish the relationship between customer perception of Business Process Re-engineering and customer satisfaction.

1.4 Importance Of The Study

The results of the study are expected to be useful to the management of KPLC Ltd. They will for the first time understand and know the links between Business Process Re-engineering and customer satisfaction. In addition, the consultants working for the

company in areas related to Business Process Re-engineering will find solution in response to challenges in the business environment.

The study will also benefit the Researchers, who may be interested in this topic and may find the results opening up new avenues for further research. Scholars who need to understand the application of Business Process Re-engineering theories in both public sector organizations and private sector organizations will also find the study to be of great benefit.

Finally, and most importantly, the teaching institutions, which will utilize the findings to give feedback on whether organizations are benefiting from Business Process Re-engineering knowledge being disseminated to the industry. They will thus have to review their syllabus to suit the needs of various industries which apply or intend to apply the concept.

CHAPTER TWO: LITERATURE REVIEW

2.1Concept of Business Process Re-Engineering

A business process is a set of coordinated tasks and activities, conducted by both people and equipment that will lead to accomplishing a specific organizational goal. Business process reengineering is the redesign of business processes and the associated systems and organizational structures to achieve a dramatic improvement in business performance (Hammer 1993). It refers to the examination and change of five components of the business. These components include the strategy, processes, technology, organization and culture.

Davenport&Short (1990) have described Business Process Re-engineering as the analysis and design of workflows and processes within and between organizations. On the other hand, Hammer (1990) has defined Business Process Reengineering as the use of information technology to radically redesign business processes in order to achieve dramatic improvements in their performance. Hammer&Champy (1993) have promoted the definition of Business Process Re-engineering to be the fundamental rethinking and radical redesign of business processes to achieve dramatic improvements in critical, contemporary measures of performance, such as cost, quality, service, and speed.

Business process re-engineering is about changing anything which provides a block to improving today's business performance, even if it means going back to the drawing board (Obeng and Crainer, 1994, p20). They regard BPR as just common sense but highlight a number of hurdles that must be overcome in-order to implement it. In their "Rules for the Revolution" (p74) they talk of discarding yesterday's thinking and yesterday's solutions for today's goals.

Business Processing Reengineering seeks radical rather than merely continuous improvement. It escalates the efforts of Just In Time and Total Quality Management to make process orientation a strategic tool and a core competence of the organization. Business Process Re-engineering concentrates on core business processes, and used

the specific techniques within Just In Time and Total Quality Management toolboxes as enablers, while broadcasting the process vision (Johansson et al, 1993, p6).

Business process re-engineering has been defined as radically changing how people work in terms of changing business policies and controls, systems and technology, organizational relationships and business practices as well as the reward programs (Andrews & Stalick, 1994)

Although, there are still many other authors with variations on these terms, all referring to process changes large and small, the Business Process Re-engineering definition of Hammer&Champy (1993) is widely accepted today. This definition comprises four keywords, which are, fundamental, radical, dramatic and processes. Understanding the fundamental operations of business is the first step prior to reengineering. Business people must ask the most basic questions about their companies and how they operate. One should be able to question why they do what they do and the way they do them. Asking these basic questions lead people to understand the fundamental operations and to think why the old rules and assumptions exist. Often, these rules and assumptions are inappropriate and obsolete. Radical redesign means disregarding all existing structures and procedures, and inventing completely new ways of accomplishing work. Reengineering is about business reinvention, which is characterized by not adopting assumptions and not taking anything for granted.

2.2 Origin of business process re-engineering

The concept of reengineering traces its origins back to management theories developed as early as the nineteenth century. The purpose of reengineering is to make all your processes the best-in-class. Managers use process reengineering methods to discover the best processes for performing work, and that these processes be reengineered to optimize productivity (Taylor 1880). Business Process Re-engineering echoes the classical belief that there is one best way to conduct tasks. In Taylor's time, technology did not allow large companies to design processes in a

cross- functional or cross-departmental manner. Specialization was the state-of-the heart method to improve efficiency given the technology of the time.

In the early 1900's, Henri Fayol originated the concept of reengineering: To conduct the undertaking toward its objectives by seeking to derive optimum advantage from all available resources. It is not enough to hold people accountable for certain activities, it is also essential to delegate to them the necessary authority to discharge that responsibility (Urwick 1900). This admonition foreshadows the idea of worker empowerment which is central to reengineering. An individual company has a duty to plan and execute Business process re-engineering and it is to blame when the reengineering attempts to fail (Hammer and Champy 1993). Classical reengineering repeats the same mistakes as the classical approach to management, by separating the design of work from its execution (Davenport 1990). Davenport suggests that the engineering model/analogy that Business Process Re-engineering is based upon is flawed, both in terms of process design and information technology. He proposes an ethnographic approach to process design and an ecological approach to information systems, called participative business makeovers. Despite this abuse of the practice and tarnished name, the practice of redesigning business processes and the associated technology and organizational structure is more popular today than ever. Companies continue to reexamine and fundamentally change the way they do business. Competitive pressures and a sluggish economy provide the impetus for continued efforts to deliver more output with less input. Reengineering remains an effective tool for organizations striving to operate as effectively and efficiently as possible.

2.3 Principles of Business Process Re-Engineering.

Business Process Re-engineering advocates for organising around outcomes and not around tasks (Harrison, 1972). He argues that, the management of a certain organization should have one person perform all the stages in a process and should design that person's job around an objective or outcome. For instance, the use of case managers rather than clerks would be highly recommended. Business Process Re-engineering advises that those that use the output of the process perform the process. Opportunities exist to re-engineer processes so that the individuals who need the

result of a process can do it for themselves. For instance, an organization should abolish internal purchase orders. It highly recommends that, there is a great need to subsume information-processing work into the real work that produces the information. Move work from one process to another. Instead of having individual departments to process data produced by other departments, the originating department needs to deal with it. For instance, the Quality Assurance department need not assemble data provided by production, but have production do it.

Business Process Re-engineeering calls for the treatment of geographically dispersed resources as though they were centralized (Davenport, 1993). Use database, telecommunication networks and standardised processing systems to get the benefits of scale and co-ordination while maintaining the benefits of flexibility and service. For example, instead of individual purchasing departments in a dispersed company use centralised purchasing and disperse information via technology. It also recommends that the linking of parallel activities instead of integrating their results. Forge links between parallel functions and to co-ordinate them while they are in process rather than after they are completed. For instance, avoid problems when separate components are developed by separate teams and then simply don't fit at the end of the process. This process recommends that the management of any certain organization should put the decision point where the work is performed and build control into the process. The people who do the work should make the decisions and the process itself can have built-in controls. It advocates for the use of expert systems to provide the expertise needed to help users make decisions usually handled by senior managers (Greene, 1992). He has always argued that information need to be captured once and at the source.

The first step in developing a re-engineering process is to develop a business vision and process objectives (Goodstein and Burke, 1993). Business Process Re-engineering is driven by a business vision which implies specific business objectives such as cost reduction, time reduction, output quality improvement, quality of worklife or even learning/empowerment. The second step deals with the identification of the processes to be redesigned. Most firms use the High-Impact approach which focuses on the most important processes or those that conflict most with the business

vision (Johansson et al, 1993). Lesser number of firms use the Exhaustive approach that attempts to identify all the processes within an organization and then prioritize them in order of redesign urgency.

The third step in the Business Process re-engineering is to understand and measure the existing Processes. Understanding and measuring the existing processes before redesigning them is especially important, because problems must be understood so that they are not repeated (Lewin, 1948). On the other hand, accurate measurement can serve as a baseline for future improvements. Fourthly, it entails the Identification of IT levers. In the broadest sense, all of IT's capabilities involve improving coordination and information access across organizational units, thereby allowing for more effective management of task interdependence. An awareness of IT capabilities can -and should- influence process design (Chang, 1994). Therefore, the role of IT in a process should be considered in the early stages of its redesign. Lastly, it calls for designing and building of a Prototype of the new Process. The actual design should not be viewed as the end of the Business Process Re-engineering process but viewed as a prototype, with successive iterations expected and managed (Grover, 1997). Key factors and tactics to consider in process design and prototype generation include using IT as a design tool, understanding generic design criteria, and creating organizational prototypes. These prototypes of business process changes and organizational redesign initiatives, after agreement by owners and stakeholders, would be implemented on a pilot basis, examined regularly for problems and objective achievement, and modified as necessary. As the process approached final acceptance, it would be phased into full implementation.

2.4 Business Process Re-engineering Practices

In recent years a number of highly publicised companies have successfully undertaken business process reengineering (BPR) in its true incarnation, involving total and radical redesign of their company along process lines. Other companies have apparently failed in their reengineering attempts, as many as 66% according to Andrews & Stalick, (1994, p28). Vidgen et al (1993), and others, suggest that Business Process Re-engineering has suffered from an over-emphasis on structured

analysis of the processes and too little on the softer people issues. In its full implementation, Business Process Re-engineering involves new strategies, significant change to established organisational structures, to management style and to external relationships (Goodstein and Burke, 1993). Even more modest implementations involve significant change to established ways of working. Both these levels of changes include the tasks undertaken, the technology used, the skills of the staff, and the communications and relationships between people within the organisation.

2.4.1 Recommended Organization Systems

Systems are codified knowledge, organised in a logical sequence (Henley, 1991, p47). They are the processes, methods, procedures, rules, techniques, technology, manuals, etc. that ensure that work is undertaken efficiently and accurately. They are the instructions that guide staff and management in their daily tasks. Under the old system, this was a sixteen-step process requiring input from nine people stationed in different areas and on different floors of the home office. The new structure enabled this process to be cut to six steps, requiring the work of only three people (Rohm, 1992). As a result, customers were provided with a single contact person who could execute and manage the whole process.

Often, as Davenport highlights, new processes are enabled by new technology. As an example, he mentions Federal Mogul, an auto parts manufacture, who is using technology so that many designers can work on a new prototype design simultaneously. Thus, both the new technology and the new multi-function positions demand employees learn new techniques.

2.4.2 Organizational Structures

Henley (1991) defines organizational structures as how an organisation breaks down its activities into distinct elements and how these elements are co-ordinated. Henley (1991,p35-37) goes on to identify six distinct type of organization. He classified them as simple structure (the one man band), machine bureaucracy, professional bureaucracy, divisionalised form, adhocracy or cult organization.

Process organisations introduce a new form of organisation that aims to break away from many of the above traditional types, particularly the bureaucracies and divisional forms. A move to a much flatter structures organised around the processes is highly recommended (Hammer & Champy, 1993). Davenport (1993) recommends a multidimensional matrix structure, with process responsibility as a key dimension. To achieve this, Johansson et al (1993) argues that the new organisation must accommodate a balance between functional expertise and process involvement and goes on to say it is essential to remove functional barriers. Andrews & Stalick (1994) emphasise that, even the boundaries between the customers and the suppliers relative to the organization must be redefined. Still, whilst a process orientation is a new organisational structure it will incorporate attributes of the adhocracy.

2.4.3 Staff Competence

Companies are not asset portfolios, but people working together to invent, sell and provide service (Hammer and Champy, 1993). Staff refers to the quality and quantity of people employed in an organization (Henley, 1991, p44). Employees do not need to be supervised since they are adults who are willing to take accountability for their work products (Andrews & Stalick, 1994). Business Process Re-engineering is often linked to new rewards systems. Davenport (1993) refers it to gain-sharing, lateral promotion and a move from role title to process title, and variety through work role rotation. Davenport believes that life time employment encourages employees to redesign the processes to eliminate their own job. The role of managers is transformed and the number of middle managers usually reduced. At the same time, staff at all levels have new, more responsive roles, and specialist roles change fundamentally (Pagoda Associates Ltd, 1993, flyer, p3).

Business reengineering effort will not succeed without first reeducating and retraining the people who will ultimately work with the new process (Hammer and champy, 1993). In order to combat these tendencies, senior management need to provide a constant flow of information throughout the company regarding reengineering expectations and successes, and revised performance appraisal system to emphasize the new values of team work and cooperation. If an organization is to move

information and responsibility down to the local level, then the key concern should be to ensure that people will behave appropriately (Burack, 1991)

In implementing Business Process Re-engineering, an organization ought to move from a functional hierarchical approach, via a team-based operation as an intermediate step, to a situation where a single multi-skilled individual takes responsibility for an entire process from beginning to end (Stevens, 1994). BPR has certainly made some significant impact on the number of staff. CSC Index identifies two principle obstacles to Business Process Re-engineering as fear among employees that their jobs are endangered and that years of experience will account for nothing. To overcome these apprehensions, managers must constantly communicate their plans and expectations. Although companies which are seeking to reengineer may work on revamping the performance appraisal system to support new values, this can be problematic. When bonuses are linked to profits or even the performance of a team, this may lead to a situation where the individual is judged on factors beyond his or her control.

2.4.4 Skills Enhancement

Skills is defined as the competences the organisation needs in its people in order to perform difficult tasks to a high standard (Henley, 1991). The word 'empowerment' is invariably associated with Business Process Re-engineering.

In the new world of work, jobs change from simple tasks to multi-dimensional work. This means that, job preparation changes from training to education, from rule following to exercising judgement and managers change from supervisors to coaches and executives change from scorekeepers to leaders (Hammer & Champy, 1993).

2.4.5 Strategy Alignment

Strategy refers to the direction and scope of an organisation over the long term, ideally, which matches its resources to its changing environment and in particular its markets, customers or clients so as to meet stakeholder expectations. Strategic decisions are complex in nature and involve a high degree of uncertainty (Johnson &

Scholes, 1993). Johansson et al definition of the Business Process Re-engineering drivers are of a strategic nature. These include customers, competition, cost, technology, shareholders, politics, economics, legislation, and regulation. Business Process Re-engineering decisions, like Strategy decisions, are complex and involves a high degree of uncertainty. Business Process Re-engineering is a complex undertaking and carries significant risk since it involves major changes (Carey, 1993).

2.4.6 Management Style

Style refers to the philosophy, values and shared beliefs adopted by managers in their use of power (Henley, 1991). Change incurred by process innovation is not only broad, but deep, extending from the visions of managers to the attitudes and behaviours of the lowest level workers. Its significant behavioural component makes process innovation based change qualitatively different from other forms of large scale restructuring. Process innovation involves massive change, not only in process flows and the culture surrounding them, but also in organisational power and controls (Davenport, 1993)

2.4.7 Shared Values (or Super-ordinated Goals)

These are the basic values and mission of the organisation (Henley, 1991). As Henley puts it, the shared values rise above profit targets and growth objectives by relating the goals of the firm to deeper human needs and principles. Andrews & Stalick (1994) assert that in successful reengineered business operations, individual belief systems become aligned with the stated beliefs of the organization.

Reengineering entails a great a shift in the culture of an organisation as in its structural configuration. Reengineering demands that employees deeply believe they work for their customers, not for their bosses (Hammer & Champy, 1993) Johansson et al (1993), argues that, the new process teams need be linked by common values and that individuals must believe in self-management, self development, and rewards based on skills used.

2.5 Character of Reengineering

Reengineering, as currently practiced, primarily by drastic dictate and with reliance on outsiders to lead it, assumes that the staff in an organization cannot be trusted to fix whatever ails the organization. Reengineering accepts primarily what the experts, preferably newcomers to the scene, have to offer. In reengineering the consultants will recommend to an organization what the "to be" conditions ought to look like, without spending much time understanding the reasons for the "as-is" conditions. Reengineering proponents do not worry much about formal methods. Radical reengineering may apply under emergency conditions of imminent danger as long as someone considers that this will most likely leave us with a patient that may never recover to full health again because of demoralization of the workforce. It is much swifter than the more deliberate approach of those who practice business process redesign (Benjamin & Mabey, 1993). No wonder, the simple and quick methods are preferred by the impatient and those who may not have to cope with the unforeseen long term consequences on what happens to the quality and the dedication of the workforce.

In reengineering participation by most of the existing management is superfluous, because one is out to junk what is in place anyway. Under such conditions, for instance, bringing in an executive who was good in managing a cookie company to run a computer company makes perfect sense. In reengineering debates are not to be encouraged since the goal is to produce a masterful stroke of insight that suddenly will turn everything around. Autocratic managers thrive on an opportunity to preside over an reengineering effort. Reengineering also offers a new lease on the careers of chief information officers with propensities to forge ahead with technological means as a way of introducing revolutionary changes.

Reengineering conveys a sense of urgency that does not dwell on much financial analysis, and certainly not formal risk assessment (Hickman, 1985). Managers who tend to rely on bold strokes rebel against analytic disciplines. Reengineering does not offer the time or the opportunities for the much needed adaptation of an organization to changing conditions. It imposes changes swiftly by fiat, usually from a new

collection of people imported to make long overdue changes. Even if the new approach may be a superior one for jarring an organization out of its ingrown bad habits, it will be hard to implement because those who are supposed to act differently will now have a negative attitude to do their creative best in support of the transition from the old to the new.

Reengineering has the advantage of being a choice of last resort when there is no time left to accomplish business process redesign (Beckard & Harris, 1987). In this sense, it is akin to saying that sometimes dictatorship is more effective than community participation. Constitutional democracies, despite occasional reversals in fortune, have never willingly accepted dictatorship as the way out of their troubles. On the other hand, the record of attempts to deal with the crises in governance by drastic solutions is dismal. Though occasionally you may find remarkable short term improvements, extreme solutions that have destroyed past accumulation of human capital have always resulted in viewing an era of violence as times of retrogression.

2.6 Reengineering Success Factors

Business process reengineering is the main way in which organizations become more efficient and modernize (Carter 2005). Business process reengineering transforms an organization in ways that directly affect performance. In order for an organization to achieve a successful re-engineering process on its business, other factors have to come in play. These success factors are as narrated below.

2.6.1 Top Management Sponsorship

Major business process change typically affects processes, technology, job roles and culture in the workplace (Belmonte, 1993). Significant changes to even one of these areas requires resources, money, and leadership. Changing them simultaneously is an extraordinary task. If top management does not provide strong and consistent support, most likely one of these three elements, which are money, resources, or leadership will not be present over the life of the project, severely crippling the chances for success. The current models of re-designing business processes use staff functions and

consultants as change agents. Without top management sponsorship, implementation efforts can be strongly resisted and ineffective.

Top management support for large companies with corporate staff organizations has another dimension. If the top management in the line organization and staff organization do not partner and become equal stakeholders in the change, then, chances of succeeding of the re-engineering process are low. Projects that result in major change in an organization rarely succeed without top management support in the line organization.

2.6.2 Strategic Alignment

It is advisable to tie the reengineering project goals back to key business objectives and the overall strategic direction for the organization (Hahn, 1991). This linkage should show the thread from the top down, so each person can easily connect the overall business direction with the reengineering effort. This alignment could be demonstrated from the perspective of financial performance, customer service, associate/employee value and the vision for the organization. Reengineering projects not in alignment with the company's strategic direction can be counterproductive. It is not unthinkable that an organization may make significant investments in an area that is not a core competency for the company, and later this capability be outsourced. Such reengineering initiatives are wasteful and steal resources from other strategic projects. Moreover, without strategic alignment the key stakeholders and sponsors will find themselves unable to provide the level of support the organization needs in terms of money and resources, especially if there are other projects more critical to the future of the business, and more aligned with the strategic direction.

2.6.3 Business Case For Change

In one page or less a re-engineering agent should be able to communicate the business case for change. This is because he/she needs to make this case over and over again throughout the project and during implementation. There is need to cover the few critical points. Talk to the current state, and what impact this condition has on customers, associates and business results (Bashein, 1994). State the drivers that are

causing this condition to occur. State what is to be done about it, in terms of vision and plan, and make specific commitments. Keep focusing on the customer. Connect the setout plan to specific, measurable objectives related to customers, associates, business results, and strategic direction.

It is important to show how much time and money the organization needs to spend on the process and the payback period as well. The business case for change will remain the center piece that defines the project, and should be a living document that the reengineering team uses to demonstrate success. Financial pay back and real customer impact from major change initiatives are difficult to measure and more difficult to obtain without a rigorous business case (Cosco, 1993).

2.6.4 Proven Methodology

The Business process re-engineering methodology that a company uses should be able to work (Hampden, 1990). Not only should the team members understand reengineering, they should know how to go about it. In short, one needs an approach that will meet the needs of the project and one that the team understands and supports.

2.6.5 Change Management

One of the most overlooked obstacles to successful project implementation is resistance from those whom implementers believe will benefit the most. Most projects underestimate the cultural impact of major process and structural change, and as a result do not achieve the full potential of their change effort (Deal, 1982). Change is not an event, despite our many attempts to call folks together and have a meeting to make change happen. Change management is the discipline of managing change as a process, with due consideration that we are people, not programmable machines. It is about leadership with open, honest and frequent communication. Organizations do not change only people change, one at a time. The better an organization manages change, the less pain it will have during the transition, and the impact on work productivity will be minimized (Nadler, 1993).

2.6.6 Line Ownership

The ability of external consultants to implement significant change in an organization is small. The chances are only slightly better for staff groups. Ultimately the solution and results come back to those accountable for day-to-day execution. The ownership must ultimately rest with the line operation, whether it is manufacturing, customer service, logistics or even sales. Often those closest to the problem can't even see it. They seem hardly in a position to implement radical change. They lack objectivity, external focus, technical re-design knowledge and money. On the other hand, they know today's processes, they know the gaps and issues, they have front-line, in-their-face experience. They are real. The customers work with them, not your consultants and staff personnel. Hence the dilemma.

The line operation probably cannot heal itself when it comes to major business re-design. Staff and consultants have no lasting accountability for the solution, and never succeed at forcing solutions on line organizations thus need for the line organization to have the awareness that they need help, to contribute their knowledge, and to own the solution and implementation (Nicholson,1993). At the same time there is need for the expertise and objectivity from outside of the organization. Building this partnership is the responsibility of the line organization, stakeholders and re-design team. No group is off the hook.

2.7 Importance of Business Process Re-engineering

Customers are now very diverse, segmented, and are expectant of consultation (Pettigrew, 1993). Competition has intensified to meet the needs of customers in every niche and Change has become pervasive, persistent, faster and in some markets a pre-requisite. Together, these three forces have created a New World for business, such that organizations designed to operate in one environment are inadequately equipped to operate well in another. Companies created to thrive on mass production stability and growth cannot be simply improved to succeed in a world where customers, competition, and change demand flexibility and quick response. The aim of reengineering in this environment is to facilitate the match between market

opportunities and corporate capabilities, and in doing so, reengineering represents a radical shift away from Fredrick Taylor's traditional task-based thinking to process-based thinking.

The business reasons for making such changes could include poor financial performance, external competition, erosion of market share or emerging market opportunities (Wilson, 1992). Business Process Re-engineering is often used by companies on the brink of disaster to cut costs and return to profitability. To reap lasting benefits, companies must be willing to examine how strategy and reengineering complement each other. This is achieved by learning to quantify strategy in terms of cost, milestones, timetables and accepting ownership of the strategy throughout the organization. Also, assessing the organization's current capabilities and processes realistically and linking strategy to the budgeting process. Improving business processes is paramount for businesses to stay competitive in today's marketplace (Klemm & Luffman, 1991).

Over the last ten to fifteen years, companies have been forced to improve their business processes because the customers are demanding better and better products and services. And if the customer does not receive what he/she wants from one supplier, there are many others to choose from hence the competitive issue for businesses. Business Process re-engineering is effective to obtain gradual, incremental improvement. New technologies like the Internet are rapidly bringing new capabilities to businesses, thereby raising the competitive bar and the need to improve business processes dramatically (Martin, 1994).

Another apparent trend is the opening of world markets and increased free trade. Such changes bring more companies into the marketplace, and competing becomes harder and harder. In today's marketplace, major changes are required to just stay even. It has become a matter of survival for most companies. As a result, companies have sought out methods for faster business process improvement. Moreover, companies want breakthrough performance changes, not just incremental changes, and they want it now. Because the rate of change has increased for everyone, few businesses can

afford a slow change process. One approach for rapid change and dramatic improvement that has emerged is Business Process Reengineering.

2.8 Customer Perception

Customers do not evaluate service solely on the outcome of a service; they also consider the process of service delivery. The criteria consumers use for evaluating service quality is based on the comparison of consumer expectations with the actual service performance. Thus, the perceived service quality is based on a consumer's judgment about a service's overall excellence or superiority.

Perceived service quality is different from the actual goods quality because it involves a higher level of abstraction rather than a specific attribute of a product; and a judgment is usually made within a consumer's evoked set. The quality of a service is usually built up from the myriad of individual characteristics that determine customer satisfaction (Zeithaml, 1988).

In a study of four consumer service industries, Parasuraman et al. (1998) identified five quality dimensions that linked specific service characteristics to consumer expectations of quality. Firstly, the tangibles, which refers to the appearance of physical facilities, equipment, personnel and communication materials. Secondly, is reliability, which refers to the ability to perform the promised service dependably and accurately. The third aspect is responsiveness, which can be defined as the willingness to help customers and provide prompt service. Fourthly, he defined assurance as the competence of the system and its credibility in providing a courteous and secure service. Lastly, he considered empathy, which can be defined as the approachability, ease of access and effort taken to understand customer needs.

2.9 Customer Satisfaction

Customer satisfaction is a measurement of customer attitudes about products, services and brands (Pettigrew, 1991). While it's always been smart to keep customers happy, the term customer satisfaction became popularized in the 1980's with the total quality movement. Customer Driven Excellence and Customer Focused Results remain

important aspects most companies in the world today. Increasing competition, whether for-profit or nonprofit is forcing businesses to pay much more attention to satisfying customers.

2.9.1 Measuring Customer Satisfaction

Measuring satisfaction is necessary because it reveals the voice of one's customer (s). When it is properly done, it tells which aspects of the company's product, service or brand will return the greatest impact on the customer loyalty behavior. First, customers must be surveyed to identify what they consider important or significant about the product and product category. This qualitative information then drives design of ones satisfaction survey, so as to track things that matter to customers. This process reveals the customer requirements. It is crucial to watch out for too much of company input rather than customer input in the questionnaire design. Being customer-centric means that the customer defines the product, service or brand quality. If too much of management judgment is used in the questionnaire design, the results may be accurate but still misleading. It is important to use the questionnaire for diagnosis rather than confirmation. Surveying the entire customer population (a census) may be cost prohibitive. In that case one needs a sample. Survey that produces statistically useful generalizations about the overall customer population and any relevant sub-sets should be utilized. Random samples must be drawn and the sample size must be large enough so that it holds down the degree of sampling error (Sekeran, 1992).

The conducted survey must identify how satisfied customers are overall, how satisfied they are with each key attribute and how important they consider that attribute to be. Sample surveys must indicate the degree of sampling error, and which comparisons are statistically different from one another. Taking action is important. The benefit of customer satisfaction programs comes only from resulting actions that improve the product, service or brand and result in greater sales, profits and market share. The criteria being used to measure the customer satisfaction should be clear, accurate, current, relevant and complete (Janson, 1992). When customer information meets these criteria managers will be more willing to rely on it for making decisions.

2.9.2 Benefits of a satisfied customer

A satisfied customer is a loyal customer (Reichheld, 2000). Loyalty has two definitions. Loyalty behavior means the act of customers making repeat purchases of their current brand, rather than choosing a competitor brand instead (Reichheld, 2000). Loyalty behavior is also called customer retention. Loyalty attitudes are those judgments and feelings about ones product, service, brand or company that are associated with repeat purchases. Loyalty attitudes are a softer measure than behavior because people can feel one way and behave quite differently. Sometimes customers are classified into loyalty attitude groups such as new arrivals, repeat buyers advocates, loyalists and so on as they slowly bond with ones company over time. Loyalty behavior is the result or outcome of very high satisfaction. What has to be worked on and improved is satisfaction as customers become more satisfied they start to take on some loyalty attitudes. In managing a loyalty program it makes most sense to consider loyalty attitudes to be part of customer satisfaction.

A satisfied customer leads to a company's increased market share. Customer satisfaction is worth almost any effort unless it is achieved by deep price cutting or major promotional giveaways that destroy profits. It is so valuable because it has a huge impact on market share. It is undeniable that each customer who switches from Brand A to Brand B raises Brand B's market share and lowers Brand A's market share. In most markets there is a fairly high degree of this brand switching or churn. Churn is a pool of potential customers that smart competitors pursue. Established repeat customers may often generate superior profit margins. They require less customer care, have less price sensitivity, and need fewer advertising and promotional inducements. They also refer their family and friends to the same product, service or brand.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Research Design

The research adopted a cross-sectional survey design. This was because it facilitated data collection on a broad range of population members, which is desirable for comparative purposes. Again, since the given study is largely descriptive and purposes to use sample statistics to make generalization about population parameters. The methodology used for cross-sectional survey was a structured questionnaire. Kitoto (2005) and Omondi(2006) have successfully used this design in a similar study.

3.2 Population of the Study.

The population of interest encompassed all customers being supplied by Kenya Power and Lighting Company throughout Kenya. According to the company's July 2009 newsletter, 1,300,000 customers were being supplied by the company. However the study focused on the clients residing in Nairobi north, Nairobi west and Nairobi south.

3.3 Sample Design

The list of 1,300,000 customers being supplied by the Kenya Power and Lighting Company constituted the study sample frame. A sample of customers surveyed was drawn from this list. The sample was drawn through proportionate stratified sampling technique since it is considered to be more representative. This sampling design is more efficient and is a good choice when differentiated information is needed regarding various strata within the population which is known to differ in their parameters (Sekeran 1992). The first stratum consisted of Nairobi West customers, the second stratum, Nairobi South customers and the third stratum consisted of the Nairobi North customers. The customers were picked at random from each stratum. A sample of 250 customers was selected and interviewed in the subsequent survey, although the fully completed questionnaires were 220. This number conforms to the

widely held rule of thumb that, to be representative, a sample should have thirty (30) or more test units (Sekaran 1992), a sample size larger than 30 and less than 500 are appropriate for most business research.

Table 3.1: Customers in Nairobi Region

	POPULATION N=682,700 CUSTOMERS		SAMPLE UNIT OF 250 CUSTOMERS	
Location Of Customer	Number Of Customers	Percentage (%) Of Total Customers.	Percentage (%) Of Sample Units	Number Of Customers In Target Sample
NAIROBI NORTH	272,931	40	40	100
NAIROBI SOUTH	223.271	32.7	32.7	82
NAIROBI WEST	186,498	27.3	27.3	68

Table 3.1 illustrates the breakdown of the total 682,700 KPLC customers in the Nairobi region. These customers occupy the northern, southern and western part of Nairobi with 40 percent in Nairobi North, 32.7percent in Nairobi South and 27.3 percent in Nairobi West.

3.4 Data Collection.

The study relied heavily on primary data, which was collected through the use of a structured questionnaire comprising of closed and open questions. The data was highly qualitative in nature, thus appropriate measurement concepts were applied. The research instrument was divided into three parts. The first part targeted the demographic aspects of the respondents. This included their age, gender, location and duration under which they have been supplied with electricity. The second part focused on the various perceptions by various customers in relation to the Business Process Re-engineering practices being exercised by Kenya Power and Lighting Company.

The third section found out on the satisfaction levels experienced by various customers served by Kenya Power and Lighting Company. The questionnaires were administered through self completion by the clients of KPLC residing in Nairobi north, Nairobi west and Nairobi south.

3.5 Data Analysis.

Completed questionnaires were edited for completeness and consistency. The data was coded to enable the responses to be grouped into categories. This was necessary in order to facilitate statistical analysis (Cooper and Emory, 1995). Logistic regression was used to test the satisfaction level as the dependent variable being the dichotomous (binary) variable of whether the client is satisfied (1) or not (0). We also estimated the association between each predictor and Pr(y = 1) controlling for all other predictors.

The central mathematical concept that underlies logistic regression is the logit-the natural logarithm of an odds ratio. Logistic regression describes the relationship between a dichotomous response variable and a set of explanatory variables. The explanatory variables may be continuous or discrete (with dummy variables).The data was descriptive in nature hence descriptive reporting was necessary. The descriptive reporting included frequency tables and percentages, which represent the response rate and information on the variables that the study was considering.

Percentages were used to show the number of customers located in the three different zones: Nairobi West, Nairobi South and Nairobi North. Information capturing the duration under which the customer has been on supply was presented in frequency table. Factor analysis was used to identify the most prominent Business Process Re-engineering attributes that determine customer satisfaction levels. Chi square test was used to test whether Business Process Re-engineering relates to customer satisfaction level.

CHAPTER FOUR: DATA ANALYSIS, RESULTS AND DISCUSSION

4.1 Introduction

The following are the results of the data analysis and a discussion of the findings. The analysis was done using SPSS and R programs. Two hundred and twenty (220) KPLC clients were interviewed through self-completing questionnaire from the three regions. These regions included the Northern, Western and Southern parts of Nairobi.

4.2 Nature of Variables Utilized

In the subject study, two types of variables were utilized. These are the categorical and the continuous variables. Categorical variables are distinct in nature where as continuous variables are not.

4.2.1 Categorical Variables

Any variable that is not quantitative is categorical. Categorical variables take a value that is one of several possible categories. As naturally measured, categorical variables have no numerical meaning. Examples: Hair color, gender, field of study, college attended, political affiliation, status of disease infection.
In a study asking respondents to identify themselves as Republican, Democrat or Independent or Other, each respondent will answer with exactly one of these. These are the values the variable takes. Republican is not a variable since it does not vary from person to person but party affiliation is since it does vary from person to person.

Often categorical variables are disguised as quantitative variables. For example, one might record gender information coded as 0 = Male, 1 = Female. Data is generally easier to manipulate in an analysis spreadsheet when it's coded quantitatively. Still the variable is categorical; it is not naturally measured as a number. In some cases it's tougher to make the distinction. A psychologist may collect survey data of the following nature

The categorical variables being considered in this study are the gender, account type, education level and the area of the residence of the respondents.

4.2.1.1 Gender of the Respondents

Gender comprises of widely held beliefs, expectations, customs and practices within a society that define 'masculine' and 'feminine' attributes, behaviours, roles and responsibilities. Gender is an integral factor in determining the consumption patterns of goods and services. In this study, KPLC customers were interviewed and comprised of both males and females. The first section of the questionnaire provided for the respondent to tick his/her sex type. This gave the customer some sense of identity owing to the fact that the society classifies each person as either female of male. In this study, this classification was important since it helped the researcher to understand what attributes were more emphasized by either gender.

Table 4.1: Sex of Respondents

Sex	Frequency	Percent
Male	128	58
Female	92	42
Total	220	100

Table 4.1 gives an outline on the number of female and male respondents being considered under the subject study. From this table, it is evident that one hundred and twenty eight (128) respondents were male. This constituted to fifty eight (58 percent) of the total number of respondents. Female respondents were ninety two (92) which constituted to fourty two (42 percent) of the total number of respondents.

4.2.1.2 Type of Account Owned

An account type describes the usage of power for a certain customer. It describes the sort of a tariff that a customer is connected to. This also dictates on the amounts of power bills that the customer is bound to pay to KPLC. An account can be described

as either domestic, small commercial or large commercial. A domestic account type is used by the owner to run power appliances in a residential premise, relatively 8kva or less. A small commercial account type is useful for running appliances in premises of medium power consumptions, for instance the posho mills and the bore holes. The relative power consumption is between 9kva and 50kva. Large commercial account type entails power used to drive heavy machinery above 50kva power rating.

Table 4.2: Type of Account Owned

Account Type	Frequency	Percent
Domestic	184	84
small commercial	33	15
large commercial	3	1
Total	220	100

Table 4.2 indicates that, the respondents operating domestic accounts were 184 which constitutes to 84 percent of the total number of respondents. Small commercial account owners were 33, constituting to 15 percent of the total respondents. Lastly, the large commercial account owners were 3 and this constituted to 1 percent of the 220 respondents who were interviewed.

4.2.1.3 Respondents Education Level

The education level determines a person's life style and sharpens their ability for self realization. This parameter was also important in the study since different social groups view life from different perspectives. The parameters that each different groups use to measure their satisfaction levels are also different. In this exercise, the respondents were divided in to four categories namely, University graduates, polytechnique graduates, secondary school leavers and elementary school attendants. Table 4.3 illustrates the total number of respondents in each category.

Table 4.3: Respondents' Education Level

Education Level	Frequency	Percent
university	86	39
polytechnique	44	20
secondary	77	35
elementary	13	6
Total	220	100

Most of the respondents were university graduates. They were 86 which constituted to 39 percent of the total respondents. This figure was followed by the secondary school leavers, who were 77 in number and constituted to 35 percent of the total number of respondents. The polytechnique graduates were 44, forming 20 percent of the total number of respondents. Lastly, the elementary school attendants interviewed were 13, which is 6 percent of the total number of respondents.

4.2.1.4 Respondents Region of Residence

The study considered the three regions considered under Nairobi region. These regions include Nairobi North, West and South. Nairobi north region covers areas such as kikuyu, Kinoo, Kariabangi North, huruma, Mathare, Eastleigh, Dandora and its suburbs. Nairobi West region covers areas such as Kileleshwa, Upper hill, Karen, Kiserian, Ongata Rongai and its suburbs. Nairobi South covers area such as the Central Business District, Embakasi, Kitenkela, Syokimau, Chumvi, Kibwezi , Sultan Hamud and its suburbs.

Table 4.4: Respondents' Region of Residence

Region	Frequency	Percent
Nairobi North	60	27
Nairobi west	74	34
Nairobi South	86	39
Total	220	100

Table 4.4 indicates that, 86 respondents, which constitute 39 percent of the total number of respondents were based in Nairobi South. 74 respondents, which constitute 34 percent of the total number of respondents were based in Nairobi West. Lastly, 60

respondents, which constitute to 27 percent of the total number of respondents were based in Nairobi North.

4.2.2 Continuous Variables

A continuous variable is one for which, within the limits the variable ranges, any value is possible. For example, the variable "Time to solve an anagram problem" is continuous since it could take 2 minutes, 2.13 minutes or any timing to finish a problem. The variable "Number of correct answers on a 100 point multiple-choice test" is not a continuous variable since it is not possible to get 54.12 problems correct. A variable that is not continuous is called discrete. These are continuous in nature and in a study they are usually too many.

In this study, the researcher considered the age of the respondent and the period at which the respondent has operated his/her power supply account.

4.2.2.1 Age of the Respondents

The age of the respondents was of paramount importance since it dictated on other parameters such as account ownership and the payment of the bills.

Table 4.5: Age of Respondents

	N	Minimum	Maximum	Mean	Std.
Age(yrs)	220	20	65	42.5	22.5

It can thus be deduced, from table 4.5 that, the range of ages is from 20 to 65 years, with a mean of 42.5 and standard deviation of 22.5

4.2.2.2 Account Operation Period

The duration in which a respondent had operated a certain account was of paramount importance since it gave him/her the confidence to express his/her satisfaction levels for the services rendered by the company in question.

Table 4.6: Account Operation Period

	N	Minimum	Maximum	Mean	Std
A/C Operation period	220	0.16666667	36	18.0833333	17.9

As indicated by Table 4.6, the length of period the respondents operated their accounts ranged from months to years. The shortest time being two months (0.1666 of a year) and the longest being 36 years. The mean score is 18 years and 9months and a standard deviation of 17.9.

4.3 Satisfaction Levels Enjoyed by Various KPLC Customers

KPLC customers can be classified in a number of categories. In this study the categories utilized include gender, region, account type, duration of account operation, education level and the age of the respondent.

4.3.1 Gender Crosstab

The study sought to establish the satisfaction levels being enjoyed by the different gender, that is, males and females. Various attributes were considered in the determination of the level of satisfaction and the results exposed to P(Wald's test) statistics.

Table 4.7: Gender Crosstab

Factor Gender	Level		Test Statistics	
	Dissatisfied	Satisfied	P(Wald's test)	P -value
Female	55	37	0.524	0.523
Male	71	57		
Total	126	94	220	

OR (95%CI)

Sex: male versus female 1.19 (0.69, 2.05)

Although gender was not a significant factor in predicting the satisfaction level at 95% confidence interval (because the p-value 0.523>0.05), 55 females and 71 males of the respondents were not satisfied with the KPLC services making 43.7% and 56.3% respectively of those dissatisfied. Males were 1.19 times satisfied compared to their counterparts' females looking at the olds ratio above.

4.3.2 Region Crosstab

The Nairobi region is divided in to three distinct regions namely: Nairobi North, Nairobi South and Nairobi West. Nairobi North covers areas such as Kikuyu, Kinoo, Kangemi, Huruma, Mathare and suburbs. Nairobi West covers areas such as Kileleshwa, Karen, upper hill, hurlingham and suburbs. Nairobi South covers the CBD, Mombasa road, Namanga road and suburbs.

Table 4.8: Region Crosstab

Factor; Region	Level		Test Statistic	
	Dissatisfied	Satisfied	Chi-sq. (2 df)	P -value
Nairobi west	38	36	5.99	0.048
Nairobi North	30	30		
Nairobi South	58	28		

	OR (95%CI)	P (Wald's test)	P (LR-test)
Region: ref.=west			0.048
Nairobi North	1.06 (0.53, 2.09)	0.876	
Nairobi South	0.51 (0.27, 0.97)	0.039	

From the T-test being conducted in table 4.8, it has been established that, the region of residence was a significant regressor of one's satisfaction level at 95% confidence interval, since p-value 0.048<0.05. Using Nairobi west region as the reference, those at northern and southern regions of Nairobi were 6% more satisfied and 49% less satisfied than those residing in Nairobi west respectively.

4.3.3 Account Crosstab

KPLC classifies its customer according to the power demands. The domestic customers have a power demand of 8Kva or less, while small commercial have up to a limit of 50Kva and large commercial/industrial loads have a demand of 50Kva and above.

Table 4.9: Account Crosstab

Factor Account	Level		Test Statistics	
	Dissatisfied	Satisfied	Fisher's exact test	P -value
domestic	106	78	0.78	0.702
large commercial	1	2		
small commercial	19	14		

	OR (95%CI)	P (Wald's test)	P (LR-test)
Account: ref.=domestic			0.702
Large commercial	2.72 (0.24, 30.51)	0.418	
Small commercial	1.0013 (0.4731, 2.1192)	0.997	

The held was not a significant predictor of the level of satisfaction at 95% confidence interval. However, it showed some disparities as summarized in table 10. Using domestic account as the reference, large commercial and small commercial were 2.72 times more satisfied and equally satisfied as the domestic account holders. Most satisfied is the large scale account owners.

4.3.4 Education Crosstab

Education level as a variable was used in the study to determine the satisfaction level of the respondent in respect to the KPLC services. Education level refers to the degree at which one has been schooled. It is an important variable since it also determines other parameters such as self realization, purchasing ability and mode of power consumption.

Table 4.10: Education Crosstab

Factor Education	Level		Test Statistics	
	Dissatisfied	Satisfied	Chi-sq. (2 df)	P -value
Elementary	8	5	0.44	0.932
secondary	45	32		
polytechnique	26	18		
university	47	39		

	OR (95%CI)	P (Wald's test)	P (LR-test)
Education: ref.=elementary			0.932
Polytechnique	1.11 (0.31, 3.94)	0.874	
Secondary	1.14 (0.34, 3.8)	0.834	
University	1.33 (0.4, 4.39)	0.642	

Although level of formal education was not a significant predictor of satisfaction level at 95% confidence interval there was difference in satisfaction depending on one's level of education. Taking elementary as the reference; polytechnique, secondary and university graduates were 1.11, 1.14 and 1.33 times satisfied compared to those with elementary level of education. The most satisfied being the secondary school leavers.

4.3.5 Age Crosstab

In this study, age has been picked as a variable which relates to the satisfaction level of a respondent. The study grouped the ages in intervals of ten years with the 20th birthday being the least and 50 and above, being the highest.

Table 4.11: Age Crosstab

Factor Age	Level		Test Statistics	
	Dissatisfied	Satisfied	Fisher's exact test	P -value
>50	3	3	0.29	0.289
20-30	35	32		
31-40	53	43		
41-50	35	16		

	OR (95%CI)	P (Wald's test)	P (LR-test)
Age: ref. =>50			0.289
20-30	0.91 (0.17, 4.86)	0.916	
31-40	0.81 (0.16, 4.22)	0.804	
41-50	0.46 (0.08, 2.52)	0.369	

From the test result indicated in Table 4.11, it can be argued that age was not significant predictor of satisfaction level. However, there was a disparity in satisfaction level, with age above 50 years as reference those aged between 20-30, 31-40 and 41-50 years were 0.91, 0.81 and 0.46 times satisfied compared to those over 50 years of age.

4.4 Key BPR Attributes

The respondents viewed some attributes to be more important, and thus playing a big role towards the determination of their satisfaction levels by the KPLC services while others were viewed to be of least importance. In this section, the ones viewed as more important were analyzed.

KPLC services have impact on both the domestic and industrial usage. Failure to have consistent power supply has the ability to lower ones profitability and worse still bringing operations to a halt.

Table 4.12: Key Attributes

ATTRIBUTE	MEAN	STD.
Skilled field officers	3.57	0.86
Access KPLC manager	3.55	0.67
Ability give correct bills	3.50	0.85
Willingness help clients	3.46	0.87
Feel secure KPLC staff	3.00	0.77
Opening hours convince	2.94	0.67
Dependable services	2.91	0.68
emergencies response	2.87	0.69
Individualized attention	2.76	0.70
Clients education	2.68	0.66
Ability handle complain	2.57	0.84
Grand Mean	**3.07**	

Table 4.12 illustrates that, the most important attribute as perceived by the respondents was the availability of skilled staff at a mean of 3.57 and a standard deviation of 0.86. The least important attribute being the ability to handle complains

with a mean of 2.57 respondents and a standard deviation of 0.84. From the grand mean figure, it is worth deducing that, most respondents would attach some significance to each given attribute. The analysis considered the most important attributes whose mean was more than 2.5.

4.5 Satisfaction Level

Every organization is working very hard to please its customers. This is because of the competitive business environment which provides for a variety of goods/services at any desired price. A measure of satisfaction level for the KPLC customers was therefore of paramount importance in this study.

Table 4.13: Respondents' Satisfaction Levels

Service	Mean	Std.
Clean tidy environment	4.28	0.72
Front office courtesy	3.79	0.55
Communication image	3.68	0.85
Commitment to customer	3.64	0.77
Application processing.	3.62	0.87
Availability of information	3.59	0.65
KPLC offices location	3.40	0.88
Handling difficulty customers	3.00	0.78
Staff availability to client	2.95	0.75
Quick and efficient service	2.75	0.76
Cost of service	2.65	0.83
Grand Mean	**3.39**	

Table 4.13 illustrates the satisfaction levels enjoyed by various respondents in regard to the various services being availed by KPLC. The highest ranked was a clean and tidy environment at a mean of 4.28 respondents and a standard deviation of 0.72, while the lowest ranked was the cost of service with a mean at 2.65 respondents and a standard deviation of 0.83. The overall mean is 3.39, which implies that on average, most of respondents were satisfied. The rest of the services whose mean was ranked below 2.5 were less significant and thus not captured in the analysis.

4.6 Relationship Between BPR Attributes and Satisfaction Level

The study seeks to establish the relationship between Business Process Re-engineering and customer satisfaction levels. In the research, respondents were expected to indicate which attributes contribute to their highest satisfaction levels. Chi-square is next used in order to examine whether there are any significant attributes that affect the respondents' satisfaction levels regards to KPLC supply services.

Table 4.14: Chi-Square Test Results

Attribute	Confidence Level	Chi-Square Test
Access KPLC manager	95%	0.0175
Willingness help clients	95%	0.027
Ability handle complain	95%	0.043
Ability give correct bills	95%	0.047
emergencies response	95%	0.0675
Individualized attention	95%	0.117
Dependable services	95%	0.1925

As shown in Table 4.14, significant differences exist in the level of respondent's satisfaction relative to various attributes. Satisfaction levels were noted to be based on access to KPLC managers, willingness to help clients, ability to handle complains and the ability to give correct bills as the relative P-values for these variables are 0.0175, 0.027, 0.043 and 0.047 respectively. Nevertheless, there are no significant differences between respondents' satisfaction levels in regard to emergency responses, individualized attention and availability of dependable services, as the P-values for these variables are 0.0675, 0.117 and 0.1925 respectively.

4.7 Discussion

The aim of this study was firstly to determine the Business Process Re-engineering attributes that are perceived as important by customers of Kenya Power and Lighting Company Limited. It was found out that, the most treasured attribute was the availability of skilled field staff. KPLC staff is empowered to answer all questions

pertaining power supply to any customer's premises. The availability of such staff is important since as it is said, information is power. Valid information is essential to the decision making of KPLC customers in terms of supply type, power rating and the point of power installation. Access to KPLC managers was also observed to be of importance. This is because most customers would wish to participate in policy making and amendments of existing policies in order to improve the company services to the public. The ability to give correct bills was also perceived to be an important attribute since it touches so much on population's economic status. Other attributes that were perceived important included the willingness of KPLC staff to help the customers.

Secondly, the study seeks to determine the satisfaction levels being experienced by various customers served by the company. Throughout the study, it is evident that, KPLC customers could be classified in terms of gender, region, account type, education level and their age. In this study, it was realized that 55 females and 71 males of the respondents were not satisfied with the KPLC services making 43.7% and 56.3% respectively of those dissatisfied. Males were 1.19 times satisfied compared to the females who were interviewed. It was also noted that, Using Nairobi west region as the reference, those at northern and southern regions of Nairobi were 6% more satisfied and 49% less satisfied than those residing in Nairobi west respectively. The study concluded that, using domestic account as the reference, large commercial and small commercial were 2.72 times more satisfied and equally satisfied as the domestic account holders respectively.

The study also revealed that there was a difference in satisfaction level depending on one's level of education. Taking elementary as the reference; polytechnique, secondary and university graduates were 1.11, 1.14 and 1.33 times satisfied compared to those with elementary level of education. The most satisfied being the secondary school leavers. It is evident from the study that, with age above 50 years as reference, those aged between 20-30, 31-40 and 41-50 years were 9%, 19% and 54% less satisfied respectively compared to those over 50 years of age.

Lastly, the study seeks to define the relationship between customer's perception of Business Process Re-engineering and customer satisfaction. The chi-square test carried out revealed that there are some key attributes that directly influence the customer satisfaction levels while others have no direct impact on the same. Among those that influence directly include access to KPLC managers by the customers, willingness to help clients, ability to handle complains and ability to give correct bills. Those that have an indirect relationship include emergencies response, individualized attention and availability of dependable services.

CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

In this chapter, the key concepts have been discussed and a summary of the same given. The conclusions of the findings have been well narrated. The limitations of the study have been highlighted. Lastly, the suggestions for future research on the subject have also been discussed in the same chapter.

5.2 Summary of Finding

The aim of this study was firstly to determine the Business Process Re-engineering attributes that are perceived as important by customers of Kenya Power and Lighting Company Limited. The findings of the study show that there are some massively agreed attributes that are most treasured by the KPLC customers regardless of their education levels, region of residence, age and gender. These attributes include the availability of skilled field staff, access to KPLC managers and the ability to give correct bills. The KPLC staff is empowered to answer all questions pertaining power supply to any customer's premises. The availability of such staff is important since as it is said, information is power. Valid information is essential to the decision making of KPLC customers in terms of supply type, power rating and the point of power installation.

Access to KPLC managers was observed to be important because most customers would wish to participate in policy making and amendments of existing policies in order to improve the company services to the public. This would only be possible if there is a communication channel established to reach the company managers. The ability to give correct bills is paramount since it touches so much on population's economic status.

The Second objective of the study seeks to determine the satisfaction levels being experienced by various customers served by the company. The findings show that male customers were more satisfied than the female ones. Customers residing at Nairobi north region were more satisfied than those residing in the other regions of

the town. The findings also show that large commercial account holders were more satisfied as compared to both the domestic and small commercial account holders. The level of education was shown to be a major determinant of the satisfaction level with the most satisfied being the secondary school leavers. It is evident from the study that, those with age 50years and above were more satisfied than any other age bracket.

Lastly, the study seeks to define the relationship between customer's perception of Business Process Re-engineering and customer satisfaction. The chi-square test carried out revealed that there are some key attributes that directly influence the customer satisfaction levels while others have no direct impact on the same. Among those that influence directly include access to KPLC managers by the customers, willingness to help clients, ability to handle complains and ability to give correct bills. Those that have an indirect relationship include emergencies response, individualized attention and availability of dependable services.

5.3 Conclusion

Business Process Re-engineering as a concept focuses so much on the in-house activities of an organization. The study concentrated its efforts on KPLC Ltd. and focusing on the major attributes that need to be reorganized, amended or revised. In this study, 220 respondents were interviewed and the data analyzed using SPSS and R programme. The results were presented in table form for ease of interpretation. Conclusions have been drawn based on the analysis results.

The study emphasizes on the importance of customer satisfaction. Customer satisfaction leads to a company's increased market share. Though KPLC is a monopoly but there are other sources of energy that directly compete with this company. Such sources of energy include the chloride batteries, solar panels and diesel generators. Lack of emphasis on the highlighted attributes would lead to non recruitment of more customers and worse still loss of existing customers.

The KPLC Ltd. management team is charged with the responsibility of facilitating for Business Process Re-engineering for achievement of improved results and

profitability. This is possible through empowerment of the staff through training and availing of important information to enhance informed decision making. The management team holds the budget and thus is responsible for financing the change. It is also the responsibility of the management team to own up and help the staff to own up the change process.

5.4 Limitations of the Study

Most of the electricity consumers are concentrated in Nairobi and Mombasa with Nairobi controlling about half of the total population. The other half is distributed in the other five regions, that is, west Kenya, North rift, Central Rift, Mt. Kenya and Coast regions. The data collected only focuses on the satisfaction levels of the Nairobi residents leaving out the other customers whose impact might be significant. It is thus quite important for the researcher to incorporate these finds in order to allow for a more informed decision making exercise by the company management.

The study was limited to a short period of time. Considering that the research was to be conducted within less than one year, the researcher took an advantage of the more concentrated zones in order to gather more information within a limited time frame. This might not have given a complete feeling about the suburb residents. This again might not be a conclusive research and thus research on the left out regions is also important.

The financial constrains was a big challenge since travelling for data collection, booking of appointments, learning of SPSS and R programs was inevitable. Financial constrain forced the researcher to consider samples within common vicinity. This rendered the exercise less strenuous in regard to the planned budget. This could have an effect in regard to the reliability of data being presented.

Non-response was a key limitation in this research. The researcher intended to capture data from 250 respondents. However, this was not possible since a number of the potential respondents did not fill up the questionnaire. Thus, the researcher captured only 220respondents providing a short of 30 respondents. The design of the study was thus affected and this could be a source of error.

A few customers were not willing to fill some sections of the questionnaire indicating confidentiality as the main reason. Missing data was not keyed into the analyzing tool since it would have led to wrong conclusions.

All these limitations could be a cause of data analysis errors and thus further research is proposed.

5.5 Suggestions for Future Research

This study documents the use of Business Process Re-engineering as a continuous improvement tool by KPLC. It is based on only the electricity distributing and retailing company which is a monopoly in nature. Business Process Re-engineering as a continuous improvement tool is applicable to all other industries. The researcher recommends a study to be conducted to determine to what extent other companies outside KPLC use Business Process Re-engineering as a continuous improvement tool. Such a study will help in highlighting challenges facing the Kenyan companies in the implementation of BPR. This might shed some light as to why Kenyan companies have not been able to reach world class status in their operations. Policy makers would then be able to initiate appropriate reforms based on these challenges.

Business Process Re-engineering concentrates on core business processes, and uses the specific techniques within Just in Time and Total Quality Management toolboxes as enablers, while broadcasting the process vision. In light of this fact, the reseracher propose that further research be conducted in order to establish to what extend is BPR applicable in a company's strategic planning process.

The study only focused on the Nairobi region residents' satisfaction levels. The researcher suggests that the same study be rolled out to other zones and establish whether the results obtained apply to all. In light of this, the researcher will have to travel extensively since KPLC customers are widely spread.

5.6 Recommendations for Policy and Practice

It has been observed that access to KPLC managers by the customers, willingness to help clients, ability to handle complains and ability to give correct bills are of great importance in the determination of the customer satisfaction. Every organization is involved in winning more customers and retaining them. This is only possible if it stands out from its competition in terms of excellent services and good customer care. It is the researcher's advice to the company policy makers to empower its staff, embrace culture change especially in customer care, embrace Information Technology and more still in-service training of the KPLC staff and unified service delivery is necessary for more satisfaction.

Through the study, it was noted that most customers preferred mobile phones as the ideal channel to pass any information. Customers have little access to information about the new products that KPLC have launched, including the Umeme Pamoja, Mtu wa Nguvu and Maximization. The researcher thus advices the KPLC policy makers to increase the communication budget so as to make it possible to reach most of the customers via mobile phones.

Long queues at the points of bill payments was one of the major complaint that the customers highlited. The reseracher suggests that prepaiment mode of power payment be embraced in all areas. This will help the customer in regard to their consumption rates. It is also advisable that, new payment offices be established especially next to customers' areas of residence and Banks' Automatic Teller Machines(ATMs).

REFERENCES

Andrews, D. A., & Stalick, S. K. (1994), *Business Reengineering: The Survival Guide*, Englewood Cliffs, NJ: Prentice-Hall

Andrews, D. C., & Stalick, S. K. (1994), *Business Reengineering: The Survival Guide*, Englewood Cliffs, NJ: Yourdon Press

Anon (1993, February 26), Re-engineering Europe:The latest management fad is making slow progress in Europe, *The Economist Newspaper*

Anon (1993, November 12), Structural alterations, *Marketing Week*

Anon (1994, February 26), Reengineering Europe, *The Economist*, 81-82

Bashein, B. J., Markus, M L., & Riley, P. (1994), Preconditions for BPR success, *Information Systems Management,* 11(2),7-13

Beckard, R. & Harris, R. T. (1987), *Organizational Transitions* (2 ed.), Reading, Mass.: Addison-Wesley

Belmonte, R. W, Murray, R. J (1993), Getting ready for strategic change: Surviving business process redesign, *Information Systems Management,* 10(3), 23-29

Benjamin, G. & Mabey, C. (1993), *Facilitating Radical Change,* in Maybe, C. & Mayon- White, B. (eds.), *Managing Change* (2nd ed)(pp. 181-186), London: Paul Chapman.

Burack, E. H. (1991), *Changing the Corporate Culture: The Role of Human Resource Development, Long Range Planning*, 24(1),88-95

Carey, D. (1993, November), *Nine I.T. executives tell you how to get reengineering success*:, 25(11), 12-20

Champy, J., (2002), *X-Engineering the Corporation: Reinventing Your Business in the Digital Age.* Warner Books: New York.

Chang, R.Y., (1994). *Improve processes, reengineer them, or both?: Training and Development* ,48 (3), 54–58.

Cosco, J. (1993), The Razor's Edge, *Journal of Business Strategy*, 14 (6), 58-61.

Davenport, T. H. (1993), *Process Innovation:Reengineering Work through Information Technology*, Cambridge, Mass: Harvard Business School Press

Davenport, T.H. & Short, J.E. (1990). The New Industrial Engineering: Information Technology and Business Process Redesign, *Sloan Management Review*, 11-27.

Davenport, T.H. (1995, January), Will Participative Makeovers of Business Processes Succeed Where Reengineering Failed?, *Planning Review*, 35-44

Deal T. & Kennedy, A. A. (1982), *Corporate Cultures*, Reading, Mass.: Addison-Wesley

Gergen, K. J. (1992), Organizational Theory in the Postmodern Era, in Reed, M. & Hughes, M. (eds.), *Rethinking Organization* (pp. 207-226), London: Sage.

Goodstein, L. D. & Burke, W. W. (1993), Creating Successful Organizational Change, in Maybe, C. & Mayon-White, B. (eds.), *Managing Change* (2 ed.)(pp. 164-172), London: Paul Chapman.

Greene, R. (1993, November - December), Revenge of the Nerds, *Journal of Business Strategy*, 14(6), 46-47

Grover, V., & Malhotra, M.K., (1997). Business process reengineering: A tutorial on the concept, evolution, method, technology and application, *Journal of Operations Management* 15 (3), 193–213.

Hahn, D. (1991), Strategic Management - Tasks and Challenges in the 1990s, *Long Range Planning*, 24(1), 26-39

Hammer, M. & Champy, J. (1993), *Reengineering the Corporation: A Manifesto for Business Revolution*, London: Nicholas Brealey Publishing

Hammer, M. & Champy, J. (1993) *Reengineering the Corporation: A Manifesto for Business Revolution*, New York: Harper Business

Hammer, M. (1990, July-August). Reengineering Work: Don't Automate, Obliterate, Harvard *Business Review*, 104-112.

Hampden-Turner, C. (1990), *Corporate Culture*, Hutchinson Business Books

Harrison, R. (1972, May-June), Understanding Your Organisations Character, *Harvard Business Review*

Henley (1991), *Managing People: Creating Successful Organisations*, Henley-on-Thames, England: Henley Distance Learning Ltd.

Hickman, C. R. & Silva, M. A. (1985), *Creating Excellence*, New American Library

Janson, R. (1992, December 22), How Reengineering Transforms Organizations to Satisfy Customers, *National Productivity Review*, p. 45.

Johansson, H. J., McHugh, P., Pendlebury, A. J. & Wheeler III, W. A. (1993), *Business Process Reengineering: BreakPoint Strategies for Market Dominance*, Chichester, England: Wiley

Klemm, M., Sanderson, S. & Luffman, G. (1991), Mission Statements: Selling Corporate Values to Employees, *Long Range Planning*, 24(3),73-78

Lewin, K. (1948), *Resolving Social Conflicts*, New York: Harper and Row.

Martin, B. (ed) (1994), *Information Technology Review*, London: Price Waterhouse

Martin, J. (1992), *Cultures in Orgnaizations: Three Perspectives*, Oxford: Oxford UP

Nadler, D. A. (1993), Concepts for the Management of Organizational Change, in Maybe, C. & Mayon-White, B. (eds.), *Managing Change* (pp. 85-98), London: Paul Chapman.

Nicholson, N. (1993), Organizational Change, In Maybe, C. & Mayon-White, B. (eds.), *Managing Change* (pp. 207-211.), London: Paul Chapman.

Pagonda (undated), *Process Management* (flyer), London: Pagoda Associates Ltd.

Pettigrew, A. & Whipp, R. (1993), Understanding the Environment, In Maybe, C. & Mayon White, B. (eds.), *Managing Change* (pp. 5-19), London: Paul Chapman.

Pettigrew, A. and Whipp, R. (1991), *Managing Change for Competitive Success*, Oxford, England: Blackwell

Rohm, C. E. (1992), The Principal insures a better future by reengineering its Individual Insurance Department, *National Productivity Review*, 12(1),55-64

Stevens, M. (1994, June), Getting the Process Right, *Marketing Business*

Taylor, S. (1994, April), Patent & Trademark Office sets the standard for reengineering government. (business process reengineering),*Industrial Engineering*, 26(4), 36-39

Vidgen, R., Rose, J., Wood, B., & Wood-Harper, T. (1994), *Business Process Reengineering: the Need for a Methodology to Revision the Organization, In: TC8AUS IFIP Information Systems International Working Conference– Conference Pre-prints,* Queensland, Australia: Queensland Branch of The Australian Computer Society

Wilson, I. (1992), Realizing Power of Strategic Vision, *Long Range Planning*, 25(5),18-28

Winslow, C. D. (1993, November), Setting a Course for Radical Change - The Human Touch, *Journal of Business Strategy*, 14 (6), 52-57

APPENDICES

Appendix I: Questionnaire

PART A: General Information

1. Your name..... (Optional)

   or Name of your organization..... (Optional)

2. Your supply account number.....(Optional)
3. where is the location of your premises/business?(Estate and District)

   .....

4. Please indicate the type of account you operate

   Domestic ( )

   Small commercial ( )

   Large commercial ( )

5. Please indicate the period you have operated the account in 2, above.

   .....YEARS .....MONTHS.....DAYS

6. please indicate the highest level of your education

   University/college ( )

   Polytechnic ( )

   Secondary ( )

   Elementary ( )

   No formal education ( )

7. please tick the age bracket in which you fall

20 -30 ( )

31 – 40 ( )

41 – 50 ( )

51 and above ( )

8. Gender

Female ( ) Male ( )

Part B:

Please indicate on a scale of 1 to 5, the extent to which you consider the following attributes as important to you in evaluation of service offered by KPLC.

	Attributes	Very Important			Least Important	
		5	4	3	2	1
1	Ability to offer dependable services	( )	( )	( )	( )	( )
2	Ability of emergency crew to solve supply problems correctly first time	( )	( )	( )	( )	( )
3	Ability of commercial office staff to correctly solve complaints	( )	( )	( )	( )	( )
4	Ability to generate and send correct bills	( )	( )	( )	( )	( )
5	Willingness to help customers	( )	( )	( )	( )	( )
6	Provision of prompt service	( )	( )	( )	( )	( )
7	Willingness and promptness in solving complaints	( )	( )	( )	( )	( )
8	Knowledge of employees on the services they offer	( )	( )	( )	( )	( )
9	Possession of skills by the field staff in solving problems	( )	( )	( )	( )	( )
10	Courteous, friendly and polite employees	( )	( )	( )	( )	( )

11	Trustworthiness, believability and honesty of employees	( )	( )	( )	( )	( )
12	Guarantee of work done by service crews	( )	( )	( )	( )	( )
13	Feeling of security with KPLC staff when undertaking works in your premises	( )	( )	( )	( )	( )
14	Feeling of security when in KPLC premises	( )	( )	( )	( )	( )
15	Feeling of security when all bills are paid (Guarantee that supply will not be disconnected)	( )	( )	( )	( )	( )
16	Proximity and accessibility of KPLC managers and supervisors when in need	( )	( )	( )	( )	( )
17	Convenience of official opening hours	( )	( )	( )	( )	( )
18	Convenience of location of offices	( )	( )	( )	( )	( )
19	Accessibility to emergency offices through telephone during times of supply interruptions at all times	( )	( )	( )	( )	( )
20	Accessibility to complaints offices by personal visits	( )	( )	( )	( )	( )
21	Caring and understanding staff	( )	( )	( )	( )	( )
22	Feedback of queries by staff	( )	( )	( )	( )	( )
23	Caring and individualized attention	( )	( )	( )	( )	( )
24	Flexible staff towards customers' schedules	( )	( )	( )	( )	( )
25	Appearance of service staff	( )	( )	( )	( )	( )
26	Safety and appearance of KPLC facilities and equipment	( )	( )	( )	( )	( )
27	Ability to give service at reasonable cost	( )	( )	( )	( )	( )
28	Existence of customers' education programs	( )	( )	( )	( )	( )
29	Appearance and understandability of electricity bills.	( )	( )	( )	( )	( )

Part C

Please indicate on the scale below by ticking, the extent to which you are satisfied with KPLC's performance on the factors listed.

	Attribute	Very satisfied				Dissatisfied
		5	4	3	2	1
1	Communicating a consistent and relevant image	( )	( )	( )	( )	( )
2	Handling customers who are difficult	( )	( )	( )	( )	( )
3	Courtesy of front office employees	( )	( )	( )	( )	( )
4	Management commitment to customer service	( )	( )	( )	( )	( )
5	Staff training on customer service	( )	( )	( )	( )	( )
6	Clean and tidy environment	( )	( )	( )	( )	( )
7	Understanding customer expectations	( )	( )	( )	( )	( )
8	Handling customers' queries on telephone	( )	( )	( )	( )	( )
9	Exceeding customer expectations	( )	( )	( )	( )	( )
10	Availability of staff to answer customer queries	( )	( )	( )	( )	( )
11	Offering quick and efficient services	( )	( )	( )	( )	( )
12	Design and construction standards on the network	( )	( )	( )	( )	( )
13	Age and efficiency of the network	( )	( )	( )	( )	( )
14	Application of formal research in solving customer challenges	( )	( )	( )	( )	( )
15	Cost of the service	( )	( )	( )	( )	( )
16	Availability of information for customers	( )	( )	( )	( )	( )
17	Speed of responding to customer complaints	( )	( )	( )	( )	( )
18	Time taken in wayleaves acquisition	( )	( )	( )	( )	( )

19	Time taken before construction of jobs/ schemes already paid for	( )	( )	( )	( )	( )
20	Convenience of location of KPLC offices	( )	( )	( )	( )	( )
21	New applications' processing period	( )	( )	( )	( )	( )
22	Market friendliness and responsiveness of new business development policy	( )	( )	( )	( )	( )
23	Flexibility of existing tariff structure	( )	( )	( )	( )	( )
24	Adequate and accessible KPLC and customer contact points	( )	( )	( )	( )	( )
25	Shortage of materials	( )	( )	( )	( )	( )
26	Existence of frequency of corrupt practices	( )	( )	( )	( )	( )
27	Ability of KPLC to offer reliable and dependable services	( )	( )	( )	( )	( )
28	Existence of customer education programs	( )	( )	( )	( )	( )
29	Any other (specify)	( )	( )	( )	( )	( )

How do you reach KPLC whenever you have a problem you would like them to address?

1. Telephone/hotlines/emergency numbers ( )
2. Postal address ( )
3. E-mail/website ( )
4. Service outlets (offices/paypoints) ( )
5. contact person in regional, areas and zones ( )
6. Any other (Specify)----------

In your opinion what is/are the ideal communication channels KPLC should use in passing information to its consumers/customers about their services?

1. Mobile phones ( )
2. Radio/TV ( )
3. Print Media ( )
4. Fliers attached to bills ( )
5. Bill messages ( )
6. Posters/branches ( )
7. E-mail/intranet ( )
8. interpersonal interaction with KPLC staff ( )
9. Any other (Specify)----------

What suggestions for improvement do you have for new products and services?

1. Prepayments ( )
2. Direct debit ( )
3. Supermarkets ( )
4. ATMs ( )
5. Banks/ post office ( )
6. call center ( )
7. New KPLC payments/offices ( )
8. Budget schemes ( )

9. Any other (Specify)----------

Thank you for your cooperation

Appendix II: Introductory Letter to the Respondents

Janet Wanzuu Mutua

P.O BOX 20357

00200

NAIROBI

Date.....

Name.....

P.O BOX.....

Dear Sir/Madam,

REF: A STUDY OF THE INFLUENCE OF BUSINESS PROCESS RE-ENGINEERING ON CUSTOMER SATISFACTION IN KPLC LIMITED

I am a module II student in the faculty of commerce pursuing a masters degree in Business Administration (MBA) in the University of Nairobi. In partial fulfillment of the requirement of the course, I am carrying out a research project entitled "The influence of business process re-engineering on customer satisfaction in Kenya power and lighting company limited"

You have been selected to participate in this study. I would like to request you to provide the required information to the best of your knowledge by filling the questionnaire attached. This exercise is strictly for academic purposes and any information obtained will be treated with the strictest confidence it deserves. A copy of the final research report will be availed to you upon request.

Yours faithfully,

Sign:.....

JANET WANZUU MUTUA