# IMPACT OF INTERNATIONAL ORGANIZATION FOR STANDARDIZATION (ISO 9001:2008) ON SERVICE DELIVERY IN KENYA PI PELINE COMPANY,

## NAKURU BRANCH

BY

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#### DECLARATION

#### **Declaration by the candidate**

This thesis is my original work and has not been published, or presented for examination in any other institution of higher learning. No part of this Thesis may be reproduced in any form without prior permission of the author and/or Moi University.

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## **DEDICATION**

I wish to dedicate my thesis to the following who contributed to my success in obtaining a Master of Science degree in Human Resource.

My Almighty God whom I believe created me with a purpose.

To my dear husband Prof. J. Kwonyike who gave me support and advice in all aspects as I went through the various stages of my studies.

To our children Linda, Paula, Sandra and Barmosi who were able to tolerate my absence most of the time when I was busy studying.

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#### ABSTRACT

Service delivery is an important aspect to a business entity or an organization whose main objective is to work towards achieving its mandate. Traditionally, it was assumed that investing in the workers through remuneration and creation of condusive environment would improve service delivery but this is not the case. Many organizations are now adopting varied quality management practices in order to offer and improve quality of services. These include ISO 9001:2008. ISO 9001:2008 specifies daily work procedures and requirements that are used to perform various tasks in order to realize change by improving the quality of service delivery. Despite internal and external audits indicating compliance with ISO 9001:2008 requirements, hence subsequent re-certifications, studies show that quality of service delivery is still below the recommended standards in most organizations that are certified. Furthermore, the implications of adopting ISO 9001:2008 have also not been fully understood. Although there was evidence of general improvement of operations in Kenya Pipeline Company due to ISO 9001:2008 implementation, all categories of respondents mentioned their dissatisfactions that were thought to be hindering full provision of quality service delivery. This overall objective of the study aimed at examining the role of ISO 9001:2008 implementation on service delivery in Kenya Pipeline Company (KPC), Nakuru Branch. The study objectives were to; analyze transformation of determinants of quality service delivery after ISO 9001:2008 implementation in KPC Nakuru Branch, assess the impact of ISO 9001:2008 implementation on quality service delivery at KPC Nakuru Branch, and to establish the challenges encountered during the implementation of ISO 9001:2008 in Kenya Pipeline Company Limited. The study adopted the Service Quality Delivery model as propagated by Parasuraman, Valarie, Zeithaml, and Berry which identifies gaps that cause unsuccessful service delivery. The study was a single case that obtained data from the respondents. The study targeted 214 employees and clients of KPC Nakuru Branch out of which 100 respondents were selected. Data was generated by use of questionnaires and informant interviews. Secondary data was generated from studying the existing records. Descriptive statistics were used to analyze data generated through questionnaires whereas data from interviews were analyzed thematically. From the study findings, the researcher generated relevant information in relation to understanding the role of International Organization for Standardization (ISO 9001:2008) as a strategy of offering quality service delivery. The study found out that new communication methods were introduced in the company to tackle customer interaction, majority of the respondents consented that there was a general improvement in service delivery, and various challenges encountered were diverse depending on the categorization of respondents (whether one was an employee, client, or management representative). The main contribution of the study is that as much as ISO 9001:2008 work procedures are carried out in a standardized way, every business entity employs diverse strategies in order to meet the standards and all experience diverse challenges depending on their mandate. In addition, the presence of ISO 9001:2008 recommended structures and employee participation in an organization are the main contributory factors towards the implementation of quality management practices.

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## LIST OF ABBREVIATIONS

HR	Human Resource
ISO	International Organization for Standardization
KPC	Kenya Pipeline Company
NCST	National Council for Science and Technology
PDCA	Plan, Do, Check, Act
QMS	Quality Management Systems
QUAL	Qualitative Research Approach
QUAN	Quantitative Research Approach
SHRD	School of Human Resource Development
SGS	Societe Generale de Surveillance
SPSS	Statistical Package for Social Sciences
TQM	Total Quality Management

#### **OPERATIONAL DEFINITION OF TERMS**

**Quality** – Webster's Dictionary defines quality as a comparison between expectations and performance.

**Quality Service** – is the ability to meet a customer's expectations.

**Service Quality** – is a measure of how well the service level delivered matches customer expectations.

**Delivering quality service** – The term means conforming to customer expectations on a consistent basis. In context with the study, the term means conforming to the various ISO procedures and standards in a consistent manner wherever one is offering service to a client.

Total Quality Service – The ability to provide service as per the expected standards.

#### **CHAPTER ONE**

#### **INTRODUCTION**

#### 1.1 Overview

The chapter discusses key issues that lay the foundation to the study. These include the background of the study, statement of the problem, objectives of the study, research questions, and assumptions, justification of the study, significance of the study, scope of the study, theoretical framework, and conceptual framework of the study.

#### **1.2** Background of the study

In the past, quality and performance was measured in terms of productivity. It was assumed that the more a company produced more products and the more service they offered it was an improvement whether the products were quality or not. According to Ghalayini and Noble (1996), performance measurement has changed over the years and productivity is no longer appropriate to measure performance in today's competitive market.

Researchers like Ishikawa and Beckford (2001) developed quality improvement theories that were tested all over Japan. Companies and business entities relied on training supervisors as a way of improving quality and engaged employees in workgroups. The workgroups would perform their duties and thereafter provide feedback to supervisors and pinpointed where problems and faults were detected.

On the other hand, other organizations utilized the Joiner Framework (1992), which combined quality that was perceived through the eyes of customers with scientific approach of solving problems and making decisions, and all employees and supervisors working as a team thus improving quality.

In 1947, International Organization for Standardization (ISO), the world's largest developer of voluntary International Standards, was born. Levit (2005) argues that "ISO" is an acronym derived from a Greek word "*isos*" which means "equal". It contains a network of national standards bodies which makes up ISO membership and they represent their countries. International Standards give state of the art specifications for products, services and good practice, which helps to make an industry more efficient and effective. Organizations whether profit, non-profit, government agencies, academic institutions and others adopt it to prosper in their daily business activities. West *et al.* (2000) posit that ISO 9001:2008 was developed through global consensus, to help break down barriers to international trade and develop International Standards. From the time ISO 9001:2008 was conceived, it has published more than 19 000 International Standards covering almost all aspects of technology and business and its impact on peoples' lives.

From the time ISO 9001:2008 was implemented as a business strategy of formulating standards, many international organizations adopted it in their systems and experienced implementation barriers and misconceptions. Al-Najjad and Jawad (2011) argue that many certified organizations in the Arab countries adopted ISO 9001:2008 but only five Iraqi organizations were certified by the end of 2008 due to barriers and misconceptions. The barriers included lack of top management commitment, employee resistance to the introduction of ISO, difficulty of performing internal audits, absence of consulting boards, ISO 9001 requirements being viewed as unrealistic, financial resources

constrains, lack of human resources, insufficient employee training, and insufficient knowledge about quality programs. Some of the misconceptions mentioned included ISO 9001 uncovering job security, guaranteeing beating the competitors, requiring great financial resources, all departments must be certified for ISO 9001, the certificate being awarded by the ISO, Geneva, ISO 9001 certificate having no expiry date, ISO assuring quality of goods and services, the certificate being awarded to private sector only, ISO 9001 decreasing productivity, and ISO 9001 certification requiring a long time.

Sousa-Poza *et al.* (2009) argue that the first family of standards was issued in 1987. The standards apply to Quality Management Systems (QMS) in any business, whether making profit, non-profit, government agencies or academic institutions. ISO Standards do not apply to products but rather on how management systems are applied. ISO 9001:2008 in particular among others are conformance standards for quality assurance systems that apply to supplier-client relationships. The selection of each of the ISO standards depends on the scope of tasks and activities of an organization.

Other studies that have been carried out by Barnes (2000), Lankford (2000), Santos and Escanciano (2002), Magd (2005), and Herass-Saizarbitoria *et al.* (2010) found that many organizations and companies that have adopted Quality Management Systems reported several benefits. These include increased customer satisfaction and retention, efficient and effective operations, enhanced marketing skills and strategies, increased profits, reduction of waste and increased productivity, reduced need for audits among others. The global competition and the increased awareness of customers continue to make

quality the determinant factor of customer satisfaction and a key success factor to achieve competitive advantage.

In Kenya, many organizations have adopted a series of International Organization for Standardization (ISO) work procedures that concern various quality management systems and achieved certifications that are updated through re-certification after a certain period of time. One of the currently adopted series is the ISO 9001:2008 that specifies requirements for a Quality Management Systems (QMS) where an organization needs to demonstrate its ability to consistently provide products and services that meet customer requirements and satisfaction enhancement through effective application working procedures.

Service quality has been previously discussed by few researchers like Gronroos (1982), Lehtinen and Lehtinen (1982), Lewis and Boons (1983) and Sasser, Olsen, and Wyckoff (1978). They suggest that it is more difficult for the consumer to evaluate the quality of a service than the quality of goods. They also suggested that service quality perceptions result from a comparison of consumer expectations with actual service performance, and that quality evaluations are not made solely on the outcome of a service but they also involve evaluations of the process of the service delivered. This informs this research that collection of data and analysis depend on perceptions of various stakeholders who participate in quality service delivery in terms of service delivery and service reception in Kenya Pipeline Company Limited. From the year 2002, Kenya Pipeline Company Limited registered several achievements in its efforts to satisfy clients during service delivery. These include enhancement of capacity projects by constructing 4 pump stations in 2008 thus increasing the installed flow of fuel, modification of manifold pumping station in order to boost the flow of product, installation of the main pump, construction of a spur line from Kipevu oils storage facility to Shimanzi oil terminal, achievement of ISO 9001:2000 in order to satisfy customer requirements the first time and every time. In September 2005, KPC underwent a certification audit for QMS in all its operation processes and was awarded QMS certificate by Societe Generale de Surveillance (SGS) on 4<sup>th</sup> July 2007. The company upgraded its certification and was awarded ISO 9001:2008 in June 2010. It also installed more than 14 modules of System Analysis and Programme (SAP) as part of its business strategy, which has resulted in an improved budgetary control of the supply chain. Interface between accounting and engineering systems also resulted in improved monitoring of fuel stocks. All the mentioned developments achieved by KPC were meant to ensure that quality of service delivery was maintained.

#### **1.3** Statement of the Problem

The main challenge facing organizations today relates to the strategies through which organizations can enhance service delivery to their customers. This is clearly illustrated in the various strategies that have been adopted over time. Traditionally, it was assumed that investing in the workers through salary increments and offering overtime hours would improve service delivery. However, this is not the case in the current dynamic business environment that is characterized by challenges ranging from business competitions, to ever changing customer preferences. In the recent past, business entities

both private and public have come to appreciate that business output is also achieved through customer satisfaction. International Organization for Standardization (ISO) certification is the latest strategy being adopted both locally and internationally with the assumption that it would improve service delivery.

Despite internal and external audits indicating compliance with ISO 9001:2008 requirements, hence subsequent re-certifications, studies show that quality of service delivery has not been achieved to the recommended standards. A Master of Science research undertaken by Aluvi et al. (2009) indicates that the implementation of ISO 9001:2008 has not led to the desired impact in relation to service delivery in organizations and challenges are still experienced. Complaints are still being reported regarding organizations that have already been certified as ISO 9001:2008 compliant. Furthermore, the implications of adopting ISO 9001:2008 have also not been fully understood. For example, in a study carried out by Wanjugu (2013) on the perceived effect of quality management standards on service delivery at Nairobi City County, he found out that although quality management standard is positively influencing service delivery, customer satisfaction by Nairobi City County is not yet at its optimum. The question here is whether organizations are able to meet all the ISO requirements to enable employees to work effectively as per standards requirement, whether there are challenges encountered by all key players while in the process of implementing ISO 9001:2008, and whether additional strategies can be implemented in order to boost quality service delivery. It is against this background that this study focused on the role played by the variables contained in ISO 9001:2008 to enhance service delivery and the implications to the organizations implementing them.

#### **1.4** Objectives of the study

The main objective of the study was to examine the impact of International Organization for Standardization 9001:2008 on quality service delivery in an organization with emphasis on Kenya Pipeline Company, Nakuru Branch.

#### **1.4.1 Specific Objectives**

- i) To analyze transformation of determinants of quality service delivery after ISO 9001:2008 implementation in Kenya Pipeline Company Limited, Nakuru Branch.
- ii) To assess the impact of ISO 9001:2008 implementation on quality service delivery at Kenya Pipeline Company Limited, Nakuru Branch.
- iii) To establish the challenges encountered during the implementation of ISO 9001:2008 in Kenya Pipeline Company Limited, Nakuru Branch.

#### **1.5** Research questions

Research questions that provided a lead to the research objectives of the study were:

- i) What new transformations were implemented after ISO 9001:2008 was implemented in Kenya Pipeline Company Limited, Nakuru Branch?
- ii) How did the new transformations impact on service delivery in Kenya Pipeline Company Limited, Nakuru Branch?
- iii) What were the challenges encountered during the implementation of ISO 9001:2008 in Kenya Pipeline Company Limited, Nakuru Branch?

#### **1.6** Justification of the study

Kenya Pipeline is a State corporation in the Government of Kenya which is mandated to handle petroleum products on behalf of the government. The commodity is very useful for the running of the Kenyan economy. In addition, it handles a very sensitive commodity which if not handled properly the country's economy could be at a standstill because improper handling of fuel could pose danger to the citizens. Dangers mostly emanate from the commodity being caught by fire that strikes when trucks carrying fuel are involved in road accidents. In the recent past, Kenya Pipeline Company introduced transportation of fuel through the pipeline system in order to curb the problem of congestion of trucks during collection of fuel in fuel filling points. This was also to reduce fuel siphoning by corrupt drivers and reduce loss of fuel in road accidents. Despite the implementation of ISO 9001:2008 procedures in the company, the same problems were still encountered. Previous researches have been done in other institutions of higher learning concerning ISO and its impact in the agricultural sector and manufacturing sector but not much has been done in the energy sector yet it is one of the main drivers of Kenya's economy. Without fuel and its subsidiary products including oil, transport logistics of agricultural inputs and outputs are curtailed and the manufactured goods and services cannot be delivered in a timely manner as they depend on fuel availability.

Kenya Pipeline Company Limited is the only company licensed to store and measure the quality of fuel and fuel products in Kenya. It is therefore, crucial for the company to adhere to the work standards and procedures of handling the most important product used to run Kenya's economy beyond its economic borders.

#### **1.7** Significance of the study

The main objective of the study was to examine the role of International Organization for Standardization 9001:2008 as a strategy in enhancement of quality service delivery in the energy sector which KPC is mandated to carry operations. The study is expected to assist KPC Management, and other organizations and stakeholders in the petroleum industry as it will shed light on the impact of integrating ISO 9001:2008 as a strategy to improve quality service delivery. It would also ascertain how organizations integrate change into their cultural practices in order to enhance quality service delivery.

By establishing the role of ISO 9001:2008 on service delivery in Kenya Pipeline Company Limited, the recommendations obtained from the findings would enable all key players to improve their service delivery thus improving work relationships because the service would be felt positively.

#### **1.8** Scope of the study

The study was carried out in Kenya Pipeline Company Limited, Nakuru Branch in Nakuru County located in the North Rift. It is a branch among the 28 branches spread in various strategic locations in the country. The study focused on how ISO 9001:2008 has been utilized in the government corporations as a strategy to improve service delivery. Data was generated from employees who were inclusive of the Management cadre and the clients referred to as Shippers. The study engaged 100 respondents that were contacted in October 2013.

#### **1.9** Limitations of the Study

In the process of undertaking the research study, the following limitations were experienced by the researcher:

Limited time allocated to perform research in the company – The Management of the company allowed the researcher to undertake the study within 30 days. Requesting for additional time would require her to renew research authorization. Therefore, to avoid the procedure, intensive interaction with all stakeholders in the company vicinity within the timeframe was noted. This meant that the researcher had to collect all the necessary data within the stipulated time. This was a challenge as some of the respondents especially the management were not easily available. To curb this, the researcher utilized every available opportunity to engage in intensive interaction with the respondents.

**Procrastination** – The respondents kept the researcher waiting for feedback by postponing contact. Filling of questionnaires dependent on the respondents willingness and it entailed visiting their offices as many times as possible.

**Fear of the unknown** – Most respondents were reserved towards the researcher because they were not sure of her objective. In order to mitigate this limitation, continuous presence in the company environment and interaction with the employees on day-to-day basis during working hours and even spending time with them during lunch breaks enabled them to open up.

#### **1.10** Theoretical Framework

The study adopted Service Quality Model/GAP Model as propagated by Panasuraman *et al* (1985) which highlights the main requirements for delivering high service quality. This model identifies 5 'gaps' that cause unsuccessful service delivery. It argues that generally, customers have a tendency to compare the service they 'experience' with the service they 'expect' and if the experience does not match the expectations, then a gap arises.

These gaps are explained below:

Gap 1 - A gap between consumer expectation and management perception – This gap arises when the management does not correctly perceive what the customers want.

Gap 2 - A gap between an organization's management perception and service quality perception – here the management might correctly perceive what the customers want but may not set the performance standard.

Gap 3 - A gap between service quality specification and service delivery – This gap may arise owing to the service personnel, the reasons being poor training, incapability or unwillingness to meet the set standards.

Gap 4 – A gap between service delivery and external communication – this is a situation whereby consumers' expectations are highly influenced by statements made by a company reports and advertisements - The gap arises when these assumed expectations are not fulfilled at the time of delivery of the service.

Gap 5 - A gap between expected service and experienced service – this gap arises when the consumer/client misinterprets the service quality.

The central tenets of Panasuraman's model are the 5 gaps that cause unsuccessful quality service delivery. This was relevant to the study because it identified various gaps that existed in Kenya Pipeline Company Limited, Nakuru Branch due to unclear assumptions that may have been perceived thus impacting on provision of quality service.

#### **CHAPTER TWO**

#### LITERATURE REVIEW

#### 2.1 Overview

This chapter articulated and synthesized literature concerning the study. It looks at International Organization for Standardization by establishing its impact on the service delivery both internationally and locally. The researcher was able to identify gaps that need to be filled through the whole process of research.

#### 2.2 The Concept of International Organization for Standardization (ISO)

International Organization for Standardization (ISO) is an organization that sets and regulates work quality standards which act as a guide to performing various work procedures for the purposes of meeting customer expectation which leads to satisfaction (ISO 9001:2008 QMS Manual Website, 2014). It is a worldwide concept that has been adopted by organizations in over 170 countries. The concept of ISO requires all member organizations to follow criteria for a quality management system. It can be used by any organization, large or small, regardless of its field of activity. Massive numbers of ISO 9001 certifications have been issued to organizations which successfully implement ISO 9001:2008.

ISO certification requires that, an organization should maintain its certification effectively because it can help improve their performance through offering of quality service. Despite the massive number of ISO 9001 certifications, the guideline or framework for ISO 9001 maintenance is yet to be developed. At the same time, most

previous studies in regard to ISO 9001 focused only on the technical facet. Apparently, the service delivery facet of ISO 9001 has not been exploited fully. There is not only need for technical requirements, but also the need of ISO practical implementation of requirements for the realization of quality service delivery and its sustainability (KBS Quality Management Systems Requirements Manual (2000).

#### 2.2.1 ISO Standard on Performance in an Organization

ISO 9000 family addresses various aspects of quality management systems and it contains some of the International Organization for Standardization's best known standards. The standards provide guidance and tools for companies and organizations who want to ensure that their products and services consistently meet customer's requirements, and that quality is consistently improved through a strong customer focus, the motivation and implication of top management, the process approach, and continual improvement. It helps to ensure that customers get consistent, good quality products and services, which in turn brings in business benefits.

There are other types of ISO standards that are used to measure conformance. They include ISO 31000 for Risk Management, ISO 9000 – for quality management, ISO 26000 - for Social Responsibility, ISO 14000 - for Environmental Management, ISO 22000 – for Food Safety Management, ISO 50001 - for Energy Management, ISO 3166 - for country codes, and ISO 4217 for currency notes. This research emphasized on ISO 9001:2008 that was implemented in Kenya Pipeline Company as a strategy of improving performance in the company through adoption of standard procedures of performing various tasks with the purpose of providing quality service delivery to its clients.

#### 2.2.2 ISO 9001:2008 and Quality Service Delivery

ISO 9001:2008 requires that a Quality Management System should be adopted strategically; consideration must be given to varying needs, particular objectives, the products provided, the process employed and the size and structure of the organization (ISO, 2008). The Quality Management System describes the interaction of all processes in the organization in which the main activity is to identify customer requirements and end with their satisfaction. Specifically, ISO 9001 describes a QMS as the integration of major areas of management responsibility, resource management, product realization and measurement, analysis and improvement (Oakland, 2003).

ISO 9001:2008 Quality Standards Quality Manual states that an organization should establish, document, implement, and maintain a QMS and continually improve its effectiveness in accordance with the requirements of this standard. (Seaver, 2001) contends that there are two requirements in the Quality Management System; general requirements and documentation requirements. With regard to general requirements, ISO 9001:2000 contains the concept of Deming's cycle of continuous improvement - Plan, Do, Check, Act (PDCA) (Oakland, 2003). Meanwhile, (Seaver, 2001) states that there are three documentation requirements in the Quality Management System; the quality manual which stipulates procedures of handling, control of documents, and control of records so that they can be retrieved any time when need arises, by any authorized officer without difficulty.

Previous studies have shown that there is a link between ISO 9001:2008 and service delivery. (Mann, Kehoe, 1996) suggested that quality development involves systems,

techniques and people, and the most critical aspect to develop is the people and that organizational policies are considered to be inadequate in a dynamic environment. This is emphasized by (Low, Alfelor, 2000) who stressed two approaches in ISO 9000; the technical aspect and non-technical (behavioural) approaches.

On the theoretical perspective, the elements of organizational culture that are for the maintenance of ISO are: the implementation process, internal audit, certification audit, surveillance, and ISO 9000 maintenance and management review. For example, ISO 9000 emphasizes process-based management (Bhuiyan & Alam, 2005), which requires coordination and cooperation between different activities and departments (ISO, 2008) which amounts to the requirement of teamwork.

Less research has been performed within certified organizations than in those seeking certification. In support of this, Wahid and Corner (2009) point out that not much literature can be found on the maintenance of ISO 9001 and the post-certification period. There are critical organizational factors of service delivery that curtail the maintenance of ISO in organizations such as teamwork, commitment and recognition of it. When an organization successfully renews its ISO 9001:2008 certification, it does not mean that it is maintained effectively. ISO 9001:2008 is effectively maintained if there is quality improvement and enhancement of clients' satisfaction (Low & Omar, 1997).

Top management has a crucial role in ISO 9000 adoption, and so they have to embrace some elements of organizational culture which align with it. For example, they have to listen to customer needs and requirements. Their full commitment is also needed to ensure that the organizational quality policy is well communicated, understood, implemented and maintained (Oakland, 2003). The management also needs to frequently participate in the project activities such as meetings, briefings and training (Seaver, 2001).

Personnel whose jobs affect product quality should be competent to deliver their task. They have to have appropriate education, training, skills and experience (ISO, 2008). In addition, Fuentes *et al.* (2000) and ISO Survey (2004) found that training should be given to top management as well as shop floor personnel. Training for shop floor personnel for instance, is essential to add to their skills and knowledge. This is a prerequisite before the management can assign them with tasks, responsibility and accountability.

The organization need to also determine and manage the work environment needed to achieve conformity to product requirements (ISO, 2008). In this way, the organization should develop and maintain good housekeeping (Weallans, 2000). This requirement could be linked to the need for good leadership where the leader should develop and maintain the internal environment which encourages people to get involved in achieving the organizational objectives. For instance, the leader should create and develop a spirit of trust and innovation in an organization.

The employees' involvement and contribution for ISO 9000 adoption should be recognized (ISO, 2008). In line with this, Wahid and Corner (2009) argue that a reward system is one of the critical success factors in ISO 9001 maintenance. They found that rewards that were given to employees in ISO 9001 certified organization were in the form of company bonus, performance bonus, promotion and special increment (ibid.).

A service industry like Kenya Pipeline Company Limited puts emphasis on procedures of handling fuel at the entry and exit points to preserve quality of the product. Storage and transportation of the product is also crucial in order for the company to sustain the quality of the product. These emphases are in line with the requirements of ISO 9001:2008 which have already been adopted by the company.

The main objective of the study was to examine the impact of ISO 9001:2008 implementation on service delivery in Kenya Pipeline Company Limited, Nakuru Branch. The specific objectives were to analyze changes in the determinants of quality service delivery after ISO 9001:2008 was implemented, examine the effect of ISO 9001:2008 implementation on service delivery, and establish the challenges encountered during the implementation of ISO 9001:2008.

#### **2.3** Concept of Service Delivery

According to the Business English Dictionary (2011), service delivery is the act of providing a service to customers. Service delivery calls for dedication of the individual providing service to a client. This can only be achieved through employee empowerment, provision of tools of trade, networking, well informed and valued staff who are experienced in terms of knowledge, and acceptance of responsibility.

Service delivery yields the kind of service quality offered by the service provider. Service quality has been studied in the area of business management for years due to competitiveness of the market (Gronroos, 1992). However, the concept of service quality has gained attention in the public sector in the last two decades (Yong, 2000). This was occasioned by improved communication facilities, removal of trade barriers and opening
up of markets which brought about competitions in the public sector and availed a wide variety of products for clients to choose from. Therefore, the formerly docile customers of public institutions have become demanding and choosy forcing governments to look for greater levels of efficiency in their management (Zuluaga, 2003). Service delivery can either yield to quality service provision and poor service provision. A service is termed 'quality' when a customer is satisfied with the service meaning both parties will have achieved their objectives. Poor service provision is realized when a service provider does not meet the customer expectations.

Efforts in defining and measuring quality have come largely from the goods sector. According to the prevailing Japanese Philosophy, quality is Zero defects meaning one doing it right the first time. Crosby (1979) defines quality as conformance to the requirements. Knowledge about goods quality is insufficient to understand service quality. The three well documented characteristics of services, intangibility, heterogeneity, and inseparability, must be acknowledged for a full understanding of service quality. Most services are intangible (Bateson, 1977; Berry, 1980; Lovelock, 1981, Shostak, 1977). Because intangible services are performances rather than objects, manufacturing specifications concerning uniform quality can rarely be set. Most of the services cannot be counted, measured, inventoried and verified in advance of sale to assure quality. Because of intangibility, the firm may find it difficult to understand how consumers perceive their services and evaluate service quality (Zeithaml, 1981).

Secondly, services with high labour content are heterogeneous – their performance often varies from producer to producer, customer to customer, and from day-to-day.

Consistently, behavior from personnel (uniform quality) is difficult to assure (Boons & Bitner, 1981) because what the firm intends to deliver may be entirely different from what the consumer receives.

Thirdly, production and consumption of many services are inseparable (Carmen & Regan, 1963; Upah, 1980). As a consequence, quality in service is not engineered at the manufacturing plant then delivered intact to the customer. In labor intensive services, quality occurs during service delivery, and usually in an interaction between the client and contact person from the service firm (Lehtinent & Lehtinen, 1982). The service firm may also have less managerial control over quality in service where consumer participation is intense because the client affects the process. In these situations, the consumers' inputs become critical to the quality of service performance. In the United Kingdom, a number of initiatives have been introduced to improve the general satisfaction of the public with the services provided to them (Herdan, 2006).

## 2.3.1 Kenya's Policy on ISO 9001:2008 and Service Delivery

Kenya is a member of the International Organization for Standardization and is among other nations that have adopted ISO 9001:2008 Quality Management System as a strategy to be used to streamline work procedures in both private and public institutions. The reason for Kenya joining the ISO body was to ensure that various entities that participate in various mandates were able to use ISO 9001:2008 as a strategy to lead the country in various economies for the purposes of competing in the current turbulent global market whether in the manufacturing sector, energy sector, education sector, manufacturing sector, and many other sectors. Once an organization is ISO certified, it implements the various work procedures depending on its mandate.

There are four accredited 3<sup>rd</sup> party bureaus in Kenya who are mandated to carry out audits in ISO Certified Bureau entities, which include Kenya Bureau Standards, and Societe Generale de Surveillance (SGS). Many organizations both private and public are now ISO certified; however, challenges have occurred in various sectors depending on what an organization/institution does.

A study carried out by Clare (2013), on factors affecting adoption of ISO 9001:2008 Quality Management Systems in Selected Public Sector Organizations in Nairobi, Kenya, found out that lack of top management commitment, failure to achieve perceived benefits, inadequate training, limited resources, and poor staff attitude contribute to the failure to successfully implement Quality Management Systems in government institutions.

Wacheke (2010) on the other hand carried out a study on the implementation of ISO 9001:2008 Quality Management System at Total Kenya Limited where substantive benefits were realized. The organization was found to improve on organizational effectiveness in terms of having a systematic approach to meeting quality and company goals which led to competitive advantage, improved performance and enhanced customer trust and loyalty among other benefits.

Although a number of studies have been carried out on issues to deal with ISO, this study sought to dwell on how ISO 9001:2008 has improved service delivery in the energy

sector. Most organizations who have implemented ISO guidelines experience challenges that need to be explored further, which is the reason that led to this research.

#### 2.4 Determinants of service quality

Service quality is determined by among other things access to the service by the client, competence of the service provider, communication both written and spoken, courtesy of the service provider, security of both parties, reliability of the service, responsiveness of the employee, credibility of the employee, understanding/knowing the customer, and appearance/presentation in terms of physical appearance of the organization and the employee.

Customer satisfaction is realized when customer expectations exceed the quality of service offered resulting to quality service delivery. Panasuraman *et al.* (1985) supports Bitner and Hubbert (1994) that service quality is the customer's overall impression of the relative inferiority/superiority of the organization and its services. A customer may get a negative impression of the organization through poor service provided by an employee leading to a perceived poor service delivery. On the other hand, a customer may get a positive impression of the organization through quality service provided by an employee leading to a perceived quality service delivery.

## 2.4.1 Access

This involves how service being sought is easily accessed. Panasuraman *et al* (2085) For example, if the service is by telephone call, how easily can an employee be reached? Does the caller get inconvenienced by long waiting on the line? In addition, if it is a banking sector, are the clients kept on waiting for a long period of time before being

served or are the hours of service and location of business convenient. Easy access means fast contact to the client leading to quick service delivery and vice versa.

In support of Panasuraman's theory, ISO 9001:2008 emphasizes on adherence to work standards and procedures when performing a task. This implies that when serving a client, an employee should be able to follow the procedures to the letter in order to reach the end result of having served the customer to the expected standard. Failure to follow the procedure may cause a hurdle at some point of service delivery leading to incomplete service which produces a gap.

# 2.4.2 Competence

This is the possession of the required skills and knowledge in order to perform a service. Panasuraman *et al* (1985). This may be the contact personnel and operational support personnel. An employee is able to compete on the job when he or she possesses the right skills to perform a task so that no matter the intensity of the job, he or she is able to cope with the crisis at hand. Lack of competence leads to slowed service to the customer which is already a gap and leads to the kind of satisfaction a client will receive.

# 2.4.3 Communication

This service determinant involves keeping customers informed in terms of the language they can understand by explaining what the service entails, the cost of the service, and giving assurances to customers when problems arise and how they will be handled. Panasuraman *et al* (1985) Communication is key to an organization's success in providing quality service. Communication may be accessed in an organization through telephone calls, face to face interaction between the employee who performs his or her duties on behalf of the employer and the client. Communication may also be conveyed through notice board write-ups, and journals.

An employee is a representative figure of an organization and therefore, in connection to Panasuraman's theory, lack of understanding between the employee and a client leads to a gap, which translates to incomplete service delivery. Many organizations today have realized the power of communication and have invested much to create awareness concerning the vision, mission, objectives, and core values of the organization.

# 2.4.4 Courtesy

This determinant is the ability of employees of an organization to be polite and respectful by making a consideration on the clients' property and being generally presentable to clients. Panasuraman *et al* (1985). Employees handling customer's property like paper work, handling of goods and services supplied to the organization/institution/company should be able to have courtesy in order to protect the name of the organization. Lack of courtesy leads to a gap formed due to client dissatisfaction of the whole service delivery process.

### 2.4.5 Security

This is a determinant which touches on the freedom from any form of danger by the employee, the supplier, and the customer in the workplace vicinity. All stakeholders in an organization's vicinity are ensured of security by an organization they are serving. Security also entails confidentiality of documents and transactions between the client and the company. Panasuraman *et al* (1985) Lack of confidentiality on certain operations between the company and its clients may lead to economic and political sabotage depending on the operations of the organization.

In the area of study, Kenya pipeline Company engages in fuel which is a very important and sensitive commodity that drives the economy of the country and even beyond its borders especially the land logged neighboring East African countries. Security is a wanting issue for all stakeholders in Kenya Pipeline Company thus the existence of Safety and Occupational Health and Security Departments.

#### 2.4.6 Reliability

This is the ability of the firm to offer the service in the right manner for the first time and consistently perform those services and can be depended upon. Panasuraman *et al* (1985) In relation to ISO 9001:2008, a system is said to be reliable when a task is performed by an individual to a certain extent and can be continued by a different individual to the end to the satisfaction of a client leading to quality service delivery. Another example is an electronic system where it is said to be reliable when different users can use it and the end result is acceptable to all.

# 2.4.7 Responsiveness

This determinant involves the willingness of an employee to provide service to a client, and also involves taking the right action at the right time. Panasuraman *et al* (1985). A service charter in every organization spells out the duration of time a client is supposed to be served before proceeding to the next stage. ISO 9001:2008 QMS Manual Website

(2014). Therefore, when a client spends more time to be served or for the staff to respond it directly affects the client leading to dissatisfaction and the end result is poor service delivery.

Basing on experience, lack of an employee's motivation towards work may affect his or her responsiveness during service delivery. On the other hand, procrastination by an employee demeans a client's perception towards the quality of service an organization offers and the end result is negative.

#### 2.4.8 Credibility

This involves the ability of human resources having customer's best interests at heart, being trustworthy and honest. Panasuraman *et al* (1985). Human capital is the most important asset in an organization as they carry the best interest of an organization by working in line with its vision, mission, and objectives only when their own interests are also taken care of by the employer. In order for an organization to attain quality service provision, it has to play the game of give and take with its employees through provision of incentives which in turn builds trust between the employee and the employer. When an employer does not take an employee's interest as a priority, the employee will also concentrate on other extra duties and responsibilities outside the employer's scope which leads to insufficient utilization of work hours and the end result is a compromised utilization of a client's time.

# 2.4.9 Understanding/knowing the customer

It involves making the effort to understand the customer's needs by providing individualized attention. This involves application of listening skills by the individual giving service to the client. Some misunderstanding in a conversation between the individual employee and the client leads to miscommunication where the right person is doing the wrong thing at the right time to the right person. The end result of a service delivery depends on whether the various steps of performing the task were adhered to.

In addition, as the saying goes, that the customer is always right, it is imperative for an individual employee to take time to know the kind of customer he or she is dealing with. Even with complexity of clients, employees are made to understand that they all play a role in the success and failure of the organization in whatever contribution they make.

## 2.4.10 Appearance/presentation

This determinant involves physical facilities of the organization, the appearance of personnel, tools or equipment used. In every business entity, especially those certified with ISO 9001:2008, physical facilities/structures are one of the main determinant factors of whether an organization has been fitted with proper structures as per ISO 9001:2008 requirements in order to be certified.

For example, in the current study, physical facilities like installation of fire and safety equipment played an important role in ensuring that all stakeholders performing various activities in the environment felt save. In addition, employee and visitors appearance in terms of protection gear during working hours was emphasized. On the other hand, the state of equipment used in the workplace plays an important role in quality service delivery because maintenance at specified times lead to efficiency which in turn increases production because equipment that are not serviced reduce employee motivation to work and a lot of time and money is wasted on repairs.

Walker (1990) suggests that the key determinants of service quality are product reliability, a quality environment and delivery systems that work together with good personal service – staff attitude, knowledge and skills. In support of Walker's suggestions, the work environment which is composed of building facilities, health and safety of stakeholders, lighting inside the working environment, good air quality, noise and emergency measures are key factors that contribute to quality service delivery (Gronroos, 1990).

According to Swan and Combs (1976) consumers judge products on a limited set of attributes, some of which are relatively important in determining satisfaction, while others are not critical to consumer satisfaction but are related to dissatisfaction when performance on them is unsatisfactory. According to them, there are two types of determinants – instrumental basing on the performance of the physical product and – expressive meaning the psychological performance of the product and that both have to be achieved to satisfy the consumer.

# 2.5 Theories and Models in Service Quality Delivery

Quality gurus in the 20<sup>th</sup> Century developed theories that were used to control quality in the traditional days of organizational development. Deming's approach of Total Quality Management advocated for the implementation of statistical quality management approach. The theory considers that it is critical and important that top managers acquire knowledge and clear appreciation of the usefulness of statistical tools in order to achieve enhanced quality and increased productivity (Deming, 1991). Joiner, a quality guru, and Deming's student introduced a framework for implementing Quality Improvement called "Joiner Triangle" (1992). The framework consists of three points of reference namely Quality, Scientific Approach, and All One Team. The framework informs that Quality is seen through the eyes of customers. This means that an organization understands the needs and wants of their customers where the needs and wants are translated into organizational language and are defined as customer requirements for the organization's processes.

In this case, how well the organization meets or goes beyond the customer requirements is measured by customer satisfaction. On the Scientific Approach it is the methodology of solving problems and making decisions. An organization uses data analyzed to understand how well processes are working and how much they can be improved and learning on the improvements made. All One Team approach is aimed at unifying staff work efforts by employees working together to continuously improve on all the activities they perform.



All in one team **Figure 2.1 Joiner Triangle** 

Use of specific method

Source: Logothetis (1992)

**Obsession with quality** – The principle mentions that key to improved quality is focusing on efforts for continuous improvements of all processes and that there are those processes which are normally not taught as being under control of service quality delivery like employee training, procurement, customer service, to mention a few. Deming mentions that pre-occupation with quality should be the business of the day, every day, and in an obsessive manner so that nothing else takes a priority.

**Use of Scientific Method** – According to this principle, use of scientific method less the clients' opinion would be the ideal method. This scientific technique help managers to focus their attention on process system rather than individuals and take decisions based on facts and not subjective feelings or unrealistic expectations. Through this method, one can easily exploit information generated by process, where the information can be used to anticipate, identify and correct mistakes thus improving quality.

All one team – This principle describes the achievement of a feeling among employees that they are all part of one team working towards a common goal, towards self-

improvement and long term company success and that top managers play a major role in the establishment of a team spirit by being themselves actively involved in quality improvement effort. That team spirit should extend outside the company to cover even sub-contractors, suppliers in an atmosphere of cooperation and trust (Logothetis, 1992).

According to Ishikawa (1968), the Quality Circles guru, his interest of providing quality service delivery emphasized on training supervisors in the quality process where he realized that the work of work groups participating in the process of quality realization would provide a means of securing quality standards at the work place and provide a systems of giving feedback to supervisors and managers on quality problems. By employees participating in quality circles, they gain commitment to quality and the groups are not intended to be the ends by themselves but a means to attaining quality control (Cole, 2004). In this study, ISO is categorized as a means to an end where it's appropriate applicability in the organizations work procedures, would be a means of realizing service quality in service delivery.

The study perceives ISO 9001:2008 as a modern way of realizing service quality in service delivery and in this case, is a means to an end to ending service delivery problems in an organization hence performance. Although TQM criteria such as quality leadership, human resource development, quality information, and others contribute to the improvement of customer satisfaction and business performance, none of these TQM enablers can guarantee enhanced performance. It is these enablers as a whole that contribute collectively to the improvement of performance. ISO 9000 standards are partially related to the implementation of TQM and the improvement of business

performance. Hongyi Sun (2000) recommends that ISO 9000 should be incorporated with the philosophy and methods of TQM.

Basu (2004) contends that ISO 9001:2008 tends to be contrary to the Total Quality Management philosophy because, with TQM, human resources are encouraged to do their own checking and to be responsible for getting it right first time and the need for supervision becomes almost superfluous, while In ISO 9001, the standard method will likely be set by management edict and once set in place, the bureaucracy of agreeing and recording improvements may stultify creative improvements. Therefore, ISO tends to be driven from the top down and relies on documentation checks, and tests to achieve a standard. On the other hand, TQM once it has been established, it relies on bottom up initiatives to keep the impetus of continual improvement. TQM does not advocate a stable system from which to advance improvements. The adoption of ISO 9001 approach means that there is a standard and stable system thus proving to be a useful base for any organization from which to launch Total Quality Improvement.

#### 2.5.1 Other studies on ISO 9001:2008

A cross-sectional study undertaken in Australia on "the longitudinal effects of ISO 9000 certification process on business performance" showed that there is a significant positive relationship between the manager's motives for adopting ISO 9000 certification and business performance (Terzoorsk, Power, & Sohal, 2003). It indicated that those organizations that pursue certification willingly and positively across a broad spread of objectives are likely to report improved organizational performance. The individual element found to contribute most to business performance was customer pressure. The

principal motivation to pursue ISO 9000 certification was found to come from customer pressure. Auditing style was found to have an insignificant positive or negative effect on business performance (ibid).

A research investigating the "effects of implementing ISO 9000 on measures of business and operating performance" performed in Israel and Minneapolis, found out that installation of ISO 9000 is positively related to use of ISO 9000 and the use of ISO 9000 is positively related to operating performance (Eitan & Marcus, 2005). The analysis indicated that while the installation stage was necessary to successful implementation of ISO 9000, organizations achieved a distinct operating advantage from this replicable standard when they used it in daily practice and as a catalyst for change. The validation of the study indicated that implementing ISO 9000 standard led to improved operating performances but that this outcome did not necessarily or automatically yield better business performance (ibid.).

The main value of ISO 9000 series is that the analyses of processes required by the standard leads to improving or re-engineering of processes. The benefits to a company that follows the standard's practices is finding new markets for their goods and services, increased cost-efficiency, improved employee morale and increased customer satisfaction (ISO 9001:2008 Quality Manual). This study therefore, aims to ascertain whether the implementation of ISO 9001:2008 as a modern way of attaining quality standards has improved service delivery in Kenya Pipeline Company Limited.

A part from recognizing the traditional quality approaches like statistical quality management approaches from the traditional gurus like Deming and Juran, The Joiner Triangle and Ishikawa, this study adopted Service Quality Model/GAP Model as propagated by Panasuramann and others which highlights the main requirements for delivering high service quality and which identifies gaps that may exist which may curtail service delivery in an entity.

The model identifies 5 'gaps' that cause unsuccessful service delivery. It informs that generally, customers have a tendency to compare the service they 'experience' with the service they 'expect'. It continues to say that if the experience does not match the expectations, then a gap arises.

# 2.5.2 Conceptualization of Service Quality Model in relation to service delivery in KPC

In relation to service delivery in Kenya Pipeline Company, gaps that may be conceptualized hereunder:

Gap 1 - A gap between consumer expectation and management perception – This gap arises when the management does not correctly perceive what the customers want. For example, KPC management may think that the clients want quality fuel but the clients may be more concerned with how responsive the employees are.

Gap 2 - A gap between an organization's management perception and service quality perception – here the management might correctly perceive what the customers want but

may not set the performance standard – for example, the KPC Management may tell employees to respond to a request very fast but may not specify how fast.

Gap 3 - A gap between service quality specification and service delivery – This gap may arise owing to the service personnel, the reasons being poor training, incapability or unwillingness to meet the set standards.

Gap 4 – A gap between service delivery and external communication – this is a situation whereby consumers' expectations are highly influenced by statements made by a company reports and advertisements - The gap arises when these assumed expectations are not fulfilled at the time of delivery of the service. For example, KPC prints on its internet home page that it offers fast delivery of fuel to various depots, but in reality, the delivery may be affected by delays leading to long queues thus the client's expectations may not be met.

Gap 5 - A gap between expected service and experienced service – this gap arises when the consumer/client misinterprets the service quality. For example, KPC supervisor may be visiting the depot outlet for supervision but the client may interpret this as an indication that something is wrong with the distribution outlet.

The central tenets of the theory are the 5 gaps that cause unsuccessful service delivery. The research study sought information from the study area using the different gaps expounded by the theory. In support of Pannasuraman's Theory of gaps arising during provision of quality services, Kiruthu (2013) mentions that one may think that the organization has the best products or best practice but customer feedback may suggest otherwise. She also mentions that creating a company culture committed to seeking and making good use of customer feedback is a leadership responsibility.

## 2.6 Contributions of ISO 9001:2008 to Quality Service Delivery

According to Basu (2004), organizations that have implemented ISO 9001 Series, tend to achieve a more competitive edge because by having certification, it gives the customer the confidence that the product or service being provided will meet certain specified standards and they will even insist that the organization's suppliers should be ISO accredited. In addition, organizations that are ISO accredited also achieve internal benefits such as; the methodology of the ISO system will show an organization how to go about establishing and documenting a quality improvement system. In order to achieve accreditation an organization has to prove that every step of the process is documented and that the specifications and check procedures shown in the documentation are always complied with.

Various management gurus have sighted various benefits that accrue to organizations have who implemented ISO 9001 in their systems. According to SmithersQualityAssessments.com, a well designed and implemented quality management system based on ISO 9001:2008 has been shown to provide organizations with various benefits that include having consistency in a repeated process and a common system, arising of fewer problems with failures in service or product quality, Human resources get to know what they are supposed to do and how something is to be done, and Quality Management System enables an organization to see its products and services to new

markets because its endorsement to ISO certification distinguishes it from other competitors in the market place. In addition, organizations practicing quality management systems based on ISO 9001:2008 are able to diagnose quickly when things are going wrong on a system and are able to stop spending more funds and time on the same problem.

ACS Registrars, an ISO Certification body based in the UK also sites some of the benefits that have been achieved by organizations that are ISO 9001 certified (2003). They argue that by practically implementing ISO 9001, there will be overall business improvement and this will not be just a set of procedures that employees find it hard to manage. They cite some of the benefits both to the organization and to the customers. This includes provision of an efficient management process to the senior management of an organization, sets out areas of responsibility across the organization, communicates a positive message to staff and customers, identifies and encourages more efficient and time saving process. In addition, it highlights deficiencies and calls for correction thus reducing costs and provides continuous assessment and improvement and provides marketing opportunities.

Some of the benefits to the customers include improved quality and service, delivery of product and service on time, the right first time attitude, fewer returned products and complaints in case it is a manufacturing industry, and independent audit demonstrates commitment to quality.

According to QuaityQurus.com (February, 2011), quality management has been achieved in many organizations due to emergence of quality standards bodies of which ISO 9001 series is included. They cite some of the benefits to the company which include the ability for the company to satisfy customer needs, better management control and reporting, it requires organizations to maintain continuous improvements, there are fewer problems with failures in service or product quality, there is greater employee awareness about quality, it is a marketing tool for sales promotion in a company, and also increased company credibility.

### 2.6.1 Studies in Kenya on ISO 9001:2008

Researchers have carried out studies in Kenya concerning ISO 9001:2008 certification and implementation and the perceived benefits. In a research study conducted by Aluvi and Kimutai in Mumias Sugar Company, it was found that the production was high during pre-ISO years and after the implementation and certification, production went higher.

Guchu and Mwanaongoro (2012) in their research (cited in Motwani et al, (1994), who summarized the benefits of ISO into six categories namely; the assurance of business relations with most nations where some countries especially the European Community (EC) insist on conducting business with ISO Certified firms only, there is a worldwide recognition because the standards are considered a universally accepted quality standards, use of certification is marketing, a listing in the international "certified supplier" directory, improved quality and productivity and reduced costs associated with a basic quality system, and lastly the elimination of expensive, time-consuming, second-party audits by prospective customers. In addition, it is of the opinion that ISO 9001:2008 is a sum-up of all the traditional quality techniques that involves an interaction of the Management, human resources, company suppliers, and clients making if more superior in attainment of quality service delivery by adhering to the standards and procedures of performing tasks. It also seeks to understand whether the research findings recorded other similar or differed opinions towards the benefits that have been accrued through ISO 9001:2008 implementation and certification.

# 2.7 Challenges of ISO 9001:2008 Implementation on Service Delivery

Organizations that have ISO implementation in place worldwide are facing different challenges depending on the sector they are running their businesses. According to Basu (2004), there are both internal and external challenges that occur to organizations and institutions whether large or small. Internal costs include the expense of obtaining accreditations which are expensive more than what organizations are prepared to admit and these challenges are not easily known unless everyone is involved in setting up the system records and the cost of time being spent. External challenges include hiring of consultants who are expensive and thus organizations are forced to take quotations of the consultants. These consultants help in planning and they give guidelines of holding meetings during ISO implementation. The organization is left with the big job of implementing ISO.

The revision of the QMS by ISO in Geneva (2009) was factored by looking at some of the challenges that are experienced by users of the QMS. These challenges include:

- Aims of Quality Management Systems – A quality management system must have an aim and most organizations have been aiming at obtaining a certificate without

establishing a system. This aim can only be achieved if the top management has a clear vision and purpose in the present and near future.

- Process Orientation Many organizations are not managing businesses as a set of processes, that is, there are no business owners that have authority to get work done across the departments. Ideally, there should be interaction of work processes on how work is obtained, processed, and delivered.
- Resource Management This includes personnel competence, infrastructure, and \_ work environment. Many organizations collect feedback on course content, duration of course, faculty knowledge at the end of a programme to evaluate the effectiveness of training. Such evaluations provide feedback to trainers rather than what participants have learned thus the training evaluations may not capture whether the training was effective and therefore, cannot determine effectiveness. An organization's infrastructure includes technologies, communication, information management, transportation services and equipment. Work environment on the other hand involves employee safety, heat, humidity, light, housekeeping, noise pollution, employee involvement and other factors. Many organizations meet the challenge of sourcing for funds to improve on the existing infrastructure and work environment to overhaul the system as per the ISO 9001:2008 requirement. The challenge here is that organizations may not have experience nor have an established system of addressing resource needs on the issues mentioned.
- *Continual improvement* This requires organizations to collect data and analyze using appropriate statistical techniques. Such techniques are identified by organizations as not being applicable and are ignored by consultants. Organization

management ought to shift from working by use of opinions to management by fact. Organizations need to invest in training employees in data-based analytical and management techniques.

 Process-based techniques – Auditors are facing the challenge of carrying out process audits in the absence of detailed documented procedures.

Al-Najjar *et al.* (2011) in their research findings on ISO 9001 Implementation Barriers and Misconceptions, found out that there are crucial barriers in organizations that bar the implementation of ISO 9001:2008 and that the most crucial barriers are: Top Management Commitment, which could be attributed to the management staff having low education on quality. Secondly as mentioned by Al-Najjar, high top management turnover could also be a contributing factor, and low leadership dedication to quality. In addition to Al-Najjar *et al*, findings, Psomas *et al*. (2010) sight employee resistance as a contributing factor to the difficulties realized. They mention that employee resistance may come from the fear caused by a lack of information about ISO 9001:2008 requirements and the belief that it will be difficult to change the mindset of employees regarding quality programmes. Therefore, employee understanding and support to ISO 9001:2008 are critical to its success.

Difficulty of performing internal audits is another barrier (Sousa-Poza *et al.*, 2009). This is a means of improvement and to confirm compliance with the requirements of the standards and lack of experience in performing in internal audits is attributed to lack of understanding of the Quality Management Systems, level of education, lack of training, and low employee morale. Other barriers include absence of consulting boards, ISO

9001 Requirements being unrealistic, lack of financial resources, lack of human resources, insufficient employee training, and insufficient knowledge about quality programmes.

In the Kenyan experience, Aluvi and Kimutai (2009) came up with both individual challenges and company challenges. The individual challenges include culture change of employees because the long serving employees felt that change would influence their role and status as well as threatening their job security thus slowing down ISO implementation process because they took time to adopt into the change. There was increased work volume due to the documentation process and regular updating of procedures whenever there was change. There was also an introduction of new technology thus some employees were rendered obsolete and there was need for more training of existing employees. The challenge of documenting procedures was also noted especially in the initial stages of the implementation and whenever audits were carried out. Limited resources to kick start the process made the employees to wait for a long time before carrying out the task among other challenges.

Ndumbe (2011) found out that resource availability, compliance level, customer focus and employee participation were some of the challenges that influenced the implementation of ISO 9001:2008 Quality Management System with employee participation considered a challenge by the highest majority of the respondents.

Kiruthu (2013), a Management Consultant, mentions customer feedback as a tool for improvement. She argues that customer care is a statement that is often posted in websites, forms or other feedback channels but most people are not always eager to share what they think mainly because they are not certain that what they comment on will be taken positively. She adds that most organizations shy away from customers who wish to share their honest thoughts and they would not even dare ask customers for further information; sharing the kind of feedback that one thinks the organization would want to hear may not be helpful.

In addition, she mentions that customer feedback may be positive, negative, or neutral and that it can be shared both orally or may be presented in writing, formal or informal. Ken Blanchard's quote "Feedback is the breakfast of Champions" as quoted by Kinuthu posits that companies who choose to take customer feedback positively are champions. Managing customer feedback is as important as receiving it whether it is received through the traditional communication channels or through the internet. In order to make the most of customer feedback, they must be logged and analyzed so that customer feedback trends are identified. This has to be done from a central point in an organization. The consolidated feedback is used to identify trends, provide opportunities for improvement and identify areas of strength.

The researcher in this case of Kenya Pipeline Company, carried out the study to get to know whether the challenges that have already been realized in the researched companies are similar or whether every organizational setup has its own challenges depending on the sector of operation because obtaining certification is not the end of the challenges encountered especially with the changing business environmental needs.

#### **CHAPTER THREE**

#### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

This chapter explains the processes that were used to generate data, how the data was analyzed and presented based on the set objectives. These include research design, study area, sampling, study population, sample size, data generation instruments, reliability and validity of research instruments, data analysis and presentations, ethical considerations, and finally the conclusion.

## **3.2 Research Design and Approach**

The study utilized a case study design. A mixed method approach was used to generate data. This method uses both quantitative and qualitative methods where both data was generated by use of a questionnaire which was designed to capture both quantitative and qualitative data. Additional qualitative data was generated through interviewing by use of an interview guide. Rensburg *et al.* (2009) defines quantitative research as a formal, objective, and systematic process in which numeral data are used to obtain information about the phenomena under investigation. Dawson (2009) on the other hand defines qualitative research as one that explores attitudes, behaviours, experiences and focuses on meaning and understanding. This study therefore, utilized the sequential mixed method where the quantitative data was first collected to seek employees' and customers' views on how quality service delivery has improved since the implementation of ISO

9001:2008. Qualitative data was obtained by use of an interview schedule to the Management staff of the company.

#### 3.3 Study Area

The Kenya Pipeline Company (KPC) Limited is a State Corporation that was established on 6<sup>th</sup> September, 1973 under the Companies Act (CAP 486) of the Laws of Kenya and started commercial operations in 1978. The Company is 100% owned by the Government and complies with the provisions of the State Corporations Act (Cap 446) of 1986. The Company operations are also governed by relevant legislations and regulations such as the Finance Act, the Public Procurement Regulations, and Performance Contracting. Kenya Pipeline Web Page (2013).The area of study had a population of One Hundred, Sixty Four (164) employees who were distributed among eleven departments namely: Engineering, Operations, Business Development, Corporate Planning, Finance, Human Resources, Internal Audit, Information Communication Technology, Departmental Managers (KPC website). A part from the employees, the study area also had 49 respondents who represented the various shipping companies.

#### **3.4** Target Population

The target population of the study comprised of employees of Kenya Pipeline Company, Nakuru Branch, the Company Management staff who totaled to 164, and 50 clients who were referred to as Shippers. The total population was 214 respondents. Employees of Kenya Pipeline Company were the core respondents of the study since they were mandated to implement ISO 9001:2008 in the company. Shippers are customers to Kenya Pipeline Company Limited who store and distribute fuel to various parts of the country. Therefore, the implementation of ISO 9001:2008 has a trickling down effect on them because the operations directly affect their business operations. According to Sproul (1995), a target population is the total number of subjects or the total environment of interest to the researcher.

# 3.5 Sampling

Sampling is the act, process, or technique of selecting a representative part of a population for the purpose of determining parameters or characteristics of the whole population. Kothari C.R. (2009). A population according to Merriam-Webster (2012) is defined as the whole number of people or inhabitants in an area, country, or region. The next sub-section presents the target population and a description of the sample size of the study.

## 3.6 Sample size

The study sample was 100 comprising of employees, management staff and shippers of the company. Quantitative data was obtained through questionnaire responses from all the 100 respondents. Thereafter, purposive sampling was applied to the 3 Management staff who included the Depot Manager who is the General Manager, one Administrative Officer, and 1 Section Manager present, who participated in the interviews to generate qualitative data. Purposive sampling was used on the Management staff because they participate in policy making and they spearheaded the implementation of ISO 9001:2008 in the company. A sample size determination formula of 30% rule as propagated by Kothari (2004) was utilized on all respondents because they all had an equal chance of being selected to be part of the sample.

#### **3.7 Data Collection Instruments**

In the study, data was collected in two phases. The first phase was the Quantitative (QUAN) phase by use of questionnaires. The second phase was Qualitative (QUAL) by use of participative interviews. Secondary data was generation through observation of office records.

# 3.7.1 Questionnaires

These were used in the research study (refer to Appendix II) to generate quantitative responses from the respondents. The questionnaires were both structured and unstructured. Structured means that respondents gave definite answers to questions that have already been pre-determined with the same wordings repeated in all the questions (Kothari, 1990). The structured research questions were both open-ended and closed-ended. In open-ended questions, respondents had the freedom of expression when answering questions so that they were able to give their insights concerning their views on ISO and service delivery in the organization thus generating qualitative data. On the other hand, close-ended questions were dichotomous in nature where the respondents had only two alternatives when answering questions.

# 3.7.2 Informant Interviews

These research tools produced qualitative data. Data was obtained through direct personal interviews. During the interview sessions, an interview guide was used and the questions were both structured and unstructured. By using unstructured method of interviewing in this research, the researcher was able get a deep insight of what the respondents perceived and their attitudes concerning ISO as a strategy to improvement of service

delivery in the research area. It also enabled the researcher to obtain information at a greater depth towards the subject matter. This entailed face-to-face interaction between both parties which cultivated a conducive environment for discussion. In addition, structured questions aided the researcher to extract information from respondents in a rigid procedure or already laid down questions in a prescribed order. Data was collected through face to face interaction between the interviewer and the respondents. Jwan and Ong'ondo (2001) cite Cannell and Kahn (1968, p. 527) who define an interview as a technique of generating data that "involves gathering data through direct verbal interaction between individuals".

# 3.7.3 Office Records

The existing office records in the research area produced data related to various work procedures that included Registry Department records on how to receive and post mails. This enabled the researcher to analyze and compare how documents moved from one office to the other.

## **3.8** Reliability and Validity of the Research Instruments

To determine the reliability of the research instrument, a questionnaire was administered to the General Manager and Quality Management Departmental staff on a test re-test basis. This was administered to the respondents who filled the questionnaires and were able to pinpoint areas that needed reframing of questions and corrections made. After a span of 7 days, the questionnaire was administered again to the same members of staff who filled the questionnaires the second time and the questions were found to be reliable. The questionnaire was structured uniformly in terms of questions so that responses from different respondents would determine the consistency of the feedback. To determine the validity of the research instrument, a pilot study was performed one month prior to the onset of the main study in Eldoret Water and Sanitation Company that is ISO 9001:2008 certified and offer similar services.

### 3.9 Research Method

In the study, there were three categories of respondents, employees of the company, Management members, and the shippers who were the clients of the company. There were two sets of questionnaires, one set for all employees (management staff included) and the second questionnaire for clients (shippers). In the first phase of the study, the two sets of questionnaires were distributed. The first set of questionnaires were distributed to employees of the company (management and employees included) where 70 respondents out of 164 responded. The second set of questionnaires was distributed to the clients (shippers) where 30 out of 50 respondents representing various companies responded. This was to generate quantitative data. Thereafter, 3 employees at management level participated in key-informant interviews to generate qualitative data. Secondary data was also generated by studying the existing office records.

#### 3.10 Data Analysis and Presentation

After subjecting the quantitative data through coding and cleaning, it was processed with the help of Statistical Package for Social Sciences (SPSS) computer programme in order to facilitate descriptive statistical analysis. Data was presented in form of tables, graphs, charts. Interviews were analyzed thematically and thereafter, conclusions and suggestions were arrived at.

# 3.11 Ethical Considerations

In adherence to the standard ethical considerations, the researcher sought permission from various authorities and research participants in order to carry out the research. A letter permitting the researcher to commence research was obtained from the Dean of the School of Human Resource Development in Moi University. A research permit was also sought from the Ministry of Science and Technology, as well as authority from the Management of Kenya Pipeline Company Limited. The researcher justified to the respondents the objective of the study and assured them of the confidentiality of their responses and their willingness to withdraw from the study. The quantitative data instrument was serialized so that the anonymity of the respondents was protected and names were not mentioned when analyzing the qualitative data.

## **CHAPTER FOUR**

#### DATA PRESENTATION, ANALYSIS AND INTERPRETATION

#### 4.1 Overview

This chapter presents research findings based on the set objectives. The study sought to analyze changes in the determinants of quality service delivery since ISO 9001:2008 implementation in KPC, Nakuru branch; to assess the effect of ISO 9001:2008 implementation on quality service delivery; and to establish the challenges encountered in the implementation of ISO 9001:2008 on quality service delivery.

## **4.2 Background Information of the Respondents**

The respondents of the study were categorized in to two. The first category was employees of Kenya Pipeline Company Limited (PS 25 Nakuru Station) both male and female and among these were Five (5) Management staff. Out of the 164 employees, 70 respondents inclusive of the Management staff participated in the Quantitative (QUAN) and Quantitative (QUAL) data generation where 41 were male employees and 29 were female employees. The second category of respondents was the clients of the company referred to as the Shippers who engage in shipping fuel and fuel products, store the product in KPC and transport them to clients in various parts of the country and beyond the country's borders. All the 49 shippers had been identified but 30 respondents from various companies responded to the questionnaires.

The initial section was analyzed by obtaining the background information of the respondents and data obtained from the study was analyzed as per the objectives of the study.

## **4.2.1 Demographic Information of the respondents**

The demographic information in this study was sought from the respondents who willingly provided their age brackets, gender, marital status, their level of education; the department in which they were deployed to deliver service and their years of experience. All these information was collected through questionnaires. The analysis is as presented in the tables below:

# 4.2.2 Age distribution of the respondents

As indicated in table 4.1, it is evident that majority of the employees were between the age bracket of 36 and 45 years; a percentage slightly above those between the ages 25 - 35 and 46 - 55. This suggests that majority of the employees are experienced in handling daily operations of work.

	Frequency	Valid Percent (%)	Cumulative
			Percent (%)
Under 25	2	2.9	2.9
25 - 35	21	30.0	32.9
36 - 45	29	41.4	74.3
46 - 55	17	24.3	98.6
Above 55	1	1.4	100.0
Total	70	100	

Table 4. 1: Age distribution of the respondents

# 4.2.3 Gender distribution of the respondents

As shown in figure 4.1, study findings indicate that male employees in Kenya Pipeline Company Limited were 41 out of the 70 respondents and female were represented by 29 respondents. This is an indicator that the company is operating within the recommended gender balance policy as per the Kenya Constitution which states that there should be a balanced representation of male/female employees in every organization (Laws of Kenya, 2010). ISO 9001:2008 also emphasizes on uniformity in work procedures which is not limited to employee balanced gender recruitment.



**Figure 4.1 – Gender distribution of the respondents** 

## 4.2.4 Marital Status of the respondents

As indicated in table 4.2, more than half of the population was married when compared to those who were not married.

	Frequency	Valid Percent (%)	Cumulative (%)
Single	12	17.1	17.1
Married	58	82.9	100.0
Total	70	100	

Table 4.2 – Marital Status of the respondents'

# 4.2.5 Respondents level of education

Respondents' level of education is very important to the study because it determines the kind work one performs in the place of work and one's ability to carry out a task. According to the study findings, majority of employees who form the core operatives of
the company are university graduates followed by those who attained secondary school education. The graduates are the ones who are fully involved in the implementation of ISO procedures in the departments they operate in. Most of those who attained secondary education as the highest level of education are sub-ordinate members of staff. Those who fall on the "others" category are graduates from technical training colleges who also work in the technical departments like Civil Engineering, Mechanical, and Electrical Engineering and are also core to ISO 9001:2008 implementation. Based on the education levels, it is evident therefore, that employees' in Kenya Pipeline, Nakuru Branch have the capacity to implement ISO 9001:2008 work procedures thus improving service delivery to its clients because the level of competency in every level is evident.

	Frequency	Valid Percent	<b>Cumulative Percent</b>
Primary	1	1.4	1.4
Secondary	26	37.1	38.6
University	33	47.1	85.7
Others	10	14.3	100.0
Total	70	100	

Table 4.3: Respondents level of education	<b>Table 4.3:</b>	Res	pondents	level	of	education
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**Figure 4.2: Chart showing Respondents level of education** 

#### 4.2.6 Respondents departmental distribution

Research findings in KPC, Nakuru Branch indicate that respondents who provided feedback in the study work in the Administration Department, which is under Operations Section. This is the department where a large number of ISO internal auditors are stationed and they are the ones who lead the rest in the implementation of ISO 9001:2008 procedures. Eleven participants (15.7%) worked in Civil Engineering while those who worked in the Mechanical Engineering section were Nine (12.9%). There was scarcity of respondents in Quality Control Department because in every shift, only two (2) employees who operate the fuel monitoring computers could be found at a time. It is a department which found to have the least number of employees working at a time. The reason for establishing the respondents in every department was to ascertain the distribution of the respondents and their role in providing quality service delivery.

	Frequency	Valid	Cumulative
		Percent	Percent
Department deployed			
Operations	5	7.1	7.1
Administration	20	28.6	35.7
Quality Control	2	2.9	38.6
Electrical Engineering	1	1.4	40.2
Instrumentation & Comm.	2	2.9	42.9
Accounts	6	8.6	51.4
Mechanical Engineering	9	12.9	64.3
Civil Engineering	11	15.7	80.0
Safety & Occupational Health	4	5.7	85.7
Stores	3	4.3	90.0
Security	7	10.0	100.0
Total	70	100	

### Table 4.4: Respondents departmental distribution

### 4.2.7 Distribution of respondents by work experience

It was important to note the duration of time that individual employees have worked in Kenya Pipeline Company. This is because it is a determining factor in terms of the level of experience an employee had gained and how conversant they are with their work. Out of the 70 employees who participated in the study, 35 had worked between 11 and 20 years followed by 17 who had worked between 5 and 10 years. This indicates that experience in the daily operations of work was well captured by the employees. Those who had worked between 21 - 30 years were slightly more than those who had worked for 5 to 10 years. Only 3 respondents had worked for less than four years in the company. Based on the various categories of work experience, the researcher was able to obtain substantial amounts of responses and thus able to realize the objectives of the study because most employees had experience and understood the working of the company

prior to and after the implementation of ISO 9001:2001 regulations. Figure 4.3 summarises the participants' work experience.



Figure 4.3: Chart showing Distribution of respondents by work experience

Having established the number of years the employee respondents had worked in the company, it was also important to take note of the number of years the shipping companies had done business with the pipeline company. Out of the 30 respondents of the shipping companies, 1 of the companies has transacted business with KPC for 23 years and 2 of them for 20 years. 6 companies reported having transacted business for 10 years while those who had transacted business between 11 and 19 years were 6 companies. 15 companies had transacted business with KPC between 5 and 10 years. This was a good indicator that the respondents were able to assist the researcher meet the objectives because the shipping companies had a considerable experience with the

company. Table 4.5 is a demonstration of the number of years the shipping companies have transacted business with Kenya Pipeline Company.

No. of Years the business with I	ransacted Frequency KPC	Valid Percent	Cumulative Percent
5	4	13.3	33.3
6	3	10.0	43.3
8	2	6.7	50.0
10	6	20.0	70.0
12	2	6.7	76.7
15	2	6.7	83.3
16	1	3.3	86.7
19	1	3.3	90.0
20	2	6.7	96.7
23	1	3.3	100.0
	Total	30	100.0

Table 4.5: Number of years the company has transacted business with KPC Limite

### 4.3 Transformations in Quality Service Delivery since implementation of ISO 9001:2008

This section analyzes changes in the quality of service delivery at KPC by comparing service delivery practices prior to and after the implementation of ISO 9001:2008. It starts by highlighting the various strategies that were used to provide service delivery in pre-ISO 9001:2008 years.

#### 4.3.1 Client Satisfaction Analysis

According to the study findings, the key processes that were used to determine client satisfaction prior to ISO 9001:2008 implementation include client accessibility by

company employees, employee competence in their work, employee communication to clients, employee courtesy, employee/client safety in the working environment, use of telephone calls and written communication to receive client complaints/compliments.

Determinants of service delivery before ISO	Response	Frequency	%
9001:2008 implementation			
Whether accessibility of service was used before	Yes	47	67.1
ISO 9001:2008 was implemented.	No	23	32.9
Total		70	100
Whether employee competence evaluation was	Yes	35	50
used before ISO 9001:2008 was implemented.	No	35	50
Total		70	100
Whether evaluation of employee communication to	Yes	41	58.6
clients was used before ISO 9001:2001 was	No	29	41.4
implemented.			
Total		70	100
Whether evaluation of employee courtesy was used	Yes	25	35.7
before ISO 9001:2008 was implemented.	No	45	64.3
Total		70	100
Whether evaluation of safety of clients/employees	Yes	35	50
was used before ISO 9001:2008 was implemented.	No	35	50
Total		70	100

Table 4.6: Determinants of service delivery in pre-ISO 9001:2008 years

As demonstrated in the table 4.6, most employee respondents (67.1%) agreed that client accessibility to service was used to determine quality service delivery while a few (32.9%) disagreed. The clients responses (Shippers) on whether telephone communication was used to determine service delivery concurred with the employee respondents in that out of 30 respondents, 17 agreed. Those who agreed that written

communication (complaints/ compliments) by clients was used were much more than those who disagreed. On whether face to face communication was used, 39 (55.7%) agreed that face to face communication was used while 31 (44.3%) disagreed. There was a higher variation from the shippers, perspective because only 9 respondents agreed to the use of face to face to communicate with the management while 21 disagreed that face to face communication was used. Findings further show that evaluation of employee courtesy was rarely done prior to ISO 9001:2008 implementation. Only 35.7% indicated having witnessed evaluation of courtesy being undertaken compared to 64.3% who disagreed.

The various analyses above indicate that various departments in KPC used various communication channels to address their clients on various issues at hand. According to shippers (clients) responses, written communication seem to have been the least utilized source of conveying information to the Kenya Pipeline Company Management prior to ISO 9001:2008 implementation because out of 30 respondents, only 12 agreed while 18 disagreed. Participants were divided on whether employee competence evaluation was undertaken. This could be true because at the time, ISO had not been implemented in the company thus employee evaluation may not have been in existence. Half of the participants indicated having witnessed this being done while half did not witness. This could also suggest that the practice could have been undertaken in some departments and not others.

When the management members were interviewed on the measurement of quality service assessment prior to ISO 2008:9001 implementation, a different perspective emerged. It

was noted that client expectations played a key role in the evaluation, as one of the

participants argued:

.....The Company evaluated itself on its performance by making sure that it went beyond and above the clients' expectations. (KPC Management Representative, September, 2013).

Further, client complaints and complements, the volume of work transacted per day, and company investments also played a critical role in determining client satisfaction, as one participant indicates:

...Service delivery was also evaluated in terms of customer satisfaction through compliments/complaints to ensure that service was available, reliable, and timely. It was measured by the amount of litres of fuel dispatched per day. To add into that, service delivery was measured on whether the company was able to meet budgetary targets. Finally, service was evaluated and measured by looking at the investments made by the company. In the year 2002, performance contracting was done whereby the overall company production to individual production was evaluated. (Respondent 1, September, 2013).

From the above responses, it is evident that both the employee respondents and Management respondents alike agree that before ISO 9001:2008 was implemented, customer complaints/compliments was a strategy used to sort out issues that affected the company's service delivery.

Shippers were also key respondents in this study because they are clients of Kenya Pipeline Company Limited. Their responses on the quality of service delivery before ISO 9001:2008 were varied. Out of the 30 respondents, only 2 responded that service delivery was poor. Eleven (11) complemented that service delivery was fair, 16 agreed that service was equally good while only 1 respondent commended that service delivery was

very good. Generally, responses from both the clients and shippers indicated that service delivery was generally good before ISO 9001:2008 implementation.

Management in every organization is tasked with implementation of policies and

standard procedures of work. In KPC the management had various reasons that prompted

the organization to adopt ISO 9001:2008 as a strategy to provide quality service delivery.

Their responses are quoted below:

....ISO 9001:2008 involves standardization of procedures and thus the company opted to adopt it as a strategy so that the company would be able to interact with its clients (Management Representative 1, September, 2013).

Every organization would like to be part of ISO 9001:2008 for the purpose of improving service delivery in terms of customer satisfaction in that, whatever would want to offer is available, reliable, and timely. Unfortunately, for the case of ISO certifications, companies went for an easier way of setting low standards in order to achieve ISO certification which leads to poor products or service. (Management Representative 2).

Every company was striving to be seen and be heard to be part of ISO 9001:2008. Our company obtained ISO 9001:2008 in order to improve and standardize operations/structure the operations process. In addition, the company adopted the strategy due to changed business/environmental demands and improved quality service delivery as a way of reducing costs (materials, human resources, and finances). This was done through measuring of time, availability of the product and its reliability. Another reason was to enable the company to win both the market share and customer confidence (Management Representative 3).

### 4.3.2 Communication methods used to receive clients compliments/complaints

It was important to note the various communication methods that were used before the implementation of ISO 9001:2008 in Kenya Pipeline Company. Both employee respondents and shippers gave their views on the methods used. According to employee

responses, a considerable number of them agreed that telephone calls were commonly used and only a few of them disagreed on the use of telephone calls.

On whether face to face communication was utilized, 39 respondents agreed to the fact that the method was used while 31 disagreed that face to face communication was used. The respondents were divided on this particular response.

Written communication was also highlighted by a good number of respondents as having been the method used to communicate to clients. Those who did not consent bear the same percentages as those who disagreed on the use of telephone calls.

Shippers also had their responses more positively than the employee respondents on the use of telephones to tender complaints. Out of the 30 respondents, 17 of them concurred that the method was used while 13 of them disagreed. On whether face to face communication was used, only 9 shippers agreed that the method was used while 21 disagreed. A few shippers agreed that written communication was used while a good number of them disagreed on the method.

Basing on the mixed reactions from both the employee respondents and shippers, there is an indication that different shippers used different methods to convey their grievances and compliments meaning that there was no standard way so long as the information had been conveyed. The same case applies to the employee respondents that despite the fact that they were all working in the same organization with the same vision and mission, there was also no standard way of communicating with the company's clients. According to the research findings, it is noted that there was a considerable number of ISO recommended communication methods that were introduced in Kenya Pipeline Company in addition to what was in existence.

# 4.4 Communication Methods Introduced in the Company after ISO 9001:2008 was implemented

When Kenya Pipeline Company became ISO 9001:2008 certified, new communication methods were developed and introduced in order to improve the rate of communication between the employees, company management and clients. They include:

#### 4.4.1 Customer Complaint/compliment feedback box

Participant employees responded that customer complaint feedback box was one of the method introduced as recommended by ISO 9001:2008. These boxes were placed strategically in various public and customer interaction sites along the corridors and areas surrounding the service areas of the company. Client responses were captured through filling of forms which contained various questions to be answered by the clients.

#### 4.4.2 Online Communication

Online communication was also introduced through sending and receiving of e-mail messages. Every employee in the company was able to communicate in that system reports were generated and deliberated on by Management representatives who include depot managers during teleconferencing by the use of SAP System. This is a system where Depot Managers in different workstations interact through teleconferencing and

brainstorm on problems at hand, deliberate on way forward. This enabled the managers to solve urgent and crucial issues upfront.

#### 4.4.3 Monthly meetings

Monthly meetings were introduced and held at particular times of the month in different departments to deliberate on matters that negatively affected the operations of the company.

### 4.4.4 Installation of Intranet Protocol Phones

The installation of Intranet Protocol Phones (IP) necessitated by fibre optic cables enabled faster and cheaper communication unlike during pre-ISO years when the physical telecommunication lines were installed and could be affected by all sorts of natural challenges like weather changes, and vandalism of the physical structures in place to mention a few.

#### 4.4.5 Social Gatherings between stakeholders

Apart from the mentioned methods, the Management of the company also introduced social gatherings between the employees and the clients (shippers) in form of lunches and dinner where they would interact and were able to open up on pressing issues.

Shippers also gave their feedback on the newly acquired methods of communication which were similar to those mentioned by employee respondents. They sighted the introduction and use of IP phones where they interacted directly with station managers. Some gave written communication as a method that has continued to be embraced in the company while others mentioned customer feedback forms. Some respondents preferred visiting the Kenya Pipeline offices and airing their complaints and compliments physically by walking into the management offices.

The study findings indicate that e-mail conversations and customer feedback forms where methods that were embraced by both the employees and the shippers.

#### 4.5 Document storage and retrieval

It was important to capture employee responses on how document storage and retrieval was handled in the company in pre-ISO 9001:2008 years and after ISO had been implemented. A large number of employee respondents agreed that document storage and retrieval was good followed by 23 respondents who commended that it was fair before and after ISO implementation. An insignificant percentage of respondents were of the opinion that document storage and retrieval was poor but also another insignificant number commended that it was very good. There were mixed reactions between the employees concerning document storage and retrieval. It is to the understanding of the researcher that some employees were knowledgeable in communication technology more than others such that those who had insufficient knowledge were not able to retrieve documents easily hence their response. On the other hand, some employees were ignorant concerning document storage and retrieval by use of computers hence their negative response towards the same.

#### 4.6 State and condition of equipment in terms of layout and maintenance

State of equipment and its layout play an important role in an organizations productivity and service to the client. Sound and functioning equipment is one of the main tools that increase employee motivation because they assist the user to perform whereas poor equipment maintenance and setup is de-motivating. The study sought to obtain responses from the employees on the state of equipment and their layout before ISO 9001:2008 implementation.

A large number of respondents (60%) attested that equipment and how it was laid out in the organization was good while 27.1% respondents indicated that they were fair in terms of maintenance and setting. Ten percent (10%) were not satisfied while 21.4% were very satisfied with the maintenance and layout of equipment even before ISO 9001:2008 was implemented.

## 4.7 State and Condition of equipment in terms of layout and maintenance after ISO9001:2008 was implemented

Generally, there was an improvement of the state and condition of equipment in terms of layout and maintenance after ISO 9001:2008 was implemented in the company. This was evident to the researcher because having visited the various offices in the company, it was noticed that most of the equipment laid down had ISO Certified procedures on how they were mounted in the specific areas and the duration of time they were supposed to operate before they were serviced. However, the researcher noticed that a few offices needed expansion and uplifting of the structures. That could have necessitated the 10% respondents who did not agree that the state and condition of equipment was good.

### 4.8 Responses on other factors related to office environment after ISO 9001:2008 Implementation

#### 4.8.1 Respondents level of satisfaction of office layout

Office environment in terms of layout and space is another vital issue that contributes to employee productivity and the ability to provide quality service delivery to the client. 54.3% of the respondents were moderately satisfied with the office layout while 21.4% were very satisfied; 14.3% were slightly satisfied about the office layout while 10% were not satisfied at all. These varied responses are evident because on physical presence of the researcher, different departments were stationed in the same environment but the building structures were not the same. Those departments that were stationed in the administration block seem to have a favourable office layout when compared to engineering and purchasing departments. Some structures were still in the construction stage yet they were already occupied by employees while those next to the loading bays like purchasing were semi-permanent and were not sound proof such that there was a lot of noise from the tankers which operated in the same environment either waiting to be loaded or already loaded and moving towards the gate for inspection. This justifies the varied responses as demonstrated in the table 4.7.

## Table 4.7: Respondents level of satisfaction on office environment in terms of office layout

Response

Total	70	100.0	
Very Satisfied	15	21.4	100
Moderately satisfied	38	54.3	78.6
Slightly satisfied	10	14.3	24.3
Not satisfied at all	7	10.0	10.0

# 4.8.2 Respondents level of satisfaction on office environment in terms of office lighting

Office lighting is also an important aspect towards an employee productivity and provision of quality service delivery. Poor office lighting can be a source of poor sight among employees and vice versa. Out of the 70 respondents, only 2 employees were extremely satisfied with the office lighting and 2 others were slightly satisfied; 46 were very satisfied while 15 of them were moderately satisfied. The study therefore justifies that although a few were not happy with the lighting system, they were insignificant though it is important for the Management to note because the insignificant number could be employees working in very sensitive areas of operations and therefore, cannot be ignored.



# Figure 4.4: Respondents level of satisfaction of office environment in terms of office lighting

# 4.8.3 Respondents level of satisfaction on office environment in terms of management of workplace violence mitigation

Seeking employee responses in line with the management of employee violence mitigation was vital for this study because it is a cause of disciplinary matters that consume a lot of an organization's time. According to the study, a good number of employees were very satisfied on how the management has put measures to prevent employee violence in the work place. 17% of the respondents were moderately satisfied, while 15.7% were extremely satisfied. An insignificant number of respondents were either slightly satisfied or not satisfied at all. This is an indicator that despite most of the employees being happy on how the management is maintaining harmony in the organization; a few elements feel that the management needs to work more to create a harmonious environment.

	Frequency	Valid Percent (%)	Cumulative (%)
Not at all satisfied	6	8.6	8.6
Slightly satisfied	3	4.3	12.9
Moderately satisfied	12	17.1	30.0
Very satisfied	38	54.3	84.3
Extremely satisfied	11	15.7	100.0
Total	70	100	

Table 4.8: Respondents level of satisfaction of management of workplace violence

# 4.8.4 Respondents level of satisfaction on office environment in terms of indoor air quality

Indoor air quality is another office environment factor that determines employee provision of service to clients. Office cleanliness in relation to record keeping affects safe keeping of documents whether in paper or electronically because records kept in unsafe and dirty atmosphere directly affects service delivery to clients because employees may not locate the documents when in good form especially electronically thus may affect their service to clients through delays in retrieving the documents. Employees responded in a five-point likert scale on their feelings about indoor air quality and their responses were varied. Out of the 70 respondents, majority were moderately satisfied with the kind of indoor air quality followed by 19 respondents who were very satisfied. Those who were slightly satisfied were 10 while those who were not satisfied at all were 8. As per employee responses, it is likely that the responses differ because a personal visit to the Kenya Pipeline Company in Nakuru environment evidently showed the air quality in different offices. Right from the entrance of the company to the furthest end where the

fuel were loaded into trucks to the truck exit, to the waiting bay where KRA and Pipeline Coordination (PIPECO) offices were located, there was a lot of dust formation and accumulation on roof tops that was caused by un tarmacked compound which causes a health risk to the employees in terms of contracting respiratory diseases.

# 4.9 Time span at which KPC organizes for workshops/seminars to employees to sensitize them on recurring ISO Policy requirements

According to the research findings, most respondents agreed that unlike the pre-ISO years, the company organized for workshops/seminars annually to provide a continuous update on the recurring ISO 9001:2008 Policy requirements. 40% of the respondents mentioned that the updates were done quarterly while 14.3% said that they were updated bi-annually. The various responses depended on the department an employee worked and the cadre. The item contributed to the researcher's ability to meet objective number one of the study because a considerable number of respondents agreed to the fact that Kenya Pipeline Company provides training/seminars to its employees on sensitization of ISO 9001:2008 requirements.



Figure 4.5: Time span at which KPC organizes for workshops/seminars to employees to sensitize them on recurring ISO Policy requirements

### 4.10 Employees' Perceptions on the Management commitment towards

### implementation of ISO requirements through leadership

It was important to obtain the respondents feelings concerning the management's commitment towards the implementation of ISO requirements through leadership. A considerable number of respondents agreed that the Kenya Pipeline Company Management is seriously committed towards the objective. Those who responded that the management was fairly committed and somewhat seriously committed were a lesser number while those who said that they were neither not committed nor somewhat not committed where insignificant as tabulated in the table below. According to the interpretation of the above responses, there is an indication that KPC management were leading by example towards the implementation of ISO 9001:2008 procedures.

# Table 4.9: Employees perceptions on Management commitment towards implementation of ISO requirements through leadership

Responses	Frequency	Valid Percent	Cumulative Percent
Not committed at all	5	7.1	7.1
Somewhat not committed	4	5.7	12.9
Fairly Committed	13	18.6	31.4
Somewhat seriously committed	15	21.4	52.9
Seriously committed	33	47.1	100.0
Total		70	100.0

### 4.11 Employees' Perceptions on the Management commitment towards

#### implementation of ISO requirements through training

Employee training and sensitization on the recurrent ISO requirements is one of the requirements that is applied in organizations especially after internal and external audits. 40% of the respondents commended that the management was fairly committed to training and re-sensitizing employees on ISO requirements while 30% of them said that the management was seriously committed. Those who responded that the Management was somewhat committed were 18.6%. Only a few of them indicated that the Management was not committed or somewhat committed. These responses may have depended on cadre of employees that were frequently taken through refresher training

depending on department so that, those who were placed in departments that were not ISO intensive were not exposed to training thus fall in the category of those disagreeing.



Figure 4.6: Employees' Perceptions on the Management commitment towards implementation of ISO requirements through communication

### 4.12 Effect of ISO 9001:2008 implementation on service delivery

The second objective was to examine the effect of ISO 9001:2008 implementation on service delivery in Kenya Pipeline Company Limited. This was meant to obtain stakeholders responses on the general position of customer service delivery in the company after ISO 9001:2008 had been fully implemented. Out of the 70 employee respondents, 69 of them commended that the implementation of ISO 9001:2008 in service delivery was a success in the company. However, 1 respondent disagreed to the

fact that service had improved in the company despite all the strategies applied by the Management.

Respondents gave varying explanations to justify their positive responses below.

#### **4.12.1 Time Management**

Employee respondents had varying responses on how ISO 9001:2008 had improved time management in the company. Majority of the respondents agreed that ISO 9001:2008 enhanced observation of time and a sizeable number of them were neutral on the point and were not sure whether time management had improved or not. Those who strongly disagreed and those who strongly agreed were ranging between 3 and 6 respondents while only 1 respondent disagreed on the point which was very insignificant. The employee respondents also responded by use of open-ended questions on how time was being observed, they responded that:

...Reports on performance are now delivered on time because communication channels are open to both internal employees and external stakeholders and it is also fast because of the installation of intranet telecommunication system. Clients are also able to obtain information faster than before because of their availability to access information and are able to respond on time to clients concerns thus improving customer care. We receive fewer complaints from clients because logistics for fuel storage, clearing and transportation improved tremendously. (Respondent 1, September, 2013).

#### 4.12.2 Accessibility of service

The employee respondents gave their perceptions on whether implementation of ISO 9001:2008 had enhanced service accessibility. Most of their responses supported the point in that, out of 70 respondents, 82.9% agreed on enhancement of service accessibility. 5 of them strongly agreed to the idea while 7 were neutral. None of the

respondents disagreed. Therefore, this factor supports the fact that implementation of ISO 9001:2008 as a success because its vision strives to be a globally pre-dominant product handling and related services provider.



Figure 4.7: Line Graph showing Employee perceptions on whether implementation of

ISO 9001:2008 enhanced accessibility of service delivery

Table 4.10: Employee perceptions on whether implementation of ISO 9001:2008enhanced accessibility of service delivery

Response	Frequency	Valid Percent	Cumulative

			Percent
Neutral	7	10.0	10.0
Agree	58	82.9	92.9
Strongly agree	5	7.1	100.0
Total	70	100	

#### 4.12.3 Communication/Language use

Employee respondents also supported that communication and language use had improved service delivery in the company during ISO 9001:2008 years. 70% of them agreed to the fact while 15% were neutral on whether it had improved or not. Insignificant numbers were divided whether they strongly disagreed, disagreed, or strongly agree. In addition they responded that that:

...Communication tools like customer complaint forms were introduced in the company to track client responses on how service delivery was being conducted. Intranet telephone system was introduced by the company management and therefore, clients were able to obtain information faster than before. Improved communication network also enabled us to interact more freely and easily with our clients (Respondent 2, September, 2013).

#### 4.12.4 Capacity Enhancement

Respondents were delighted to praise the company management for introducing ISO 9001:2008. They claimed that the company ventured in capacity enhancement project where additional loading throughput was installed to curb the increasing queue of trucks.

...The installation of an additional throughput improved the operations of loading trucks and we received fewer complaints from clients because operations improved tremendously. Through employee delivery of quality workmanship, we were able to meet the set targets (Respondent 3, September, 2013).

#### 4.12.5 Specification of individual employee job description

Through the implementation of ISO 9001:2008, employee respondents felt that each individual employee was able to obtain a specified job description than before. This enabled each employee to plan on how to meet the individual performance targets in line with the departmental and company set targets.

#### 4.12.6 Staff training

The Management of Kenya Pipeline Company through the recommendation of ISO 9001:2008 internal and external audits introduced staff training in order to provide refresher and sensitization courses to employees on ISO work procedures and customer care matters. This enabled the employees to provide quality workmanship and improvement of integrity. One of the respondents was quoted saying:

...ISO 9001:2008 enabled our Company Management to provide clear job descriptions and specifications to each and every employee and work was shared among all depending on one's capacity and qualifications (Respondent 4, September, 2013).

#### 4.12.7 Employee Personality

The study sought to obtain employee responses on how ISO 9001:2008 had enhanced service delivery in KPC through employee personality. 64.3% of respondents concurred that their personalities were greatly improved by ISO 9001:2008 office procedures. A

considerable number of them were neutral while less than 10% of each of the other responses either strongly disagreed, or disagreed. Only 3 respondents strongly agreed. This shows that various respondents relied on their integration and relationship between themselves and the extent at which they relate to each other in terms of public relations.

	Frequency	Valid Percent (%)	Cumulative
			Percent (%)
Strongly	2	2.9	2.9
disagree			
Disagree	3	4.3	7.1
Neutral	11	15.7	22.9
Agree	49	70.0	92.9
Strongly agree	5	7.1	100.0
Total	70	100	

 Table 4.11: Perceptions whether implementation of ISO 9001:2008 enhanced

 employee personality

#### 4.12. 8 Document storage and retrieval

As mentioned in chapter two, Seaver (2001) states that there are three documentation requirements in the Quality Management System; the quality manual which stipulates procedures of handling, control of documents, and control of records so that they can be retrieved any time when need arises, by any authorized officer without difficulty.

ISO 9001:2008 is about an organization maintaining proper document storage and retrieval whenever it is needed for reference. The study obtained respondents view on how ISO 9001:2008 has enhanced document storage and retrieval in Kenya Pipeline for the purpose of improving service delivery. 70% of the respondents agreed that document storage and retrieval improved employee service delivery in the organization when ISO 9001:2008 was implemented. 15 respondents out of 70 strongly agreed and 8.6% were neutral.

# Table 4.12: Employee perceptions whether implementation of ISO 9001:2008 has enhanced document storage and retrieval

Response	Frequency	Valid Percent	Cumulative
			Percent
Neutral	6	8.6	8.6
Agree	49	70.0	78.6
Strongly agree	15	21.4	100.0
Total		70	100

An interview was conducted with the registry staff whom one of them was an internal

ISO 9001:2008 auditor and they were delighted to comment that:

...Before ISO 9001:2008 was implemented, the company used filing index in locating files and sometimes it would be hard to operate because the filing index was not enough to track a file. After the implementation of ISO 9001:2008, a file movement register was introduced where all company subject files are registered indicating the location at which a file is situated at any particular time. At this juncture, files are acted upon by officers with a maximum of 4 days. Mail circulation register was also introduced and its purpose was to register loose mail from KPCs offices to shippers (PS 25-Nakuru). File movement register labeled (confidential) was also introduced to register confidential matters only (PS-25). In addition, mail circulation register was also introduced for circulating mail to shippers' offices. All these registers made file movement, location and retrieval easy to handle (Respondent 5, September, 2013).

#### 4.12.9 Procurement of goods and services

ISO 9001:2008 plays a very important role in relation to procurement of goods and services in an organization. It sets standards that enable the procurement officers to instill strict measures in sourcing for quality raw materials, and quality supplies like equipment and stationeries, depending on the official deals of the company. Study analysis indicate that a good percentage of employees in KPC (57.1%) agree to the fact that ISO 9001:2008 enhanced the steps of procuring goods and services 15.7% also strongly agreed to the idea while 27.1% were neutral.

# Table 4.13: Employee perceptions whether implementation of ISO 9001:2008 enhanced procurement of goods and services

Response	Frequency	Valid Percent	Cumulative
			Percent
Neutral	19	27.1	27.1
Agree	40	57.1	84.3
Strongly agree	11	15.7	15.7
			100

1
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Figure 4.8: Bar Graph showing Employee perceptions whether implementation of ISO 9001:2008 enhanced procurement of goods and services

## 4.13 Challenges encountered during the implementation of ISO 9001:2008 in Kenya Pipeline Company Limited

### 4.13.1 Challenges encountered by employees

The aim of this objective is to take note of the challenges that were registered in Kenya Pipeline Company Limited during the implementation of ISO 9001:2008. Although 98.6% of the respondents agreed that they were aware of work requirement(s) and procedure (s) of ISO 9001:2008 in their various work stations, some respondents also sighted various challenges that they encounter in individual basis. Only one respondent mentioned that there was no challenge although there was no justification to the response given.

On whether Kenya Pipeline Company offers adequate facilitation to its employees towards attainment of targets set as per ISO 9001:2008 requirements, majority of them consented to the fact that they are adequately facilitated while 12.9% disagreed. Those who disagreed justified their dissatisfaction as reported below:

### Targets

One of the employees who were not satisfied with the setting of targets responded that:

...Sometimes the management of the company sets targets that are too high to meet necessitated by the working environment which is not conducive. For example, offices are inadequate and transportation of employees to work is very challenging taking note of the location of the station. We experience inadequate transport to the site whenever a problem has been reported because the station lacks adequate operational vehicles. During emergencies, the ISO 9001:2008 laid down procedures are not followed to the latter. All the above affect our target setting in one way or another (Respondent 1, September, 2013).

Most respondents agreed to the fact that ISO 9001:2008 was a success in Kenya Pipeline Company but it is evident from the few dissatisfied respondents whose responses are stated above, that much as the company expects employees to meet targets, the management does not facilitate the employees with every requirement to enable them perform to the tune of ISO 9001:2008 standards.

#### Lack of tools of trade

One of the respondents mentioned that:

...Sometimes we face a challenge when there aren't sufficient tools or lack of materials at the stores when they are needed to facilitate service delivery (Respondent 2, September, 2013).

This also affects the attainment of targets negatively and it also touches on facilitation. From the above statement, there is an indication that that the company does not meet the ISO 9001:2008 requirements on the standard way of procuring goods and services in the company.

#### **Insufficient fuel loading bays**

...Generally, the fuel loading bay/area at the station is too small for the already loaded trucks. For those entering the loading area, the space is very congested and too dusty for the workers who work at the loading bay (Respondent 3, September 2013).

This is another challenge which is very crucial in the performance of the company since it touches on the main role played by the company in providing service. Fuel loading is one of the main operations of the company and lack of space in the loading area directly affects the daily operations of the company because it increases congestion of lorries, which queue at the point of entrance of the company and at the exit point of the compound.

#### Lack sufficient knowledge on ISO 9001:2008 work procedures and requirements

...Not all employees are disseminated with knowledge on ISO 9001:2008 work requirements. Some operational sections in the station are not adequately sensitized while others are sensitized hence the imbalance of achieving targets due to inadequate knowledge (Respondent 4, September, 2013).

In addition to what had been mentioned above on insufficient dissemination of training, another respondent lamented that there was inadequate training to all staff in the company pertaining ISO 9001:2008 procedures. The respondent expressed a wish that

the Management could train all employees in the company no matter the department in which every employee is deployed. One of the respondents argued that:

...The proposed staff training scheduled for the whole year are not met and if they are partially met, only a few people who work in the "Core" departments are trained". In addition to these, there is a challenge of allocating a trainer to train fellow employees and also lack of training tools to undertake the assignment (Respondent 5, September 2013).

The response dissatisfied employee indicates that as much as training is disseminated to the company employees, not all employees benefit from it. It is either the company does not have a schedule of offering training employees on the need to adhere to ISO 9001:2008 requirements or it is the individual employee who does not have the positive attitude towards learning ISO requirements in relation to the job.

#### Insufficient internet connectivity

...Sometimes the internet communication network is very poor and slow especially during peak hours in that employees who operate the computers get inadequate coverage thus slowing the systems which leads to slow delivery of service. In addition, there aren't enough pass works to enable all employees access SAP and yet it contains all the processes and procedures as stipulated in ISO 9001:2008 (Respondent 6, September, 2013).

According to the respondents, all employees should be able to access System Analysis

Programme (SAP) because it is a waste to the company if all employees are not able to

access the system.

#### **Inter-dependence of operations**

In Kenya Pipeline Company, departments operate as a network in all branches in the country. When a department fails to meet its targets, it automatically affects the rest departments as a good number of the respondents argued that:

In Kenya Pipeline Company, operations are inter-dependent. Therefore, lack of achievement of targets by a section or an individual leads to failure to meet the same targets by other individuals or sections (Respondent 7, September, 2013)

#### Interruption of scheduled routine maintenance of equipment

...Kenya Pipeline is a very busy organization in terms of operations. Sometimes, scheduled maintenance of equipment is interrupted by tight operational schedules leading to the equipment not released for maintenance/service. This leads to targets not being achieved (Respondent 8, September, 2013).

In relation to the above-mentioned statement, the company management would look for

alternative ways of releasing equipment at the time when they are due for maintenance.

This calls for allocation of funds to procure more equipment to be alternated with the

already existing equipment.

#### Lack of employee morale

Concerning employee morale, a good number of employees complained of being offered low salaries compared to the work they do. They also mentioned the lack of favourable working environment. As one employee responded that:

...The management of the company fails to honour promises to employees concerning yearly bonuses and fails to increase our basic salary (Respondent 9, September, 2013)

#### **Records Management Procedures**

Records management procedures according to employee responses is one of the daunting challenges in Kenya Pipeline Company Limited because the procedures are too many to follow especially when an employee is not fully trained in records management. One of the respondents justified his response by saying that: Records management procedures introduced by ISO 9001:2008 are too many thus sometimes slowing down actual work processes and instead one shifts his or her focus to carrying out documentation procedures (Respondent, 10 September, 2013).

In addition to records management, respondents also mentioned the issue of some important ISO 9001:2008 documents being stored in the company headquarters and not readily available in pump stations for reference.

#### Lack of Customer satisfaction feedback analysis by Management

As much as customer feedback boxes are strategically placed in the company premises, employee respondents have a reservation that customer satisfaction feedback are not analyzed by the management. As one commented that

...It is not possible to rate customer satisfaction unless the company management analyzes client feedback and communicate the same to the employees for improvement of services (Respondent 11, September, 2013)

As much as the company has facilitated implementation ISO 9001:2008 procedures, employees believe that there is still more to be done to streamline the system to make it completely ISO 9001:2008 certified. From the analysis, challenges in Kenya Pipeline depend on the departments in which the employees are stationed and every department seems to have its own challenges towards the attainment of set targets.

On whether ISO 9001:2008 has improved the company's system of storing and retrieving documents, a considerable number of respondents agreed to the fact that ISO 9001:2008 had generally improved the system of document storage. Those who strongly agreed were also indicated while those who were neutral were 11.4%. A number of those who disagreed and strongly disagreed were insignificant as tabulated in table 16:

	Frequency	Valid Percent (%)	Cumulative Percent (%)
Strongly disagree	2	2.9	2.9
Disagree	3	4.3	7.1
Neutral	8	11.4	18.6
Agree	41	58.6	77.1
Strongly agree	16	22.9	100.0
Total	70	100	

 Table 4.14: Employee perceptions on whether ISO 9001:2008 has improved the company's system of storing and retrieving documents

# 4.13.2 Challenges encountered by Shippers (clients) in KPC Limited in relation to ISO 9001:2008 implementation and service delivery

Shippers on the other hand recorded their challenges in their daily operations with Kenya Pipeline Company Limited. A good number of them agreed that service delivery has greatly improved. However, some respondents did not concur that service delivery had improved. Below are some of the challenges they encountered:

### Management's failure to listen to the clients demands

From the response of one of the clients, the Management of Kenya Pipeline Company seem not to be keen in addressing the demands made by some of its clients and yet they are the reason why the company is delivering its mandate of receiving, storing, and transporting among others. One respondent indicated that:

...Kenya Pipeline Company management fails to listen and to act on customer complaints promptly. For example, we have been requesting that new shippers be allocated office space, but instead, the company
allows agents/brokers to occupy the space in the Shippers plaza (Respondent 1, September 2013).

#### **Delayed repairs on offices and company structures**

Shippers informed the challenge of KPC failing to maintain and repair office structures in

the shippers/clients plaza which houses their offices. One respondent indicated that:

...The company, I can say has led us down and yet we are their most important clients. We lack of appropriate office space to operate on, we are faced with inadequate parking space in the parking area, the roads are very poorly maintained/pathetic within the company vicinity, repairs of structures are delayed, like for example, the fence is not up to standard, which sometimes tempt strangers to enter the vicinity including those who look for sponsors (Respondent 2, September, 2013).

#### Impromptu introduction of ISO Procedures and processes to employees

The shippers expressed their concern about how Kenya Pipeline Company Management

introduces/or re-introduces additional ISO 9001:2008 processes and procedures whenever

there are changes without giving prior notice to the clients. As one client indicated that:

We are human beings and to add into that, ISO requires that dissemination of information is crucial towards adherence to the quality standards. We need to be disseminated with information early enough to enable us adjust to the new changes instead of being lumped up with sudden new rules (Respondent 3, September, 2013).

#### **Poor communication**

Respondent shippers responded that the company management responds very slowly to their daily official needs which necessitate frequent strikes by shippers who are clients of the company. This concurs well with Panasuraman's model, which identifies gaps that cause unsuccessful service delivery where it generally informs that customers have a tendency to compare the service they experience with the service they expect. According to Gap 2 of the Service Quality Delivery Model, a gap may develop between an organizations management perception and service quality perception where the management might correctly perceive what the customers want but may not set the performance standard. In the study area, Kenya Pipeline Company management responds to the client needs but do not respond to them at the shortest time possible thus creating a service delivery gap.

#### Lack of staff/client relationship

A good number of clients mentioned their relationship with the company employees to be very poor. They claimed that staff work with a lot of pride and do not consider the clients as stakeholders.

#### **Customer Care**

The clients claimed that as much as customer care docket in Kenya Pipeline is operational, they are of the opinion that the office is not fully utilized to serve its purpose of its existence. They wished that the office not only should deal with complaints but it could create good working relationship with shippers in terms of cultivating good public relations.

#### **Poor Telecommunications network**

One respondent expressed the issue of being led down by poor telecommunications network in the Company. He responded that: "Telephone extensions which use intranet are always down due to slow network thus it stops to serve its purpose" (Respondent 4, September, 2013).

#### **Congestion at Shippers plaza**

Shippers mentioned that as much as KPC tried to serve them with speed, Kenya Revenue Authority on the other hand did not clear them promptly leading to congestion of lorries that were already loaded with fuel waiting to be cleared by KRA. This posed a health risk to everyone in the vicinity and could be termed as a time bomb in the waiting. In any organization, much as the management is able to control activities taking place in its internal environment, there are external influences that impact on the internal environment and the management does not have control over it. In the Kenya Pipeline Company, Kenya Revenue Authority collected revenue on behalf of the Government of Kenya. In this context, KRA collected revenue from shippers who were clients of KPC. In addition, shippers had issues generally with the depot because customer service desk did not act immediately on complaints. In this case, conveying Shippers orders from accounts office to dispatch office took a long time because of the few human resource personnel who worked at the section.

#### **Loading bays**

There was congestion in the loading bays due to the installation of few throughputs and yet the fuel demand was very high. As a respondent indicated:

...Our client would have done us a lot of justice if only it increased the number of throughputs. We struggle to meet deadlines when transporting fuel and fuel products because we queue for long hours when loading fuel and then after that we take an additional length of time to clear with KRA (Respondent 5, September, 2013).

#### Non-conducive working environment

This was a challenge that was mentioned often by the client respondents. They responded that KPC premise was very dusty during the dry spell and very muddy during the rainy season. This posed a health hazard in terms of air pollution during the dry season and causes very little movement by both the staff and clients during the wet season. This challenge was also experienced by the researcher because she contracted a cold and flu which was caused by the dusty environment.

#### **Unfavorable loading hours**

Shippers expressed their dissatisfaction concerning the loading hours in the depot because the loading was done either too early or too late. According to data analysis however, one of the management respondents blamed this on the efforts made by the company to meet demand and supply, and he mentioned that:

...In order to manage demand and supply of fuel by clients, an additional pump was installed and operations of loading of fuel begins as early as 4.00 a.m. and end at 8.00 in the night, and at some point of time, both import and export operations run concurrently (Respondent 6, September, 2013).

Responses from both employees and shippers, was an indication that there are challenges that need to be addressed by the KPC management. Lack of sufficient throughputs, poor communication network in terms of internet, and a working environment that is not conducive were mentioned by employee respondents and shippers alike.

#### 4.13.3 Challenges encountered by the Management during the implementation of

#### ISO 9001:2008

Company challenges are those challenges that go beyond the management's ability to tackle. The members of the company management highlighted various challenges that were encountered by the company during the implementation of ISO 9001:2008.

#### Fear of the unknown by employees

Staff in Kenya Pipeline Company Limited feared the unknown circumstances and resultant outcome that were to follow after the implementation of ISO 9001:2008. Some

employees thought that it was a way of phasing out redundant employees especially those who had insufficient knowledge on computers. There are also those who found ISO 9001:2008 to be cumbersome and they thought that their inability to cope with the procedures would render them redundant. Employees started embracing ISO standards and procedures when they discovered that ISO was meant to improve their service delivery to the client, and that it was not meant to threaten their job security.

#### Lack of Sufficient Funds

The Management of Kenya Pipeline Company were faced with the difficulty of raising sufficient funds to train internal auditors who were to be trainers of the rest of the employees with the aim of bringing all stakeholders on board. Although the company brought in external trainers/auditors who trained the internal trainers/auditors, the training was not intensive thus insufficient. ISO documentation was costly to the company because it involved production of quality manuals and procedure manuals for reference by all operating departments in the company.

#### **ISO Auditing**

Generally, conforming to ISO 9001:2008 standards in all areas of operation was challenging considering the cost and time taken in various procedures. This included record keeping and retrieving, procedures of handling employee disputes, procedures of staff recruitment and absorption to the system, employee motivation, employee dismissal, and employee compensation. Change Management System was also another challenge and therefore, staff needed proper sensitization and intensive training on issues concerning ISO 9001:2008 requirements before ISO was implemented.

#### **Insufficient ISO Certified Structures**

This was still a problem to KPC even after ISO implementation. In the initial stages, the company lacked proper structures to facilitate ISO implementation and thus had to be put in place for conformity purposes but they were still not enough.

#### **Negative Employee Attitudes**

Employees could not understand the benefits that would accrue from adopting ISO 9001:2008 and so it was a challenge to change employee attitude towards it.

#### **Employee Incentives**

The study findings indicated that during Annual General Meetings (AGM) that were held annually after the implementation of ISO 9001:2008, the company Management would project increase of the company dividends from the yearly operations but staff on several occasions were not happy with the incentives that were offered by the company because they were not commensurate with the projected increased profits.

According to the study, there were challenges experienced by both the management and employees alike. Lack of sufficient ISO certified structures was evident in both employee and management responses. Employee attitude and morale was also a point that was being experienced by both employees and management respondents. Due to lack of employee morale when offering services to the clients, their attitudes towards company operations affected the implementation of ISO 9001:2008 in the company in one way or another.

The various challenges mentioned to have impeded ISO 9001:2008 implementation in Kenya Pipeline are in line with similar studies that were carried out by Al-Najjar *et al.* (2011) in Iraq where they mentioned critical barriers that prevent ISO implementation in

organizations being top management commitment, employee resistance, difficulty in performing internal audits, absence of consulting boards, ISO 9001:2008 requirements being unrealistic, lack of financial resources, and insufficient employee training among others.

#### 4.14 Summary

The chapter provided a detailed summary of all the activities that took place in the analysis of data. Research objectives were obtained through the analysis of data and interpretation by use of both Quantitative (QUAN) and Qualitative (QUAL) analysis. The Quantitative (QUAN) data was run by use of Statistical Package for Social Science (SPSS) to produce frequencies for both employee respondents and shippers who were clients of the company. The data was analyzed and presented by use of tables, and pie charts. Qualitative (QUAL) data was generated by use of open-ended questions. Both QUAL and QUAN responses were analyzed according to the objectives. The next chapter is going to dwell on the summary of the findings, discussion of findings conclusions, recommendations and suggestions for further research.

#### **CHAPTER FIVE**

### SUMMARY OF FINDINGS, DISCUSSION, CONCLUSION, AND RECOMMENDATIONS

#### 5.1 Introduction

This chapter provides a summary of the pertinent issues that were realized through study findings based on the study objectives. From the findings, conclusions were drawn and recommendations also provided on how the Kenya Pipeline Company Limited would address the challenges faced in the implementation of ISO 9001:2008. Finally, recommendations for further research on areas touching on the strategies of improving service delivery in organizations will be addressed.

#### 5.2 Summary of Findings

The purpose of the study was to examine the impact of International Organization for Standardization (ISO 9001:2008) on quality service delivery in Kenya Pipeline Company. This was a case study of the company branch located in Nakuru (PS25). The specific objectives were to analyze changes in the determinants of quality service delivery since ISO 9001:2008 implementation in Kenya Pipeline Company in Nakuru Branch, to assess the effect of ISO 9001:2008 implementation on quality service delivery, to establish the challenges encountered during the implementation of ISO 9001:2008 in Kenya Pipeline Company.

Data was collected by use of questionnaires to all the participant employees including the management, and the clients of the company (shippers). Interview schedules were

conducted on the management cadres and documentary reviews from the company records were also obtained.

A total of 100 respondents participated in the study where the respondents were randomly selected based on their shift presence in the company. 70 respondents drawn from the various departments of the company comprising of the employees and the management staff participated in the research study while 30 respondents from the shippers' category responded to the questionnaires. Data was descriptively analyzed and suggestions given through analysis of open ended questions and interpretations made. The purpose of this chapter therefore, is to provide conclusions and recommendations.

The implementation of ISO 9001:2008 in Kenya Pipeline Company Limited played a major role in the overall improvement of quality service delivery. Based on the summary of the findings, it is evident that as much as the company experienced challenges during the implementation stage, it was able to register an increase in fuel supply because initially the company was meant to operate on local supply but it ended up alternating both local and export operations and at some point running the operations concurrently. This was attributed to management support and the practical implementation of ISO 9001:2008 procedures in running the company operations.

#### 5.3 DISCUSSION

The findings of the study are highlighted in 5.2 above summarized in table 5.1. The discussion will be based on the literature review and previous research. It will also be based on the research objectives of the study. Before embarking on the discussion, the demographics of the respondents will be discussed in relation to the findings of the study.

#### **5.3.1** Demographic information of the Respondents

The research study was carried out in Kenya Pipeline Company Limited in Nakuru Branch (PS 25). Data was obtained from employees deployed in 11 departments who were selected through census because they all had a chance to be recruited in their departments. Out of the 100 respondents, 70 were employees of the company, including 3 management staff. 41 (59%) were male and 29 (41%) were female. 30 respondents were clients of the company representing various shipping companies and majority of them were represented by male. Majority of the respondent employees were aged between 36 and 45 years (41.4%) followed by those between 25 and 35 years (30%). This is an indication that majority of the employees are young in age and are capable of adopting and implementing ISO 9001:2008 procedures. In addition, majority 58 (82.9%) of the employee respondents were married against 12 (17.1%) who are single. Out of the 70 respondents, 33 (47.1%) had attained university level of education and were involved in managerial positions and running operational activities while others 10 (14.3%) had various technical qualifications. Majority 20 (28.6%) of the respondents worked in administration departments where most of the company operations were ran. Being a fuel storage and distribution company, a good number of respondents mostly male were deployed in civil engineering department which undertakes one of the core activities of the company of developing and maintaining company structures in terms of building and laying of pipeline systems. Engineering department is a technical department which demands physical use of one's energy and this explains why the department was male dominated. On respondents work experience, majority of them had worked between 21

and 30 years. This was an indicator that most employees were conversant with the daily operations of the company.

# 5.3.2 Transformations in the determinants of quality service delivery after ISO9001: 2008 implementation

Research findings indicate that there was inconsistency of determinants that were used to provide quality service in KPC before ISO 9001:2008 was implemented. Various respondents utilized different strategies to gauge the quality of their service to clients depending on the department they worked in. For example, most employees agreed that telephone calls were the most used form of communication between themselves, the management and the clients. Written communication according to the study findings seem to have been less used between the employees and the clients. Employees mostly mentioned customer complaints/compliments being the method that was most utilized before ISO 9001:2008 was implemented. The management respondents also mentioned other company strategies used not similar to those mentioned by employees and the customers. Customers specifically mentioned the use of telephone calls as the most used method. This is an indicator that there was no standard way of addressing client satisfaction. According to ISO 9001:2008 Clause 5.5 on Responsibility, Authority, and Communication, Sub-Clause 5.5.3 concerned with Internal Communication in an organization, most organizations suffer from poor communication. However, the best rated organizations have discovered that the more the management shares the organizations results with their employees, the probability of succeeding as a team is high. It continues to argue that many companies have poor internal communication processes where they "right hand does not know what the left hand is doing" which can

translate into problems with customer orders if not checked. ISO 9001:2008 QMS Manual Website (2014).

After ISO 9001:2008 was implemented in Kenya Pipeline Company in Nakuru, more strategies were introduced that conformed to the standards and procedures. Communication methods that were introduced after ISO implementation included an introduction of customer complaints/compliment feedback box, online communication, monthly meetings, installation of Intranet Protocol Phones, and social gatherings between stakeholders.

According to the study, as much as the organization put in place customer complains/compliment feedback boxes, responses from the clients (shippers) were negative because they indicated that the organization does not analyze the inputs given by their clients. One of the client respondents mentioned that:

...As much we utilize the customer feedback complaints/compliments boxes that were introduced when ISO 9001:2008 was implemented, our problems still remain unaddressed. This means that either the customer care department takes time to analyze our complaints to address our problems or it assumes the whole process (Customer respondent, September, 2013).

According to Service Quality Model, a gap between a consumer expectation and management perception was evident in this study as the management of KPC perceived that their clients were much interested in how their products were stored, measured and transported to their various markets but their clients on the other hand were interested in how their complains/compliments were handled by the Management through analysis of customer responses.

On document storage and retrieval, there was evidence of general improvements on storing and retrieving documents though there were mixed reactions between respondents. This means that the responses were dependent on where a respondent was deployed.

Public Services Health and Safety Association (2011) argues that physical environment includes components of tangible workplace environment that comprises employees, working conditions like clean indoor air, clean water, ergonomic workstation designs, violence and aggression free working environment, available technologies, workplace policies and procedures, design and construction of the workplace and many others. According to the study, the levels of employee satisfaction on office layout were varied. Those respondents whose departments were stationed at the Administration block had a favourable working environment than those in Engineering and Purchasing departments. In addition, respondents views on the state and condition of equipment was that there was general improvement of equipment in terms of layout and maintenance because equipment in KPC was maintained as per ISO 9001:2008 requirement. Some respondents complained that even though the equipment were maintained, scheduled routine maintenance were not adhered to because the fuel demand sometimes was so high which forced the equipment to run throughout surpassing the routine maintenance. It was also indicated that some offices needed expansion in order to accommodate equipment. Office lighting and indoor air quality showed that majority of the respondents were happy with it because an insignificant number of respondents were not satisfied. The biggest challenge was the outdoor environment of the company. Majority respondents were dissatisfied

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with the poor state of the company environment, the biggest challenge being the dusty compound during dry spell and the muddy compound during the rainy season.

Employee training is one of the crucial components of ISO 9001:2008 towards employee awareness of its standard procedures. ISO 9001 Section 6.2.2 requires that an organization should ensure that its personnel are aware of the relevance and importance of their activities and how they contribute to the achievement of the quality objectives. ISO 9001:2008 QMS Manual Website (2014). Employees' responses on the time span at which the company organizes for workshops and seminars as an ISO requirement was positive. They mentioned that in the recent past, the company had organized workshops and seminars for them. Some training was done annually and some were organized biannually as per the requirement.

The management's commitment towards the attainment of ISO 9001:2008 standards and procedures by leading by example is also one of the crucial factors that directly affect the employee willingness to adopt the system. Kelly (2014) quotes ISO 9001:2008 quality manual sub-clause 5.1 which states that the Executive Management shall provide evidence of its commitment to the development and implementation of the QMS and continually improving its effectiveness. This is done by communicating to the organization the importance of meeting customer as well as statutory and regulatory requirements which include: establishing the quality policy, ensuring that the quality objectives are established, conducting management reviews, and ensuring that resources are available. According to the study, majority of the respondents agreed that the

company management was committed and were at the forefront of ensuring that ISO 9001:2008 was a success story.

In summary, the first objective found out that the implementation of ISO 9001:2008 in KPC positively impacted on quality service delivery but in every section of the company, improvement of both internal and external environment was wanting. Not only areas of proper documentation in terms of document storage and retrieval is what defines success in ISO 9001:2008. Even other office factors related to work environment plays a major role.

## **5.3.3** The effect of new strategies of quality service delivery after ISO 9001:2008 was implemented in KPC

The second objective of the study sought to analyze the effect of new strategies of quality service delivery from the time ISO 9001:2008 was implemented in Kenya Pipeline Company which was situated in Nakuru. Time management was one of the determinants that had improved according to the majority of the respondents. KPC in Nakuru is located 9 kilometres from Nakuru town; the location of the station was inaccessible to the employees because there were no specific public transport vehicles stationed to the area. The company did not offer transport to the employees and therefore, staff who did not have private vehicles struggled to reach their offices within the recommended check-in time.

Service accessibility was a transformation in enhancing quality service delivery in the company. Respondents agreed that they were able to access customers through good communication channels and ISO procedures but there was a negative response concerning accessibility from the clients of the company. They argued that the telecommunication network was sometimes delayed and poor staff/client relationship was another challenge. According to Service Quality Model, a gap may arise between service quality specification and service delivery where the service personnel have poor training, incapability and unwillingness to meet the standards. In the case of this study, the gap arose when the clients developed dissatisfaction of service delivery due to poor staff/client relationship.

Capacity enhancement was also transformed in the pipeline company when ISO was implemented. Respondents indicated that ISO 9001:2008 recommended the installation of additional loading throughputs in order for the company to meet the high fuel demand. As one of the respondents noted that:

... The company evaluates itself on its performance on its performance by making sure that it went beyond and above clients expectation. This was managed through installation of additional fuel pumps? (Management respondent, September, 2013).

Respondents on the other hand mentioned that when ISO 9001:2008 became part of the system, it became mandatory that every employee be served with a job description which outlined every employee's duties and responsibilities. Staff training existed in pre-ISO years but this time it was enhanced and it was carried out annually and bi-annually on employees based on their departments. No client respondent indicated that they had been trained on ISO 9001:2008 procedures by the Management of Kenya Pipeline Company.

64.3% of the respondents agreed that their personalities were greatly improved because ISO requirements stipulated on the appropriate manner at which an employee is supposed to interact with a client.

Although there existed document filling and retrieving in the company in pre-ISO years, respondents posited that after ISO was implemented, there was a great improvement in storage and a shorter time was taken when retrieving them as per the service charter which stipulates the duration of time at which a document should be retrieved. Although there were an insignificant number of respondents who were not pleased about goods procured in the company, most respondents agreed that there was quick procurement and delivery of goods and services as stipulated in the ISO Quality Manual.

In summary, objective two found out that there was general improvement of the various strategies used in the company and more strategies were also introduced. Even though ISO 9001:2008 procedures were standardized, the study found out that new strategies are different from the initial strategies and they are tailored to the organizations mandate.

#### 5.3.4 Challenges encountered during the implementation of ISO 9001:2008 in KPC

The third objective of the study sought to establish the challenges that were encountered by respondents when ISO 9001:2008 was at the implementation stage in Kenya Pipeline Company. In every project undertaking, challenges are registered no matter the intensity of the project. Basu (2004) in a study found out that there are both internal and external challenges that occur in organizations and institutions when ISO 9001:2008 is implemented. During the study, three categories of challenges were registered within the company namely; employee challenges, customer challenges, and company management challenges. In Kenya, Aluvi and Kimutai (2009) experienced both individual challenges and company challenges during their study carried out Mumias Sugar Company Limited.

In this study, the challenges that were experienced by employee respondents were: Failure to meet departmental and individual set targets, lack of tools of trade, insufficient loading bays, insufficient knowledge of ISO 9001:2008 work procedures, insufficient internet connectivity, inter-dependence of operations, interruption of scheduled routine maintenance of equipment, lack of employee morale, too many records management procedures to adhere to, and lack of customer satisfaction feedback analysis. In relation to this study, Aluvi and Kimutai's (2004) study in Mumias Sugar also found out that the employees of the company were faced with the same challenge of massive procedures of documenting information especially in the initial stages when ISO audits were carried out.

Clients of KPC responded qualitatively to the open-ended questions and they stated their various challenges faced in the company as illustrated in table 17 but the others were more visible than others. Thawani (2004) factored in the challenges that are experienced by users of the quality manual and found out that among other challenges, resource management challenges were evident in both the individual employees and company management. He found out that work environment factors like employee safety, heat, humidity, lighting, noise pollution, among others are factors that are challenging to most organizations. Congestion at the shippers plaza is a resource management factor which seem to have been the most challenging issue. Due to slowed operations by Kenya Revenue Authority (KRA), trucks full of fuel were parked next to the plaza. This goes

contrary to the ISO requirement of employees and clients being provided with good working environment. Shippers termed it as "disaster in the waiting" because in case there was a fire outbreak (God forbid), the whole area was at a risk of contracting fire.

Challenges encountered by the company management were minimal and were similar to those in a study in previous research conducted by Psomas *et al.* (2010) which revealed that there are crucial factors in organizations that challenge the implementation of ISO 9001:2008 like employee resistance caused by lack of information about ISO 9001:2008 requirements. Findings of this study showed that there was fear of the unknown by the employees who thought that ISO came to make them redundant. Other resource management challenges included unavailability of sufficient funds, the cost of auditing was high, there were insufficient ISO certified structures, and negative employee attitudes towards ISO among others.

From previous research and study findings, it was found out that despite organizations going through thorough audits and found to be complying with ISO 9001:2008 requirements, the dynamic business environment and enhanced technology is a contributing factor towards the development of new challenges. This is because whenever technology takes a new dimension, it affects a business environment which in turn forces an organization's management to go back to the drawing board and re-engineer operations. The way forward would involve issues like structural changes of an organization's physical structures, as well as sensitization of employees on various aspects touching on ISO 9001:2008.

Kenya Pipeline Company with the management support has maintained its mandate of storing and supplying fuel and fuel products within its country's borders and overboard and it has also maintained fuel supply no matter the challenges.

#### 5.3.5 Conclusion

According to the study, there is an indication that there was general improvement of service delivery in KPC after ISO 9001:2008 had been implemented. Various work standards and procedures had been laid down as evident in the responses. Out of the 70 employee respondents who participated in the study, 69 (98.6%) concurred that there was general improvement in several areas of operation. These include time management, accessibility of service, record management, communication/language use, capacity enhancement, staff training and others as discussed in the chapter. The management was positive about ISO 9001:2008 implementation in the company and was optimistic that the Government of Kenya will give support in consultation with higher institutions of learning in reviewing their curriculums to suit the current market demands. Employees also registered positive responses towards the implementation despite their individual challenges. Customers also gave their credit to the company for its ability to handle operations of storing and transporting fuel to various destinations of the country and even beyond its borders.

However, as much as there was general improvement of operations in KPC since the implementation of ISO 9001:2008, challenges were registered by all stakeholders of the company. The study recommends various strategies that would help the company improve on as they advance in their upcoming ISO audits.

#### 5.4 Recommendations

The research findings provided several recommendations from all the categories of the respondents. These were employees of KPC, Management staff who were part of the employees, and the Shippers who were clients of the company. The recommendations can assist Kenya Pipeline Management to improve on utilization of ISO 9001:2008 as a strategy to enhance service delivery.

#### **Re-sensitization of ISO procedures and requirements**

Kenya Pipeline Company should engage their clients and employees on refresher courses that can sensitize them on new ISO developments in terms of rules, regulations, and procedures which arise during both internal and external audits so that they are sensitized of any changes. This will make them feel appreciated and as part of the change process.

#### **Holding of Regular meetings**

As a way of getting access to the clients who are the most valued subjects of the company, the Management should hold regular meetings with section heads and clients representatives either weekly or monthly in order to brainstorm on re-current challenges and look for ways of improving on matters arising from previous meetings.

#### **Capacity Enhancement**

KPC should enhance loading capacity by improving on the loading facilities in the deport through maintenance of the existing loading throughputs and installation of additional loading arms to fast track the sale of the product and avoid truck congestion. This would tackle the challenge of demand and supply of fuel and would enable the management to review fuel loading hours to be customer friendly.

#### **Increase of Parking Space for trucks**

In order to overcome the challenge of congestion of trucks in the queue both before and after loading of fuel, KPC should increase parking bay to ease congestion of trucks and to secure the working environment for all stakeholders operating in the surrounding environment against danger of fire.

#### **Customer Care Department**

As much as customer care department is in existence in the company, it should take up more responsibility of communicating with the clients through formal channels like customer feedback and use it as a tool for continuous improvement as mentioned by Kinuthu (2013) in the literature review. They could frequently analyze their feedback so that they are able to do a SWOT analysis of their customer care department. They could also deal with customer complains upfront without keeping the complainants waiting and explore more on customer care areas of interacting with the clients.

#### **Improvement of the Working Environment**

In order to improve on service delivery in terms of work environment, KPC management in conjunction with the government should consider tarmacking the road network in the vicinity to avoid inconveniences of air pollution during dry spell and muddy premises during rainy season. The management should also consider improving on office layout from the currently closed door to open air layout. This would sustain employee working for long hours leading to improved employee morale.

#### **Employee motivation**

Whereas one of the management objective is to win the market share, this can be realized through improvement of employment packages in terms of adherence to procedures of promoting staff, salary adjustment for those who are not able to produce more credentials, and review of retirement compensation plan. This will tame employees who may have an intention of looking for greener pastures thus decrease staff turnover.

#### Improvement of company's database system

KPC management should improve its database system network to avoid lapse by enhancing its coverage and install SAP working tools in all offices so that all ISO records can be integrated with the system in order to minimize duplication of records and to avail all documents for all employees to refer to when need arises.

#### Availability of operation vehicles

The management should source for more terrain resistant vehicles and be attached to Engineering Department for allocation of duties and movement of engineers during emergencies. The current numbers of vehicles according to respondents' views are inadequate.

#### **Elimination of oil marketing cartels**

KPC should embark on the elimination of oil marketing cartels and together with the shippers give a timeframe of storing products in the company to create more storage space because some of them keep the products in the company for too long for speculation purposes.

#### **Clearance by Kenya Revenue Authority**

In order to tame congestion of trucks loaded with fuel at the Shippers plaza in KPC vicinity, Kenya Revenue Authority which collects revenue from the shippers should put in place the modalities of fast clearance of the trucks to avoid long queues.

#### **Review of Tertiary and University Curriculums**

Post secondary institutions and higher institutions of learning in conjunction with government corporations should embark on sensitization programmes to train more Kenyan citizens to take up jobs in the energy sector, and to collaborate in the development of curriculums in order to forecast on the market demands and advise accordingly on career choices of young Kenyans who aspire to enter the job market. This would encourage Kenyan citizens to adjust well to the job market and save the exchaquer money used to import human labour.

In support of the above, Mahugu (2013) argues that university education content need to be matched with the needs of the economy in that, as much as many "O" Level finalists join various courses in the universities, the rush to obtain degrees is curtailing the development of education in technical fields such as mechanics and carpentry. It is also mentioned that Vision 2030 goals are set out to be driven by people with middle level skills and hands on training. Whether the quality of higher education is still relevant and responsive to the market and national priorities is a question paused in reference to Kenya, Mahugu posits that it is a disaster waiting to happen when the country begins to have more inadequately trained unemployed graduates and less middle skilled and hands-on-people.

#### 5.5 Suggestions for Further Research

During the course of the study, the researcher came up with other emerging issues that could compel one to do more research on. More research could be done on:

- i) Integrating ISO 9001:2008 Standards and Procedures to an Organization's Culture as a niche to organizational performance.
- ii) The role of consultations between higher institutions of learning, Government Corporations, and Private Sector Professionals in the development of school and college curriculums in relation to job market demands.
- iii) The Role of ISO 9001:2008 KEBS Audits to Human Resource functions in Kenyan Public Universities.

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#### **APPENDIX I: INTRODUCTION LETTER**

Ruth J. Kendagor Moi University School of Human Resource Development P O Box 3900 **ELDORET**, Kenya

Date: \_\_\_\_\_

Dear Respondent,

#### **RE: LETTER OF INTRODUCTION TO RESPONDENTS**

I am a post graduate student studying at Moi University, School of Human Resource Development. I am undertaking a Master of Science degree programme in Human Resource Development and currently, am in the process of conducting field research. My study is focusing on "International Organization for Standardization (ISO 9001:2008) and Service Delivery in Kenya Pipeline Company, Nakuru Branch, Kenya".

The purpose of this study is to obtain 1<sup>st</sup> hand information on your experiences, opinions, and suggestions on the study area. Your inputs and views will contribute a lot in fulfilling the objectives of the study.

You are assured that your responses will be treated with utmost confidentiality. After completion of the research, a report will be produced and a copy handed to your institution for your perusal and future reference.

Thank you,

Yours faithfully,

RUTH J. KENDAGOR SHRD/PGH/07/11

#### **APPENDIX II: QUESTIONNAIRE FOR EMPLOYEES**

Dear Respondent,

I am a post-graduate student in Moi University, School of Human Resource Development. I am carrying out an academic field research titled: "International Organization for Standardization (ISO 9001:2008) and service delivery in Kenya Pipeline Company Limited, Nakuru Branch, Kenya". The research is meant to serve as an academic requirement for the award of Master of Science in Human Resource Development.

Your responses will be treated with strict confidentiality it deserves. Do not indicate your name or any personal contact details in the questionnaire. Only indicate a mark (X) in the appropriate box.

#### **BACKGROUND INFORMATION**

#### Please indicate the mark (X) in the box provided for the most appropriate response.

1. What is your age bracket?

Under 25 years 1	25 – 35 years 2	36 – 45 years 3	46 – 55 years	4 Above 55 5
			, i j i i i	

2. Your Gender

Male	1	Female	2
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3. Your marital status

Single	1	Married	2	Widowed	3	Widower	4	Separated	5	Divorced	6

#### 4. Your level of education

Primary 1 Secondary 2 University 3 Others 4
---

- 5. Please state your professional qualification\_\_\_\_\_
- Which department you are deployed to work\_\_\_\_\_\_
- 7. Please indicate the years of experience in Kenya Pipeline Corporation Limited

Below 5 years	1	5-10 years	2	11 - 20 years	3	21 – 30 years	4	Above 30 years	5

## Section A – Transformations in the determinants of quality service delivery since ISO 9001- 2008 implementation in KPC.

- 1. How was the quality of service delivery determined/evaluated before ISO 9001:2008 Certification?
- 2. What communication mechanisms were used to receive clients' complaints/compliments before ISO implementation?\_\_\_\_\_
- 3. Since the implementation of ISO 9001:2008, what new communication mechanisms have been introduced?
- 4. What is the state and condition of equipment in terms of layout and maintenance?

Very Good 1	Good 2	Fair	3	Poor	4	Very Poor	5
-------------	--------	------	---	------	---	-----------	---

5. Is the working environment conducive in terms of office space, lighting, quality of air to necessitate safety and health of employees in daily activities and in case of an emergency?

Yes	1	No	2

If your answer is No, give your suggestions

6. How often does the company organize workshops and seminars to give an update on the current policy

issues?\_\_\_\_\_

7. Would you concur that the management is committed towards the implementation of ISO 9001:2008 requirements through good leadership, commitment, and

communication?



If your answer is No, please state your reasons \_\_\_\_\_

SECTION B – Effect of ISO 9001:2008 Implementation on Quality Service Delivery

In this section, you are requested to respond by giving your insights on how ISO 9001:2008 has affected service delivery in Kenya Pipeline Company Limited.

1. Has customer focus improved in Kenya Pipeline Company Limited since ISO

9001:2008 was implemented?

Yes	1	No	2

If Yes, please state how customer focus has improved\_\_\_\_\_

If your answer is No, please state your reasons

- 2. How has the implementation of ISO 9001:2008 enhanced time management during service delivery?
- 3. Does the organization emphasize on staff training/seminars to employees as a requirement of ISO 9001:2008 towards the attainment of quality service?

Yes	1	No	2

If yes, please specify the kind of training that you have

received\_

If No, please state reasons that you think are hindering the management from

offering the kind of training as per ISO 9001:2008

requirement\_

- 4. How has ISO 9001:2008 enhanced employee/all stakeholders compensation in case of an occurrence of occupational injury in the company vicinity?\_\_\_\_\_\_
- 5. How has ISO 9001:2008 enhanced staff selection and recruitment procedures in the organization?
- Please outline any other contributions that ISO 9001:2008 has made towards improvement of quality service delivery in the organization?

## **SECTION C** – Challenges encountered during the implementation of ISO 9001:2008

1. As an employee of Kenya Pipeline Corporation, are work requirements and

procedures of ISO 9001:2008 clear to you/are you well informed about them?

Yes 1 No 2

If your answer is No, what are your challenges\_\_\_\_

2. Does the organization offer adequate facilitation to employees towards the attainment of targets set as per the ISO 9001:2008 requirements?

Yes 1 No 2
------------

- 3. If your response is No, please indicate additional facilitation that you think would be more appropriate to enable you meet set targets?
- 4. Are performance targets set by ISO 9001:2008 achievable to enhance quality service delivery in the organization?

Yes 1 No 2

If No, please state the challenges that you encounter to support your statement\_\_\_\_\_

What other challenges that have you encountered during the implementation of ISO 9001:2008 in the company\_\_\_\_\_

#### SECTION D – Strategies of enhancing Quality Service Delivery in the company

Please indicate how ISO 9001:2008 has enhanced quality service delivery in Kenya
Pipeline Company Limited \_\_\_\_\_\_

In addition to ISO 9001:2008 strategies already implemented, which other strategies do you have in mind that may improve the quality of service you are offering in Kenya Pipeline Company Limited?\_\_\_\_\_

#### THANK YOU FOR YOUR COOPERATION

#### **APPENDIX III - INTERVIEW SCHEDULE TO FUEL SUPPLIERS (SHIPPERS)**

#### Dear Respondent,

I am a post-graduate student in Moi University, School of Human Resource Development. I am carrying out an academic field research titled: "International Organization for Standardization (ISO 9001:2008) and service delivery in Kenya Pipeline Company Limited, Nakuru Branch, Kenya". The research is meant to serve as an academic requirement for the award of Master of Science in Human Resource Development.

#### Your responses will be treated with strict confidentiality it deserves.

- 1. Indicate the company where you are employed?\_\_\_\_\_
- 2. For how long has your company collected fuel from the station?
- 3. How was customer in Kenya Pipeline 8 years ago?

Very Good	1
Good	2
Fair	3
Poor	4
Very Poor	5

4. Do you the think customer service has improved in the recent years?

Yes	1
No	2

If your answer is No, please give reasons that may be hindering the improvement.

- 5. What criterion was used to tender complaints to the company management 8 years ago?
- 6. Do you still use the same criteria you have mentioned above?

Yes	1
No	2

If No, which criteria do you use lately to tender your complaints?\_\_\_\_\_

Has queuing at the point of fuel collection improved in the recent years?

Yes	1
No	2

If No, what do you consider to be the problem at hand?

7. Are you aware of your safety against risk in the company vicinity?



- 8. How does the company ensure that you are kept safe while you are in the company environment?
- 9. At what rate does the staff respond to customer needs in different departments of the company?

Within 5 minutes	1
Between 6 and 10 minutes	2
Between 11 and 20 minutes	3
Between 21 and 30 minutes	4
Over 30 minutes	5

10. Kindly list the challenges that you are currently encountering in your daily collection of fuel from the company\_\_\_\_\_

Kindly give your suggestions on what you feel should be done by the company management to improve the quality of service to you\_\_\_\_\_
# APPENDIX IV - INTERVIEW GUIDE TO THE KENYA PIPELINE COMPANY MANAGEMENT

Dear Respondent,

I am a post-graduate student in Moi University, School of Human Resource Development. I am carrying out an academic field research titled: "International Organization for Standardization (ISO 9001:2008) and service delivery in Kenya Pipeline Company Limited, Nakuru Branch, Kenya". The research is meant to serve as an academic requirement for the award of Master of Science in Human Resource Development.

Your responses will be treated with strict confidentiality it deserves.

What determinants of quality service delivery were used in the company before ISO 9001:2008 was implemented?\_\_\_\_\_

- What were the main reasons that necessitated the Company Management to implement and adopt ISO 9001:2008?\_\_\_\_\_\_
- What benefits has the company registered in terms of offering quality service to clients since ISO 9001:2008 was implemented?
- 3. What challenges have you encountered as a member of the company Management during the implementation and adoption of ISO 9001:2008?
- 4. What should be done/what is being done to address the challenges registered?
- 5. A part from the existing ISO 9001:2008 strategies already implemented, what additional strategies should be implemented to enhance provision of quality service delivery?

#### **APPENDIX V: SUMMARY OF THE KEY FINDINGS**

**Objective 1:** To analyze transformations of determinants of quality service delivery after ISO 9001:2008 implementation on quality service delivery

**Research Question:** What new strategies were implemented after the adoption of ISO 9001:2008 in Kenya Pipeline Company, Nakuru Branch?

#### **Key Findings:**

On communication methods used to receive clients compliments/complains, the following additional strategies were adopted:

- a) Customer complaints/compliment feedback box.
- b) Online Communication.
- c) Monthly meetings
- d) Installation of Intranet Protocol Phones.
- e) Social gatherings between stakeholders.

Document storage and retrieval:

- a) General improvements on storing and retrieving documents was evident but there were mixed reaction between respondents.
- b) Those responses were dependent on were a respondent was deployed.

State and condition of equipment

a) There was general improvement in terms of layout and Maintenance

b) Equipment laid out and maintained as per ISO requirement

c) Some offices mounted with equipment need expansion and furnishing of structures *Office environment after ISO implementation* 

- a) The level of satisfaction on office layout were varied amongst employee respondents
- b) Departments based in Administration block had a farourable than those in Engineering and purchasing

Level of satisfaction of office environment in terms of office lighting

a) There was an insignificant number of respondents who were not satisfied by office lighting

Level of satisfaction of office environment in terms of workplace violence mitigation

- a) Majority of respondents concurred that their environment is violence free
- b) Only an insignificant number wanted the management to put more effort on that.

Level of satisfaction of office environment in terms of indoor air quality

a) Majorities were satisfied with the indoor air quality but majority also were dissatisfied with the outside environment.

Time span at which the company organizes for workshops and seminars as an ISO requirement

a) In the recent past, the company had been organizing for workshops and seminars

b) ISO requirements and procedure updates are undertaken annually and bi-annually

c) Responses were dependent on the department where the respondent worked.

# Management commitment towards implementation of ISO requirement through leadership

a) Majority agreed that the management was committed

b) It was evident that KPC management were leading by example.

**Objective 2:** To assess the impact of ISO 9001:2008 implementation on quality service delivery at Kenya Pipeline Company, Nakuru Branch.

**Research Question:** How did the new strategies affect service delivery in Kenya Pipeline Company, Nakuru Branch?

Time Management - Majority of respondents agreed that time management improved.

*Service accessibility was enhanced* – Respondents agreed that they were able to access customers through good communication channels and ISO procedures.

*Communication/language use* – There was an improvement of communication between different stakeholders of the company. This was necessitated by introduction of customer feedback box, installation of intranet telephone systems, and online communication system enhanced through SAP system.

*Capacity enhancement* – ISO requirements and procedures recommended installation of additional loading throughputs.

*Specification of employee Job Descriptions* – Through ISO 9001:2008 requirements, individual employee job descriptions were specified.

*Staff Training* - Unlike in pre-ISO years, refresher and sensitization courses were introduced.

*Employee personality* - 64.3% of the respondents agreed that their personalities were greatly improved.

+*Improved document storage and retrieval* – Majority of the respondents agreed that document were stored well and retrieved at the shortest time possible as per the service charter of the company, and were easily accessed.

*Procurement of goods and services* – A great number of respondents commended the quick procurement and delivery of goods and services as stipulated in the ISO manual.

**Objective 3:** To establish the challenges encountered during the implementation of ISO 9001:2008 in Kenya Pipeline Company.

**Research question:** What challenges were encountered during the implementation of ISO 9001:2008 KPC?

Challenges encountered by employee respondents of the company

- a) Failure to meet the departmental and individual set targets
- b) Lack of tools of trade
- c) Insufficient loading bays (throughputs)
- d) Insufficient knowledge of ISO 9001:2008 work procedures
- e) Insufficient internet connectivity
- f) Inter-dependence of operations
- g) Interruption of schedule routine maintenance of equipment
- h) Lack of employee morale
- i) Too many records management procedures to adhere to
- j) Lack of customer satisfaction feedback analysis

Challenges encountered by clients (Shippers)

- a) Delayed repair of office structures
- b) Impromptu introduction of ISO Procedures and process to employees
- c) Slowed Communication
- d) Poor Staff/Client relationship
- e) Under-utilized Customer office
- f) Poor telecommunication network
- g) Congestion at shippers plaza
- h) Insufficient loading bays
- i) Non-conducive working environment
- j) Unfavourable loading hours

Challenges encountered by Company Management

- a) Fear of the unknown by employees
- b) Unavailability of sufficient funds
- c) Cost of ISO auditing
- d) Insufficient ISO Certified structures
- e) Negative employee attitudes
- f) Employee incentives



## APPENDIX VI: KENYA PIPELINE COMPANY FILE MOVEMENT REGISTER

## APPENDIX VII: KENYA PIPELINE COMPANY INCOMING MAIL REGISTER





APPENDIX VIII: KENYA PIPELINE COMPANY LIMITED OUTGOING MAIL REGISTER

# APPENDIX IX: KENYA PIPELINE COMPANY - MAIL CIRCULATION REGISTER



#### APPENDIX X: APPLICATION TO NCST SEEKING AUTHORITY TO

### UNDERTAKE RESEARCH IN KENYA PIPELINE COMPANY LIMITED

Ruth J. Kendagor Moi University School of Human Resource Development P O Box 3900 ELDORET 30100

19<sup>th</sup> June, 2013

Council Secretary National Council for Science & Technology P O Box 30623 – 00100 NAIROBI – Kenya

Dear Sir/Madam,

# **RE: APPLICATION FOR A RESEARCH PERMIT TO UNDETAKE ACADEMIC RESEARCH IN KENYA PIPELINE COMPANY LIMITED, NAKURU BRANCH**

I am writing this letter to request for a research permit to undertake the above mentioned research.

I am a post-graduate student in Moi University, School of Human Resource Development pursuing a Master of Science course in Human Resource. The research title is "International Organization for Standardization (ISO 9001:2008) and service delivery in Kenya Pipeline Company, Nakuru Branch".

The research is purely academic. Attached hereto, please find a copy of my research proposal for your perusal.

I look forward to your positive response.

Yours faithfully,

RUTH J. KENDAGOR SHRD/PGH/07/11

#### **APPENDIX XI: AUTHORIZATION LETTER FROM NCST**





## NATIONAL COUNCIL FOR SCIENCE AND TECHNOLOGY

Telephone: 254-020-2213471, 2241349, 254-020-2673550 Mobile: 0713 788 787, 0735 404 245 Fax: 254-020-2213215 When replying please quote secretary@ncst.go.ke P.O. Box 30623-00100 NAIROBI-KENYA Website: www.ncst.go.ke

Our Ref: NCST/RCD/14/013/1136

Date: 25th June 2013

Ruth J. Kendagor Moi University P.O Box 63056-00200 Nairobi.

#### **RE: RESEARCH AUTHORIZATION**

Following your application dated 19<sup>th</sup> June, 2013 for authority to carry out research on "International organization for standardization (ISO 9001:2008) and service delivery in Kenya Pipeline Company, Nakuru branch, Kenya." I am pleased to inform you that you have been authorized to undertake research in Nakuru East District for a period ending 31<sup>st</sup> January, 2014.

You are advised to report to the Regional Manager, Kenya Pipeline Company Limited, Nakuru branch before embarking on the research project.

On completion of the research, you are expected to submit **two hard copies and one soft copy in pdf** of the research report/thesis to our office.

DR. M. K. RUGUTT, PhD, HSC. DEPUTY COUNCIL SECRETARY

Copy to:

The Regional Manager Kenya Pipeline Company Limited.

> "The National Council for Science and Technology is Committed to the Promotion of Science and Technology for National Development".

#### **APPENDIX XII: RESEARCH PERMIT**



#### **APPENDIX XIII: AUTHORIZATION LETTER FROM SHRD**



#### MOI UNIVERSITY ISO 9001:2008 Certified Institution OFFICE OF THE DEAN SCHOOL OF HUMAN RESOURCE DEVELOPMENT

P.O. Box 3900 ELDORET, KENYA. 254-053-43153/43620 Ext.2448

REF: MU/SHRD/PG/77

12<sup>th</sup> June, 2013

#### TO WHOM IT MAY CONCERN

RE: KENDAGOR RUTH J. -SHRD/PG/07/11

The above named is a Master of Science student at Moi University, School of Human Resource Development, Department of Development Studies.

It is a requirement of her Master of Science Studies that she conducts a research and produces a Thesis. The topic of her Thesis is "International Organization for Standardization (ISO 9001:2008) and Service Delivery in Kenya Pipeline Company, Nakuru Branch, Kenya.

Any assistance accorded to her will be highly appreciated.

JUN 2013 ROF. J. KWONA/IKE KAN: SCHOOL OF HUMAN RESOURCE DEVELOPMENT

#### APPENDIX XIV: REQUEST LETTER TO KPC TO UNDERTAKE RESEARCH

Ruth J. Kendagor Moi University School of Human Resource Development P O Box 3900 ELDORET 30100

11<sup>th</sup> June, 2013

The Managing Director Kenya Pipeline Company Limited KENPIPE Plaza Sekondi Road Off Nanyuki Road Industrial Area P O Box 73442 – 00200 NAIROBI – Kenya

Dear Sir/Madam,

#### **RE: REQUEST TO UNDERTAKE ACADEMIC RESEARCH AT KENYA**

#### PIPELINE COMPANY LIMITED, NAKURU BRANCH

I am writing this letter to request your office to allow me to undertake an academic research in your organization.

I am a post-graduate student in Moi University, School of Human Resource Development pursuing a Master of Science course in Human Resource. The research title is "International Organization for Standardization (ISO 9001:2008) and service delivery in Kenya Pipeline Company, Nakuru Branch".

The research is purely academic.

I look forward to your positive response.

Yours faithfully,

RUTH J. KENDAGOR SHRD/PGH/07/11

#### APPENDIX XV: AUTHORIZATION LETTER TO CONDUCT RESEARCH

#### FROM KPC



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Baruti East

Map data @2013 Gocgle - Ecit in Google Map Makar

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## **APPENDIX XVI – MAP OF THE STUDY AREA**