USE OF BENCHMARKING AS A PERFORMANCE IMPROVEMENT TOOL:

A CASE OF KENYA POWER AND LIGHTING COMPANY

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DECLARATION

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DEDICATION

This report is dedicated to my loving family, and my son David. I exalt the Lord God Almighty for he knew me before I was formed, and continues to "fill my mouth with good things, so that my youth is renewed like the eagle's. For in Him I live and move and have my being".

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May God bless you richly.

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	LIST OF ABBREVIATIONS
KPLC	Kenya Power and lighting Company Limited
TQM	Total Quality Management
BPR	Business Process Reengineering
ISO	International Organization for Standardization
QFD	Quality Function Deployment approach
PDCA	Plan Do Check Act
CEO	Chief Executive Officer
EAPL	East African Power and Lighting Company limited
KenGen	Kenya Generating Company

Information Technology

Management Service Contract

Manitoba Hydro International

Quality Management System

IT

MSC

MHI QMS

ABSTRACT

Kenya Power and Lighting Company (KPLC) is a limited liability company operating in Kenya, and is the sole transmitter and distributor of electrical energy. Although a monopoly, the last two decades have seen the Company faced with increased pressure to step up to the plate in terms of performance. Sources of this pressure include more empowered customers, the government and regulatory bodies, and external development partners such as donor agencies.

Best performing companies the world over have realised that competitiveness is hinged on always seeking out new and improved ways of doing things, both from within and without the enterprise. It is for this reason that benchmarking has garnered appeal as a tool for continuous improvement.

Worldwide studies reveal scant knowledge into the use of this tool in public sector organisations, while their counterparts in the private sector continue to register improvements directly attributable to benchmarking. As a provider of an essential service, KPLC would benefit greatly if the tool were to be applied to its core, value-adding function.

Research findings indicates that managers of the Distribution and Customer Service Division were aware of the tool, and informally applied it from time to time, despite the fact that a number feel that as a monopoly, the tool would not necessarily be of any value. The results also indicated that performance benchmarking and functional benchmarking were most popular, with most using a combination of more than one type. There was general agreement on the need to identify what to measure first, before benchmarking. There was however lack of information and knowledge sharing, and ability to learn were not considered as necessary to success of benchmarking.

Lack of management support, poor attitude of staff and poor communication were found to be the leading challenges to carrying our benchmarking successfully at KPLC. This is in concurs with findings by other authors on the problems facing companies in the public sector. These barriers can be overcome by knowledge sharing, a cross functional system of management primarily through the use of process mapping, and systematically capturing and communicating customer needs so that they become the focus of any improvement initiative.

CHAPTER ONE: INTRODUCTION

1.1 Background

The business environment has fast become a management minefield, especially due to the fast pace of changes in the business environment. These changes include the emergence of the global economy, greater demand for value for money from customers and fast pace of technological advances. The effect of these is greater competition for all firms, need for innovation, more customer driven product/ service offerings, and greater capacity for the organisation to learn and be adept to change. For the unprepared, the danger of becoming edged out of the competition lurks at every turn. In response to this, business improvement efforts have become more tacit, and serve as triggers for innovation therefore calling for continuous improvement initiatives.

The onus on the operations management function as it controls about 80% of a company's resources, namely assets, employees and costs (Hill and Chambers 1989, cited by Corbett and Claridge, 2002). This has driven operations managers to look into performance improvement techniques to help optimise the resources they control. These include Total Quality Management (TQM) and Continuous Improvement, Six-sigma, ISO certification and Business Process Reengineering (BPR).

A study by Wagwa (2005) revealed that although at the time of inception, each technique looks like the next best thing, the reality is that no one of them serve as the panacea to a company's performance improvement needs. He also noted a preference by ISO certified firms for continuous improvement initiatives, rather than quantum approaches like BPR. An overwhelming number of the firms surveyed (94%) cited benchmarking as the tool that best helped them realise performance improvement, when used with other techniques. Its appeal lies in the fact that benchmarking is a tool that can be used to enhance the performance improvement techniques.

Benchmarking recognises that ideas are available everywhere, the challenge lies in *habitually* seeking them and adapting them. The Japanese word *donatotsu* ("striving to be the best of best") captures the essence of benchmarking (Vermuelen, 2003). It requires a little humility and a lot of passion to pursue. The past two decades have seen the complexion of competition change towards a more collaborative approach, while taking care to hone ones tacit

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competencies and capabilities. This is borne out of a realisation that other firms, while facing the same turbulence in the business environment, are doing things better. Indeed, a study by Voss et al (1997) identified an indirect link between benchmarking and performance as it increased understanding on a firm's position relative to its competitors. Ultimately the aim is to transfer the winning practises to their own operations.

1.1.1 The Concept of Benchmarking

The operations function is charged with converting inputs into outputs that are of value to customers, by carrying out processes that expend a company's resources. The key to operational improvement is therefore to find out who does what best, or is perceived to be the best, at expediting the particular process (Bunney et al, 1998). Benchmarking has gained prominence as a continuous improvement tool, as it enables companies to *study* and *adopt or adapt* methods used by leading organisations.

Camp's 1979 seminal work in the Xerox Corporation is generally credited with initiating the first comprehensive benchmarking project, where the company managed to enhance its competitive position in the photocopier market and also developed an evolutionary new management tool. Since then, benchmarking continues to gain more subscribers and occupies more prominence (Dattakumar and Jagadeesh, 2003).

Camp modified his definition of benchmarking in 1989 to take into account a wider focus than just the competition. He defined it as the 'search for best practises that lead to superior performance'. It is this broad perspective that has given benchmarking such wide appeal as it recognises the need for a regular and documented worldwide scan for organisations that are best at what they do (Gavin, 1991). This is in tandem with the global appeal of business thinking and practise. At the same time benchmarking appreciates that rather than reinvent the wheel, firms should look to others for ideas and bring them home to suit their needs. This again appeals to the short product life cycle and fast paced innovation that characterises the market place today.

Benchmarking has been defined by the Water Environment Research Foundation (2004) as: The systematic process of searching for best practises, innovative ideas and highly effective operating procedures that lead to superior performance and then adopting those practises, ideas and procedures to improve the performance of one's own organisation.

This definition takes into account three key aspects of benchmarking namely, that it is systematic, it involves seeking out best practises that cause superior performance, and that it entails adopting/adapting these to the organisation of interest. It shall therefore be the working definition for the purpose of this study.

Types of benchmarking include Performance Ben hmarking, Process Benchmarking, Strategic Benchmarking, Internal Benchmarking, Competitive Benchmarking, Functional Benchmarking and Generic Benchmarking. According to Watson (1994), a renowned benchmarking practitioner, benchmarking has three main benefits namely that; it provides an independent assessment of how well a process is operating by evaluating similar processes in other organizations; It provides a stimulus for making breakthrough change initiatives a reality and; It broadens an organisations experience base. Studies show that benchmarking not only improves performance but also contributes to competitive fundamentals such as customer focus, organisational learning and innovation.

Benchmarking is widely recognized in the private sector in the search for and incorporation of best practise to achieve competitive advantages (Hinton et al, 2000 and Elmuti and Kathawala, 1997). A study by Yasin (2002) showed that only 20.12% of publications on benchmarking address services, with only 1.89% relating to the 'public sector', which he defines as 'government or quasi government entities'. Navaratnam and Harris (1995), justify the focus on public sector organizations by stating that customers in this sector are the focal point and that they require quality improvement and best value services. They stress that managers in the public sector have become aware of the benefits associated with quality and wish to replicate these results. They therefore need to have knowledge of benchmarking and benchmarking practises.

Secondly, Sharifuddin and Rowland (2004) note that government agencies (which fall under public sector as per classification above) are typically hierarchical and bureaucratic organisations. This coupled with a 'knowledge hoarding culture' hampers competency building. To be successful all tacit and explicit knowledge should be managed by each and every person in the organisation and shared at all times. To break down these insular attitudes and behaviour, Love et al (1998) conducted a study in the UK Water service sector. Using a benchmarking project, they were able to increase the velocity of change from a public sector

mentality approach to management and day-to-day work activities, to that of industry leaders in the private sector.

1.1.2 Background of KPLC

The Kenya Power and Lighting Company (KPLC) a Limited liability company was started in 1922 as a vertically integrated power utility. The generation function has since been partially privatised, leaving KPLC as the sole firm carrying out Transmission and Distribution in Kenya.

KPLCs corporate goals and competitive strategy appeared to focus on providing services at the 'world class' level (Thiga, 1999). Previous reforms had been mainly due to donor pressure and poor performance, a case in point being the 1995 Business Reengineering Project. However, there was need to identify what initiatives were being undertaken to ensure continuous improvement that strives towards world-class status.

This was inevitable in the face of imminent competition in the distribution function, as Parliament had passed a motion that sought to end KPLCs monopoly by allowing individuals and private organisations to supply electricity (The People 28.07.2005). To add on to this challenge, there was an ambitious plan to ensure that KPLC and other potential entrants were penalized for complacency in customer service. This was to be enforced through the Power Licensing Rules (2005), which envisioned free entry of more players in the market in anticipation for better services to electricity customers through competition. KPLC was also expected to be ISO certified by the end of 2006.

With imminent change in the horizon, KPLC required a robust continuous improvement approach that entailed looking to new sources of ideas, documenting them and translating them to their own situation.

1.2 Statement of The Problem

The Power Industry in Kenya constitutes about a quarter of the energy market from the sales of electricity (Economic Survey, 2001). The Kenyan economy has just begun an upward turn, registering a GDP growth rate of 5.2% (Kenya Economy Profile 2006). The growth in manufacturing by 4.6%, and agricultural sector, which contributed over one third of the GDP (Kenya Economy Profile 2006), impacted on the rising demand for KPLC's services. Coupled with a government set target for connection of 150,000 new customers annually, KPLC had to

look into time-tested ways of improving service provision to meet these growing demands. A survey of UK corporate sector by Cox and Thompson (1998) indicated that customer service, purchasing and logistics were early favoured candidates for benchmarking, as greatest improvements are likely to be made there. This research focused on the Distribution and Customer Service function, which had been identified as the core and value adding function at the KPLC (Nengo, 2004).

A review of literature reveals scant research into benchmarking applications in the Kenyan context, more so in the service sector. One such study done by Amolo (1999) focused on benchmarking the order delivery process in the Kenyan Oil Industry, which addressed the issue of services, but not in the public sector. Gitonga (2005) focused on the construction industry. They both recommended that other studies be carried out to establish the extent to which other firms use benchmarking as a continuous improvement tool. A survey of operations improvement practises among ISO 9001:2000 certified companies in Kenya rated benchmarking with best in class organisations highest, with a preference rate of 96.4% (Wagwa, 2005).

The research arose from a desire for a deeper understanding of how local public companies could develop operational competencies through continuous improvement by use of benchmarking as a tool. It sought to establish whether KPLC, which was in the process of acquiring ISO certification, proactively sought out practises from other firms/functions and applied them to the core function in order to increase operational competency and achieve best value.

1.3 Objectives of the study

- a) To determine whether KPLC applied benchmarking as a tool for continuous performance improvement and to establish the types/forms of benchmarking used.
- b) To establish the challenges which faced KPLC in benchmarking of customer service processes to achieve continuous improvement.

1.4 Importance of The Study

a) To KPLC in understanding the importance of benchmarking in performance improvement.

- b) Other practitioners the findings of this study were expected to provide managers of utilities and service firms with insight into the benefits of using benchmarking as a continuous improvement strategy.
- c) The findings will attract other researchers to venture into areas of operations performance improvement strategies that have not been studied in this context. It was also hoped that this study would help reiterate the fact that local environment constraints, though a limiting factor as far as attaining world-class status performance is concerned, do not hinder the application of benchmarking as an improvement tool in the local context.
- d) Other scholars and researchers may use the research findings as a source of reference. This research may build upon services operations management knowledge, an area currently under-represented in the literature, and contribute to theories that have sought to understand services operations and operations management generally.

CHAPTER TWO: LITERATURE REVIEW

2.1 Operations Management

Operations management is the design, application and improvement of the system that

transforms inputs to outputs thus creating and delivering the firm's primary products and

services. It is the heart of the firm as it controls the value addition chain by developing and

managing the value-adding processes and supporting these using various tools, techniques and

methods for competitiveness.

Modern thinking about operations management emerged from the factories of the late 19th

century and Henry Ford's innovation in those factories. This production operations emphasis

was the platform on which people sooner or later came around to talking about service

operations.

Now, more and more managers and management researchers are rethinking operations

management as a thoroughly service filled activity. This discards the previous production-

service distinction (Stoner et al, 1996). Also, Volberda (1996) argues that hyper-competition

requires that competencies and capabilities be dependent on organisational change processes

that allow for flexibility.

Companies look to improve performance with a focus of the eight dimensions, so as to analyse

the quality characteristics of service. These include Reliability, Responsiveness, Competence,

Access, Courtesy, Communication, Credibility and Security (Garvin, 1987).

2.2 Performance Improvement Approaches

The resource-based view of competition has driven organisations to look into performance

improvement approaches that help optimise the resources they control. Most sought after are

improvement of product/service delivery and achievement of operational efficiency by

reducing time wastage and defects (Wagwa, 2005). These techniques include:

2.2.1 Six Sigma

This is a methodology developed by Motorola that describes how the management of product

and service delivery should be implemented. The management processes emphasize setting

extremely high objectives, collecting data, and analysing results to a fine degree. Once you

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determine where the defects are in a process, you can work to reduce them. In order for a company to achieve Six Sigma, it cannot produce more than 3.4 defects per million opportunities.

The potential benefits of Six Sigma include up to 50% process cost reduction, cycle-time improvement, less waste of materials, a better understanding of customer requirements, increased customer satisfaction, and more reliable products and services. the largest drawback with Six Sigma is that it can be costly to implement and can take several years before results appear on a company's bottom-line. Six Sigma is generally implemented in companies that manufacture products (Marios Alexandrou 2006).

2.2.2 Business Process Reengineering (BPR)

This is the analysis and redesign of workflow within and between enterprises. BPR reached its heyday in the early 1990's when Michael Hammer and James Champy published their best-selling book, "Reengineering the Corporation". The authors promoted the idea that sometimes, radical redesign and reorganization of an enterprise (wiping the slate clean) was necessary to lower costs and increase quality of service and that information technology was the key enabler for that radical change. Hammer and Champy felt that the design of workflow in most large corporations was based on assumptions about technology, people, and organizational goals that were no longer valid. By the mid-1990's, BPR gained the reputation of being a nice way of saying 'downsizing' and according to Hammer, lack of sustained management commitment and leadership, unrealistic scope and expectations, and resistance to change prompted management to abandon the concept of BPR (CIO Definitions – Business Process Reengineering 15/06/2002).

2.2.3 ISO Certification

This is based on a family of standards and guidelines for quality in the manufacturing and service industries from the International Organization for Standardization (ISO). ISO 9000 defines the criteria for what should be measured. ISO 9001 covers design and development. ISO 9002 covers production, installation and service, and ISO 9003 covers final testing and inspection. ISO 9000 certification does not guarantee product quality. It ensures that the processes that develop the product are documented and performed in a quality manner.

Initially popular in Europe, ISO 9000 certification began to increase in the U.S. in the early 1990s. Certification requires exacting documentation and demonstrations in practice over time. All departments of an organization must be involved with the Quality Management System (QMS), because producing a quality product hinges on the successful operation of all of the departments. ISO certification documents that your company has designed and implemented a QMS, but at the heart of a QMS is continuous improvement (Mary Louise Ray 2006).

2.2.4 Total Quality Management (TQM)

This was originally used in the Toyota Production System. It describes an environment where companies and individuals proactively work to improve the manufacturing process. Organizations that work toward a state of constant improvement understand that TQM allows them to focus resources and employees on process improvements. This management approach aims for long-term success by focusing on customer satisfaction. A critical component of TQM is an unbiased view of the current state, particularly when companies are profitable and customers are generally satisfied, and changes to any process can seem both a waste and a risk. TQM is based on the participation of all members of an organization in improving processes, products, services, and the culture in which they work. Creating a corporate culture of continuous improvement will allows firms to adapt to a changing marketplace and exceed customer expectations. (Vorne learning Centre July 2006).

2.2.5 Competitor Analysis

This technique recognises that improvement efforts should be based on the current situation, against standards of the external environment. Competitor analysis has often been used to collect data regarding markets, sales, products, production costs or budgets of competitors. An outgrowth of this technique is the Quality Function Deployment approach (QFD), which interprets customer needs and expectations and states them interms of technical requirements (Kogure and Akao, 1983). While this is useful in assessing ones position relative to the completion, it rarely produces insights as to how competitors achieved this position (Yasin, 2002).

These techniques on their own tend to give management a false sense of security, as stretch goals may be set without understanding the external environment, and true organisational capability (Zairi, 1994). Zairi (1994) and Port (1992) emphasise that the various techniques

can be given more impetus by benchmarking, as it motivates the company to be externally focused.

2.3 Benchmarking

Benchmarking has been defined as "measurement to gauge the performance of a function, operation, or business relative to others" (Nilesh Kumar, 'Benchmarking', Indiainfoline.com newsletter, Thursday 8th Jan 2004). Benchmarking encompasses a range of interpretations and different activities, as it has been born out of the experience of many organisations and seems to be constantly evolving as it becomes better known (Rohlfer, 2004). Later definitions take into account the emerging multifaceted aspects. The International Benchmarking Clearing House Design Committee defines benchmarking as "... a systematic and continuous measurement process; a process continuously measuring and comparing an organisation's business process against business leaders anywhere in the world to gain information which will help the organisation to take action to improve its performance".

At the core of successful benchmarking lies a regular and documented worldwide scan for organisations that are skilled at what they do, regardless of industry (Gavin, 1991; cited by Voss et al, 1997). If benchmarking is carried out using best in class companies, the improvement goals are likely to be stretch goals, which ensure maximum learning and improvement (Roth et al, 1994).

Benchmarking can be used to identify operational and strategic gaps, hence lends it potential for making operational as well as strategic gains (Yasin, 2002). The only debate on the relationship between strategy and benchmarking has been with regards to what precedes the other. Zairi (1994) and Camp (1989) see that identification of best practise through benchmarking leads to strategic advantage, while Codling (1992) sees strategy as what defines what to benchmark and hence what best practise to adopt.

Benchmarking instigates the discipline of continuously asking questions about market conditions, customer changes in expectations, trends, movements in technology etc. Also, by encouraging understanding of process behaviour, benchmarking ensures that knowledge is gained in several areas, and more likely leads to developments that close the gaps identified in performance level. By so doing it brings home the message that there is always scope for doing better. Due to its external focus, benchmarking is a way of challenging internally accepted

standards and prejudices (Dale, 1996). This in turn helps businesses align their practises with market demands and strategic dimension (Carpinetti and de Melo, 2002).

2.3.1 Best Practise

The term 'best practise' appears severally in benchmarking literature (Magd and Curry, 2003). The American Productivity and Quality Centre (1997) define them as "Those practises that have been shown to produce superior results; selected by a systematic process and judged as exemplary, good, or successfully demonstrated. Best practises are the adopted to fit a particular organisation". These then form the backbone of a benchmarking study, as they are what a company looks to adapt in order to improve performance. Magd and Curry (2003) and Yassar and Zairi (2000) adapt the Chevron approach to their classification:

Unproven good ideas – these are not yet substantiated by data but make sense intuitively Good practise – techniques, methodology, procedures or processes that have been implemented and have improved business results.

Proven best practises – these are good practises that have been determined to be the best approach for many organisations.

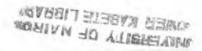
It should be noted that 'best' is a moving target and is also situation specific (Yassar and Zairi, 2000).

2.4 Emerging Competitive Issues

With the emergence of the global economy, greater demand for value for money from customers and fast pace of technological advances, firms are experiencing a need for innovation, more customer driven product/ service offering, and a greater capacity for the organisation to learn and be adept to change.

2.4.1 Benchmarking and Maintaining a Customer Focus

Modern customers seem to constantly expect higher quality, better service and lower cost all at the same time. One therefore needs to be continually tuned to these changing needs. Indeed modern business theory has it that businesses exist for the sole purpose of serving external customers as well as internal customer. This is more so in the service industry whose aim is to identify the customer and take all possible steps to delight them (Fraser, 1997). Firms have meagre and unsatisfactory mechanisms in place to identify and understand customer needs and wants (Fawcett and Cooper, 2001). While managers consistently note that delivering customer service is the only way to achieve success, they openly admit that they do not formally and



systematically measure customer satisfaction. This was revealed in a study of the South African financial sector, where only 50% of respondents gave customer satisfaction as most important factor influencing business excellence (Vermuelen, 2003). For an organisation to excel, it must therefore perfect customer service by identifying all its customers, finding out what they want and working out the best way to serve them. A successful benchmarking study meets this need when defining 'what to benchmark'.

2.4.2 Benchmarking and Organisational Learning

The learning organization has become more prevalent in recent management literature as it is deemed necessary for survival in increasingly turbulent environment. Benchmarking contributes to this by creating an understanding of a company's position vis-à-vis its competition (Voss et al, 1997). This has been linked to learning by various authors including Mc Nair and Liebfried (1992) and Watson (1994). A culture that supports a firm's learning has been found to be inherent in best performers (Kyriakidou and Gore, 2005). The ultimate aim is an organisation within which benchmarking is yet another facet of culture, conducted at all levels, until the 'maturity stage', which is a state when benchmarking activity is seen as "business as usual".

2.4.3 Benchmarking and Innovation

The need for innovation in products and processes is recognized by Massa and Testa (2004), especially in the service sector where there is no concrete productive structure. Also noteworthy is the listing of innovation as the 5th competitive dimension. Since firms generally lack ability to sustain innovation over the long term (Ahmed, 1998), the knowledge based view of the firm can enhance the innovation potential through benchmarking. This view states that it is not so much tangible resources that create a firms' competitive advantage, but rather services rendered by those resources. These are a function of the firms' know how. The importance of outside sources of knowledge to the innovation process is supported by March and Simon, (1958) and Cohen and Levinthal, (1990) who suggest that most innovations result from borrowing rather than inventing.

Benchmarking facilitates the acquisition of external explicit and tacit knowledge, which once integrated with existing internal knowledge, creates knowledge that may give rise to improvements and innovation. Massa and Testa (2004) states that knowledge based resources are difficult to acquire and copy as they arise from extended learning, hence provide the best

source of competitive advantage. Their study showed that innovation was often the by-product of a benchmarking exercise.

The new approach to benchmarking indicates a need to analyse how organisations incorporate various knowledge management approaches into their business. Studies by O'Dell et al (1999) and Langley (1994) show the relationship between overall company innovativeness and the company performance. The success of highly innovative companies appeared to be based on creating a culture of innovation, developing structures and human resources pool to support and nourish a climate of creativity and innovation. Kyriakidou and Gore (2005) hence project that imitating organizational cultures may be a means to not only attain institutional legitimacy but also remain competitive. The challenge however is to continuously seek new knowledge because the innovation process is constantly evolving (Ahmed, 1998). Depending on the learning curve, resources committed, pace of the achievements, benchmarking can lead to; Incremental improvements to existing performance standards; or Quantum leaps by instigating new ways of working; or The road to excellence i.e. creating the learning organisation (Zairi, 1994).

2.5 Types of Benchmarking

Various types of benchmarking are generally demarcated along the lines of aim, focus, and/or target of comparison (Kyro, 2003). The initial approach of "benchmarking everything" was seen to be wanting and the focus shifted to benchmarking things that are strategically important to the organisation (Povey, 1998). These can be generally classified in the figure overleaf as:

FIGURE 2.5 'Types of benchmarking'

Types	Definitions		
Performance benchmarking:	It is the comparison of performance measures for the purpose of		
	determining how good our company is as compared to others		
Process benchmarking:	Methods and processes are compared in an effort to improve the		
	process in our own company		
Strategic benchmarking:	The study is undertaken when an attempt is made to change the		
	strategic direction of the company and the comparison with one's		
	competition in terms of strategy is made		
Internal benchmarking:	When comparisons are made between departments/divisions of		
	the same company or organisation		
Competitive benchmarking: Is performed against best competition to compare performed			
	and results		
Functional benchmarking:	A benchmarking study to compare the technology/process in		
	one's own industry or technological area. The purpose of this		
	type of benchmarking is to become the best in that		
	technology/process		
Generic benchmarking:	Comparison of processes against best process operators		
Source: Bhutta and Huq (1999),	adapted from McNair, C.J. and Leibfried, K.H.J. (1992), "Benchmarking – A		

Tool for Continuous Improvement", pp. 257.

A study by Voss et al (1997) revealed that out of 660 companies that had undertaken benchmarking, 39% favoured internal benchmarking, followed by 23% who favoured a combination of internal and external benchmarking. Magd and Curry (2003), Drew (1997) and Davis (1998) identified strategic benchmarking as the least frequently used, because it is hard to do and the benefits are realised in the long term. They however concede that the performance yield from this form is greater in the longer term as it expands the 'choice domain' facing the organisation.

In the past several years, leading organisations have come to realize that process based benchmarking is a better way to focus benchmarking activities for greater payback (Bhutta and Huq 1999). They see this as a revolutionary perspective; benchmarking whose primary focus is on the basic processes that run the organisation. This ensures continuous improvement that will

achieve organization objectives, priorities and mission. Based on the above view, the critical characteristics of all types of benchmarking is the examination of processes, as this gives a proper understanding of how inputs are transformed into outputs (Magd and Curry, 2003). Love et at (1998) simply put it as "...understanding what and how it is done".

The different types of benchmarking are not mutually excusive but rather complementary, and that form and content are context bound. Various authors (Bhutta and Huq, 1999, Carpinetti and de Melo, 2002, Elmuit and Kathawala, 1997, Longbottom, 2000) advocate that selection and customisation should be based on each purpose.

2.5.1 The Benchmarking Matrix

When combined, these types can be classified in terms of value or relevance in the benchmarking matrix overleaf;

FIGURE 2.5.1 'The Benchmarking Matrix'

	Internal benchmarking	Competitor benchmarking	Functional benchmarking	Generic benchmarking
Performance Benchmarking	У	X	У	Z
Process Benchmarking	У	Z	X	х
Strategic benchmarking	Z	X	Z	Z

Relevance/Value

High x

Medium y

Low z

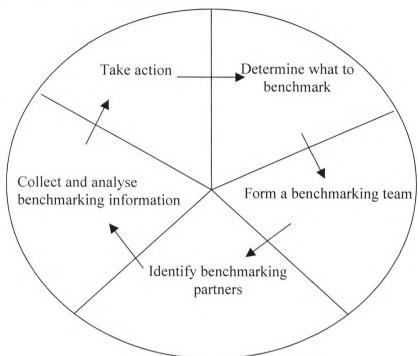
Source: Bhutta and Huq (1999) adapted from C.J. and Leibfried, K.H.J. (1992), "Benchmarking – A Tool for Continuous Improvement", pp. 257.

2.6 The Benchmarking Process

As with the types, various authors have come up with varied number of steps e.g. Camp - ten, Watson - four, Drew - eight. The number of steps is simply an adaptation by companies to suit their individual needs, depending on complexity and size of project undertaken. These may be adjusted to better enable the company control and monitor the study. (Bhutta and Huq, 1999). In their synthesis of these steps Bhutta and Huq (1999) and Zairi (1994) say that benchmarking follows the PDCA (plan, do check, act) cycle. A fundamental process evaluation reveals five

major components of the benchmarking process, linked together like spokes on a wheel (Bhutta and Huq, 1999).

FIGURE 2.6 'The Benchmarking Wheel'



Source: Bhutta and Huq (1999) adapted from Camp R.C. (1989) "Benchmarking: The Search for Industry Best Practice that Leads to Superior Performance", pp. 258.

This can be translated onto the PDCA cycle as:

The "plan" phase – this involves selection of the function/ process to benchmark and the type of benchmarking study to undertake.

The "do" phase – this involves a self-study where one ultimately documents the business practises and metric. Also data on the business practises and metric of the benchmarking partner is collected.

The "check" phase – this involves comparison of findings via a gap analysis of the benchmarking company and the benchmarking partner.

"Act" – This refers to launching the projects to either close negative gaps or maintain positive gaps.

Various authors state that the two most challenging steps about benchmarking are identifying what to benchmark (Codling, 1997, Watson, 1994, Magd and Curry, 2003) and selection of a benchmarking partner (Codling, 1997, Watson, 1994).

2.6.1 Deciding What To Benchmark

The selection of what to benchmark is of prime importance since it determines the pace of progress and improvements the company can realistically make (Rohlfer, 2004, Magd and Curry, 2003). Defining the object of the study must be preceded by a diagnostic evaluation of current situation, and an analysis of factors of success that deliver expected value to customers (Carpinetti and de Melo, 2002).

A study by Longbottom (2002) of 200 British firms found that selection of projects was largely ad hoc, mostly based on the need to update equipment or technology, or reaction to rising costs or falling profits. This is despite general acceptance that companies should focus on processes that add value, as they are likely to yield greatest reward (Fawcett and Cooper, 2001, Watson, 1994, Carpinetti and de Melo, 2002).

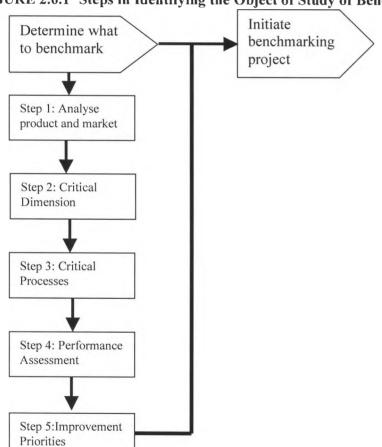


FIGURE 2.6.1 'Steps in Identifying the Object of Study of Benchmarking'

Source: Carpenetti L.C.R and de Melo A.M. (2002) "What to benchmark? A systematic approach and cases" PP. 250.

Focus should be on key business processes which not only impact on customers but also have the potential for considerable improvement, resulting in a good return on investment for the resources devoted to benchmarking activities Also, the narrower the focus of the investigation the greater the chances of success (Bunney et al, 1998).

In so doing, one gains an understanding of the flow of information and resources through the business processes of the internal value chain. This is referred to as a 'process map'. Process mapping helps assess performance of operational and support processes, which is essential in diagnosing the root cause of problems and weaknesses so as to determine what to benchmark. Only after this has been done can a benchmarking process be initiated (Carpinetti and de Melo, 2002). Further to this, Bunney et al (1998) state that process mapping helps in the selection of a benchmarking partner, where necessary.

2.6.2 Identifying a Benchmarking Partner

Identifying a benchmarking partner is the second challenging thing in a benchmarking process, with 85 percent of respondents in a study of the South African financial sector citing it as a major impediment. The need for a partner stems from the need for a standard of comparison (Rohlfer, 2004). Like Camp (1989), the author emphasises emphasize searching for similarities based on specific process characteristics, and to a lesser extent, the organisation as a whole. Codling (1997) emphasises strategic and cultural compatibility, while Love et al (1998) site comparable size, structure and geographical location, reputation with respect to product/ service quality. In short, one should source a partner from among those who are able to realize the desired future state of the organisation. Most companies rely on financial indicators to assess partners, but where absent (e.g. Public sector) quality awards may be used (Magd and Curry, 2003).

Case studies show that benchmarking partner do not have to come from the same industry, as differences among operating systems of service and manufacturing sector do not prevent them from gaining significantly from co-operative benchmarking (Love et al, 1998). This is proved by the success story of Xerox, a copier maker who benchmarked with L.L. Bean, a clothing distributor.

Once identified there is a need to understand correctly the operations of benchmarking partner to ensure the comparison is made on like-by-like basis (Camp 1989). Because superior

performers may be reluctant to disclose their business practises (Dattakumar and Jagadeesh, 2003), inter-organisational trust and a benchmarking code of conduct, are necessary. This code of conduct, is recommended by Watson (1994), Magd and Curry (2003) and Bunney et al (1998), as it includes the principles of information exchange and confidentiality.

2.6.3 Performance Indicators to Measure

The reality that "what gets measured gets done" underlies the importance of performance measurement (Fawcett and Cooper, 2001). For any given company, what to measure depends on business strategy and the areas most in need of improvement. Superior quality cannot be guaranteed unless a firm establishes relevant service performance measures and compares its achievements against those of the service leader (Magd and Curry, 2003).

Voss et al (1997), Camp (1989), Zairi (1994) and Codling (1998), identify two key parameters for identification, namely practises and metrics:

Practises – these are the established processes, which an organisation has put in place to improve the way it runs its business. These tend to lead to the creation of a performance gap (Zairi 1994). They relate to processes, organizational structure, management systems, human factors, and strategic approaches.

Metrics – these quantify the effect of the practises and can represent financial performance indicators (business performance), technical performance indicators (productivity measurement) or efficiency indicators (human contribution measurement) (Zairi 1994). These only act as a trigger to improvement efforts. Zairi notes that focusing only on results can only do more harm than good, as metric are absolute and do not explain why things are good or bad hence decisions made based on these absolute numbers/ ratios/ percentages can be detrimental in the long run.

Eero and Steve (2001) add one more dimension to be measured i.e. enablers. These influences practises and include factors such as leadership style, Information Technology, infrastructure and Human Resources policy. These, they say, may be difficult to quantify but help separate average from world- class companies.

2.7 Transfer of Best Practise (Implementation phase)

Application of knowledge gained from a benchmarking study provides a foundation for building operational plans to meet and surpass industry's best practises. Yassar and Zairi (2000) noted that this is one of the major, and arguably most difficult stages. Codling (1997) noted that many enterprises succeed in the planning and resolution steps in a benchmarking exercise only to find that their efforts have subsequently failed to deliver the anticipated results. Although failures are rarely documented, he notes that cases where inadequacies are perceived in a benchmarking project can be attributed to unsuccessful implementation in over half of the defaulting schemes.

In defining transfer, Yassar and Zairi (2000) quote O'Dell and Grayson (1997) as "identifying and learning from best practises and applying them in a new configuration or new location". In considering the implementation of change within an institutional system, perhaps as a result of a benchmarking exercise, it is necessary to take into account the interactions with the environment and the parameters of its operating field (Codling 1997). This brings to the fore the social and cultural environment as distinct from resources and technical know how. Camp (1989) identifies two key facets of the implementation phase as: Developing plans related to the tasks and activities to be preformed by employees; and Dealing with the culture of the organisation and ensuring understanding and acceptance of the plans.

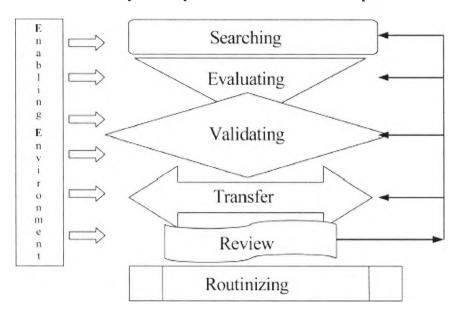
Ashton, (1998) and the American Productivity and Quality Centre, (1997) say that success in transferring best practises means reducing the effects of inhibitors or overcoming barriers that include: top management's failure to signal their importance; little shared understanding of best practises; a non standardised best practise process; organisation structures that promote 'silo thinking'; a culture which values personal expertise and knowledge creation over sharing; lack of contact and information exchange; over reliance on transmitting explicit rather than tacit information; lack of time; employee and managers not being accustomed to seeking or sharing knowledge; and people not being fully aware of the knowledge they hold.

In a study for the European Centre for TQM, the same authors proposed a six-stage process for "effective transfer of best practise":

Searching – Evaluating – Validating - Implementing (transferring and enabling) – Review - Routinizing

They summarized it in the figure overleaf;

FIGURE 2.7 'The best practise process for transfer of best practise'



Source: Yassar F. and Zairi M. (2000) "Internal transfer of best practise for performance excellence: a global survey"pp. 240.

Zairi and Whymark (2000) carried out an investigation of best practise transfer, focusing on four case studies. The purpose was to see how these firms, through transfer of best practise, are building a culture of benchmarking and continuous learning. Results indicated that a sound benchmarking methodology is essential (all four cases), followed by the need for a process for internal transfer of best practise (three cases). This does not however mean that the other enablers identified are not important. Indeed there should be more emphasis on the 'people' aspect, which only comes out in one case. This is underscored by the results of a global survey by Yassar and Zairi (2000) in which they isolated four factors, in order of widespread application, that are necessary for successful transfer of best practises namely; involvement by the process owner; clearly explaining the benefits to all people involved; training the process operators, and preparation of a cost benefit analysis. They also dedicate a large part of their study to the importance of communication, both formal and informal, and the role of ICT. To this end they conclude, "The Internet and other electronic means will result in more best practise transfer."

2.7.1 The Role of Communication

For a firm to be successful, all tacit and explicit knowledge should be managed by each and every person, and shared at all times (Sharifuddin and Rowland, 2004). This emphasis on tacit knowledge is important because unlike other continuous improvement measures, benchmarking best helps capture and transfer this kind of knowledge. Managers realise the need for information for good decision-making. Rather than just investing in advanced information systems, the challenge is to determine what is needed when and how it should be reported. Better information exchange rather than information hardware is required.

Critical to successful benchmarking is sharing of information across functions or sub-units. Once this vital information is gleaned it should be shared across functions or sub-units so as to keep employees informed of managerial enterprise decisions (Rohlfer, 2004). This helps eradicating 'silo thinking' and bureaucracy.

Yassar and Zairi (2002) identify the most commonly used means of communicating internal best practise as verbal communication during departmental team meetings, followed by written media and the intranets. When it comes to effectiveness, the order is reversed. This is because intranets have the following advantages; enhanced communication and collaboration; streamlining procedures; provision of just-in-time information to a dispersed workforce; and, most importantly, that Information shared this way is fluid as it does not filter top-down, but branches in all directions.

Indeed, Cohen (1998) and Codling (1997) say that apart from delivering information an intranet can also enhance innovation. Fawcett and Cooper (2001) state that coupling investment in new information systems with more highly integrated applications have provided major grounds for improvement. They add that continued efforts to simplify and routinize value added processes will in time yield the sought after improvements in information capabilities. To this end, Yassar and Zairi predict that advances in Information technology will affect benchmarking in future.

2.7.2 The Role of Management

There is general consensus that managers impinge on general orientation of the organisation (Ahmed, 1998, Povey, 1998, Bunney et al, 1998). The amount of change and risk arising from a benchmarking exercise demands that the CEO not only spends a lot of time on the

benchmarking activities, but also personally leads the effort (Povey, 1998). Their activity should not only be restricted to evaluation at various review stages (Bunney et al, 1998) but should include: communication of a clear vision and future, frequently so as to reinforce the message; availing resources for supporting the vision; organization and monitoring metrics to ensure success.

Camp emphasizes that functional managers are ultimately responsible for the planning and execution of benchmarking practises. Also, with emergence of process rather than functional focus, Fawcett and Cooper (2001) underscore the value of cross-experienced management teams. This will help expose managers to the challenges inherent in managing diverse, value-added activities through out the organization. To hone these skills, they suggest interfunctional transfers for short periods of time, coupled with periodic assignments to cross-functional task forces and project teams.

For budding managers, training modules may be linked to a rotation program so as to inculcate a sense of teamwork and co-operation (As is the case with KPLC). This also helps to build broad-based core competencies and strategic capabilities (Fawcett and Cooper, 2001). The authors advocate the following as points of interest for such training: Company history culture and objectives; a review of customers, their needs, wants and success factors; analysis of key suppliers, their competencies and capabilities; exercises in communication, teamwork and paradigm shifts; and the firm's performance measures and reward systems.

Responses from their survey show that managers are now more empowered to make a broader range of operating decisions than in the past, exemplifying the role of cross trained managers in a process oriented environment. Although logic dictates that a benchmarking project should have representatives of the firm's management, or work closely with them, there is no evidence that formulation of a benchmarking team is a prerequisite to success.

2.8 The Total System/ Cross-functional Approach

The need to benchmark across functions was highlighted by Zairi (1994) as a critical deviation for earlier literature. He stated that any process which added value to the end customer has to be made effective and competitive. This has seen firms increase efforts to integrate value added activities across functions. Indeed, Fawcett and Cooper (2001) note that process integration holds the key to future competitive success. This has however not been easy due to persistent

barriers to change, arising from long established attitudes and deeply entrenched operating procedures and performance measures (Fawcett and Cooper, 2001). These include typically hierarchical and bureaucratic organisations and the knowledge-hoarding culture as a result of a "knowledge is power" paradigm.

This is steering the move towards flatter leaner structures, and encouraging knowledge sharing. Ways to promote this include: process mapping, which allows managers from different areas to work through problems on a realistic, factual basis; ensuring consistency in operating goals across departments; supply chain alliances to create unique, highly valued products and services; and, use of performance measurement tools that are co-ordinated across departments. Rather than use Activity Based Costing, writers propose Total Cost Analysis, as it helps make trade-offs among decisions and activities explicit. A combination of process mapping and total costing provides a precise picture of the role of each function in an integrated process environment. Successes should be shared as they occur so as to raise commitment required to overcome functional barriers. The result will be an organisation in which resources are utilized in such a way as to meet evolving needs of a dynamic market place.

2.9 Challenges to Benchmarking

The common misconceptions and limitations noted by authors include:

Benchmarking is too costly – This management perception has been cited variously (Yasin, 2002, Magd and Curry, 2003, Fawcett and Cooper, 2001, Vermuelen, 2003). This is especially due to absence of data on cost versus benefit of a benchmarking project. To this end, Dattakumar and Jagadeesh (2003) suggest that more studies should be done in this area. However, Yassar and Zairi (2000) argue that this may not always be a problem, as some best practises are already well tested elsewhere, and hence benefits versus costs are already known. The authors say that validation is then left to the intuitive feel of potential users, based on the perceived impact and required investment. The problem mainly lies in the fact that senior managers have been trained to make decisions based on financial information only, despite its shortcomings (Zairi, 1994). This is further compounded by their lack of understanding of the processes that deliver value to the customer. Madg and Curry (2003) state that the high cost perception problem may be overcome by using benchmarking alongside other performance management techniques. As with any investment, cost may exceed benefits at first, but as breakthroughs occur, the benefits more than offset costs.

Benchmarking gives too much information to one's competitors – These sentiments are expressed in writings of Buyukczan and Marie (1998), Bhutta and Huq (1995). Magd and Curry (2003) attribute this defensive approach to lack of understanding of the purpose of benchmarking especially in public sector organisations. Those involved should be smart enough not to give away the heart and soul of the company. Watson's code of conduct covers issues such as principles of exchange of information and confidentiality (Zairi and Youssef, 1995). Fundamentally it means that organisations should be prepared to share their own business processes in exchange for the information that they receive (*quid pro quo*) so as to make the exchange equally valuable to all parties.

It is difficult to get information from competitors – A study by Vermuelen, shows 100% of respondents felt this was a problem. (It has been exhaustively covered under 'selection of a benchmarking partner'). Gitonga (2005) also identifies this as the leading factor affecting acceptance of benchmarking in the Kenyan construction industry.

Benchmarking methodology lacks formal modelling tools and theoretical foundations – This has been cited as a serious barrier by Buyukczan and Marie (1998) but they hasten to add that tools are worthless without know how. Benchmarking by definition is based on a systematic approach and reality and not history or gut feelings, as it relies on a deeper understanding of the organisation and its operating environment (Bunney et al, 1998).

Benchmarking is only relevant to manufacturing organisations - Yassar and Zairi (2000) state that people only relate this to firms comparing products and manufacturing processes, possibly due to its origin in manufacturing. This has however been disproved by the success story of Xerox and L.L. Bean, who were looking at the logistical aspects of their varied operations.

Benchmarking is a fad – This is noted by Yassar and Zairi (2000), Schaffer (1991), Scaffer and Thompson (1992). Just like any other quality management technique benchmarking, when used inappropriately, will not achieve the expected benefits to the business. A balance should therefore be reached between the scope of the problem, the expected return on investment and the expected level of improvement. (Bunney et al, 1998) The time and resources spent on a benchmarking process should bring breakthrough improvement to the way in which the business operates.

2.9 KPLC

The Kenya Power and lighting Company Limited (KPLC) is a limited liability company that was incorporated in 1922 as the East African Power and Lighting Company limited (EAPL) and has been operating under its current name since 1983. The power sector in Kenya was dominated by a vertically integrated power utility that was the dominant player in the generation, transmission and distribution of power in the country. The situation has since changed and the generation of power in the country has been partially privatized. KPLC, which is 51% Government owned, remains the sole body licensed to transmit and distribute electricity in the country. The generation segment has several players, chief among them is the state owned Kenya Generating Company (KenGen), and several Independent Power Producers.

Reforms in Kenya's power sector have been undertaken largely due to pressure from the donor community that made reforms a prerequisite for development assistance to the sector, as well as continued poor performance of the sector. Among the statutory sector reforms that trigger changes in KPLC sited by Njoroge (2003) include: customer demands for lower prices of electricity; enhanced quality of service and other choices of competitive sources of energy; Technological developments especially in Information Technology (IT) which has impacted on the speed, quality and timeliness of customer service. In preparation for these changes, KPLC embarked on a rigorous business, re-engineering exercises commencing in 1995 through an Institutional Strengthening Project whose objectives were mainly to improve the financial performance and service quality delivery. In order to maintain continuous monitoring and evaluation process, KPLC identified several financial and service delivery based performance indicators, which would be measured and evaluated on monthly basis.

The Company's supply chain begins from the point of Transmission, through to distribution on the National grid, to the end user of electricity. The Transmission function is distinct from the Distribution and Customer Service function. The Distribution department focuses on design, construction and maintenance of power lines, while the Customer Service department is charged with customer metering, meter reading, billing and revenue collection i.e. the commercial cycle. There are 8 other Divisions in all, whose general relationships are represented in the Company Structure (Appendix 3). Out of a total of 5,841 members of staff, 3,673 (63 percent) belong to Distribution and Customer Service, as at August 2006.

KPLCs corporate goals and competitive strategy point towards providing services at the 'world class' level (Thiga 1999). However, there is need to identify what initiatives are being undertaken to ensure continuous improvement that strives towards world-class status. Recently, the Kenya Power and Lighting Company Limited (KPLC) has embarked on ISO 9001:2000 project as a Quality Management System (QMS) that is expected to culminate in certification by the end of the year 2006. KPLC has also undertaken a two year Management Service Contract (MSC) commencing July 2006, with Manitoba Hydro International (MHI) of Canada. Among the objective of this contract is to "infuse best international practises" (Daily Nation 11.07.2006). Overall, the MSC is expected to help KPLC improve its technical, operational and financial performance under Kenya's \$225 million Energy Sector Recovery Project, initiated two years ago and financed by a consortium led by the World Bank.

KPLC periodically seeks out new ways of boosting operational efficiency such as the adoption of prepaid billing service, which is already in use in South Africa, Egypt and Tanzania (East African Standard, 23.06.2005). Internally, KPLC identifies characteristics of each electricity distribution region, (number of consumers, area, length of overhead line, number of substations, energy sales per customer) and uses weighted averages for different classes of staff (engineers, foremen, linesmen, for example). This has assisted in formulating Management policy and enabled it to easily compare different areas of labor productivity with a veiw to quickly and easily identify some areas for improvement (KPLC policy). Documented cases are however restricted to comparisons within the firm and outside firm but within the same industry. Benchmarking however takes into account that improvements may be made by looking outside ones industry. This is illustrated by the Xerox case (1979), where benchmarking was done with L.L. Bean, a distributor of clothing.

Stiffer competition is imminent in the Distribution function, as Parliament has passed a motion that seeks to end KPLCs monopoly by allowing individuals and private organisations to supply electricity (The People 28.07.2005). To add on to this challenge, there is an ambitious plan to ensure that KPLC and other potential entrants are penalized for complacency in customer service. This will be enforced through the Power Licensing Rules (2005), which envision free entry of more players in the market in anticipation for better services to electricity customers through competition. According to the Chief Engineer and Consumer Affairs manager of the Electricity Regulator Board, KPLC will be penalised for poor service delivery (The People 04.04.2005).

With imminent change in the horizon, KPLC requires a robust continuous improvement approach that embraces looking to new sources of ideas, documenting them and translating them to their own situation. Benchmarking is here to stay and all companies should benchmark if they want to attain best-in class competitive capability, prosper in a global economy, and above all, survive (Vermuelen, 2003).

Many organisations disregard benchmarking until management pressures occur or serious problems arise. As a result, valuable time, energy and effort is often wasted extinguishing fires avoidable through application of a quality management system that takes into account a constant in business; continuous change.

CHAPTER 3: RESEARCH METHODOLOGY

3.1 Research Design

This research was a case study on the use of benchmarking as a continuous improvement tool, as the company strives towards World Class status. KPLC can then serve as a forerunner in the Kenyan public sector insofar as systematic application of this internationally acclaimed tool is concerned.

The case study was used to offer an insight nuances and challenges that face Public services and services in general, when it comes to benchmarking. This was however based on the business context within which KPLC operates.

Case studies are more suitable when gathering and organizing information on a particular issue with a view to seeking out patterns or themes in the data (Kothari, 2004). Also, KPLC operated as a monopoly and as such, the nature of business was unique.

3.2 Population

The population of interest was the entire Distribution and Customer Service function countrywide, which had been identified as the core and value adding function at the KPLC (Nengo, 2004). Additionally, survey of UK corporate sector by Cox and Thompson (1998) indicated that customer service, purchasing and logistics were early favoured candidates for benchmarking, as greatest improvements are likely to be made there. The Distribution and Customer Service function was spread around ten key geographical sub regions, namely Nairobi North, Nairobi West, Nairobi South, South Coast, North Coast, Mt. Kenya North, Mt. Kenya South, Central Rift, North Rift and West Kenya.

Only Engineers head the Distribution and Customer Service function. Each sub region has a Chief Engineer in charge of the Distribution and the Customer Service function, separately. These work closely with their Assistant Engineers and collectively number forty, as there were twenty Chief Engineers and twenty Assistant Engineers. These made up the population of the study. Due to the manageable number and the need to establish their understanding of pertinent issues, the study was a census. This is because management appreciation of and involvement

in a benchmarking exercise is crucial to its success. They were also charged with communicating all relevant information and identifying the performance indicators to focus on.

3.3 Data Collection Methods

Primary data was collected through a structured and semi-structured questionnaire (Appendix 2). This was dispatched to all the selected respondents in the company. The questionnaire was sent to respondents through the company's internal mail delivery system and returned the same way.

The questionnaire was divided into three sections; Section A was designed to obtain the general data of the respondents, Section B was designed to obtain information on managements' understanding and use of benchmarking and other continuous improvement tools and Section C, was designed to unearth the challenges and hindrances to benchmarking in KPLC.

3.4 Data Analysis Methods

The data collected was edited for accuracy, uniformity, consistency and completeness. It was then coded in preparation for subsequent analysis.

The study was modelled on a descriptive framework and frequency tables were used to profile respondents as per findings in Part A of the questionnaire. Data obtained in Part B and C of the questionnaire was analysed using means and standard deviations, while the open ended questions were analysed using content analysis, so as to establish the fundamental or latent commonality among the set of observed variables (Kothari, 2004). This helped give a broader understanding of management's perception of benchmarking.

The underlying goal was to search for trends, explicit or implicit, between the variables in the population, as concerns the grasp of the concept of benchmarking, the types used (if any) and the perceived barriers to effective use of the tool.

CHAPTER 4: DATA ANALYSIS AND FINDINGS

4.1 Introduction

The objectives of the study were to determine whether KPLC applied benchmarking as a continuous Improvement tool, the types of benchmarking used and the challenges that the company faced while using this tool. This chapter contains summaries of data findings together with their possible interpretation. The chapter is divided into three sections, two of which are related to the objectives of the study. The first section analysed the demographic information of the respondents. The second section analysed the managements' understanding and use of benchmarking while the third section analysed the challenges faced. Forty (40) questionnaires were distributed to the respondents; out of which twenty six (26) responded by completing and returning the questionnaires. This gave a response rate of 65%.

4.2 Demographic information of the respondents

The demographic information of the respondents considered in the study included the duration of working with KPLC, respondents' sub-region and the function overseen by the respondent.

Period	Frequency	Percent
Less than 10 years	8	30.77
10 - 20 Years	16	61.54
Above 20 Years	2	7.69
Total	26	100

Table 4.2.1: Duration worked for KPLC

Table 4.2.1 shows that 31% of the respondents had worked for KPLC for less than 10 years, 62 % for between 10 to 20 years, and 8% for more than 20 years. This shows that majority of the respondents had worked for KPLC for between 10 and 20 years and should have been well versed with various improvement tools and approaches.

Sub- Region	Frequency	Percent
Nairobi North	2	7.69
Nairobi West	3	11.54
Nairobi South	3	11.54
North Coast	1	3.85
South Coast	3	11.54
Central Rift	2	7.69
West Kenya	3	11.54
North Rift	3	11.54
Mt. Kenya North	4	15.38
Mt. Kenya South	2	7.69
Total	26	100

Table 4.2.2: Frequency of respondents per Sub-Region

The Company had its operations geographically distributed across ten sub-regions. The findings indicated that the respondents were obtained from all the sub regions. However North Coast registered the lowest level of participation, as the managers were heavily involved in preparation for the annual Agricultural Society of Kenya show.

Function	Frequency	Percent
Distribution	13	50
Customer Service	13	50
Total	26	100

Table 4.2.3: Distribution across functions

The findings indicate that 50% of the respondents were from the Distribution function and 50% were from the Customer Service function. This shows that the respondents were equally distributed between the two functions.

4.3 The respondents' Understanding and use of Benchmarking

This section presents the core findings of the study. The findings are presented using mean scores to show rating and standard deviation to show the degree of consensus among the respondents.

A mean score of between 4.0 and 3.5 was interpreted as indicating that the particular variable was rated important to a very large extent. A mean score that is 2.5 or more but less than 3.5 indicates that the variable was rated important to a great extent. A mean score that is 2.5 or more but less than 1.5 indicated that the variable was rated important to some extent. A mean score that is 0.5 or more but less than 1.5 indicated that the variable was rated important to a small extent. A mean score that is less than 1.5 indicated that the variable was rated important to no extent at all. Standard deviations were interpreted to be high if they are greater than 1 and to be low if less than one. High standard deviation figures were interpreted to mean that respondents varied significantly in their responses while low deviations mean there was agreement among respondents.

4.3.1 Service Quality Dimensions as a measure of performance

The first subsection presents management's rating of Garvin's (1987) eight dimensions service quality as a measure of performance.

Service Quality Dimension	Mean	Std. Deviation
Competence	3.73	0.45
Responsiveness	3.62	0.57
Reliability	3.58	0.64
Communication	3.42	0.50
Credibility	3.19	0.80
Access	3.12	0.65
Courtesy	2.88	0.77
Security	2.69	0.93

Table 4.3.1 Service Quality Dimension and Performance

As shown in table 4.3.1, the dimension that was rated highest was competence (3.73) closely followed by responsiveness (3.62), while the lowest rating of importance went to Security (2.69). This had the highest standard deviation (0.93) giving it the highest variation among respondents, possibly due to the varied interpretations of the meaning of variable.

4.3.2 Enablers of Performance Improvement

This subsection aimed to establish the factors managers felt were key to continuous improvement initiatives.

Enabler	Mean	Std. Deviation
Involvement of all staff cadres	3.81	0.40
Top management support	3.81	0.49
Prior training of staff	3.42	0.58
Open communication channels	3.38	0.57
Organisational structure	3.23	0.59
Awareness of Corporate strategy	3.12	0.71
Freedom to learn	3.08	0.98
Heavy IT investment	2.96	0.66
Availability of competitor information	2.88	0.91
Use of external consultants	2.50	0.65

Table 4.3.2 Performance Improvement Enablers

Involvement of all staff cadres took prominence (3.81), and had the lowest standard deviation (0.40) indicating closeness of score across respondents. Use of external consultants was least considered to be important to performance improvement (2.50). This may have been precipitated by the presence of Canadian consultants at the time, who were working closely with the respondents. The highest standard deviation was however with the freedom to learn (0.98) and availability of competitor information (0.91), respectively. This could be due to the lack of understanding of the contribution of individual as well as organisational learning among public service organisations. Also, respondents may have generally felt that as a monopoly, KPLC did not have competitors hence availability of competitor information may not have been clear to them.

4.3.3 Level of awareness of other Performance Improvement tools

This subsection sought to establish the awareness of respondents on other performance improvement tools. The ones identified were Brainstorming, Flow Charting, Check sheet, Root cause analysis and Statistical Process Control. Despite being given opportunity to list other techniques they may have been aware of, respondents- limited themselves to the ones listed.

Performance Improvement Tool	Mean	Std. Deviation
Brainstorming	3.35	0.80
Flow Charting	2.92	0.93
Check sheet	2.65	0.94
Root cause analysis	2.54	0.99
Statistical Process Control	2.27	0.92

Table 4.3.3 Awareness of other Performance Improvement Tools

Brainstorming was the performance improvement technique that respondents seemed most familiar with, with a mean score of 3.35 and the least variation, with a standard deviation of 0.80. Least familiar was the Statistical Process Control (2.27). These other tools were hence not considered very useful.

This subsection however gave the highest incidence of variableness as four of the five performance improvement tools gave a standard deviation of 0.92, 0.93,0.94 and 0.99.

4.3.4 Approach used with Performance Improvement tools

Approach used	Mean	Std. Deviation
Involve all employees	2.73	0.45
Adapt new ideas and ways of doing things	2.69	0.47
Decentralization of operations	2.54	0.51
Use top-bottom approach in decision making	2.46	0.71
Use bottom-up approach in decision making	2.04	0.53
Centralization of operations	1.85	0.73
Involve customers as a means of improving operations	1.85	0.67

Table 4.3.4 Approach in applying Performance Improvement tools

Most respondents favoured involvement of all employees with a mean score of 2.73 and the least deviation of 0.45. The least popular were jointly, centralisation of operations and involvement of customers as a means of improving operations (1.85). However centralization of operations had the widest variation among respondents with a standard deviation of 0.73. This last finding may have been attributed to the perceived heavy handedness of the

consultants and senior management, who were based at the central office, and the general need for more autonomy at regional level.

4.3.5 Understanding of the concept of Benchmarking

The objective of this subsection was to determine the respondents' understanding of the term benchmarking.

Description of the term Benchmarking	Frequency	Percent
"Benchmarking is trying to compare yourself		
with a set standard"	4	15.38
"Benchmarking is comparing yourself with your peers"	1	3.85
"Benchmarking is comparing yourself with the best in the		
industry"	17	65.38
"A benchmark is something that you can use		
as a reference"	4	15.38
Total	26	100

Table 4.3.5 Definition of Benchmarking

Majority of the respondents (65%) restricted themselves to definition of benchmarking within the industry. This means that operations managers generally did not consider sources of best practise lying outside the industry. This is generally indicative that as a monopoly, they did not think that KPLC did not have a viable source of comparison.

4.3.6 Communication channels through which respondents learnt of Benchmarking

Communication Channel	Frequency	Percent
Workshops	15	57.69
Consultants	5	19.23
Publications	17	65.38
Internet	10	38.46
College	10	38.46

Table 4.3.6 How respondents learnt of Benchmarking

65 percent of the respondents learnt about benchmarking through publications, followed by workshops (58%), Internet and College (10% each), and lastly Consultants (5%). It is noteworthy that each respondent was allowed to select a combination of more than one of these sources.

4.3.7 Importance of Benchmarking in acquisition of ISO 9001/2000 certification

KPLC was preparing to acquire ISO 9001/2000 certification. Study by Wagwa (2004) indicated that most local ISO certified firm favoured benchmarking as a tool for continuous improvement.

Level of contribution	Frequency	Percent
Insignificant	2	7.69
Significant	9	34.62
Very Significant	15	57.69
Total	26	100

Table 4.3.7 Benchmarking and ISO 9001/2000 certification

58 percent of respondents felt that benchmarking would make a very significant contribution to accelerate the implementation of ISO 9001/2000, 35 percent though it would make a significant contribution, while 8 percent thought the contribution would be insignificant.

4.3.8 Prevalence of use of Benchmarking

Whether used	Frequency	Percent
Yes	18	69.23
No	6	23.08
Don't know	2	7.69
Total	26	100

Table 4.3.8 Prevalence of use of Benchmarking

69 percent had employed benchmarking at one time or another while 23 percent had not and 8 percent were not sure if they had or had not. This shows that although no formal benchmarking project was in place, managers understood the concept well enough to have used it at one time other.

4.3.9 Reason for not Benchmarking

Respondents were given an opportunity to give open-ended responses as to why they had not carried out benchmarking. The reasons given are listed below:

Reason for not Benchmarking		
" No opportunity to compare with the best in the industry"	1	
"No policy to carry out operations using benchmarked figures - only targets"	1	
" Lack of reference to compare with"	1	
"In understanding variance from set standard and for annual evaluation"	1	
"Not enough to compare with best in industry for sake of comparison, must have the ability to influence application of what one has benchmarked"	1	
" No enabling environment"	1	
"Absence of competitor in sector"	1	

Table 4.3.9 Reason for not Benchmarking

Half of the respondents who did not carry out benchmarking said it was because there was no one to benchmark with in the industry. This showed that their understanding of benchmarking was restricted to comparison with competitors in the same industry. Three others cited a lack of an enabling environment as the main reason, with one stating that it was not clearly stated as company policy. This shows KPLC operations managers restricted their possible source of best practise to within the industry, and felt that the company did not have an enabling environment. Only one favoured formal and explicit directives on benchmarking.

4.3.10 Types of Benchmarking used

Type of benchmarking	Frequency	Percent
Performance	13	72.22
Process	11	61.11
Strategic	5	27.78
Internal	10	55.56
Competitive	11	61.11
Functional	13	72.22
Generic	8	44.44

Table 4.3.10 Type of Benchmarking used

Performance benchmarking and functional benchmarking were most widely used (both with 72 %) followed by process and competitive benchmarking (both with 61 %), Internal benchmarking (56%), generic benchmarking (44%) and finally strategic benchmarking (28%). This was in congruence with literature confirming unpopularity of strategic benchmarking. Findings also supported the notion of respondents that comparisons cannot be made outside the industry. Respondents were allowed to select more than one type of benchmarking used and the results were cross-tabulated and presented in a benchmarking matrix below:

	Internal benchmarking	Competitive benchmarking	Functional benchmarking	Generic benchmarking
Performance				
benchmarking	69.2	61.5	84.6	38.5
Process				
benchmarking	63.6	54.5	81.8	45.5
Strategic				
benchmarking	60.0	20.0	80.0	40.0

Table 4.3.10.1 The Benchmarking Matrix

When using a combination of types of benchmarking, majority of respondents favoured a combination of functional benchmarking and performance benchmarking (84.6%), process benchmarking (81.8%) and strategic benchmarking (80%). This show that despite the relative unpopularity of strategic benchmarking on its own, it was considered for use when coupled with functional benchmarking.

4.3.11 Performance gains from Benchmarking

This subsection was dealing with the gains made after benchmarking, as perceived by the management. This took into account the key service performance metrics.

Performance metric	Mean	Std. Deviation
Reliability of service	3.11	0.58
Quality of service	3.11	0.68
Customer satisfaction	3.06	1.00
Reduced wastage	2.83	0.79
Operational cost	2.83	0.71
Improved information flow	2.83	0.51
Throughput time	2.78	0.94
Improved relations with other departments/functions/ regions	2.78	0.65
Initiating improvement ideas for the whole business	2.72	0.57
Reduced complaints	2.72	0.75
Staff motivation	2.44	0.78

Table 4.3.11 Performance gains from Benchmarking

Reliability and quality of service ranked highest (3.11), with reliability having least standard deviation (0.58). Staff motivation ranked lowest (2.44). The highest variation of responses was customer satisfaction, which had a standard deviation of 1.0 and a mean score of 3.06.

4.4 Challenges to Benchmarking

This section sought to address the second objective of the study that is to establish the challenges faced by KPLC operations managers in using benchmarking for continuous improvement.

Challenge	Mean	Std. Deviation
Lack of management support	3.40	0.71
General attitude of staff to change	3.36	0.70
Poor methods of communication	2.88	0.88
Lack of knowledgeable staff	2.84	0.85
Reluctance to share information between departments/ firms	2.72	0.74
Long lead-time before realising results	2.68	0.85
Time taken for training and implementation	2.68	0.69
High cost of implementation	2.36	0.81
Lack of a willing benchmarking partner	2.12	1.01

Table 4.4.1 Challenges to Benchmarking

Lack of management support was considered to be the main hindrance to undertaking a benchmarking exercise (3.40) followed by attitude of staff towards change (3.36) with general consensus among respondents. Lack of a willing benchmarking partner was considered least of a hindrance (2.12), which was expected, as most did not consider KPLC outside its monopolistic status. The highest deviation occurred in the lack of a willing benchmarking partner (1.01). Unlike other firms previously studied, cost was not perceived to be a major hindrance, possibly because the respondents appreciated the fact that due to the nature of business, huge capital outlays were necessary for realisation of any improvement in performance.

4.4.2 Enablers of Benchmarking

Enabler	Mean	Std. Deviation
Clear definition of measurable outcomes	3.84	0.37
Identification of key processes	3.80	0.50
Strong leadership skills of the process carrier	3.64	0.57
Breaking down functional barriers	3.36	0.64
Effective communications strategy	3.28	0.61
Enhancement of knowledge base	3.24	0.66
Use of technology	3.08	0.64

Table 4.4.2 Enablers of Benchmarking

Respondents felt that for successful benchmarking, there had to be clear definition of measurable outcomes (3.84) followed by clear identification of key processes (3.80), strong leadership skills of the process carrier (3.64). Consensus was also high among respondents as the standard deviation was 0.37, 0.50 and 0.57 respectively. Enhancement of knowledge base was felt to be least important (3.24) which further confirmed the lack of appreciation in public sector organisations of knowledge as a means to achieving sustainable competitive advantage. All respondents said that they would recommend benchmarking to the management of KPLC.

CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter addresses the research objectives outlined in Chapter one. The section also covers summary discussions, recommendations, and study limitations and suggestions for further research. The objectives of the study were to determine whether KPLC applies benchmarking as a tool for continuous improvement and the types used, and to establish the challenges faced in applying this tool.

5.2 Summary

Literature shows that the benefits of performance improvement approaches and tools reaped by private sector organisations can be enjoyed in the public sector, especially due to the growing demand for value for money from customers. Benchmarking has been acknowledged as a continuous improvement tool that can be used together with a variety of performance improvement techniques for better results.

Customer service has been identified as an area that may benefit most from a continuous improvement initiative. From the population of study, it was established that 69 percent of managers had used benchmarking, while 8 percent were not sure whether they had. This lack of understanding may have been attributed to the fact that most felt that as a monopoly, KPLC would not be able to benchmark.

The type of benchmarking favoured was performance benchmarking, where one compared how good one was relative to other. Functional benchmarking also took the lead, possibly due to the distinctive functional structure of KPLC and the competition for resources among these functions.

When cross-tabulated into a benchmarking matrix, the least popular type of benchmarking (strategic benchmarking) gained prominence when used with other types, especially functional benchmarking. Overall, functional benchmarking was extensively used with performance, process and strategic benchmarking.

This supported the findings pointed out in literature (Magd and Curry 2003, Drew 1997 and Davis 1998) that strategic benchmarking is the least frequently used, because it is hard to do and the benefits are realised in the long term.

5.3 Conclusions

Research findings show a general understanding by management of benchmarking as a comparison carried out within the same industry. This implies that they would not ordinarily be inclined to look for best practise outside the industry. This could be attributed to the fact that most of them have worked for the company for a period of 10 to 20 years, therefore having no exposure to other industries. This lack of exposure is not limited to the company but also to the other functions or divisions.

The research findings also show a lack of appreciation of knowledge sharing, learning and innovation as a source of competitive advantage. It confirmed that 'silo thinking' characteristic of public sector organisation (Rohlfer, 2004) was still rife. They also favoured a bureaucratic top-down approach to management over a bottom—up one.

There was general apathy towards customer involvement in performance improvement. Customer satisfaction also rated low as a measure of performance. This may have been a confirmation of the observation that while managers say that delivering customer service is the only way to achieve success, they may not really mean it. It could indicate that they have meagre and unsatisfactory mechanisms in place to identify and understand customer needs and wants (Fawcett and Cooper, 2001).

The main challenge to benchmarking was a lack of management support, general attitude of staff to change (also noted by Omondi, 2004), poor methods of communication despite heavy investment in IT and intranet. This supports recommendation by Sharifuddin and Rowland, (2004) that better information exchange rather than information hardware is required.

5.4 Recommendations

The researcher recommends that the functional approach to continuous improvement be replaced by a cross functional one, where priority is placed on value adding activities. The need to benchmark across functions was highlighted by Zairi (1994) as a critical deviation for earlier literature. He stated that any process which added value to the end customer has to be made effective and competitive. This would be best achieved through process mapping of all activities in KPLC, so as to establish how functions interface one another. Fawcett and Cooper (2001) note that process integration holds the key to future competitive success This, it was

hoped, would be facilitated once the ISO 9001/2000 system was in place. Cross-functional teams and task forces should also be put in place when major projects are undertaken.

Management should be encouraged to identify best practise outside the firm and outside the industry as well. This can be best achieved by using process maps to pick out processes that add value and that are carried out better in other service firms or departments. Any process which added value to the end customer has to be made effective and competitive (Zairi, 1994). This ties in with the management feeling that there was need to clearly identify what needed to be measured.

Information hoarding by departments should be discouraged at all costs, as knowledge sharing is vital to the integration of value added activities across functions. Fawcett and Cooper (2001) note that process integration holds the key to future competitive success. This will also help overcome persistent barriers to change, arising from long established attitudes and deeply entrenched operating procedures and performance measures.

Customer feedback mechanisms and ways to ensure that this valuable information is used should be in place. Policies and procedures should shift towards customer satisfaction rather than following routines. Non-financial performance measures should be emphasised, with a move away from the Total Activity Based Costing, to Total Cost Analysis (Fawcett and Cooper, 2001).

5.5 Limitations of the study

The major limitation was that the target respondents were very busy individuals, especially because the dispatch of questionnaire coincided with the coming in of the external consultants from Manitoba Hydro International. This made the research take longer than expected, as most respondents had to be reminded to take time to fill the questionnaire. This ultimately affected the response rate. Despite this limitation, a case study like this one does open up room for discussions that would enable subsequent research in related areas.

5.6 Suggestions for further research

The research study revealed that a large majority of respondents consider issues to do with company environment to be one of the important challenges that impact on the successful benchmarking at KPLC. It might be interesting to conduct a survey on service companies

focusing on this aspect. The sample for such a study should include companies that have carried out benchmarking in order to assess the difference.

Another issue raised is the relationship between investment in IT and communications infrastructure, vis—a-vis their effective use. The focus of such a study would be companies that are seen to have excellent communications capabilities within the firm.

A study of how companies undertake value chain analysis is important because it takes into account pertinent issues such as process mapping and cross-functional approach to management. The study would be aimed at establishing firms that have reaped benefits from this.

REFERENCE

Ahmed P.K. (1998), "*Benchmarking innovation best practise* Benchmarking for Quality Management and Technology, Vol. 5 No. 1, pp 45-58.

Amolo T.O. (1999), "Benchmarking the order delivery process for continuous improvement: The case of the Kenyan oil industry", unpublished MBA research, University Of Nairobi.

Bhutta K and Huq F. (1999), "Benchmarking – best practises: an integrated approach". Benchmarking: An International Journal, Vol. 6, No. 3, 1999, pp 254-685.

Camp R.C. (1989), "Benchmarking: The Search for Industry Best Practice that Leads to Superior Performance", ASQC Quality Press, Milwaukee, WI.

CIO Definitions - Business process reengineering (July 2006) available at http://searchcio.techtarget.com.)

Corbett and Claridge (2002), "Key manufacturing capability elements and business performance", International Journal of Production Research, Vol. 40, No. 1, pp. 109-131.

Cox A. and Thompson, I. (1998), "On the appropriateness of Benchmarking", Journal of General Management, Vol. 23, No. 3, Spring, pp 1-20.

Cohen S. (1998), "Knowledge management's killer appeal", Training and development, Vol. 52 No. 1 pp. 50-53.

Cohen, W.M. and Levinthal, D.A. (1990), "Absorptive capacity: a new perspective on learning and innovation", Administrative Science Quarterly, Vol. 35, pp. 128-52.

Codling B. S. (1997), "Dynamics of best practise – a multidimensional perspective", Benchmarking for Quality Management and Technology, Vol. 4 No. 2, pp 96-103.

Codling B. S. (1998), "Benchgrafting: a model for successful implementation of the conclusions of benchmarking studies", Benchmarking for Quality Management and Technology, Vol. 5 No. 3, pp. 158-164.

Codling S. (1992) "Benchmarking" Gower, Andershot.

Carpenetti L.C.R and de Melo A.M. (2002), "What to benchmark? A systematic approach and cases", Benchmarking: An International Journal, Vol. 9, No. 3, pp. 244-255.

Davis P. (1998), "The burgeoning of benchmarking in the British local government: The value of learning by looking", Benchmarking for Quality Management and Technology, Vol. 5 No. 4, pp. 260-270.

Dale B. G. (1996), "Benchmarking on total quality management adoption: a positioning model", Benchmarking for quality management and technology, Vol. 3 No. 1, pp 28-37.

Drew S.A.W. (1997), "From knowledge to action: the impact of benchmarking on organisational performance", Long range planning, Vol. 30 No. 3 pp. 427-441.

Dattakumar R. Jagadeesh R. (2003), "A review of literature on Benchmarking", Benchmarking: An International Journal, Vol. 10 No. 3, pp176-209.

Elmuti D. and Kathawala Y. (1997), "An Overview of Benchmarking Process: A Tool for Continuous Improvement and Competitive Advantage", International Journal of Benchmarking for Quality Management and Technology, July 1997, pp. 229-243.

Fawcett S.E. Cooper M.B. (2001), "Process integration for competitive success – Benchmarking barriers and bridges", Benchmarking: An International Journal Vol. 8 No. 5, 2001 pp 396-412.

Garvin, D. (1987), "Competing on the Eight Dimensions of Quality", Harvard Business Review, pp. 101-109.

Gitonga L.W. (2005), "Improvements through benchmarking: A survey of the Kenyan construction firms", unpublished MBA project.

Kogure M. and Akao Y. (1983), "Quality function deployment and CWQC in Japan", Quality Progress. Vol. 16 No. 10, pp. 25-9.

Kothari C.R. (2004), "*Research Methodology: Methods and Techniques*", 2nd edition. New Age International publishers, New Delhi.

Kumar N. (2004), "Benchmarking", Indiainfoline newsletter (08.01.2004), Available at http://www.Indiainfoline.com.

Kyriakidou O. and Gore J. (2005), "Learning by example: Benchmarking organizational culture in hospitality, tourism and leisure SMEs", Benchmarking an International Journal, Vol. 12 No. 3, pp. 192-206.

Longbottom, D. (2000), "Benchmarking in the UK: an empirical study of practitioners and academics", Benchmarking: an International Journal, Vol. 7, No. 2, pp 98-118.

Love et al (1998), "Benchmarking in water supply services: the lessons learnt", Benchmarking for Quality Management and Technology, Vol. 5 No. 1, pp. 56-70.

MariosAlexandrou (2006) Definitions (available from http://www.mariosalexandrou.com/privacy.asp

Mary Louise Ray (2006) Definitions of ISO available at http://www.catalystconnection.org/News).

Magd H. and Curry A. (2003), "Benchmarking: achieving best value in public-sector organisations", Benchmarking: An international Journal, Vol. 10. No. 3, pp 261-286.

Massa S. Testa S. (2004), "Innovation or imitation? – Benchmarking a knowledge management process to innovate services", Benchmarking: An International Journal, Vol. 11, No. 6, pp 610-620.

March, J. and Simon, H. (1958,) "Organizations", Wiley, New York, NY.

McNair, C.J. and Leibfried, K.H.J. (1992), "Benchmarking – A Tool for Continuous Improvement", Omneo, Essex Junction, VT.

Navaratnam, K. K and Harris B. (1997), "Customer Service in an Australian Quality Award Winning Public Sector Service Industry," International Journal of Public Sector Management, Vol. 7, No.2, pp.42-49.

Nganga L.W. (2005), "Improvements through benchmarking: A survey of the Kenyan construction firms", unpublished MBA research, University Of Nairobi.

Nengo K.M. (2004), "Proactiveness of the operations management function: the case of Kenya Power and Lighting Company", unpublished MBA research, University Of Nairobi.

Omondi N. (2004), "Perception of Kenya Power and Lighting Company employees towards Business Process Management as implemented by the company during restructuring", unpublished MBA research, University Of Nairobi.

Port O. (1992), "Quality", Business week, 30th November, pp 66-72.

Rohlfer S. (2004), "Benchmarking concepts in the UK and Germany; A shared understanding among key players?", Benchmarking: An International Journal, Vol., 11 No. 5, pp. 521-539.

Roth, A.V., Marucheck, A.S., Kemp, A. and Trimble, D. (1994), "The knowledge factory for accelerated learning practices", Planning Review, Vol. 22 No. 3, pp. 26-46.

Sharifuddin S.O. and Rowland F. (2004), "Benchmarking knowledge management in a public organization in Malaysia", Benchmarking an International Journal, Vol. 11, No. 3, pp. 238-266.

Schaffer R.H. (1991), "*Demand Better results – and Get them*", Harvard Business Review, March April, pp. 142-146.

Schaffer R.H. and Thomson H. A. (1992), "Successful Change Programs Begin with result", Harvard Business Review, January-February, pp 80-89

The People Daily 28.07.2005, "House wants to end KPLC monopoly", page 12.

The People Daily 04.04.2005, "Power sector to have new rules", page 6.

The East African standard 23.06.2005, "Power firm to initiate prepaid billing service", page 5.

The Daily Nation 11.07.2006 "KPLC set to undertake management contract" pg. 8.

Thiga J. (1999), "Business Process Re-Engineering: A case study of Kenya Power and Lighting Company Ltd.", unpublished MBA research, University Of Nairobi.

Voss C.A., Ahlstrom P. Blackmon K. (1997), "Benchmarking and operational performance: Some empirical results," – Benchmarking for Quality Management and Technology, Vol. 4 No. 4, pp 273-285.

Vermuelen W. (2003), "Benchmarking as an enabler of business excellence in the South African financial sector", Benchmarking: An International Journal, Vol., 10 No.1 pp 65-72.

Wagwa G.O. (2005), "A survey of operations improvement practises among ISO 9001:2000 certified companies in Kenya," unpublished MBA research, University Of Nairobi.

Watson G.H. (1994), (in conversation with the Editor) – Benchmarking for Quality Management & Technology, Vol.1, No.1, pp 5-10.

Yassar F. and Zairi (2000), Mohamed "Internal transfer of best practise for performance excellence: a global survey", Benchmarking: An International Journal, Vol. 7 No. 4, pp. 236-246.

Yasin M.M. (2002), "*Theory and practise of benchmarking: then and now*", Benchmarking: an International Journal, Vol. 9 No. 3, pp 217-243.

Zairi Mohamed (1994), "Benchmarking: The Best Tool for Measuring Competitiveness", Benchmarking for Quality Management & Technology, Vol. 1, No. 1, pp. 11-24.

Zairi M. and Whymark J. (2000), "The transfer of best practises: how to build a culture of benchmarking and continuous learning – part 1", Benchmarking: An International Journal, Vol., 7 No. 1, pp.62-78.

Appendix 1: <u>LETTER OF INTRODUCTION</u>

CATHERINE NAMU

DATE:
The respondent,
Kenya Power & Lighting Company Ltd.,
P.O. Box 30099,
NAIROBI.
Dear Sir/Madam,
REQUEST FOR YOUR PARTICIPATION IN MY RESEARCH WORK
I am a Postgraduate student in the Faculty of Commerce, University of Nairobi pursuing a Master o
Business Administration (MBA) Degree program. In order to fulfill the Degree requirements, I an
currently undertaking a Management Research Project on:
USE OF BENCHMARKING AS A PERFROMANCE IMPROVEMENT TOOL: A CASE OF
OSE OF DENCIMARKING AS A TERFROMANCE IMITROVEMENT TOOL. A CASE OF
KENYA POWER AND LIGHTING COMPANY
KENYA POWER AND LIGHTING COMPANY
KENYA POWER AND LIGHTING COMPANY This project concentrates on establishing whether benchmarking is used as a continuous performance improvement tool, and the challenges encountered.
This project concentrates on establishing whether benchmarking is used as a continuous performance improvement tool, and the challenges encountered.
This project concentrates on establishing whether benchmarking is used as a continuous performance
This project concentrates on establishing whether benchmarking is used as a continuous performance improvement tool, and the challenges encountered.
This project concentrates on establishing whether benchmarking is used as a continuous performance improvement tool, and the challenges encountered. I will highly appreciate if you would spare some time to kindly complete the attached questionnaire. The information you will provide will be treated in confidence, and is strictly for academic purposes.
This project concentrates on establishing whether benchmarking is used as a continuous performance improvement tool, and the challenges encountered. I will highly appreciate if you would spare some time to kindly complete the attached questionnaire
This project concentrates on establishing whether benchmarking is used as a continuous performance improvement tool, and the challenges encountered. I will highly appreciate if you would spare some time to kindly complete the attached questionnaire. The information you will provide will be treated in confidence, and is strictly for academic purposes.

Appendix 2: **QUESTIONNAIRE**

PART A

1.	Please indicate how long you have been working for KPLC
	() Less than 10 years () 10 to 20 years () above 20 years
2.	Please state the sub-region you belong to (Example; Mount Kenya South):
3.	Which function do you oversee?
	() Distribution () Customer Service
<u>P</u> /	ART B
4.	How would you rate the following as a measure of performance?
	Given:- No contribution =1; Insignificant =2; Significant =3; Very Significant =4
	Don't know = 0
	Write 1 or 2 or 3 or 4 or 0 in the space provided
	Reliability
	Responsiveness
	Competence
	Access
	Courtesy
	Communication
	Credibility
	Security

rite 1 or 2 or 3 or 4 or 0 in the space provided	
Lon management support	
Top management support Involvement of all staff cadres	
Use of external consultants	
Prior training of staff	
Heavy IT investment	
Awareness of Corporate strategy	
Organisational structure	
Open communication channels (formal and informal)	
Freedom to learn	
Availability of competitor information (through intranets, pu	blications,
ate your level of awareness of the following performance imparts: Given:- Don't know it=1; Fair=2; Good=3; Very Cood=3;	rovement tools Good=4
ate your level of awareness of the following performance impositiven:- Don't know it=1; Fair=2; Good=3; Very Control of 2 or 3 or 4 in the space provided	
ate your level of awareness of the following performance impositiven:- Don't know it=1; Fair=2; Good=3; Very Ovite 1 or 2 or 3 or 4 in the space provided Root cause analysis	
ate your level of awareness of the following performance imposiven:- Don't know it=1; Fair=2; Good=3; Very Control of the space provided Root cause analysis Brainstorming	

	Given:- Never =1; Rarely =2; Frequently =3;	
Ì	Write 1 or 2 or 3 in the space provided Involve all employees	
	Use bottom-up approach in decision making	
	Use top-bottom approach in decision making	
	Centralization of operations	
	Decentralization of operations	
	Involve customers as a means of improving operations	
	Adapt new ideas and ways of doing things	
	Which of the following statements best describes the term 'benchmarking'? k one	
	 () "Benchmarking is trying to compare yourself with a set standard" () "Benchmarking is comparing yourself with your peers" () "Benchmarking is comparing yourself with the best in the indust () "A benchmark is something that you can use as a reference" 	
10.	Through which of the following communication channels did you learn about be	enchmarkin
Tick	k where applicable, if necessary more than one	
	Workshops	
	Consultants	
	Publications	
	Internet Other (mariful)	
	Other (specify)	
	In your opinion, how would you rate the importance of benchmarking in acceleration of ISO 9001/2000 certification?	rating the
	 () No contribution () Insignificant () Significant () Very Significant () Don't know 	
12 F	Have you ever employed benchmarking?	
	Yes () No () Don't know ()	

8. To what extent do you do the following when using performance improvement tools?

3 If no, please give reasons why	
4. If you answered 'Yes' in 12, do you do the following?	
ick where applicable, if necessary more than one	
Compare your performance with that of others	
Focus on particular processes at a time	
Focus on policies, strategies and company vision	
Compare yourself with other departments	
Compare your performance against the 'best'	
Compare yourself with other that have a similar function	
Compare your processes against best process operators regardless of	
industry	
Others, please state	
5. If you answered 'Yes' in 12, to what extent has the use of benchmarking helped achieve objective elated to the following	ves
Given:- No contribution =1; Insignificant =2; Significant =3; Very Significant =4	
Don't know =0	
Write 1 or 2 or 3 or 4 or 0 in the space provided	
Customer satisfaction	
Quality of service	
Reliability of service	
Operational cost	
Throughput time	
Staff motivation	
Reduced complaints	
Reduced wastage	
Improved information flow	

Improved relations with other departments/functions/ regions

Other, specify **PART C** What do you consider the main hindrances to undertaking a benchmarking exercise fiven:- No contribution =1; Insignificant =2; Significant =3; Very Significant Don't know =0 **Write 1 or 2 or 3 or 4 or 0 in the space provided** General attitude of staff to change High cost of implementation Reluctance to share information between departments/ firms Time taken for training and implementation Lack of knowledgeable staff
What do you consider the main hindrances to undertaking a benchmarking exercise viven:- No contribution =1; Insignificant =2; Significant =3; Very Significant Don't know =0 Write 1 or 2 or 3 or 4 or 0 in the space provided General attitude of staff to change High cost of implementation Reluctance to share information between departments/ firms Time taken for training and implementation
What do you consider the main hindrances to undertaking a benchmarking exercise viven:- No contribution =1; Insignificant =2; Significant =3; Very Significant Don't know =0 Write 1 or 2 or 3 or 4 or 0 in the space provided General attitude of staff to change High cost of implementation Reluctance to share information between departments/ firms Time taken for training and implementation
What do you consider the main hindrances to undertaking a benchmarking exercise viven: No contribution =1; Insignificant =2; Significant =3; Very Significant Don't know =0 Write 1 or 2 or 3 or 4 or 0 in the space provided General attitude of staff to change High cost of implementation Reluctance to share information between departments/ firms Time taken for training and implementation
What do you consider the main hindrances to undertaking a benchmarking exercise viven:- No contribution =1; Insignificant =2; Significant =3; Very Significant Don't know =0 Write 1 or 2 or 3 or 4 or 0 in the space provided General attitude of staff to change High cost of implementation Reluctance to share information between departments/ firms Time taken for training and implementation
What do you consider the main hindrances to undertaking a benchmarking exercise viven:- No contribution =1; Insignificant =2; Significant =3; Very Significant Don't know =0 Write 1 or 2 or 3 or 4 or 0 in the space provided General attitude of staff to change High cost of implementation Reluctance to share information between departments/ firms Time taken for training and implementation
Priven:- No contribution =1; Insignificant =2; Significant =3; Very Significant Don't know =0 Prite 1 or 2 or 3 or 4 or 0 in the space provided General attitude of staff to change High cost of implementation Reluctance to share information between departments/ firms Time taken for training and implementation
Don't know =0 Yrite 1 or 2 or 3 or 4 or 0 in the space provided General attitude of staff to change High cost of implementation Reluctance to share information between departments/ firms Time taken for training and implementation
General attitude of staff to change High cost of implementation Reluctance to share information between departments/ firms Time taken for training and implementation
General attitude of staff to change High cost of implementation Reluctance to share information between departments/ firms Time taken for training and implementation
Reluctance to share information between departments/ firms Time taken for training and implementation
Time taken for training and implementation
Lack of knowledgeable staff
Lack of management support
Poor methods of communication
Long lead-time before realising results
Lack of a willing benchmarking partner
Others, please state
ow would you rate the following factors in enabling the benchmarking process?
<i>liven:</i> - No contribution =1; Insignificant =2; Significant =3; Very Significant
Don't know $=$ 0
Vrite 1 or 2 or 3 or 4 or 0 in the space provided Clear definition of measurable outcomes
Strong leadership skills of the process carrier
Use of technology
Effective communications strategy Identification of key processes

16.

17.

Breaking down functional barriers	
Enhancement of knowledge base	
Others, please state	

18. Would you recommend benchmarking to the Management of KPLC?

Yes () No ()

THANK YOU FOR YOUR PARTICIPATION AND SUPPORT:

Appendix 3: KPLC Structure

KPLC -CURRENT STRUCTURE -JUNE 2006

