

**CHALLENGES OF GETTING ISO 9000 CERTIFICATION:
THE CASE OF KENYA PORTS AUTHORITY**

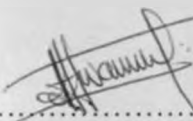
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**A Research Project Report submitted in partial fulfillment of the
requirements for the award of a Degree of Master of Business
Administration, School of Business,
University of Nairobi.**

2011

DECLARATION

I declare that this project is my original work and has not been submitted for a degree in any other university.

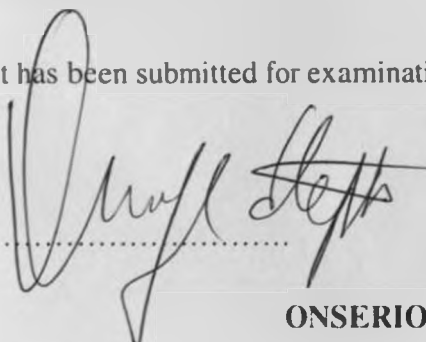
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D61/P/8976/04

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

Signed.....

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DEDICATION

This research project is dedicated to my entire family for their encouragement and support during the course.

ACKNOWLEDGEMENTS

First and foremost I would like to thank the Almighty God for enabling me to be of sound health to complete my course on time.

I express my gratitude to all my family, friends, relatives and colleagues from the university who have inspired me with their own academic research; not forgetting the Kenya Ports Authority (KPA) for availing me data deemed necessary for the purpose of this research project.

Finally, my gratitude goes to my project supervisor Onserio Nyamwange and the project moderator Mwanyota J. Lewela for their support, encouragement, and for equipping me with necessary qualitative and quantitative techniques for carrying out the research and analyzing the data.

ABSTRACT

This study sought to establish the challenges facing Kenyan government parastatals who wish to be ISO 9000 certified and also find out the intervention measures that these parastatals can put in place to deal with these challenges. Primary data was collected by use of two research instruments, that is, a comprehensive interview guide and a structured questionnaire. Content analysis was used in the analysis of the data obtained using the interview guide, while the data obtained using the structures questionnaire was analyzed using Statistical Package for Social Sciences (SPSS) computer software. The close-ended questions were analyzed and summarized in form of tables, proportions, percentages, means and standard deviations. The study found out that the major challenges facing government parastatals during the process leading to ISO 9000 certification were: resistance to change, misunderstanding the perception of quality efforts, difficulties in understanding new processes and procedures and corrective actions, problems with auditors and consultants, and unsupportive organizational structure and organizational culture. The study also found out that in dealing with these challenges, parastatals should make the following intervention measures: full top management commitment, involve all staff and management in adequate awareness trainings, brainstorming sessions, outings and consistent meetings, follow up audits should be done more frequently and corrective actions made where processes have been flouted, and performance management to be employed. The results may as well form a basis for further research.

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LIST OF ABBREVIATIONS

CEO	: Chief Executive Officer
HOD	: Head of Department
ICD	: Inland Container Depot
IMO	: International Maritime Organization.
ISO	: International Organizational for Standardization.
ISO-TC	: ISO Technical Committee
KEBS	: Kenya Bureau of Standards
KPA	: Kenya Port Authority
KWATOS	: Kilindini Waterfront Automated Terminal Operating System
MR	: Management Representative
QA	: Quality Assurance
QC	: Quality Control
QI	: Quality Inspection
QM	: Quality Management
QMR	: Quality Management representative
QMS	: Quality Management Systems
SAP	: System, Application and Products
TQM	: Total Quality Management

CHAPTER ONE: INTRODUCTION

1.1 Introduction

This chapter discusses the background of the study, gives a clear statement of the problem. It also highlights the objectives and significant of the study.

1.2 Background of the Study

The ISO 9000 standard has had a great impact on manufacturing and service industries by helping establish the framework required for effective and efficient quality assurance and quality management system. An important difference compared with earlier standards lies in the fact that ISO is focused on quality control system in general from process of product design to process design and from production process through to service after sale (Motwani, Kumar and Cheng, 1996). Furthermore, ISO is based on the notion that specific minimum characteristics of quality systems can be standardized, which can give mutual benefits for organizations and their suppliers because each of them knows that they both meet certain requirements concerning quality systems (Tummala and Tang, 1996). Tsiotras and Gotzamani (1996) put it clear that ISO certification is not a standardized package that can be applied in the same way in every organization. They reported that the standards only recommend the essential elements of a proper quality assurance system without recommending the ways to apply them. Each organization can design its own system that fits its specific needs and that fits the general requirements of the ISO requirements.

Briscore, Fawcett and Todd (2005), however, have a different view. They proposed that ISO 9000 registration program is a family of "generic management system standards concerned with managing a company's quality system". The notion that ISO 9000 is a generic standard implies that the same standards can be applied to any organization, regardless of size, product line, and economic sector.

A common misconception is that ISO would meditate higher level of product quality (Motwani et al., 1996). ISO certification gives no guarantee that the quality of products and services of an organization is better than the quality of other organizations. In fact it is possible that the

products or services of a registered organization are not of such a good quality. However, such organizations can still have an ISO certificate just because the products or services are produced in accordance with the procedures (Meagan and Taylor, 1997). ISO is aimed at the production systems and in this way it assures that the production process meets the standards or the criteria (Motwani et al., 1996). Therefore, it is better to say that ISO is aimed at the assurance of quality consistency instead of a higher quality of the products or services of an organization (Tsiotras and Gotzamani, 1996). ISO 9000 helps to ensure that organizations follow specific well documented procedures in the making of their products and services, and nothing more. These procedures describe how operations in an organization must be conducted. When employees work according to the procedures that are described in the ISO series, and anything should go wrong then it is possible to find efficiently where the problem arose in the production process. By doing so, these procedures are meant to guarantee that the products or services of an organization are in accordance with customer specifications. Therefore, one can say ISO certification is a necessary condition for good quality.

ISO certification is said to give certain benefit for the organization that can be divided into internal and external benefits. According to Jeroen, Ruël and van der Water (2001), the internal benefits are related to the process and structure of the organization. This include increase in productivity, improvement in efficiency, reduction in costs and wastes, better management control, clearly defined organizational structure and responsibilities, improved co-ordination structure, support in decision making and increase in personnel motivation. External benefits are related to the organizations environment. These include competitive advantage, increase in sales and market share, possibility for entering new markets; keeping customer relation, finding new customers, increased customer satisfaction, increase in company reliability and reputation which can result in better possibilities for establishing partnerships, co-makerships and mergers.

Besides all the benefits which can be gained by getting an ISO certificate, there are some disadvantages which result from ISO certification. Examples of these disadvantages are: extra costs for achieving ISO certification, little attention for the support functions in an organization. Furthermore, ISO certification may discourage creative and critical thinking in an organization

because employees are forced to work according to well described procedures and rules. Critics tend to say ISO certification brings about a lot of extra costs and seems not result in benefits. They think that gaining ISO certificate is a "hollow achievement" (Jones, Arndt and Kustin, 1997).

Although the argument for certification is strong, many companies have had extreme challenges in getting ISO 9000 certified. These challenges include: lack of teamwork, employee resistance to change, lack of management commitment, conflicting interpretation of requirements, lack of adequate personnel training, inappropriate policies/procedures inherited from other operating units/locations, difficulties in determining whether products and services meet the required quality levels, lack of understanding of new process and procedures, lack of sufficient software to maintain the quality system, company resource limitation, misunderstanding the perception of quality efforts, little pressure from customers to foster quality improvement, ISO 9000 management representative without power, lack of improvement making implementation so complicated, unsupportive organizational structure and culture, difficulties in understanding the standard, problems with assessors and consultants, cumbersome and bureaucratic documentation standards, problems with audits and corrective action procedures, implementation done by consultants and lack of employee involvement. An understanding of the challenges at each step of ISO 9000 QMS implementation allows for suitable preventive and corrective actions to achieve optimal performance over time.

1.2.1 ISO 9000 Standards

The ISO 9000 standard is one of the best known international standards; it is implemented by countless companies and other organizations in over 150 countries (Briscoe et al., 2005). It addresses "quality management". This means what the organization does to fulfill their customers' quality requirements, plus any applicable regulatory requirements, while aiming to enhance customer satisfaction and achieve continual improvement of its performance.

ISO 9000 is actually a series of quality standards. According to KEBS (2007), ISO 9000:2005 is a standard that describes the concepts of QMS and defines the fundamental terms used in the ISO 9000 family. ISO 9001:2000 specifies the requirements for QMS. In November 2008 a successor of ISO 9001:2000 was published. This is ISO 9001:2008 which outlines the necessary steps to implement ISO 9001 QMS placing a great emphasis on top management's commitment to quality. ISO 9004 provides guidelines for continual improvement and can be used for performance improvement of an organization. It is a guideline for developing quality management systems in non-contractual situations (Motwani, et al., 1996). ISO 19011 provides guidelines on quality and/or environmental management systems auditing (KEBS, 2007).

With the intensification of global competition, more and more industries are moving towards the ISO 9001 standard. Of course each individual company must decide whether to pursue ISO 9000 certification as well as select the appropriate standard to implement based on an assessment of their current capabilities and their customers' current and future demands (Briscoe et al., 2005).

1.2.2 Kenya Government Parastatals

According to Wikipedia, a parastatal is a government owned corporation, a state-owned enterprise, a government business enterprise or a legal entity created by government to undertake commercial or business activities on behalf of the owner. It can also be defined as a company or agency; owned or controlled by a government; either wholly or partially. Parastatals are key government agents charged with steering national development and their contribution or lack thereof is of utmost importance to the government (Chimutengwende, 2005).

According to Chimutengwende (2005), a good image for a government can only be earned by the manner in which the government and its institutions conduct their business in service provision. Parastatals, as implementers of government policies are therefore, key players in determining whether the government's current image is good or bad. The current image of the Kenya government largely depends on the quality of service it delivers to the public through parastatals such as ministries, departments and companies such as KPA. Chimutengwende (2005) goes further to say that most clients hold negative and hostile perceptions about parastatals. They view

parastatals as breeding ground for gross incompetence, massive unaccountability, rampant corruption and non-delivery.

Parastatals need not only know how to build a good image for the nation and government, but also need to master the skill of maintaining and improving that image by putting right the causes of the bad image inside the parastatals themselves. One such cause of bad image is provision of poor services to customers. The ultimate solution to this is, of course, provision of quality services to customers (Chimutengwende, 2005). One way of assuring and maintaining quality of service is through the implementation of ISO 9000 QMS (Briscoe et al., 2005) leading to ISO 9000 certification.

The process of implementing ISO 9000 QMS is likely to be faced with challenges. In Kenya, Gatei and Sevilla (2008) carried out a study on issues and challenges in implementing quality assurance in higher education, and found that the challenges were lack of management commitment, lack of expertise in internal audit processes, inadequate time to attain certification, inadequate training, misunderstanding of QMS, employee resistance, over-reliance on the QMS leading to lack of innovation and inability to totally integrate QMS into everyday life of the organization. This study was conducted in a private higher institution of learning. However, no evidence of research was done on challenges of getting ISO 9000 QMS certification in a government parastatal in Kenya. It is this lack of studies on this subject in the government parastatals in Kenya that is the basis of this study.

1.2.3 The KPA

The KPA is a statutory body under the ministry of transport. Set up by an Act of Parliament in January 1978, the Authority's mandate is to maintain, operate, improve and regulate all the scheduled sea ports situated along Kenya's coast. These include the port of Mombasa, Lamu, Kilifi, Mtwapa, Kiunga, Shimoni, Funzi and Vanga. The Authority has also developed ICDs in Nairobi, Kisumu and Eldoret (KPA, 2003).

The port of Mombasa is the largest and busiest seaport in the East African coast and is the gateway to a vast hinterland where people depend on agriculture for their livelihood. The port is

also well- placed to serve countries such as Uganda, Rwanda, Burundi, Democratic Republic of Congo, Southern Sudan, Ethiopia, Somalia and Northern Tanzania (KPA, 2003).

KPA touches the lives of many in the East African region, since many goods find their way into the region through the port of Mombasa. Foodstuffs, medicines, agricultural inputs, motor vehicles, chemicals, oil, etc., form part of the special and general cargo handled by KPA every day. Abdulaziz (2006) argues that the role played by KPA in the economies of Kenya and the East African region is very significant. He further asserts that the authority's operations are thus a key driver in these economies.

KPA offers various services to its customers. These include marine services to ensure ships access to sea, including navigation aids, tugs, pilots and maintenance of channel and basin; the cargo handling services for containers, general cargo, dry bulk, oils and bulk liquids; land based services including railheads, road links and ICDs; dockage of ships; and short term warehousing (KPA, 2003).

KPA management decided to implement a quality assurance system in early 2007 to ensure and improve in excellence as it pursued its objectives. KPA planned to continually improve quality of customer services to the world class standards, to enhance operational effectiveness and efficiency and to improve the productivity of internal services. A decision to implement a QMS was made and the process began. KPA eventually acquired ISO 9000 certification in July, 2009.

1.3 Statement of the Problem

Countless companies have successfully been ISO certified, either due to external pressures such as customers demanding certification, or internal reasons such as improving or developing a quality system to improve overall performance, or a mixture of both (Bhuiyan and Alam, 2004). While the benefits of ISO 9000 certification are widely known and proven, numerous studies show that there are many challenges to obtaining certification (Yahya and Goh, 2001). In a survey of ISO 9000 implementation in companies in Singapore, it was found that devoting time to quality initiatives, lack of management support and employee resistance to change were the

main challenges in establishing an ISO 9000 quality assurance model (Calingo, Mei, Ping and Mohamed, 1995). Findings of another survey for Greek companies by Lipovatz, Stenos and Vaka (1999) revealed that changing employee mentality was the main problem in preparing for ISO 9000 registration. These general roadblocks were pointed out by Yahya and Goh (2001) in their study of ISO implementation in Malaysian companies, while Bhuiyan and Alam (2004) have pointed out similar ones in their study of Canadian companies. Fuentes, Benavent, Moreno, Cruz and Pardo (2000) have examined similar literature associated with the ISO 9000 quality assurance system in Spain. Organizational barriers such as lack of cooperation among managers, resistance to change, and employee involvement were found to be major obstacles to successful implementation. Kim (1994) reported that understanding ISO 9000 and underestimating efforts to implementation played a key role in hindering progress to quality assurance system implementation.

Carlsson and Carlsson (1996) investigated the experience of implementing ISO 9000 in Swedish industries and found that the most difficult factors during implementation were the interpretation of the standard, and the time and resources required in undertaking the initiative. Brown and van der Wiele (1995) noted that typical problems consisted of issues related to substantial time and costs involved, gaining commitment of stakeholders, particularly employees and the top management team, difficulties in interpreting the standard, problems with assessors and consultants, and cumbersome and bureaucratic documentation requirements. According to Lee and Palmer (1999), the major challenges are around the auditing process particularly, the challenges that organizations face with internal audits and corrective action procedures.

In a case study of a quality implementation in a small manufacturing firm in Canada, Bhuiyan and Alam (2005) found that the key factors that slowed down the progress of being ISO certified were misunderstanding the perception of the quality efforts, lack of top management commitment, lack of resources, lack of training and resistance to change. Prakash, Feng and Smith (2006) on the other hand found that the barriers to smooth implementation of ISO 9000 certification in Australia were employee resistance, lack of management commitment, inappropriate policies/procedures inherited from other operating units/locations, difficulties in

determining whether products and services meet the required quality levels, lack of understanding of new processes and procedures, lack of sufficient software to maintain the quality system and company resource limitations.

Chu and Wang (2001) conducted a study in Taiwan and found that the commonly experienced problems include organizational resistance to changes in their culture, little pressure from customers to foster quality improvement, lack of adequate resources to implement and maintain quality assurance system, lukewarm support and commitment from senior management. According to the ISO 9000 Council (2009) it was suggested that the problems related to ISO 9000 are not the fault ISO 9001; these problems resulted from the way the ISO 9001 quality management system was implemented. These problems include management attitude and purpose, implementation done by consultants instead of employees of the organization, ISO 9000 management representative without power, insufficient resources, lack of improvement making the implementation so complicated and inadequate training of staff.

Regor (1997) in America noted that unsupportive organizational structure and culture, resistance to change, implementation too longer than anticipated, unsupportive processes and procedures, uncontrollable factors in the organization, major obstacles surfacing during implementation that were not anticipated before hand, inadequate resources and inadequate training of staff are the major challenges faced by organizations during the ISO 9000 certification process.

In an earlier study "Industry Experience with ISO 9000 in Asia" by Brown and van der Weile (1995), typical problems consisted of issues related to substantial time and costs involved, gaining the commitment of stakeholders, particularly employees and top management team, difficulties in interpreting the standard, problems with assessors and consultants and cumbersome and bureaucratic documentation requirements. According to Lee and Palmer (1999) on "An Empirical Examination of ISO 9000 Registered Companies in Newzealand", the major challenges are around the auditing process, particularly the challenges that organizations face with internal audits and corrective action procedures. Boiral (2003) goes further than this and suggests that many organizations take a very pragmatic approach to the standard and take actions

that range from a “minimalist” approach on one hand, to coercively deceptive conduct designed to exploit weaknesses in the auditing system on the other. From the above literature it can be noted that the challenges vary from country to country and industry to industry.

In Kenya a number of studies on ISO 9000 certification have been done. For example, Mwihaki (2006) conducted a case study to identify the benefits realized by Johnson Diversey since the implementation of ISO 9000 while Kiiru (2006) conducted a study on employees “ perception of the implementation of ISO 9001”. Gatei and Sevilla (2008) carried out a study on “Issues and Challenges in Implementing Quality Assurance in Higher Education-Strathmore University Case”. They found that the challenges were lack of management commitment, lack of expertise in internal audit processes, inadequate time to attain certification, inadequate training, misunderstanding of QMS, employee resistance, over-reliance on the QMS leading to lack of innovation and inability to totally integrate QMS into everyday life of the organization. This study was conducted in a private higher institution of learning. However, no evidence of research was done in a government parastatal in Kenya. It is this lack of studies on this subject in the government parastatals in Kenya that is the basis of this study.

In this study, the researcher used KPA as a case study to establish the challenges facing Kenyan government parastatals who wish to be ISO 9000 certified and also find out the intervention measures that these parastatals can put in place to deal with these challenges. The KPA was chosen because it was recently ISO 9001:2008 certified and, therefore the challenges are still fresh in the minds of the ISO project team and the management as a whole.

This study had two research questions it sought to answer.

- i) What challenges were facing the KPA in the process of getting ISO certification?
- ii) What intervention measures has the KPA put in place to deal with these challenges?

1.4 Objectives Of The Study

The overall objective of the study was to document the challenges faced by the KPA during the process of getting ISO 9000 certification. To achieve the above objective, the researcher was guided by the following specific objectives:-

- i) To establish challenges faced by KPA during the process of getting ISO 9000 certified.
- ii) To identify the intervention measures that KPA has put in place to deal with these challenges.

1.5 Significance of the Study

The findings of the study, if adopted will be beneficial in the following ways:

- i) It may be used by KPA chief executive, managers, employees and board members to establish the challenges to be tackled when implementing continuous performance improvement programs in order to remain ahead of competition.
- ii) To other government parastatals, the findings will provide a good insight for the challenges to be expected to arise while preparing for ISO 9000 certification and the possible intervention measures that these paraastatals can put in place to deal with these challenges.
- iii) Academically, this study is expected to contribute to the existing literature in the field of operations management in general and quality management systems in particular. It should also act as a further stimulus for further research on performance improvement through the implementation of ISO 9000.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

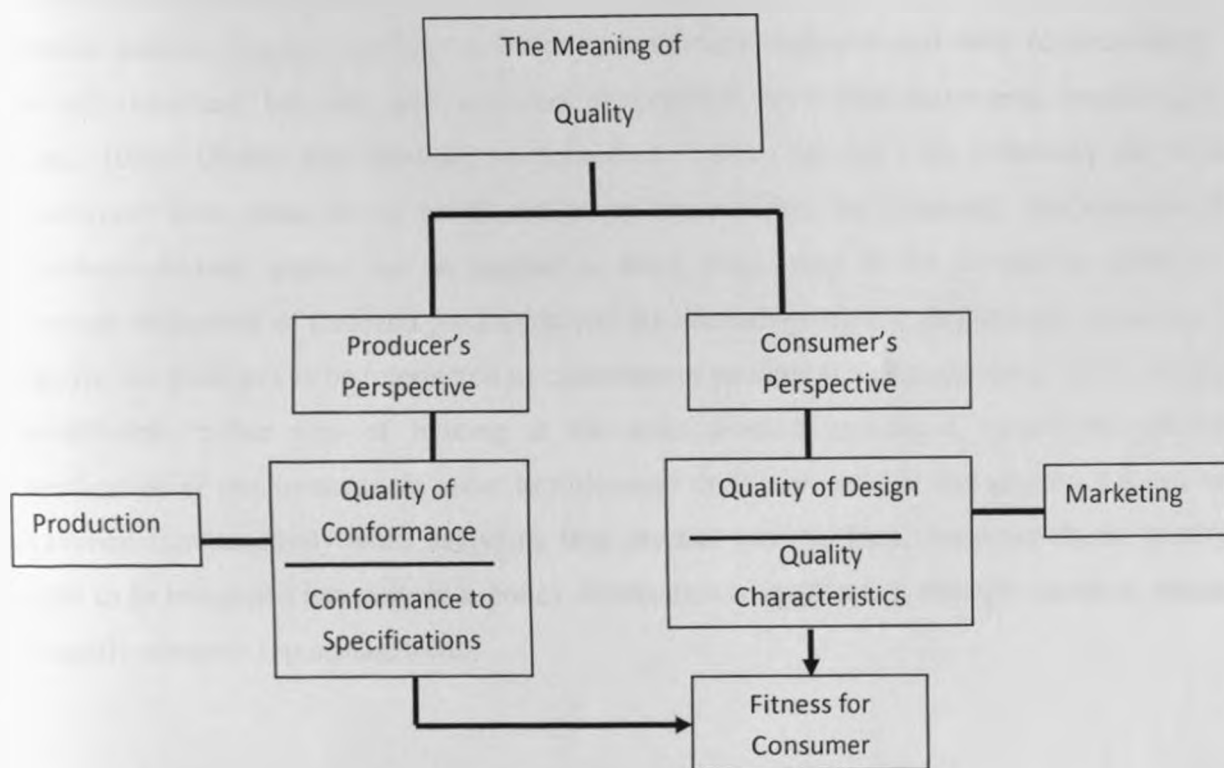
To ensure a place in the emerging market given today's competitive environment, companies must achieve internationally accepted quality levels. Global competition calls for higher levels of quality, efficiency and service. As the pursuit for global manufacturing expanded, several standards organization worldwide developed guidelines on quality. Terms like quality control, quality assurance, quality management, quality policy, quality plan, quality system, etc. acquired different or conflicting meanings in different countries. Recognizing that there was a need of standardization for quality management as well as for quality assurance, the ISO headquarters in Geneva, established ISO-TC, which was a technical committee on quality-wrote new quality standards. Members of this international committee spent seven years developing the ISO 9000 series of quality management and quality assurance standards, and then published them in 1987.

Quality means different things to different people and depends on the product. The American Society for Quality Control defines quality as the totality of features and characteristics of a product or services that bear on its ability to satisfy stated or implied needs. In the ISO 9000 context, quality refers to all those features of a product or service which are required by the customer (ISO, 2004). According to Seawright and Young (1996), it is difficult to define quality due to its multidimensional structure, including the difference in definition that may exist between the manager and the customer. According to them, the aspects of product or service experienced by a customer included reliability, serviceability, performance and features. Cited by Gituanja (2006), Smith and Whiteball (1997) found that the reasons why customers make purchases are features, dependability, performance, value and affordability.

Cited by Seawright and Young (1996), Garvin's concept of multidimensional quality combined numerous aspects of quality into eight general dimensions: performance, features, reliability, conformance, durability, serviceability, aesthetics and perceived quality. Parasuraman, Berry and Zeitham (1988) further developed this concept specifically for services and came up with five

dimensions of service quality: intangible, reliability, responsiveness, assurance and empathy. Figure 1.2 shows the different perspectives of the meaning of quality.

Figure 1 **Meaning of quality**



Source: KEBS (2007). *Implementation of ISO Standards*. KEBS Training and Advisory Services, pp. 2.

According to the Germany standard DIN 55350 quality is defined as “the totality of characteristics and features of a process which facilitates realization of given requirements” (Bernd. Bachle and Simoniet, 1995). This definition implies two facts; first, that quality does not only concern the features of physical products, but also those of processes (i.e. services); and second, that quality can never be measured in an absolute sense, but only relative to given

requirements. Thus, the extent to which quality is achieved cannot be measured until requirements are defined and characteristics complying with those requirements are determined.

Owing to the change from vendor to customer markets, the customer is usually in a better position to demand fulfillment of his requirements and to define them as a measure of quality. Internal aspects of quality control, as stated by production engineers and sales representatives, are still important, but only after customer requirements have been taken into consideration (Zink, 1989). Quality can therefore be defined as "fitness for use". By extending the term "customer" from those in an actual market to those within the company, the concept of customer-oriented quality can be applied to every single step of the as well as services). Through refinement of the main production process into sub-processes, departments adjoining a specific sub-process can be interpreted as customers or vendors to that department (Zink, 1989). Nevertheless, either way of looking at the sales process requires a sound and precise specification of requirements. In order to implement this view, product and process have to be examined simultaneously when analyzing total product quality. Thus, customer driven quality needs to be integrated into corporate policy. Realization of quality is a strategic problem, which primarily concerns top management.

Owing to the fact that an increasing number of customers demand their own individual product, the importance of services as a strategic success factor is increasing. Cited by Bernd et al (1989), Zink and Schidknecht noted that the service sector in industrial countries is constantly growing. The characteristic feature of services is their intangibility, which imposes the fundamental problem of planning, realizing and controlling quality. Just as significant is the fact that the service process is performed with, on, or at the customer. This again, leads to the necessity of a customer-oriented definition of become the basis for decision making by management.

Services are of a great variety and usually very heterogeneous. The main problem in determining the level of quality is to find standard criteria and to measure objectively the extent to which they

are fulfilled (Bernd et al.' 1989). Additional arise when precision and economy as well as the possibility of aggregating base measures or psychological resistance of employees has to be taken into consideration.

2.2 Structure of ISO 9000 Standards

The ISO 9000 registration program, commonly called ISO 9000, is a family of “generic management system standards” concerned with managing a company’s quality systems. As a management system standard, ISO 9000 provides companies with a generalized model to follow as they establish and operate their quality systems. Companies that adopt the ISO 9000 standard can be assured that their quality programs are built on a firm foundation of state-of-the art quality practices (ISO, 2004). The notion that ISO 9000 is a generic standard implies that the same standards can be applied to any organization, regardless of company size, product line and economic sector (Briscoe et al., 2005). In the ISO 9000 context, quality refers to all features of a product or service which are required by the customer (ISO 2004).

Briscoe et al. (2005) confirmed that the stated ISO 9000 goal is to ensure that the organization can time and time deliver products or services that meet the customer’s quality requirements and applicable regulatory requirements, while aiming to embrace customer satisfaction and achieve continual improvement of its performance in pursuit of these objectives. It is important to note that the ISO 9000 is not a product standard and does not guarantee improved product quality (Briscoe et al., 2005). The focus is on managing core value-added processes to deliver quality. ISO 9000 establishes the requirements for what the company must do to manage its quality-related processes. This fact has led many managers to talk about ISO 9000 in terms of the documentation of their companies’ quality management practices. By documenting existing processes and comparing them to ‘consensus’ best practices, companies can begin the journey towards improved quality practice and results (Biscoe et al., 2005).

According to Gotzamani, K.D. (2006), the ISO 9000 series of standards is based on a set of principles that can be used by senior management as a framework to guide their organizations towards improved performance. These principles are customer focus, leadership, involvement of people, process approach, system approach to management, continual improvement, factual approach to decision making and mutual beneficial supplier relationships. In customer focus, organizations depend on their customers, and therefore, should understand current and future customer needs, should meet customer requirements and strive to exceed their customers' requirements, while in leadership, leaders establish unity of purpose and direction of the organization. They should create and maintain the environment in which people can become fully involved in achieving the organizations objectives. He (Gotzamani, 2006) goes further to say that people at all levels are the essence of an organization and their full involvement enables their abilities to be used for the organization's benefit while a desired result is achieved more efficiently when activities and related recourses are managed as a process. Identifying, understanding and managing interrelated process as a system contributes to organization's effectiveness and efficiency in achieving its objectives. Continual improvement of the organization's overall performance should be a permanent objective of the organization. According to Gotzamani (2006) effective decision are based on the analysis of data information and an organization and its suppliers are interdependent and a mutually beneficial relationship enhances the ability of both to create value.

The model of a process- based QMS shown in figure 1.1 illustrates the process linkages. This illustration shows that customers play a significant role in defining requirements as inputs. Monitoring of customer satisfaction require the evaluation of information relating to customer perception as to whether the organization has met its requirements (KEBS, 2007)

ISO 9000 is actually a series of quality standards. KEBS (2007) divided the ISO 9000 family of standards into ISO 9000: 2005, ISO 9001:2000, ISO 9004:2000 and ISO 19011:2002. ISO 9000:2000 describes the concepts of a QMS and are defines the fundamental terms used in the ISO 9000 family. The standard also includes the eight quality management principles, which

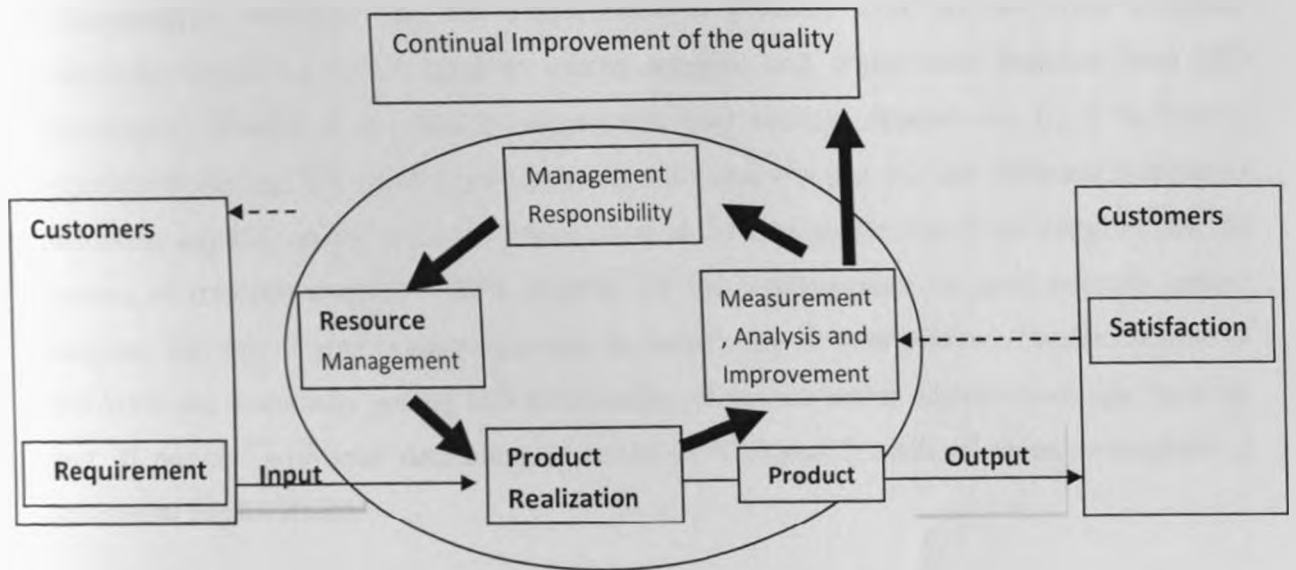
were used to develop ISO 9001 and ISO 9004. These management principles are customer focus, the role of leadership, involvement of people, process approach to management, continual improvement, factual approach to decision making, and mutual beneficial supplier relationship (KEBS, 2007).

The ISO 9001:2000 standard provides a number of requirements which an organization needs to fulfill if it is to achieve customer satisfaction through consistent products and services which meet customer expectations. It requires that a documented system exists for identification of tested products, and control for corrective actions to avoid repetition of processing dysfunctions. It also defines requirements for carrying out internal quality audits to verify the implementation and effectiveness of a QMS (Eicher, 1992).

Prior to December 2000, there used to be an ISO 9001, an ISO 9002 and an ISO 9003 standard; without focusing on the technical differences between them, people would just simply refer to each as ISO 9000. In December 2000, the ISO merged ISO 9001, ISO 9002, and ISO 9003 into a revised ISO 9001 standard. In order to distinguish between the previous ISO 9001 version, the revised standard was then referred to as ISO 9001:2000.

It is important to note that in November, 2008 a successor of ISO 9001:2000 was published-ISO 9001:2008. This standard outlines the necessary steps to implement the ISO 9001 QMS placing a great emphasis on top management's commitment to quality. It also defines the requirement for a company to determine and provide, in a timely manner, resources (for example equipment, facilities, etc) needed to implement and improve the process of the ISO 9001 QMS and to address customer satisfaction. The standard also defines the sequence of processes and sub-process to achieve a product. Finally the standard provides requirements for measurement and monitoring activities which include internal audits and the monitoring of customer perception as to whether the company has fulfilled customer requirements (KEBS).

Figure 2 A Process- Based QMS



Key

—————> Value adding activities

←-----> Information flow

Source: KEBS (2007). *Implementation of ISO Standards*. KEBS Training and Advisory Services, pp. 34.

ISO 9004:2000 standard provides guidance for continual improvement and can be used for performance improvement of an organization. While ISO 9001 aims to give quality assurance to the manufacturing process for products and to enhance customer satisfaction, ISO 2004 takes in a broader perspective of quality management and gives guidance for future improvement, while ISO 19011: 2002 gives guidance on conducting internal or external quality/ or environment system audits to verify a system's ability to meet the defined objectives. In addition to the above, there are different standards, which are referenced in ISO 9000 family. A lot of them do not even carry "ISO 900X" numbers. For example ISO 19011:2002 disclose guidelines for quality and / or environmental management system auditing (KEBS, 2007)

2.3 Steps to and Challenges of Implementing ISO 9000 QMS

As managers evaluate ISO 9000, they should specifically weigh their organizations' own ability to successfully undertake the ISO Implementation process. That is, can their company realistically expect to realize tangible quality tangible and competitive benefits from ISO certification? Briscoe et al., (2005) suggest that ISO success depends on (i) a facilitative organization culture, (ii) rigorous pre-implementation analysis and (iii) the company's ability to internalize key ISO quality practices. Motwani, et al., (1996) on the other hand suggests that the process of implementing ISO 9000 depends on the sophistication of your existing quality program, the size of your organization and the complexity of your process. Implementation of ISO 9000 and eventually getting ISO certification affects the entire organization right from the start. If pursued with total dedication, it results in "Cultural Transition" to an atmosphere of continuous improvement.

The process of implementing ISO QMS entails various steps. According to Gatei and Sevilla (2008), the process has eight (8) steps namely: decision to implement quality assurance, choice of certification body, training of staffs on QMS, implementation team, defining scope and statements, documentation, audit process and monitoring and growth of the QMS. It is worth noting that some of the activities can be carried out concurrently or overlapped.

2.3.1 Decision to Implement Quality Assurance

Establishing quality standards and documenting a company's quality systems requires considerable managerial time and effort. ISO 9000's requirement to establish a system of documentation that continuously updates and tracks quality practices and progress is even more resource intensive (Lee and Palmer, 1999). Therefore, managers should ask, "Why should we pursue ISO 9000 certification?"

Research has shown that most organizations adopt ISO 9000 certification for external reason-customers or government regulations force them to (Van der Wiele and Brown, 1997). Indeed

the literature suggests that the most prominent reason for implementing ISO 9000 is that customers prefer to buy from suppliers that are ISO certified (Rao, Ragu-Nathan and Solis, 1997). Skrabec and Ragu-Nathan (1997) found that many suppliers perceive that ISO certification is needed for their competitive proposals and bids to be considered. They also note that suppliers feel that ISO certification is vital to keep the customers from defecting to competitors who are certified. Simmons and White (1999) confirm that any company that lacks an ISO certificate of compliance find itself at a marketing disadvantage. Rao et al. (1997) identified the corollary rationale that numerous countries have directly adopted ISO standard, requiring suppliers to be ISO certified to obtain government contracts.

Studies and motivation and the organizational implication of ISO 9000 implementation have emphasized that the rise in ISO 9000 certificates is driven by external as well as internal factors. Most of these studies (Carlson and Carlson 1996; standards council of Canada, 2000; Acharia and Sanjit, 2000, Douglas, Coleman and Oddy, 2003; Costa and Lorente, 2004; Bhuiyan and Alam, 2005) have shown that commercial aspects constitute a determining factor in the decision to implement the standard. In many cases, actual or real customer requirements clearly represent sufficient motive to adopt ISO 9000, irrespective of internal implication of such process.

However, internal benefits associated with the adoption of the standard are also strong motivating factors. Contrary to external pressures which are market-dependent, internal motivations are based on anticipated improvements practices and internal performances resulting from ISO 9000. Such improvements are direct corollaries of ISO standard recommendation, implementation and degree of adoption to the specific needs of each organization. Since these needs vary, internal motivation to adopt the standard may differ significantly from one firm to the next. A current theme in studies focusing on motivations for adopting ISO 9000 is improving management vigor and operation control (Carlson and Carlson, 1996; Standards council of Canada, 2000; Gotzamani and Tsiotras, 2002; Douglas et al.,2003; Bhuiyan and Alam, 2005). Another motivation resulting from tighter control is product improvement and enhances services quality and more broadly, improvement in business productivity (Chang and Lo, 2005; Sun,

1999; Gotzamani and Tsiotras, 2002; Poksinska, Dahgaard and Antoni, 2002; Tan and Sia, 2001; Yeung, Lee and Chan, 2003).

The challenges that can be met at this stage of implementation can be varied. Of prime importance is management attitude and purpose is another challenge affecting ISO 9000 standards (Lipovatz, Stenos and Vaka, 1999; Yahya and Goh, 2001; Bhuiyan and Alam, 2004; Bhuiyan and Alam, 2005). Previously we noted that the motivations for ISO certification could be internal improvements, marketing or customer requirements. If the management desire to implement ISO 9000 solely for marketing reasons or due to customer requirements, the resulting ISO 9000 QMS often lacks the all-important internal improvement component. It is possible to pretend (even to an experienced auditor) to have an effective ISO 9000 system in place that is designed to improve the company, but the cost due to bureaucracy and inefficiency could be large.

Another challenge is management commitment (Calingo, et al., 1995; Quazi and Padibjo, 2001; Brown and Van der Weile, 1995; Prakash, et al., 2006; Chu and Wang, 2001; Bhuiyan and Alam, 2005). In his study, Taylor (1995) adopted an approach to compare articulate attitudes to quality with the actual behaviors of the senior executives, something which has been explained more fully by Argyris (1990) in terms of “espoused behaviors” (those actions managers believe they are using) and “behavior in use” (those actions actually used). Many organizations create a world that is contrary to the managerial stewardship they espouse. Managers are often unable to see these inconsistencies between words and actions because their behaviors have become so ingrained that they no longer question their appropriateness to specific situations (Kaufman, 1992). This is a widespread problem and one which has implication for research method. In fact Allen and Oakland (1988) specifically recognized these difficulties in relation to research method for the study of the quality assurance practices. Their subsequent studies underlined this very concluding that senior management-behavior was not consistent with articulated commitment to quality. They also suggested that in spite of the general increase in the awareness of the actual management practices have not changed greatly.

Limited time frame to implement the QMS and attain certification is also a challenge (Chu and Wang, 2001). Most organizations would have to get a team and get it working immediately to achieve the ISO certification within a year (Gatei and Sevilla, 2008).

2.3.2 Choice of Certification Body

ISO 9001 certification is also known as ISO 9001 registration, ISO 9000 certification (if one is less precise), ISO 9000 registration, ISO 9001:2008 certification (if one specifically refers to the latest version of the ISO 9001 standard), or ISO 9001:2008 registration. All of these refer to an independent certification body attesting that your company's ISO 9001 quality management system meets all the requirements of the ISO 9001:2008 standard. Typically, the certification company sends one or more auditors to perform an initial audit of the quality management system. If no significant gaps to the ISO 9000 requirements are discovered, a certificate is issued. The certificate is typically valid for three years provided that period audits (usually every 6–12 months) continue to show compliance (Gatei and Sevilla, 2008).

Gatei and Sevilla (2008) found that the challenge at this stage is finding a registrar whose auditors are flexible (because there are countless ways of fulfilling the ISO 9000 requirements and some may fit better for an individual business) and whose auditors don't mind sharing their experiences (auditors are but they are allowed to share what they have seen to work for other companies).

2.3.3 Education of Staff on QMS

ISO 9000 awareness programs should be conducted to communicate to the employees the aim of the ISO 9000 QMS; the advantage it offers to employees, customers and the organization; how it will work; and their roles and responsibilities within the system. Suppliers of materials and components should also participate in these programs (Motwani, et al., 1996). The training programs should be structured for the different categories of employees—senior managers,

middle-level managers, supervisors and workers. The training should cover the basic concepts of quality management systems and the standard and their overall impact on the strategic goals of the organization, the changed processes and the likely work culture implications of the system. Training may also be necessary on writing quality manuals; procedures and work instruction; auditing principles; techniques of laboratory management; calibration; testing procedures etc. Three issues arise at this point. One of the issues at this level is communication to the staff on the objective of implementing a QMS (Gatei and Sevilla, 2008). Generally the awareness programs create an impression that the ISO certification and not a QMS is the key goal. This leads to a misconception in the staff's minds on the aim of a QMS. In many certified organizations, staff will often refer to the "ISO system" and not the QMS. Availability of staff for training is another issue at this point (Gatei and Sevilla, 2008). However this can be resolved by conducting the sensitization and education exercises, where possible, in groups-each department would send half of its members for one session and another half to a repeat session. In this way normal operations are not disrupted. Another issue is determining the participants of the specialized training. Not everyone has the quality required or is qualified, for example, to attend internal auditor training; and even then, only a certain number is required. The internal auditor also has to be examined to be certified as an auditor and capable people have to be selected to attend the training (Motwani, et al., 1996).

The challenge at this level is lack of adequate training (Bhuiyan and Alam, 2005; Regor, 1997; Gatei and Sevilla, 2008). Management is not convinced that allocating funds for training at all level is necessary-only selected persons who are expected never to leave the organization are trained (Bhuiyan and Alam, 2005). As a result, only a few people understand the system, and if they are to leave the organization, they take the knowledge of the system with them. Sadgrove (1994) pointed out the importance of training, since quality depends on employees. This lack of adequate training can be translated to resistance to change.

2.3.4 Implementation Team

The next step is for the top management to establish an implementation team and appoint a MR as its coordinator to plan and oversee implementation. Its members should include representatives of all functions of the organizations-marketing, design and development, planning, production, quality control; etc. One of the key challenges at this stage is insufficient resources (Carlson and Carlson, 1996; Brown and Van der Weile, 1995; Prakash, et al., 2006; Chu and Wang, 2001; Gatei and Sevilla, 2008). The resources required for the process of ISO 9000 is not insubstantial. According to Boral (2003), unless a company's management and performance is well above average, the implementation of ISO 9000 usually requires significant resources: the ISO management representative needs to be trained and guided, top management need to be convinced of the concept of ISO 9000 and its benefits, an ISO 9000 quality manual, ISO 9000 procedures and other ISO 9000 documentation needs to be written , work processes throughout the company need to be analyzed and streamlined, employees needs to be trained, etc. It is crucial to the success of ISO 9000 implementation that management allocates enough time, as well as financial resources (for quality manuals, employee training, internal audits, auditor training, and etc.)

Bhuiyan and Alam (2005) noted that many employees are not committed to the quality effort and that managers may be eager to implement the system but due to lack of resources, they may not develop the preventive maintenance procedure for the company. They went further to state that many companies needed a full time quality manager to supervise activities related to quality throughout the organization, to assign inspectors for reporting problems related to inspections, and also play the role of management representative. In this way, quality would be expected to be free from bias, which could occur if the production head supervised quality-related issues. Since MR is a mandatory requirement of ISO 9000, it would be beneficial to have one event of future registration. Unfortunately, due to budget constraint, a full-time MR is never appointed.

Unsupportive organizational culture can also be a hindrance to effective implementation of an ISO 9000 QMS in readiness for certification (Rigor, 1997; Gatei and Sevilla, 2008). Managers

should focus on their own company's ability to implement the ISO program; therefore the starting point is to evaluate the company's organizational culture and structure. Researchers have long recognized the importance of assuring an adequate fit between the organizational culture and strategic management (Fawcett and Magnan, 2001; Hammer, 1990; Schonberger, 1986; Deming, 1984). Quality practices such as total quality management, six sigma and ISO 9000 are culturally embedded (Handfield, Gosh and Fawcett, 1998). An organization's culture is therefore expected to influence its ability to not just achieve ISO 9000 certification but also obtain desired quality and market benefits.

Resistance to change is also major challenge to implementing the ISO 9000 QMS in readiness for certification (Fuentes, et al., 2001; Bhuiyan and Alam, 2005; Prakash, et al., 2006; Chu and Wang, 2001; Calingo, et al 2001; Rigor, 1997). Company's quality culture should also influence the workforces' acceptance of the changes brought about by ISO 9000. One of the most prominent challenges of ISO implementation comes from employees who resist change (Briscore, et al., 2005). They often wonder why practices need altered and documented, especially in the absence of a crisis. Companies where quality is already a part of the organizational culture are accustomed to looking for the sources of quality problems and the making changes needed to eradicate them. Deming's (1984) plan-do-check cycle becomes the driver of continuous process. Principles of employee involvement and empowerment should also make it easier to implement ISO 9000 practices successfully (Hua et al, 2000). Ultimately, companies with a strong quality culture should be better able to overcome the behavioral barriers to ISO implementation (Huang, 1998).

Another challenge is poor quality perception (Lipovats, et al., 1999; Yahya and Goh, 2001; Bhuiyan and Alan, 2004; Bhuiyan and Alan, 2005). Understanding the quality system, the implementation requirements and the benefits is crucial to make the system effective at the grassroots levels. Bhuiyan and Alam (2005) noted that from the start many employees misunderstand the perception of the quality effort. A number of key people consider the effort to be useless, believing that the status quo was good enough as the quality of their products is

considered best enough in the market. They go further to say that tracking defects at the inspection stage meant that the company has good internal quality. As a result, not everyone seriously committed to making the changes needed to successfully implement a quality system.

Another typical problem is that implementation is done by consultants (ISO 9000 Council, 2009; Brown and Van der Weile, 1995; Gatei and Sevilla, 2008). Frequently management decides to hire ISO 9000 consultants that are tasked with the implementation of ISO 9000 QMS. These consultants promise to write a quality manual, quality procedures and other documents; in many cases, they also provide implementation training. Typical problems are: (i) the ISO 9000 consultant is unfamiliar with the business, the company and its culture making the resulting QMS not fitting the company, (ii) the ISO 9000 consultant tries to justify his fees by setting up an overly complicated and convoluted QMS, (iii) the ISO 9000 consultant does not adjust to the particular company and sets up a standard QMS: these standard systems are often geared towards large corporations, and they are often far too bureaucratic and labor intensive for small and medium size companies, and (iv) the ISO 9000 consultant is not flexible. Instead of creatively molding the ISO 9000 QMS to fit the reality of the company, the ISO 9000 consultant tries to mold the entire company to fit his one-fits-all ISO quality procedures.

Another challenge is MR without power (ISO 9000 Council, 2009). Executive management of some companies erroneously considers ISO 9000 a documentation task rather than the change to an improved and systematic management style. A consequence of this misconception is the appointment of an ISO 9000 MR without the power to make real changes. In these situations, it is very common to find an increasingly disenchanted ISO 9000 MR who is desperately to improve the company while to management pays mere lip service to ISO 9000.

Lack of improvement making implementation complicate is also a challenge (ISO 9000 Council, 2009). It is a common misconception that an ISO 9000 QMS needs to be implemented, certified and that's it. In reality the ISO 9000 system must constantly evolve as the company changes, as

the market conditions change, as product change, as technologies improve and as competition moves forward.

2.3.5 Defining the Scope and Statements

Defining scope and statements requires stating the vision, mission, policies, processes and structure of the organization (Gatei and Sevilla, 2008). If some of the statements already exist (e.g. vision and mission), this is the time for the statements to be examined and evaluated to see if they are in line with the needs of the organization. As such, an organizational structure is documented showing the responsibilities, authorities, relationships and processes. The administrative structure showing the positions in the organization is also documented. At this stage there is the production of large charts that defines the organizational structure and production of departmental statements.

2.3.6 Documentation

Documentation is the most common area of non-conformance among organizations wishing to implement ISO 9000 QMS. It should include: documented statements of a quality policy objectives, a quality manual, documented procedures and records required by the standard, and documents needed by the organizations to ensure the effective planning, operation and control of its processes (Motwani, et al., 1996). Documentation is a simple though tedious exercise. It requires a lot of teamwork, consultation and debating within the team and also within the departments defined in the scope (Gatei and Sevilla, 2008).

In small companies, documentation could be presented in one separate manual; otherwise, separate manual should be prepared. A list of the documents to be should be drawn up and the responsibility for writing the document should be assigned to the persons in the various functional departments. They should be advised to prepare the drafts within the specific time frame (Gatei and Sevilla, 2008)

Once the necessary QMS documentation has been generated, a documented system must be created to control it. Controlling is simply a means of managing the creation, approval, distribution, storage and disposal of the various types of documentation. Document control system should be as simple and as easy to operate as possible-sufficient to meet ISO 9001:2008 requirements and that is all (Gatei and Sevilla, 2008).

The major challenge at this point is time. According to (Motwani, et al., 1996), time schedule is aggressive. Everyone at all levels is challenged to develop, prepare, train and implement the ISO procedures.

Member ownership is another major challenge (Kim, 1994). Companies experience a major cultural change (Motawani, et al., 1996). Instead of everyone operating as individuals, ISO requires a team approach. It should no longer be acceptable to “do the job my way”. The registration demands the procedural updates and strict compliance with those procedures. It does not say that there is only one way to do business, but it does say that you must address how your organization is going to do business, then document it.

Another issue is that members are challenged to learn new procedures quickly and learn the disciplines that accompany them (Motawani, et al., 1996; Prakash, et al., 2006). Such drastic change can be overwhelming, confusing and intimidating to many people, and convincing everyone that of the value of the “new way of doing things” is not an easy task. Competence levels vary creating learning challenges of varying degrees. Also, members at all levels need to see that management at all levels demonstrates total commitment to ISO. People follow their leaders. If the leaders do not support cultural change, there will be no change.

There is also the risk of “locking in” or systemizing some poor practices through the certification process (Terziovski, Power and Sahal, 2003), or rather the documentation process. If the process

is wrong, documenting it, does not guarantee quality. Ultimately, delivery of quality services effectively should be the aim of the QMS. Departmental reviews are regularly conducted by each department to ensure that what was “locked in” was the right way of performing the process (Gatei and Sevilla, 2008)

2.3.7 Audit Process

There are two types of audits; internal and external audits. Internal audits conducted by the internal auditors are primarily used to check on the improvements that have been implemented on the QMS. Internal audits are usually carried out and corrective actions completed before the external audits. The external audits conducted by the certification agency monitors if the organization deserves the certification (Gatei and Sevilla, 2008). Once the QMS has been in operation for a few months and has established a formal application for certification could be made to a selected certification agency. The certification agency first carries out an audit of the documents (referred to as an “Adequacy Audit”). If the documents conform to the requirements of the quality standard, then on-site audit is carried out. If the certification body finds the system to be working satisfactorily, it awards the organization a certificate, generally for a period of three years. During this period, it will carry out periodic surveillance audits to ensure that the system is continuing to operate satisfactorily (Motwani, et al., 1996). In a survey of 274 quality auditors in the United Kingdom (UK), Williamson, et al., (1996) found evidence of implementation of corrective actions are providing the strongest indicator of an effective quality system. Russel and Regel (1996) also placed a great emphasis on this area of the audit process, stating they believe the key to effective auditing lies in the phase between audit performance and the following through on to the results of the audit. Carrying out corrective actions inspires confidence in the departments that their processes are working well. This ensures good surveillance audit results (Gatei and Sevilla, 2008).

Lee and Palmer (1999) noted that the major challenges are around the auditing process, particularly the challenges that organizations face with internal audits and corrective action procedures. This includes internal auditors having daunting experience (Gatei and Sevilla, 2008).

Their inexperience can lead to audits not being conducted very well with nonconformance being clumsily stated and corrective actions to carry out being unclear to the auditors. This challenge can be checked out a number of audits over time refresher training to an increase in expertise audit training. Conflicts with other duties can also be a great hindrance to carrying out of audits. Different schedules can be difficult to synchronize. Often, rescheduling of audits is required so long as the audits are carried out within a reasonable time of the stated dates.

2.3.8 Monitoring and Growth of the QMS

Certification to ISO 9000 should not be an end. One of the underlying principles of a QMS is continuous improvement (KEBS, 2007). Organizations should continually seek to improve the effectiveness and suitability of the QMS through the use of quality policy, quality objectives, audit results, analysis of data, corrective and preventive actions, and management review. ISO 9004:2000 provides a methodology for continual improvement. Terziovski, et al (2003), suggests that, ideally, organizations should set themselves quality standards well above the minimum prescribed by ISO 9000 standards, and constantly seek ways to improve all facets of the operation. The QMS has to be an integrated part of the system so that it does not sit apart from the regular schedule (Gatei and Sevilla, 2008). Activities of the QMS have to be scheduled on the organization's calendar. The activities can include, for example, the Quality Day, the Quality Prize and the Quality Red Flagging (Gatei and Sevilla, 2008).

The great challenge at this point is to totally integrate the QMS into everyday working life and not see it as a separate entity. In assessing the impact of QMS on Strathmore University, Gatei and Sevilla (2008) noted that tasks related to the QMS were seen as an intrusion to work, especially for auditing, and staff would be reluctant to perform some duties. This problem can be reduced by setting up a Quality Committee, headed by the QMR who can also double as the QM. The committee works to ensure that quality is maintained and coordinates quality activities during the year like quality audits and the Quality Day. Another step that can be taken is the appointment of QMS Departmental Representatives. These are members in each department who are charged with maintaining their quality issues-procedures, audit issues and implementing

representatives. They also represent their departments in the QMS Departmental Representative
meeting and participate in the making of quality related decisions (Gatei and Sevilla, 2008).

4.1 Conclusion
By looking in detail, at the issue and challenges of implementing in ISO 9000 QMS, an
understanding of the factors encountered at each step of KPA QMS implementation will allow
Kenya Governmental parastatals who have implement a QMS, to have suitable preventive
and corrective actions to achieve optimal performance over time. However, the challenges may
be problems for the public sector and government department and ministries given the nature
of the wide ranging stake holder's needs which must be addressed.

improvements. They also represent their departments in the QMS Departmental Reprehensive meeting and participate in the making of quality related decisions (Gatei and Sevilla, 2008).

2.4 Conclusion

By looking in detail, at the issue and challenges of implementing in ISO 9000 QMS, an understanding of the factors encountered at each step of KPA QMS implementation will allow other Kenya Governmental parastatals who have implement a QMS, to have suitable preventive and corrective actions to achieve optimal performance over time. However, the challenges may pose problems for the public sector and government department and ministries given the nature of the wide ranging stake holder's needs which must be addressed.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This chapter describes the research design, the data collection methods and data analysis methods.

3.2 Research Design

The research was conducted through a case study. The case study was carried out at KPA headquarters in Mombasa. KPA was considered suitable because it had just been ISO 9000 certified (in July, 2009), so the challenges were still fresh in the minds of the ISO 9000 project team and the management. Previous studies have successfully used the case study method (Kiiru, 2006; Mwihiaki, 2006). The case study approach has been regarded as a suitable research strategy when a "how" and when: question is being asked about a contemporary set of events over which the investigator has little or no control (Yin, 1994). Case studies also offer the flexibility to dwell on the issue with a reasonable degree of depth (Kiiru, 2006).

3.3 Data Collection

Primary data was collected by use of two research instruments, that is, a comprehensive interview guide and a structured questionnaire; both of them addressing different issues on the challenges facing organizations in the process of getting ISO certification including lack of teamwork, employee resistance to change, lack of management commitment, lack of adequate personnel training, inappropriate policies/procedures inherited from other operating units/locations, lack of understanding of new process and procedures, lack of sufficient software to maintain the quality system, company resource limitation, misunderstanding the perception of quality efforts, little pressure from customers to foster quality improvement, ISO 9000 management representative without power, lack of improvement making implementation so complicated, supportive organizational structure and culture, difficulties in understanding the standard, problems with assessors and consultants, cumbersome and bureaucratic documentation standards, problems with corrective action procedures and implementation done by consultants.

A total of 7 departmental heads were interviewed using the interview guide. Convenience sampling was used to select the respondents. The structured questionnaire was used to the entire 35 deputy H.O.Ds. The initial questionnaire was developed and pre-tested on a selected organization which has recently been ISO certified, thereafter this questionnaire was adjusted and reconstructed to yield the final version of the questionnaire that will be used in gathering data for the study (see appendix). To increase reliability of the questionnaire, its length was limited to increase response rate.

The structured questionnaire consisted of both closed and open ended questions based on the literature review and pre-testing results. This was administered to all the selected respondents by way of “drop and pick” method which is a variant of the mail questionnaire method. Where electronic communication was available, it was be used to hasten the process. If respondents had problems in understanding some of the questions an independent arrangement was be made for this. Follow up calls and/or personal visits were be made to the non respondents to increase response rate.

The questionnaire had 3 parts. Part A consisted of questions that will be used to establish the challenges of getting ISO certification, part B was used to establish the challenges of getting ISO certification and part C was used to establish how KPA has been dealing with these challenges.

Triangulation was used as a strategy for improving the validity and reliability of this study. Mathison (1998) elaborates the use of triangulation by saying “Triangulation has risen to be an important methodological issue in naturalistic and qualitative approach to evaluation (in order to control bias and establishing valid proposition) because traditional scientific techniques are incompatible with this epistemology” (pp.13).

3.4 Data Analysis

Content analysis was used in the analysis of the data obtained using the interview guide. This approach allowed meaning to be extracted from information collected and relate them to the core areas in the study. It also takes cognizance of secondary data. The method is appropriate because most of the information collected was qualitative which means it required analytical understanding of the data. Similar approach was used by Machuki (2005) when carrying out challenges to strategy implementation at CMC Motor Group Limited. The content of the data collected was examined critically to help in drawing conclusions. These conclusions were generalized on the subject of the study.

The data obtained using the structures questionnaire was analyzed using Statistical Package for Social Sciences (SPSS) computer software. SPSS is a complete statistical package that has all statistical features that will be used to perform statistical analysis for better decisions about data. The close-ended questions were analyzed and summarized in form of tables, proportions, percentages, means and standard deviations. This was a descriptive study. According to Cooper and Emory (1995), descriptive statistics tables describe the parameters of the population better because they express views and feelings of the respondents in greater detail hence greater effect on Likert scale elements. Mean scores were calculated on each factor and then the factors were ranked according to their mean scores. The mean helps in measuring the average response of the population and therefore indicates the average response of the population and therefore indicates the average of the occurrences on the Likert scale point.

CHAPTER FOUR: FINDINGS AND DATA ANALYSIS

4.1 Introduction

The objective of the study was to establish the challenges facing KPA during the process of getting ISO 9008 certification, and identify the intervention measures that KPA has put in place to deal with such challenges. The data was collected using two types of research instruments: an interview guide for H.O.D.s and a closed ended questionnaire issued to and filled by deputy H.O.D.s. Content analysis was used to analyze the interview findings while the questionnaire was analyzed and presented in the form of means, standard deviations, percentages and tables.

A total of seven departmental heads were interviewed between January 2010 and February 2010 using an interview guide. This represents 20% of all the 35 departments. Convenience sampling was used. On the other hand only 29 out of the targeted 35 Deputy H.O.D.s responded to the questionnaire. This translates to 82.9% response rate. The various statements were given values ranging from 1 to 5. The higher the value, the higher the statement was rated and vice versa. The means and standard deviations were calculated, hence the higher the mean, the higher the overall rating of the statement. A low standard deviation indicates that there is a low relative dispersion of the responses while high standard deviation indicates a high relative measure of dispersion. In their study, "An integrated framework for ISO 9000 motivation, depth of ISO implementation and firm performance: The case of Taiwan", Lin and Chin-I (2008) that a mean of less than 3.0 is considered to have no significant impact towards the process of getting ISO 9000 certification.

4.1 Motivation for KPA to Seek ISO 9000 Certification

Respondents were asked to rank the factors which influenced KPA to seek ISO 9000 certification on a five point Likert scale where 1 indicated very low priority while 5 indicated very high priority. The findings are shown in the table below.

Table 1 **Reasons for KPA to Seek ISO 9000 Certification**

S/No.	Statement	Mean	S.D
i	Increase operational efficiency / productivity	4.50	0.67
iii	Meet customer expectations (government)	4.21	1.01
iii	Improve the level of product quality	4.20	0.90
iv	Meet customer expectations (non –government)	4.13	0.96
v	Satisfy corporate directive	4.03	0.68
vi	As part of a larger performance improvement strategy	3.87	0.65
vii	Reduce the cost of production.	3.67	1.09
viii	Gain an advantage over competing firms	3.43	0.82
ix	Keep up with competing firms	3.37	0.69

Source: Primary Data

From table 1 it can be noted that the highest rated statement was “increase operational efficiency/productivity” with a mean of 4.50 and a low standard deviation of 0.67 while the least rated statement was “keep up with competing firms” with a mean of 3.37 and a S.D. of 0.69. This confirms the results obtained from the H.O.Ds that the motivations for KPA to seek ISO 9000 certification are both internal and external. The internal motivations here are: to increase operational efficiency / productivity, to improve the level of product quality, as part of a larger performance improvement strategy and to reduce the cost of production; while the external motivations are: to meet customer expectations (government), to meet customer expectations (non-government), to satisfy corporate directive, to gain an advantage over competing firms, and to keep up with competing firms.

Findings from interview discussions revealed that while some managers feel that the reasons are internal, others feel that these are external. The internal motivations are: to improve performance, to obtain a standard way of doing things and to motivate staff in the way of doing business while the external motivations were: as part of performance contract, to gain competitive edge over other ports in the region, to get white listed by the IMO and to be classified among the top.

literature shows that most organizations adopt ISO 9000 certification exclusively for external reasons (Van der Wiele and Brown, 1997; Rao et al., 1997; Scrabec & Ragu-Nathan, 2000; Simmons and White, 1999), other studies show that organizations seek ISO certification primarily for internal benefits (Carlson and Carlson, 1996; Standards Council of Canada, 2000; Tan and Sia, 2001; Godzamani and Tsiotras, 2002; Douglas et al., 2003; Yeung et al., 2003; Buiyan and Alam, 2005; Chang and Lo, 2005). Findings from this study show a combination of both external and internal motivations. Boiral and Marie-Josée (2007) had similar results.

3 Challenges of Getting ISO 9000 Certification

Respondents were asked to rank the factors which affected KPAs process leading to ISO 9000 certification on five point Likert scale where 1 indicated very low priority while 5 indicated very high priority. The findings are shown in table 2 below.

From the table 2, the biggest challenge that faced by KPA in the process of getting ISO 9000 was resistance to change with a mean of 4.1 and a S.D. of 0.70. Other challenges are: lack of teamwork, conflicting interpretation of requirements, misunderstanding the perception of quality efforts, unsupportive organizational structure and culture, lack of understanding of new process and procedures, little pressure from customers to foster quality improvement, cumbersome and bureaucratic documentation standards, difficulties in understanding the standard, and problems with corrective action procedures. The rest of the factors had a mean of less than 3.0, meaning that they did not have significant effects as challenges during ISO certification.

While literature shows that most organizations adopt ISO 9000 certification exclusively for external reasons (Van der Wiele and Brown, 1997; Rao et al., 1997; Scrabec & Ragu-Nathan, 1997; Simmons and White, 1999), other studies show that organizations seek ISO certification purely for internal benefits (Carlson and Carlson, 1996; Standards Council of Canada, 2000; Tan and Sia, 2001; Godzamani and Tsiotras, 2002; Douglas et al., 2003; Yeung et al., 2003; Buiyan and Alam, 2005; Chang and Lo, 2005). Findings from this study show a combination of both external and internal motivations. Boiral and Marie-Josée (2007) had similar results.

4.3 Challenges of Getting ISO 9000 Certification

Respondents were asked to rank the factors which affected KPAs process leading to ISO 9000 certification on five point Likert scale where 1 indicated very low priority while 5 indicated very high priority. The findings are shown in table 2 below.

From the table 2, the biggest challenge that faced by KPA in the process of getting ISO 9000 was resistance to change with a mean of 4.1 and a S.D. of 0.70. Other challenges are: lack of teamwork, conflicting interpretation of requirements, misunderstanding the perception of quality efforts, unsupportive organizational structure and culture, lack of understanding of new process and procedures, little pressure from customers to foster quality improvement, cumbersome and bureaucratic documentation standards, difficulties in understanding the standard, and problems with corrective action procedures. The rest of the factors had a mean of less than 3.0, meaning that they did not have significant effects as challenges during ISO certification.

Table 2 Challenges of Getting ISO 9000 Certification

S/No.	Statement	Mean	S.D
i	Employee resistance to change	4.10	0.70
ii	Lack of teamwork	3.77	1.16
iii	Conflicting interpretation of requirements	3.60	0.92
iv	Misunderstanding the perception of quality efforts	3.53	0.73
v	Unsupportive organizational structure and culture	3.51	0.89
vi	Lack of understanding of new process and procedures.	3.50	0.82
vii	Little pressure from customers to foster quality improvement	3.30	0.99
viii	Cumbersome and bureaucratic documentation standards	3.27	1.25
ix	Difficulties in understanding the standard	3.23	1.32
x	Problems with corrective action procedures	3.10	0.60
xi	Lack of management commitment	2.83	0.70
xii	Inappropriate policies/procedures inherited from other operating units/locations	2.57	1.11
xiii	Difficulties in understanding whether products and services meet the required quality levels	2.47	0.95
xiv	Lack of improvement making implementation so complicated	2.47	0.48
xv	Lack of adequate personnel training	2.33	1.67
xvi	Problems with assessors and consultants	2.30	0.69
xvii	Lack of sufficient software to maintain the quality system.	2.03	0.56
xviii	Company resource limitation	2.00	0.86
xix	SO 9000 management representative without power	1.97	0.94
xx	Implementation done by consultants	1.80	1.00

Source: Primary Data

On the other hand, findings from interviews noted that despite all these efforts made by KPA management there were some difficulties faced by the KPA during the process leading to ISO 9000 certification. These were:

4.2.1 Resistance to change

Employee resistance to change was the major challenge to implementation of ISO 9000 QMS. The operational staff believed that they would lose their jobs given their previous experience with change Management and other similar projects undertaken by KPA. While some managers were supportive in explaining the importance of the initiative, it was ineffective in assisting in implementation. At the initial stages of the project, this resistance was partly due to the lack of top management commitment, and also due to the lack of training and understanding on how the quality system would benefit the organization. People will accept or reject change depending on how the change will affect them.

4.2.2 Misunderstanding the Perception of Quality efforts

Understanding the quality system, the implementation requirements and the benefits was crucial to make the system effective at the grass-roots level. From the start, many employees misunderstood the perception of the quality effort. A number of key employees considered the effort to be useless, believing that the *status quo* was good enough as the quality of their services was considered to be the best in the East and Central African region.

4.2.3 Difficulties in understanding new processes and procedures and corrective actions

In many areas, employees were challenged to learn new processes and procedures quickly and learn the disciplines that accompany them. Such drastic change was overwhelming, confusing and intimidating to many people, and convincing everyone of the value of the "new way of doing things" was not an easy task. Competence levels varied, which created learning challenges of varying degrees. This challenge was addressed by continuous awareness training and follow up audits. There came in the usual resistance to change and also costly delays and lapse in ISO 9000 QMS implementation.

4.2.4 Problems with Auditors and Consultants

The commitment level among the internal auditors was not the same. Many internal auditors take the auditing process as a way of “harassing” individual managers and employees and do not use it primarily to check on implemented on the QMS.

Employees on the other hand did not understand the role of auditors. As a result many employees were resistant to the audits and this was evident when many employees faked sick leave whenever auditors were scheduled to audit their departments/sections. Some internal auditors were also inexperienced bearing in mind that these were drawn from many sections of the authority. This inexperience led to incompetence reports with non-conformance being unclearly stated and corrective actions also unclear.

4.2.5 Unsupportive Organizational Structure and Organizational Culture

Organizational structure refers to the way managers delegate authority and divide up task relationships. Its role is to ensure that managers can coordinate the activities of the various functions and divisions to exploit fully their skills and capabilities. Many managers felt that the organizational structure did not support the implementation of ISO 9000 QMS. The KPA did not have a Quality Manager (QM). Thus despite the fact that a QMR, implementers and a steering committee were appointed it was noted that their seriousness almost stopped the moment the authority was ISO 9000:2008 certified.

Many managers in KPA believe that some positions have been created to suit individuals as opposed to suiting business opportunities or challenges. KPA structure has many positions and it takes a long while and even information distribution before the people in charge of implantation of ISO QMS get it. Many managers also feel that KPA is maintaining bloated human resource. Some managers revealed that in a recent human resource audit KPA is having over 7000 employees when the optimum number of employees required is 2500. Some of the managers interviewed feel that some promotions are on who moves to the next level of management

depends on the years of service in the organization but not on years of service in the industry or on performance or the capability to execute. Another issue that affected a large portion of KPA was that many areas maintained a high level of temporary contract staff. While most were capable, some were short term, some difficult to train, so individual buy-in and competence levels varied. Such a design becomes a liability when implementing ISO 9000 QMS.

Culture refers the set of important assumptions that members of an organization share in common. It is important that the culture of an organization share in common. It is important that the culture of an organization is compatible with the QMS being implemented. The challenge here is conflict of values. While the values of KPA management were bordering on profitability and good returns to the shareholders, the key values of the operational staff were bordering provision of job opportunities to as many people as possible. As a result KPA is basically overstaffed leading to unclear job description. Accordingly, this shift of values has been a major challenge in implementing ISO 9000 QMS. There has been no appreciation on the fact that the environment is dynamic and all business strategies must take the same direction. This has been evident in the form of resistance to new ways of doing business.

4.3 Dealing with the Challenges of Getting ISO 9000 Certification

Respondents were asked to rank the statements regarding the way they think KPAs has been dealing with the challenges of getting ISO 9000 certification on five point Likert scale where 1 indicated strongly disagree while 5 indicated strongly agree. The findings are shown in table 2 below.

Table 3 Intervention Measures of Dealing with the Challenges of Getting ISO 9000 Certification

S/No.	Statement	Mean	S.D.
i	KPA top management has appointed a management representative to co-ordinate quality management system activities.	4.60	0.68
ii	The ISO Project team has been given full mandate and powers to implement ISO 9000 quality management systems and make sure that KPA is certified in the shortest possible time	4.37	0.72
iii	KPA top management has defined the organization quality policy and made this known to every employee.	4.20	0.79
iv	KPA top management has been effectively communicating to the organization the importance of meeting customer as well as statutory and regulatory requirements.	4.17	1.16
v	KPA top management has ensured that quality objectives are established at all levels and functions.	4.14	0.90
vi	The ISO Project team has total backing from C.E.O.	4.14	1.07
vii	All process and procedures are fully documented	4.00	0.68
viii	KPA top management has ensured the availability of resources required for the development and implementation of the quality management system.	3.89	0.89
ix	The ISO Project team has knowledge of quality methods in general and ISO 900 in particular.	3.80	0.67
x	KPA top management has been conducting regular management review on development and implementation of the quality management system.	3.77	1.27
xi	The ISO 9000 project team consists of genuine and passionate people, committed to quality in general and the ISO 9000 quality management system in particular	3.57	0.84
xii	All KPA employees have fully participated in ISO 9000 awareness programs.	3.54	1.25

xiii	The KPA top management has been participating in improvement projects.	3.51	0.50
xiv	The training programs are structured for different categories of employees-senior managers, middle level manager's supervisors and workers.	3.31	1.19
xv	The KPA top management has created an environment that encourages the involvement of all people in decision making/ISO implementation	3.26	0.73
xvi	The top management has been leading the organization by example	3.20	0.88
xvii	Assessors and consultants of ISO 9000 Quality management systems have been professionally selected.	3.14	0.68
xviii	All personnel in KPA have been fully trained on ISO 9000 implementation.	2.97	1.20
xix	The KPAs organizational structure and culture supports the implementation of ISO 9000 quality management system.	2.91	1.08
xx	All systems and communication channels are fully automated.	2.89	0.82
xxi	There is a quick and effective feedback to customers.	2.71	0.74
xxii	Suppliers of materials and components have fully participated in ISO 9000 awareness programs.	2.54	1.02
xxiii	All KPA employees are professionals hence they fully understand their work processes and procedures	2.37	0.83
xxiv	KPA has established a department of Quality Management which manages all quality improvement initiatives.	2.31	1.21
xxv	Staffs are rewarded to motivate them e.g. promotions.	2.29	0.84
xxvi	All KPA employees are professionally recruited	1.94	1.17
xxvii	All documented processes are followed up strictly.	1.86	1.55

Source: Primary Data

Table 3 shows that the highest ranked statement was “KPA top management has appointed a management representative to co-ordinate quality management system activities”, with a mean of 4.60 and S.D. of 0.86. Other measures are: the ISO Project team has been given full mandate and powers to implement ISO 9000 quality management systems and make sure that KPA is certified in the shortest possible time, the KPA top management has defined the organization quality policy and made this known to every employee, KPA top management has been effectively communicating to the organization the importance of meeting customer as well as statutory and regulatory requirements, the KPA top management has ensured that quality objectives are established at all levels and functions, the ISO Project team has total backing from C.E.O., all process and procedures are fully documented, the KPA top management has ensured the availability of resources required for the development and implementation of the quality management system, the ISO Project team has knowledge of quality methods in general and ISO 900 in particular,

The rest of the intervention measures are: the KPA top management has been conducting regular management review on development and implementation of the quality management system, the ISO 9000 project team consists of genuine and passionate people committed to quality in general and the ISO 9000 quality management system in particular, all KPA employees have fully participated in ISO 9000 awareness programs, the KPA top management has been participating in improvement projects, the training programs are structured for different categories of employees-senior managers, middle level manager’s supervisors and workers, the KPA top management has created an environment that encourages the involvement of all people in decision making/ISO implementation, the top management has been leading the organization by example, and assessors and consultants of ISO 9000 Quality management systems have been professionally selected. The rest of the factors had a mean of less than 3.0, meaning that they did not have significant effects as intervention measures during ISO certification.

These findings have been confirmed by findings from the interview schedules which are summarized as follows: the KPA management showed a lot of commitment in implementing the

ISO 9000 QMS. This was portrayed by a budget and the appointment of an ISO Project manager to spearhead the project. An ISO Steering Committee was formed and ISO representatives appointed at departmental level. This formed the ISO project team. The ISO Steering Committee was objectively selected through interviews and written exams. Sensitization and training of staff was done but it was noted that the trainings were very brief and not adequate. The ISO project team issued circulars highlighting ISO issues and emphasized its importance in the authority.

The KPA also maintained resource management systems to ensure proper utilization of funds, accountability, financial monitoring and efficient reporting all geared towards successful implementation of ISO 9000 QMS. These systems were SAP and KWATOS which act as control measures and ensures only authorized personnel can perform transactions and this approach is monitored according to authorization levels and access.

The HODs interviewed confirmed that suppliers of materials and components did not participate in ISO 9000 awareness programs. However, they thought that this could not be one of the challenges that organizations face during the process leading to ISO certification. It was, however, noted that participation of suppliers of materials and components in ISO 9000 awareness programs can assist in reducing resistance to change.

To overcome resistance to change and misunderstanding the perception of quality efforts, a strategy that convinced employees was employed through awareness training, teamwork, brainstorming sessions and consistent meeting while in dealing with difficulties in understanding new processes and procedures and corrective actions, KPA deliberately re-engineered almost all its processes, did continuous awareness training and follow up audits were also made. This challenge was checked by continuous refresher training.

In dealing with unsupportive organizational structure, the KPA management has introduced performance contracts to be designed by all management staff. The performance parameters clearly outline clear targets and performance indicators based on the ISO 9000QMS. Time frame aspects are also introduced into the parameters. This way the structure appreciates performance. Other strategies are creating positions that are in line with the ISO 9000 QMS requirements and shortening decision making channels by basically empowering more managers in the business units to make decisions at their stations. To deal with unsupportive organizational culture, KPA went about arranging staff and management outings and symposiums to explain the importance of ISO 9000 QMS and also communicate new direction of business incentives like bonuses were also part of strategies to encourage staff to implement the business strategies successfully. The management has also deliberately involved most of the staff in strategic business plans formulation as a way of having the staff understand them, believe in them and preach them to other staff which has overtime reduced the level of resistance and achieved more effective implementation of ISO 9000 QMS.

CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter summarizes the results of the research work. It discusses the conclusions and gives policy recommendations. Limitations are also highlighted and suggestions provided for future research.

5.2 Summary of Findings

5.2.1 Challenges of Getting ISO 9000 Certification

This section summarizes the key challenges of getting ISO 9000 certification in KPA, as: resistance to change, misunderstanding the perception of quality efforts, difficulties in understanding new processes and procedures and corrective actions, problems with auditors and consultants, and unsupportive organizational structure and organizational culture.

5.2.1.1 Resistance to Change

Resistance to change appears to be a major challenge for KPA during the process of getting ISO 9000 certification, the reason being many operational staff believing that they would lose their jobs when ISO 9000 QMS are implemented.

5.2.1.2 Misunderstanding the Perception of Quality Efforts

Many employees misunderstand the perception of quality efforts. They believe that the efforts are useless and that the status quo should be maintained as the quality of services provided by Kenyan Government parastatals was good enough. Misunderstanding the perception of quality efforts also contributes to resistance to change.

5.2.1.3 Difficulties in Understanding New Processes and Procedures and Corrective Actions

Many employees are challenged with learning new processes and procedures and corrective actions quickly, creating resistance to change. Such drastic change can be overwhelming, confusing and intimidating to many people, and convincing everyone of the value of the “new way of doing things” was not an easy task. Competence levels varied, which created learning challenges of varying degrees.

5.2.1.4 Problems with Auditors and Consultants

The commitment level among the internal auditors in KPA was not the same. Many internal auditors take the auditing process as a way of “harassing” individual managers and employees and do not use it primarily to check on implemented on the QMS. Employees on the other hand do not understand the role of auditors. They believe that internal auditors are there to look for mistakes and possible punishment. As a result many employees were resistant to the audits. Some internal auditors were also inexperienced leading incompetence reports with non-conformance being unclearly stated and corrective actions also unclear.

5.2.1.5 Unsupportive Organizational Structure and Culture

The structure of KPA does pose challenges towards ISO 9000 certification. Examples are issues dealing with unclear promotion policies, long communication channels and high level of temporary staff. Organizational culture is also another challenge because many organizational cultures are not compatible with the QMS being implemented, creating conflict of values.

5.2.2 Dealing with challenges

To deal with the above challenges, KPA did put the following intervention measures:

5.2.2.1 Top Management Commitment

Management must have full commitment towards implementing ISO 9000 QMS. This can be in the form appointing a Quality Management department with a full mandate and powers to implement ISO 9000 quality management systems and other quality improvement projects. The management should have a defined the organization quality policy which is known to every employee and should continuously and effectively communicate to the organization the importance of meeting customer as well as statutory and regulatory requirements. The top management must ensure that quality objectives are established at all levels and functions. The management must also ensure the availability of resources required for the development and implementation of the quality management system. The top management must lead the organization by example by participating in improvement projects. They should also create an environment that encourages the involvement of all people in decision making/ISO implementation.

5.2.2.1 Awareness Campaigns and Trainings

KPA has conducted sensitization and training of staff must be done to all employees in the organization. Most organizations conduct training but it's usually brief and inadequate. The QMR issued circulars highlighting ISO issues and emphasized its importance in the organization. This also reduced resistance to change.

5.2.2.3 Resource Management System

The KPA has maintained resource management systems called SAP and KWATOS to ensure proper utilization of funds, accountability, financial monitoring and efficient reporting all geared towards successful implementation of ISO 9000 QMS.

5.2.2.4 Documentation

KPA documented statements of quality policy objectives, a quality manual, documented procedures and records required by the standard, and documents needed by the organizations to ensure the effective planning, operation and control of its processes. Documentation is a simple though tedious exercise. A list of the documents was drawn up and the responsibility for writing the document was assigned to the persons in the various functional departments. They were also advised to prepare the drafts within the specific time frame. Once the necessary QMS documentation was generated, a documented system was created to control it. Controlling is simply a means of managing the creation, approval, distribution, storage and disposal of the various types of documentation. Document control system should be as simple and as easy to operate as possible.

5.2.2.5 Outings, Brainstorming Sessions and Consistent Meetings

KPA organize staff and management outings, brainstorming sessions and consistent meetings. This promotes team building and also reduces resistant to change when the employees own up the quality improvement projects.

5.2.2.6 Periodic Audits

Once KPA was ISO 9000:2008 certified, internal and external periodic audits were conducted ensure that the QMS is continuing to operate satisfactorily.

5.2.2.7 Performance Management

The KPA management also used performance contracting as tool to improve efficiency and effectiveness.

5.3 Conclusion

This study concludes that there are many challenges which have faced and will continue facing parastatals wishing to implement continual important strategies such as ISO 9000 QMS. The efforts the Departmental heads and their deputies and the entire management were putting were partially addressing these challenges. However, these challenges have been identified and their solutions documented.

5.4 Policy Recommendations

The study recommends that before government parastatals in Kenya implement ISO 9000 QMS they must address the above challenges

5.5 Limitations of the Study

The study was carried out in KPA in Mombasa while the researcher was working in Garsen a distance of about 250km. The issue of traveling from Garsen to Mombasa for consultations with HODs was very expensive in time and money.

Another issue was the fact that most of HODs and their deputies were always engaged, and so getting their audience was difficult.

Another limitation was that the formation obtained was based on self reported information hence there is risk of bias.

5.6 Suggestions for Further Research

Further research is recommended to study the following:

1. Benefits and challenges of supplier certification in Kenyan organizations.
2. ISO 9000 series standards: comparison of manufacturing and service organizations in Kenya.
3. Identifying the relationships among ISO 9000 practices, as well as which ISO 9000 practices are directly or indirectly related to business.

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APPENDIX 1: INTRODUCTION LETTER

9th December, 2009

University of Nairobi,
School of Business,
Department of Management Science,
P O. Box 30197,
Nairobi.

Dear Sir/Madam,

This questionnaire/interview is designed to help carry out a study of Challenges of Getting ISO 9000 Certification: The Case of Kenya Ports Authority.

My sincere request is to urge you to respond to the questions sincerely. The research is carried out purely for academic purposes and all the information obtained from you will be treated with the confidentiality it deserves. It is only the researcher and the project supervisor who will have access to the information given. Upon request, the summary of the results will be made available to you after the information is dully analyzed.

Thank you very much for your valuable time and co-operation.

Yours faithfully,

.....
Abdallah M. Chikophe,
MBA Student,
School of Business,
University of Nairobi.
University of Nairobi.

.....
Stephen O. Nyamwange,
Supervisor/Lecturer,
Department of Management Science,
School of Business,

APPENDIX 2: INTERVIEW GUIDE FOR H.O.Ds.

1. What was the motivation for KPA to seek ISO 9000 certification?
2. Did the top management have full commitment to implementation of ISO 9000 QMS?
3. What specific actions has the top management put in place to show full commitment to implementation of ISO 9000 QMS?
4. Does KPA maintain resource management systems to ensure proper utilization of funds, accountability, financial monitoring and efficient reporting all geared towards successful implementation of ISO 9000 QMS? Comment briefly on how each of these aspects were ensured?
5. What is your general comment on the overall resource mobilization in terms of access to utilization of resources to enhance implementation of ISO 9000 QMS?
6. Did the organizational structure support the implementation of ISO 9000 QMS? If not, what structural changes were put in place and why were they necessary?
7. What challenges did you face in terms of employee morale, behavior and general approach to work during implementation of ISO 9000 QMS?
8. What actions were put in place to deal with these challenges?
9. Were the staff training programs aimed at enhancing their ability to implement the ISO 9000 QMS? Were the training programs adequate?
10. How regularly do you conduct training on ISO 900 QMS?

11. Did suppliers of materials and components fully participate in ISO 9000 awareness programs?
12. Were there any challenges facing employees in understanding the new processes and procedure and corrective actions?
13. What actions were put in place to deal with these challenges?
14. How was the ISO 9000 project team selected?
15. Were there any problems encountered during the process of selecting the ISO 9000 project team. What actions were put in place to deal with these problems?
16. Did the ISO 9000 project team have full mandate and powers to implement the ISO 9000 QMS?
17. If no, what actions were put in place to make sure that the ISO 9000 project team had full mandate and powers to implement the ISO 9000 QMS?
18. Were there any problems with auditors and consultants?
19. What actions were put in place to deal with these problems?
20. How regularly do you conduct internal audits?
21. Does KPA have sufficient software to maintain the quality system?
22. What is our general comment on ISO 9000 certification in government parastatals in Kenya?

APPENDIX 3: QUESTIONNAIRE FOR DEPUTY H.O.Ds.

PART A: Motivations of getting ISO 9000 Certification

In your opinion how do you rate the level of KPAs motivation for ISO 9000 certification?
 (Please tick appropriately. 1 = very low priority; 2 = low priority; 3 = medium priority; 4 = high priority; 5 = very high priority).

S/No.	Statement	Rank				
		1	2	3	4	5
i.	Meet customer expectations (non-government)					
ii.	Meet customer expectations (non-government)					
iii.	As part of a larger performance improvement strategy					
iv.	Satisfy corporate directive					
v.	Gain an advantage over competing firms					
vi.	Keep up with competing firms					
vii.	Improve the level of product quality					
viii.	Increase operational efficiency / productivity					
ix.	Reduce the cost of production					
x.	Others (Please specify)					

Part B: Challenges of getting ISO 9000 Certification

In your view how do you rate the level which the following factors affect the process leading to ISO 9000 certification?

(Please tick appropriately. 1 = very low priority; 2 = low priority; 3 = medium priority; 4 = high priority; 5 = very high priority).

S/No.	Statement	Rank				
		1	2	3	4	5
i.	Lack of teamwork					
ii.	Employee resistance to change					
iii.	Lack of management commitment					
iv.	Conflicting interpretation of requirements					
v.	Lack of adequate personnel training					
vi.	Inappropriate policies/procedures inherited from other operating units/locations					
vii.	Difficulties in determining whether products and services meet the required quality levels					
viii.	Lack of understanding of new process and procedures					
ix.	Lack of sufficient software to maintain the quality system					
x.	Company resource limitation					
xi.	Misunderstanding the perception of quality					

	efforts					
xii.	Little pressure from customers to foster quality improvement					
xiii.	ISO 9000 management representative without power					
xiv.	Lack of improvement making implementation so complicated					
xv.	Unsupportive organizational structure and culture					
xvi.	Difficulties in understanding the standard					
xvii.	Problems with assessors and consultants					
xviii.	Cumbersome and bureaucratic documentation standards					
xviii.	Problems with corrective action procedures					
xx.	Implementation done by consultants					
xxi.	Others (Please specify)					

PART C: Dealing with challenges

To what extent do you agree with the following statements regarding the way KPA deals with the challenges of getting ISO 9000 Certification?

(Please tick appropriately. 1 = strongly disagree; 2 = disagree; 3 = neutral; 4 = agree; 5 = strongly agree).

S/No.	Statement	Rank				
		1	2	3	4	5
i.	KPA top management has been effectively communicating to the organization the importance of meeting customer as well as statutory and regulatory requirements.					
ii.	KPA top management has defined the organization quality policy and made this known to every employee.					
iii.	KPA top management has ensured that quality objectives are established at all levels and functions.					
iv.	The KPA top management has ensured the availability of resources required for the development and implementation of the quality management system.					
v.	KPA top management has appointed a management representative to co-ordinate quality management system activities.					
vi.	The KPA top management has been conducting regular management review on development and implementation of the					

	quality management system					
vii.	The KPA top management has been leading the organization by example.					
viii.	KPA top management has been participating in improvement projects.					
ix.	KPA top management has created an environment that encourages the involvement of all people in decision making ISO implementation.					
x.	The ISO project team has total backing from C.E.O.					
xi.	The ISO project team consists of genuine and passionate people, committed to quality in general and the ISO 9000 quality management system in particular.					
xii.	The ISO project team has knowledge of quality methods in general and ISO in particular.					
xiii.	The ISO project team has been given full mandate and powers to implement ISO 9000 quality management systems and make sure that KPA is certified in the shortest possible time.					
xiv.	All KPA employees have fully participated in ISO 9000 awareness programs.					
xv.	Suppliers of materials and components have fully participated in ISO 9000 awareness programs.					
xvi.	All personnel in KPA have been fully trained on ISO 9000 implementation.					

xvii.	The training programs are structured for different categories of employees-senior managers, middle level manager's supervisors and workers.					
xviii.	All processes and procedures are fully documented.					
xix	All documented processes are strictly followed up.					
xx	Staffs are rewarded to motivate them e.g. promotions.					
xxi.	All systems and communication channels are fully automated.					
xxii.	There is a quick and effective feedback to customers.					
xxiii.	The KPA organizational structure and culture supports the implementation of ISO 9000 quality management system					
xxiv.	All KPA employees are professionally recruited.					
xxv.	All KPA employees are professional hence they fully understand their work processes and procedures.					
xxvi.	Assessors and consultants of ISO 9000 quality management systems have been professionally selected.					
xxvii.	KPA has established a department of Quality management which manages all quality improvement initiatives.					
xxviii.	Others (Please specify)					