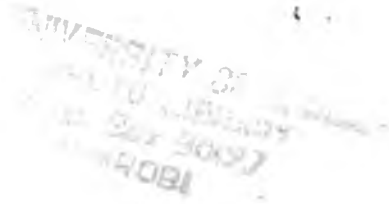


EMPLOYEE RELATED FACTORS INFLUENCING THEIR
PERCEPTION ON IMPLEMENTATION OF QUALITY
MANAGEMENT SYSTEM AT NAIROBI CITY WATER AND
SEWERAGE COMPANY

BY

CHEGE JOHN KIGOTHO



A RESEARCH PROJECT REPORT SUBMITTED IN PARTIAL FULFILLMENT OF
THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF MASTER OF
ARTS IN PROJECT PLANNING AND MANAGEMENT OF THE UNIVERSITY OF
NAIROBI

2012

DECLARATION

This research project report is my original work and has not been presented for award of degree in any other institution.



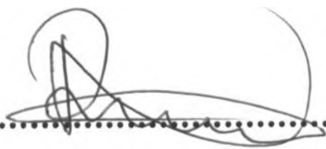
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DEDICATION

This research project report is dedicated to the memory of my late mother Sarah. Her efforts and encouragement in life kept the fire for higher education burning when the dream of higher education seemed impossible.

ACKNOWLEDGEMENT

I wish to acknowledge the Almighty God without whose help I would not have come this far. Secondly I acknowledge the University of Nairobi and its management for giving me the opportunity to undertake this Course. Without admission, provision of facilities and resources by the University, I would still be dreaming of advancing my education while remaining stuck at the previous level. Dr. Raphael Ondeko Nyonje my supervisor deserves special mention. His guidance and correction has been invaluable, giving direction to my thoughts on this study. Madam Lydia Wambugu the resident Lecturer at Thika Extra Mural Centre deserves praise for she worked tirelessly to make my learning at the centre a memorable experience.

I acknowledge the efforts of all the lecturers at the Thika Extra Mural Centre who took me through the course work successfully and helped expand my knowledge. Without the knowledge they imparted, I would not undertake this research study. I acknowledge my fellow students who have been faithful companions in seeking knowledge and an encouragement when the going got tough.

I wish to acknowledge my dear wife Rose, son Triumph and daughter Shalom. Their sacrifice, encouragement and support have made it possible for me to go through this course successfully. Members of my church were deprived of my service when I had to skip church to attend lectures. For their patience and understanding, I acknowledge them.

This study would have been impossible to conduct without the consent of Mr. Lucas Gor, the Human Resource Manager at NCWSC. His contribution is acknowledged. Mr. Paul Omondi the ISO Manager at NCWSC is acknowledged for giving consent to conduct this research in his department. Mr. Clement Atei, Mr. Cyrus Mwangi and Mr. Solomon Oduor of ISO department also provided valuable information on implementation of QMS. All the participants of this study are acknowledged for without them providing data for the study, this project would have failed.

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ABBREVIATIONS AND ACRONYMS

ISO	International Organization on Standardization
NCWSC	Nairobi City Water and Sewerage Company
QMS	Quality Management System
SPSS	Statistical Package for Social Sciences

ABSTRACT

Quality management systems have been adopted by many organizations as a way of ensuring continuous improvement in performance and customer satisfaction. Many studies conducted have concentrated on performance and benefits of QMS to organizations leaving out the effects of QMS implementation on employees and their perception on the same. This has necessitated carrying out of research to address that gap which this study proposes to do. The purpose of this study was to establish employee related factors influencing their perception on the implementation of quality management system at NCWSC. The study had four specific objectives. The first was to investigate how demographic characteristics of employees influence their perception on the implementation of QMS at NCWSC. The second was to establish the extent to which training of employees influences their perception on the implementation of QMS at NCWSC. The third was to assess the level to which job status of employees influences their perception on the implementation of QMS at NCWSC and the fourth was to determine how the level of motivation of employees influences their perception on the implementation of QMS at NCWSC. The research design for the study was descriptive survey and the target population was 260 employees of NCWSC working at the Headquarter. The sample size for the study was 155 and the sampling technique for the as proportionate random sampling. The data collection instrument used was a questionnaire. The study found that majority of the respondents (37.8%) were in the 30-39 years age group while majority of the respondents were male at 52%. Majority of the respondents (77%) had a job experience of 6-10 years and majority of respondents (36.5%) had diploma level academic qualifications. The study found that age influenced perception of the employees on implementation of QMS. The study also found that large number of males (26.1%) and females (22.7%) had a negative perception on implementation of QMS and therefore gender did not influence perception. Training was also found to influence perception on implementation of QMS as a large number (26.4%) of those who had attended training had a negative perception on implementation of QMS while 16.2% of those who had not attended training had a positive perception. Majority of respondents in all the job levels had a negative perception on implementation of QMS. The study found that most of the respondents (57.4 %) were highly motivated and that the level of motivation influenced perception of employees. Some of the conclusions are that some of the demographic characteristics like age and academic qualifications influence perception and it is important to encourage employees to improve on their academic qualifications. Attending training and level of motivation also influence perception of employees thus making motivation of employees an important consideration for the employer. This study among other things recommends that all the employees of NCWSC be trained on QMS. It is also recommends that NCWSC focuses on motivating its employees as a way of encouraging employees to further embrace implementation of QMS.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Organizations the world over are constantly searching for ways of improving organizational performance and satisfying their customers. To this end many strategies have been employed with varying results. Over the last two decades, implementation of a quality management system (QMS) has been viewed by many as the best way to improve on organizational performance and customer satisfaction. Many organizations have adopted quality management systems developed by the International Organization on standardization (ISO) with the aim of ensuring that quality systems are implemented, leading to continuous improvement in performance and customer satisfaction.

The mission of ISO is to develop, promote and publish international standards to which organizations commit themselves voluntarily. Its mandate is to promote the development of international standards to facilitate exchange of goods and services worldwide (Besterfield, Michna, Besterfield and Sacre 2003). Two of the most widely used standards are the ISO 9000 and 14000 series. ISO 9000 family is concerned with quality standards. According to the ISO survey (2009) the number of ISO 9001 certificates in place in the year 2009 were 1,064,785, having increased from 46,571 in the year 1993.

Implementation of a Quality Management System is expected to provide benefits to the organization implementing it, its customers and employees. Suganthi and Samuel (2008) have identified many benefits that can accrue from Quality Systems that include system efficiency, customer satisfaction, morale of workmen, reduced complaints and costs and reduced time for finishing tasks. Geraedts, in Okey and Semiz (2010) listed three main characteristics of ISO 9000 quality standard. The first is focus on the process of service delivery itself and not on the outcome. The second is a systematic approach that ensures working processes and resources are identified and that the performance is measured on a regular basis. The third characteristic is that QMS has to be verifiable by means of documents such as quality handbook, procedures describing the most important working process, and the measurement of performance indicators.

Studies have been conducted in different parts of the world related to implementation of Quality Management Systems in organizations. Many of these studies have dwelt on whether implementation improves on both financial and non financial performance of organizations. Sharma (2005) in his study titled “the association between ISO 9000 certification and financial performance” looked at a number of those studies and their findings. In one of those studies 126 U.S. companies in the electronics industry were studied in regard to financial performance measures. The study found that ISO certified companies were more profitable than non-ISO certified companies but not with respect to operational performance and level of foreign sales.

Rao, Ragu and Solis (1997) carried out a study that surveyed companies in China, India, Mexico and the United States. The study sought to answer the question whether implementation of ISO 9000 has an effect on quality management practises among firms. The studies found that ISO 9000 certification had a significant impact on quality management practices such as leadership, strategic quality planning, good supplier relationships and customer satisfaction. Others like Costa and Lorente (2007) concluded that ISO 9000 can have positive effects for companies but can also reduce benefits and profitability. Samad (2011) found that quality management systems had more effects on organizational performance than quality of product in Malaysian Logistics companies.

Some of the studies conducted have looked at how employees perceive different aspects of QMS. For instance Tigani (2011) carried out research in Qatar on the Impact of the Implementation of the ISO 9000 Quality Management System upon the perception of the performance of the organization's worker. He concluded that implementation of the ISO 9000 QMS had no impact on the performance of the participating organizations' workers. Maluleke (2008) carried our research to evaluate an implemented Quality Management System at one of the South African government departments and employee’s perceptions of the effect of the QMS intervention. He concluded that a Quality Management System can be used to improve the level of service delivery in the public sector.

Valmohammadi and Khodapanahi (2011) conducted a related study that investigated how job satisfaction was influenced by employees' perception of some QMS processes. He tested the significance of employee related factors like training, level of education, job position and length of service concluding that there was no significant relationship between the factors and job satisfaction. His study also did not include important variables like age, gender, motivational level and job location in his study.

There have been several studies conducted in Kenya on implementation of QMS but few have dwelt on perception of employees on implementation of QMS. Kiiru (2006) looked at employees' perception of implementation of ISO 9001:2000 certification and process improvement initiatives at Kengen Company. He found that 100% of the employees were aware of the process of implementation and that they considered introduction of the process a success. The researcher included demographic factors of employees like age, gender and education in the study but did not analyze how they might have influenced perception.

Muriithi (2007) investigated staff attitudes towards adoption of ISO 9000 certification in Kenya Power and Lighting Company. He found that most of the respondents liked the introduction of ISO quality management System and that they viewed introduction of the QMS a success. He also included some demographic factors of the respondents like sex, age, level of education, experience and job grade. He used the mean of the responses to conclude that the background of the employees made them have a better analytical view of company progress. The statistical significance of the means was however not investigated.

Nyambala (2007) went a little further when she researched on employees' perception of the benefits of ISO 9001:2000 certification at Kengen. She used correlation analysis to see the relationship between expectations, perceptions and employee related characteristics i.e. length of service, level of education and job location. One of her findings was that the gap between expectations and perceived benefits of ISO 9001:2001 was statistically significant.

In all the cited studies, none was specifically designed to investigate how employee related factors influence their perception on implementation of QMS, yet this is an important aspect of QMS. Even Nyambala (2007) did not include demographic factors like age and gender in her study. The study also did not consider other important variables like training, level of motivation and job status. It is therefore evident that there are still research gaps pertaining to employee related factors in relation to their perception on implementation of QMS. This creates the need to research on this topic especially in an Organization like Nairobi City Water and Sewerage Company that is an important player in the essential service industry.

NCWSC provides water and sewerage services in the city of Nairobi and it depends on its employees to implement and maintain its QMS. It is important that the company understands the perceptions of its employees on implementation of the QMS. Perceptions of employees can influence their actions towards the continued implementation of QMS. Perceptions cannot occur in a vacuum but are themselves influenced by certain factors. The factors can include those related to the employees themselves. That is why it is important for research to be conducted to establish whether employee related factors influence their perception on implementation of QMS.

1.2 Statement of the Problem

Many organizations have implemented quality managements systems with the intention of improving organizational performance and satisfying their customers. Many research studies have concentrated on the effects of implementing QMS on performance and benefits of QMS to organizations. Basir, Davies and Rudder (2011) contend that results of many of the studies conducted have been contradictory with regard to organizational benefits and organizational performance. This agrees with the findings of Costa and Lorente (2007).

Employees play an important role in the implementation of QMS. However effects of implementation of QMS on employees are rarely given as much thought as organizational

benefits and performance. Few studies have been conducted to investigate how employees are affected by implementation of QMS and their perceptions on the implementation. Even fewer studies have been conducted to assess how employee related factors influence their perception on implementation of QMS.

Studies conducted about employee perceptions on implementation of QMS have looked at employee related factors that include age, sex, level of education, experience and job grade. Some of the studies have included factors related to employees in their studies but none of those studies have included all the relevant variables.

From the aforesaid, it is evident that more research needs to be done about perception of employees on implementation of QMS with a specific focus on employee related factors. Therefore this research proposed to investigate employee related factors influencing their perception on implementation of QMS and include variables left out in other studies.

1.3 Purpose of the Study

The purpose of the study was to investigate employee related factors that influence their perception on the implementation of Quality Management system at Nairobi City water and Sewerage Company.

1.4 Objectives of the Study

The following were the objectives of the study:-

1. To investigate how demographic characteristics of employees influence their perception on the implementation of Quality Management System at Nairobi City Water and Sewerage Company.
2. To establish the extent to which training of employees influences their perception on the implementation of Quality Management System at Nairobi City Water and Sewerage Company.
3. To assess the level to which job status of employees influences their perception on the implementation of Quality Management System at Nairobi City Water and Sewerage Company.

4. To determine how level of motivation of employees influences their perception on the implementation of Quality Management System at Nairobi City Water and Sewerage Company.

1.5 Research Questions

The research questions for the study were:-

1. How do demographic characteristics of employees influence their perception on implementation of Quality Management System at Nairobi City Water and Sewerage Company?
2. To what extent does training of employees influence their perception on implementation of Quality Management System at Nairobi City Water and Sewerage Company?
3. To what level does job status of employees influence their perception on implementation of Quality Management System at Nairobi City Water and Sewerage Company?
4. How does motivational level of employees influence their perception on implementation of Quality Management System at Nairobi City Water and Sewerage Company?

1.6 Significance of the Study

This study investigated employee related factors influencing their perception on the implementation of QMS at NCWSC. The findings of this study would assist NCWSC understand perception of employees on the implementation of its QMS and some of the factors influencing the perception. NCWSC can use the findings to seek ways of influencing those perceptions or to make positive changes to its QMS. The study will also contribute to the pool of knowledge available about implementation of QMS and employee perceptions about the implementation. The study will also be significant in that it will be availed to the library and other researchers can use as a basis of further research.

1.7 Delimitations of the Study

This study was conducted within Nairobi City water and Sewerage Company. The study was delimited to the Head Office of NCWSC. The study was delimited to the Headquarter because this is the place where implementation of QMS was expected to be fully rolled out and would therefore most likely reflect what was happening in other parts of the organization. The study was also delimited to the variables of the study due to financial limitations.

1.8 Limitations of the Study

One limitation was that some of the staff interviewed were field staff and were only available early in the morning. This was overcome by engaging some research assistants to contact the staff before they left the office. Assistance of Human Resource officers in respective sections within the Headquarter was also sought to allow staff to spare some time to respond to the questionnaire. Another limitation was that employees of NCWSC were used to responding to questionnaires and some saw it as a waste of time. This was overcome by taking time to explain the importance of research in increasing knowledge that can be beneficial to all.

1.9 Assumptions of the Study

The first assumption was that employees had certain perceptions on implementation of QMS and that employee related factors influenced those perceptions. The study also assumed that variables chosen for investigation were significant and therefore influenced employee perceptions on implementation of Quality management system. It was further assumed that the employees were willing to provide factual information as requested and that the management NCWSC would provide the necessary facilitation to enable collection of data.

1.10 Definition of Significant Terms

Quality Management System: Quality Management System as used in this study refers to the ISO 9001:2008 Quality Standard adopted by Nairobi City water and Sewerage Company to improve on quality performance and customer satisfaction.

Demographic Characteristics as used in this study refer to age, gender, job experience and academic qualifications of employees at NCWSC.

Training in this study refers to the attendance, frequency and duration of courses both on the job and off the job attended by employees of NCWSC that were related to QMS for the last 5 years.

Job Status in this study refers to the job level of employees. The job level has been ranked in three categories namely management level Supervisory level and Operation Level.

Level of Motivation in this study refers to the extent to which employees were happy or satisfied with certain conditions in the workplace which help meet their desires and needs.

Perception refers to the opinions of employees about the implementation of Quality Management system at NCWSC.

Nairobi City Water and Sewerage Company is a company wholly owned by the City Council of Nairobi which was incorporated in the year 2003 and has its Headquarter in Nairobi. After incorporation the company absorbed all the employees of Water and Sewerage Department of City Council of Nairobi. The company is licensed by Athi Water Services Board to provide water and sewerage services in the City of Nairobi. It is headed by a Managing Director and is segmented into five functional directorates each headed by a Director. Within Nairobi, the company is subdivided into six regions and the Headquarter which is independent of the regions. Outside the regions, there are other outside stations in the suburbs of Nairobi as well as in the counties of Kiambu, Murang'a and Nyandarua.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

In this chapter the study has a brief overview of QMS and then a review of employee related factors and their influence on perception of employees on implementation of QMS at NCWSC. The factors that have been reviewed are demographic characteristics of employees, training, job status and levels of motivation in relation to perception. The theoretical framework for this study is also discussed in this chapter. The conceptualized relationship between the independent variables and dependent variable is presented in the conceptual framework. The chapter is concluded by looking at the summary of the literature review.

2.2 Overview of Quality Management System

A Quality Management System can be seen as a system consisting of all the parts and components of an organization dealing with the quality of processes and products. CERCO Working Group (2000) defines Quality Management System as the managing structure, responsibilities, procedures, processes, and management resources to implement the principles and action lines needed to achieve the quality objectives of an organization.

Quality Management has gone through various stages of development. KEBS (2006) outlines those stages as Quality inspection stage, Quality Control stage, Quality assurance stage and Total quality management stage. Quality management system is associated with the quality assurance stage which focuses on system quality. Implementing a QMS means an organization has to set up a system for controlling its processes which has to be audited by second and third parties to ensure its adequacy. This stage is characterized by among other things the use of quality manuals, procedures, work instructions etc.

The need to have unified and coordinated international quality standards led to the formation of the International Organization for Standardization (ISO) in 1946.

Besterfield, Michna, Besterfield and Sacre (2003) have identified the mission of ISO as being to develop, promote and publish international standards to which organizations commit themselves voluntarily and its mandate as promotion of the development of international standards to facilitate exchange of goods and services worldwide. Consequently ISO has developed several quality management standards that are the basis of Quality Management Systems.

One of those standards is the ISO 9001:2008 which specifies the requirements of a QMS that would enable an organization to demonstrate its ability to provide products that meet customer requirements. The quality management standard has eight management principles which are:- customer focus, the role of leadership, involvement of people, process approach, system approach to management, continual improvement, factual approach to decision making and mutual beneficial supplier relationship principles.

Nairobi City Water and Sewerage Company implemented a quality management system based on the ISO 9001:2008 quality management standard. The QMS was certified by the Kenya Bureau of Standards in the year 2008 and is being implemented to date. This is the QMS that is the focus of this study.

2.3 Influence of Demographic Characteristics on Perception of Employees

Cole (2005) defines perception as “the process of organizing, interpreting and integrating external stimuli received through the senses”. He says that what people think is happening is more important than what they see happening. This implies that people interpret events going around them and that interpretation informs their perception. Graham (1998) opined that people perceive the world in terms of their least satisfied needs and that their perceptions tend to recognize goals that will satisfy their needs. The import of these sentiments is that perceptions are shaped or influenced by other factors.

Perception can therefore greatly differ from reality based on an individual’s characteristics. Robin (1996) is of the view that interpretation of what one sees is heavily influenced by personal characteristics. Perception therefore is influenced by certain individual factors and two people looking at the same situation will most likely perceive it differently based on those factors. Applied to QMS, it means that although

implementation of quality management system is an objective reality, employees perception is likely to be different based on their personal characteristics. If those personal characteristics were the same amongst the employees then it would be expected that their perceptions would be close to being the same if not the same. The converse would also be true where different personal characteristics would lead to different perceptions of the same object. The diagram below shows the inter linkage between the perceiver, the situation and what is perceived that is perception.

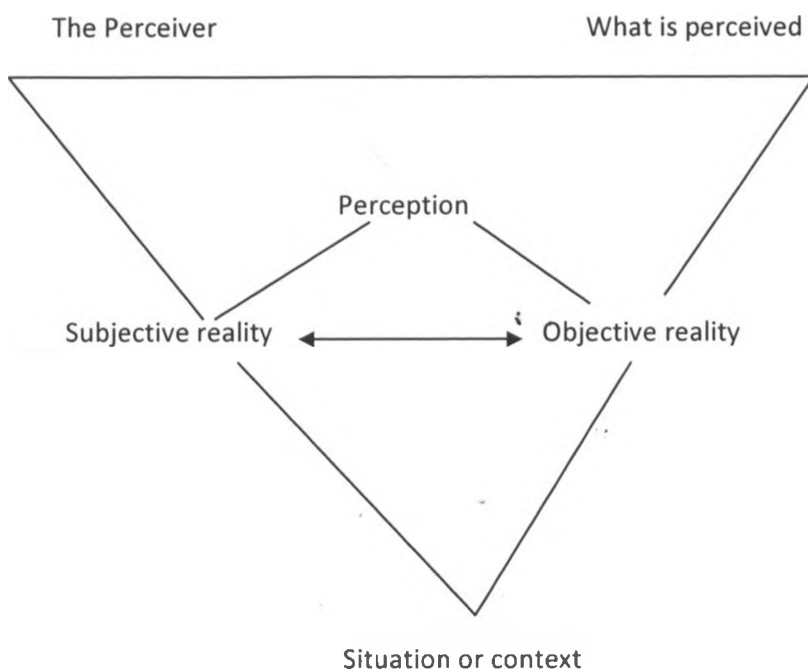


Figure 1 Perception Process. Adopted from Cole (2005)

As can be seen from the diagram what is perceived is an objective reality but the perceiver has a subjective reality of the situation. Both the objective and subjective reality converge to define the perception that the perceiver holds. This is because the perceiver brings into the situation previous experiences and attitudes into the perception process.

Age is one of the employee factors which can influence perception. Most research done on the relationship between age and perception is based on the learning process of students. There are also other fields where research has been done in relation to age and its influence on perception. There is however little research that is available which has

investigated how age influences the perception of employees especially in relation to implementation of QMS. Age can however be observed to influence perceptions on a wide variety on issues. Older people are generally considered to be wise as they have accumulated a lot of knowledge which they apply to situations. Younger people are seen as being less competent in making certain decisions as they are seen to lack the prerequisite knowledge and wisdom.

Ezewu (1987) is of the view that the age of a person plays an important role in the critical appraisal of events, situations or a thing. He posited that one's age helps a great deal in his/her assessment of the world around him due to the experience gained through age. It is also apparent from every day observations that with age comes experience that influences the world view that one holds on issues.

Dimkpa (2010) investigated age differentials in perception of family stress by women. Before conducting the study, she hypothesized that there was no significant difference in women of different ages in their perception of family stress. The study however showed that there was a significant difference in perception of women on family stress based on age. Shaffril and Uli (2010) found that there was a significant relationship between age and performance among employees of government agricultural agencies in Malaysia.

These findings point to the age variable in different areas of research. Little is however available to show how age influences perception of employees about implementation of QMS. It is therefore important to study how age relates to perception of employees about implementation of QMS at NCWSC.

Gender has become an important variable in research as issues of gender equality and equity take centre stage. Although men and women are biologically different, it is the different roles that have been assigned to the different sexes that have raised a lot of concern. One of the important discussions on the gender topic is the influence of socialization of men and women on their perception. Socialization plays an important role in perceptions as different roles are assigned to males and females from birth based on their sex. This predisposes men and women to perceive things differently as they have been taught to perceive things based not on the things but their gender.

Embse (1987) for instance alludes to the cultural influence on women which begins in childhood. For example he says girls are taught to play the role of nurse and not doctor, cook but not chef, employee and not employer. These biases are then transferred to and perpetuated in the workplace. At the same time this socialization affects the way women perceive themselves and certain jobs and tasks. The socialization process also teaches boys to be masculine and aggressive. This means that men may be more inclined than women to take challenges that a system like QMS may present.

There is much literature that has investigated gender in relation to different variables like performance. For instance Hattwick et al in Nyaga (2007) suggests that there are few significant differences between males and females that will affect their job performance. There remains a need to study the influence of gender on perception.

Job experience is another factor with the potential of influencing employee perception. Experience is generally associated with the number of years that an employee has spent working. It is assumed that the longer an employee works, the richer their experience because they are exposed to different types of situations. Employees with a longer working experience are therefore seen as more knowledgeable than those with less experience.

According to Robin (1996) experience influences learning where learning is seen as any relatively permanent behavior that occurs as a result of experience. From this standpoint, experience and learning are interconnected in that experience leads to learning and learning is manifested in changed behavior.

Njoroge (2003) posits that attitudes and perceptions are developed over time and can change as new information and experiences are acquired. Based on this viewpoint, the process of forming perceptions is cumulative in nature in that perceptions build over time and they keep on changing depending on new information and experience being acquired. This brings into focus the nature of the information and experiences being acquired. If the outcome of previous experiences on the job was negative, then the employee will have a negative perception of similar situations. The converse is true where positive experiences would lead to positive perceptions.

But it is highly unlikely that an employee would have only one set of experiences in the work environment. Both negative and positive experiences are bound to be interacted with and therefore there will ultimately be a mix of those experiences. But as the old adage goes, 'experience is the best teacher'. The import of this is that even negative experiences can result in positive perception as mistakes of the past can be used to avoid similar mistakes in the future. Also strategies that might have been resisted by employees in the past might turn out to be beneficial later on; therefore making the employees more accommodative of strategies they might not fully understand or appreciate.

Armstrong (2009) sees perception as being empirical in that it is based on the individual's past experience. Experiences therefore play an important role in that employees tend to interpret new situations based on the information and experiences they have acquired. An employee who has a longer work experience may have witnessed different strategies which have been implemented in the course of his/her working life. These past experiences will shape how the employee will regard future situations.

These arguments would therefore suggest that an employee who has a longer job experience will have experienced situations that are more in number and more diverse than the one with a shorter work experience. Their perceptions would therefore be expected to differ about any given situation. The same would be true for the implementation of QMS. Those employees who have longer working experiences would be expected to have views that are in variance with those with shorter work experience.

These expectations however, may not reflect reality thus necessitating research that would base conclusions on empirical data. There is little research available that shows how job experience would influence perception of employees towards implementation of QMS. Tan (2011) carried out a study titled "quality management system development: staff stages of concern and perceived benefits". He found out that the means for perceived benefits was different between groups that had different job tenures. An analysis of those means however revealed that there were no significant differences in perception of benefits between and within the groups. However it is important to note that as much as the study looked at the number of years worked, there was another

underlying factor in that tenure was more concerned with the number of years an employee was expected to work in the organization.

Academic Qualifications is another important variable whose influence on perception of employees is worth considering. Razak, Ghani and Abidin (2010) contend that successful implementation of a system could be affected by the users' perception towards the system and in turn influence their acceptance or reluctance to the system. Academic Qualifications is a variable with the potential to influence perception and therefore lead to acceptance or reluctance to the quality management system. Cole (2004) defines education as a longer learning activity that is aimed at preparing individuals for a variety of tasks in the society. Education is seen as a continuous process through which knowledge, skills, attitudes are imparted for the purpose of changing behavior. Learning therefore takes place through the education process. If education leads to learning, then it implies that the higher the level of education, the higher the learning acquired.

Cole (2005) describes learning as a process by which people acquire knowledge, understanding, skills, and values and apply them to solve problems through out their daily life. Every level of education achieved brings about a change in understanding. It would therefore be expected that there would be different perceptions of the quality management based on the different education levels of the employees. Nyambala (2007) found that educational level had a significant influence on expectations and perceived benefits of ISO 9001:2001.

2.4 Influence of Training on Perception of Employees

Saleemi (2009) defines training as “the process of increasing knowledge and skills of an employee for doing particular jobs. He further says that it is an organized activity designed to create a change in thinking and behavior of people. Training therefore plays a role in modifying the way people think and view things.

According to Armstrong (2009) training” involves the application of formal processes to impart knowledge and help people to acquire the skills necessary for them to perform

their jobs satisfactorily". When training is carried out successfully, it leads to learning in that the trained person acquires new knowledge, capabilities and skills.

Appleby (1994) believes that training is needed for all employees and that it gives a wider general knowledge of new techniques or a broader outlook. According to this view training does not just impart the specific knowledge to perform the immediate task but also widens the perception of the people who are trained.

One of the requirements of QMS is the training of personnel performing work affecting product quality. According to KEBS (2006) an organization shall determine the necessary competence for personnel performing work affecting quality, provide training and maintain appropriate records of education, training, skills and experience.

Cole (2004) looks at training as a preparation for occupation or for specific skills and advocates for systematic training in a well organized training cycle. The cycle begins with the establishment of a training policy and establishing training organizations. After that, training needs are identified, training planned, executed and then evaluated. The benefits of systematic training are many. They include increasing knowledge and experience of employees, improvement in job performance, improved customer service among many others.

Training can either be on the job or off the job and starts with the orientation of employees. Orientation has many benefits which include reduction of the time it takes an employee to perform to standard levels, reduced anxiety as well as accurate perceptions of what is expected of the employee (Lussier, 2009). Other types of training similarly have their benefits. Whichever type of training is used, the ultimate goal of training is to produce learning which in turn changes behavior. Nelson and Quick (2008) look at learning as a change in behavior acquired through experience. They posit that learning may begin with a cognitive activity of developing knowledge about a subject which then leads to change in behavior.

Learning should not just be directed at employees but organizations ought to develop a learning culture. Senge (1990) talked of 'learning organizations' which he defined as entities where people continually expand their capacity to create the results they truly desire, where new and expansive methods of thinking are nurtured, where collective aspiration is set free and where people are continually learning to learn together.

Studies have been conducted that have included the training variable in relation to performance, motivation and perception. For instance Valmohammadi and Khodapanahi (2011) included training in their study when they investigated the impact of ISO 9001:2000 implementation on employees' Job satisfaction: a case study. They found that there was no significant relationship between training and job satisfaction. Much of the literature on training however focuses on the influence of training on performance. There is little research that shows how training influences perception. In all the materials that were reviewed, none of the studies investigated how training influenced perception of employees in relation to implementation of QMS or other strategies.

2.5 Influence of Job Status on Perception of Employees

Job status is another important variable in this study. The aspect of Job status that will be investigated in this study is job level. Cole (2005) opined that status has an effect on perception as it colors the assumptions an individual makes about a situation. Job status may make people look at the same situation and view it differently. For instance a lower cadre employee may view QMS as a management project and responsibility that has nothing to do with the employee's work or responsibility. Dougherty, Turban, Olson, Dwyer, and Lapreze, (1996) say that job status is related to power differential between two persons which could influence perceptions of behavior.

Many studies have been conducted on job status in relation to many variables. For instance Qammar, Khan and Saddique (2007) in their study on impact of demographics on organizational support and motivation included the job categories of managers. They found out that there was a significant difference between managers at higher levels and

those in lower entry levels ,with those at higher levels being more motivated than those in the entry level.

Shaffril and Uli (2010) investigated the influence of socio-demographic factors on work performance among employees of government agencies in Malaysia. One of the socio-demographic factors that were investigated was job categories. Their study found out that there was no significant difference between job categories of management and support staff in relation to performance.

It is therefore evident that in the studies so far conducted, there are mixed results concerning job cadre and its relationship with say performance or motivation. It is therefore necessary for more studies to be conducted on job cadre in relation to other variables. As far as the relationship between job cadre and perception of employees on implementation of QMS is concerned, the researcher did not find any study that specifically investigated the relationship. This makes it necessary to look at the relationship in order to increase the body of knowledge on the variables.

2.6 Influence of Motivation Level on Perception of Employees

Motivation implies something within people which prompts them to action. Nzuve (1999) defined motivation as the individual internal processes that energizes, directs, and sustains behavior. Motivational levels are therefore indicative of how strong the drive within a person to behave in a certain way is. Tigani (2011) posits that “self-motivation of the organization's workers is the corner stone of a successful implementation process”.

Armstrong (2009) says there are two types of motivation namely intrinsic and extrinsic. Intrinsic motivation is not created by external incentives but can arise from self-generated factors. For instance a person may be motivated by perceiving that his/her work is important, interesting, challenging or that it allows them to be autonomous and to fully utilize their skills. Extrinsic motivation on the other hand occurs when things are done to or for people. These may be things like rewards, promotion, praise, salary increment or punishment etc.

There are many theories on motivation. A common thread in the theories is the relationship between needs and motivation. Robins (1996) asserts that unsatisfied needs stimulate individuals and may exert a strong influence on their perceptions. He sees motivation as the willingness to exert high levels of effort towards achievement of goals. This effort is conditioned by the perceived ability of that effort to satisfy individual needs. A motivated person is also seen as being in a state of tension arising from an unsatisfied need. To relieve the tension the person exerts effort to satisfy a need.

From the argument, employees can exhibit certain perceptions towards QMS based on their needs and their estimation that implementation of QMS will meet those needs. If they think that QMS will help them achieve their goals and needs then they are more likely to view it positively. If on the other hand they don't see any relationship between fulfillment of their needs and implementation of QMS, then their perception of QMS is likely to be negative. This perception would then be reflected in behavior of employees towards QMS.

Graham (1998) expounds on the relationship between needs and perception when he posits that people perceive the world in terms of their least satisfied need and that their perceptions tend to recognize goals that will satisfy those needs. Perceptions of employees about the implementation of QMS can therefore be influenced by needs of employees. This is because as discussed, needs are the drivers of motivation and perception of employees will be influenced by their estimation that QMS will meet those needs.

One of the contributors to motivation theories is Victor Vroom who said that a person's behavior is affected by three factors. The factors are what a person wants to happen, his or her estimate of the probability of the thing happening, and how strongly the person believes that the event will satisfy a need. This means that motivation is likely to happen when there is a clear relationship between performance and outcome and where the outcome is seen as a means of satisfying needs. Applied to implementation of QMS, employees are more likely to embrace the implementation of QMS if their needs will be met through the implementation process.

Another motivation theorist Abraham Maslow suggested that human beings have major needs categories that are arranged in a hierarchy starting with the most basic level. He categorized those needs as physiological/basic needs, safety needs, belonging/affection needs, esteem needs and self-actualization needs. Physiological needs are those which must be satisfied to keep alive like food and clothing. Safety needs are those to do with preservation from harm like shelter, security and provision for the future. Belonging needs are related to affectionate relations with others and status within a group. Esteem needs are needs for self respect, self esteem and the esteem for others. Self-actualization needs are needs to make full use of one's capabilities and find self-fulfillment. Maslow suggested that people tend to satisfy their needs in a certain order of precedence.

This theory implies that a person has different levels of motivation based on the level of his/her needs. The same person may be at different motivation levels at different times. When basic needs are not satisfied, desire to get financial reward to meet the needs may be a great motivator. An employee at the level of meeting basic needs would therefore view QMS positively if it brings some financial reward that satisfies the basic need. However if the same person were to have those needs satisfied, then financial reward through QMS would cease to be a motivator and their perception about QMS would change. Instead the person will start looking to QMS to satisfy safety, status, esteem or self-actualization needs.

Many of the original theories on motivation have been modified or contributed upon by others. For instance Lawler and Porter contributed further to Vroom's theory. They developed a model that attempted to explain what factors determine the effort an employee will put in a job and factors that would affect the relationship between effort and performance. The variables they selected were effort, value of rewards' probability that rewards will depend on effort, performance, abilities and role perception. The relationship between those variables is shown on the figure below.

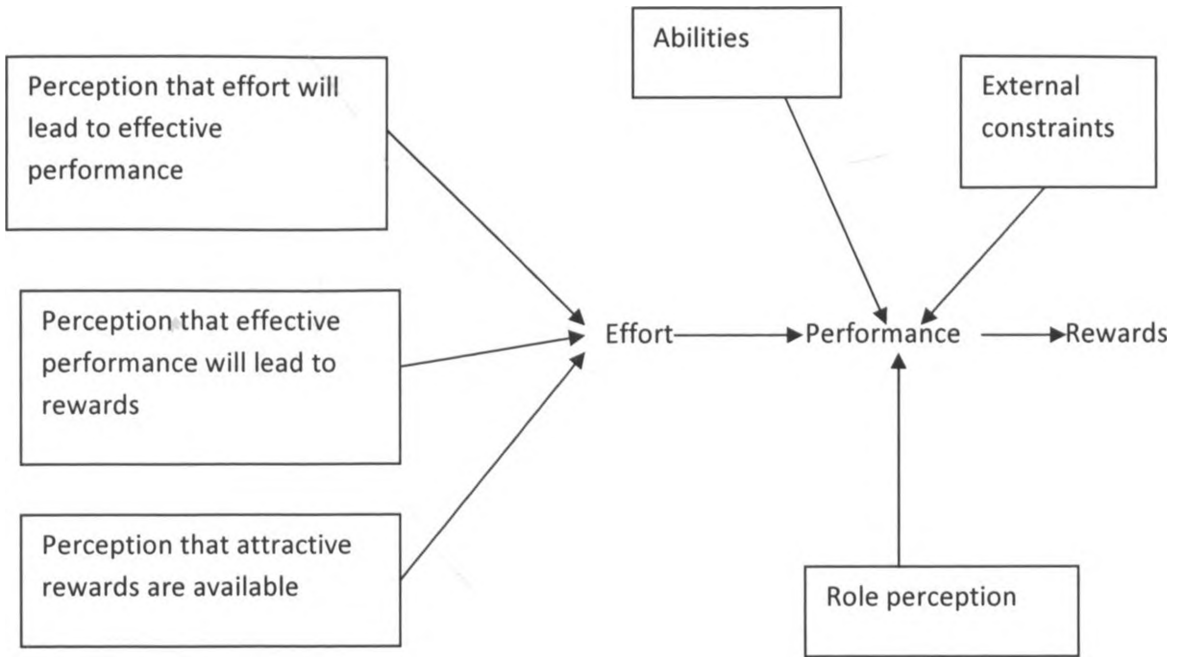


Figure 2 Lawler and Porter Model on Expectancy Theory. Adopted from Cole (2008)

The model shows how perception of one's situation influences effort. It also shows how performance is affected by an individual's abilities, understanding of their role and constraints in their environment. One of the important facets of this model is that perception that rewards will be forthcoming influences the effort employees put and ultimately their performance. Based on this model, employees would base their views on implementation of QMS on their perception that it will bring rewards.

2.7 Theoretical Framework

The theoretical framework underlying this research is the system approach to management that is based on the system theory. Certo (1983) defined a system as "a number of interdependent parts functioning as a whole for some purpose". The system theory is attributed to Ludwig Von Bertalanffy and he premised it on the view that one has to look at an entity as a system in order to fully understand its operation. He believed that there were two types of systems; closed and open systems. He saw a closed system

as one that did not interact with its environment as it was self supporting and an open system as one constantly interacting and being influenced by its environment. Cole (2004) believes that social systems such as organizations are always open systems.

The major characteristics of an open system are that they receive inputs from their environment which they convert into outputs and discharge into the environment. The inputs may be people, materials and finances which are converted through human skills and equipment into products and services which are then released to consumers. All the components of a system are important as they are necessary to make the system whole and a weakness or change in one component causes some effect on other parts and the system as a whole.

Bateman and Zeithaml (1990) argue that an organizational system is consciously established to achieve certain objectives. Cole (2004) differentiates the system theory with other management theories by saying that other theories failed to address themselves sufficiently to other problems that can arise in every organization. He gives an example of the problem of dealing with the tensions between requirements for structure and needs of the people.

The systems approach to organization has several variables of interest which include people as individuals and in groups, technology, organizational structures and the environment. The system theory acknowledges the important role of employees as well as other organizational variables. The Quality Management approach advocates for the system approach to management among other things.

In this study the system has an input in the form of the ISO 9001:2008 standard which undergoes conversion through implementation of the Quality Management System and the output is employee perception. The system however is influenced by other variables in the environment which in this case are employee related factors and other intervening variables like company policies. The role of employees in maintaining the system cannot be overstated. This is because their perception forms important feedback which can be used to improve the next cycle. This is in agreement with the continuous improvement principle of quality management systems.

The figure below shows the interaction of QMS implementation process at NCWSC and the perception of employees.

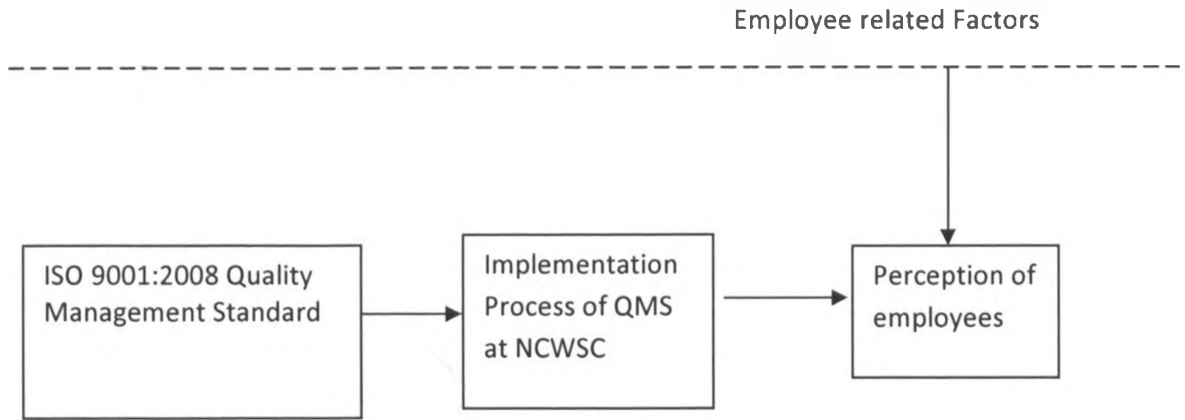


Figure 3 Interactions Between QMS Implementation And Perception Of Employees at NCWSC

As can be seen from the diagram, the implementation of QMS leads to certain perceptions by employees but those perceptions are themselves influenced by employee related factors. The weakness with the system theory is that it does not show how each of those employee related factors contributes to perception as each factor may not contribute equally to perception. However in spite of that weakness, the theory will be used as it recognizes the important role that employees play in making a system work as a whole.

2.8 Conceptual Framework

The conceptual framework presents in diagrammatic form the way the researcher has conceptualized the relationship between the independent variables and the dependent variable as shown below.

Independent Variables

Dependent Variable

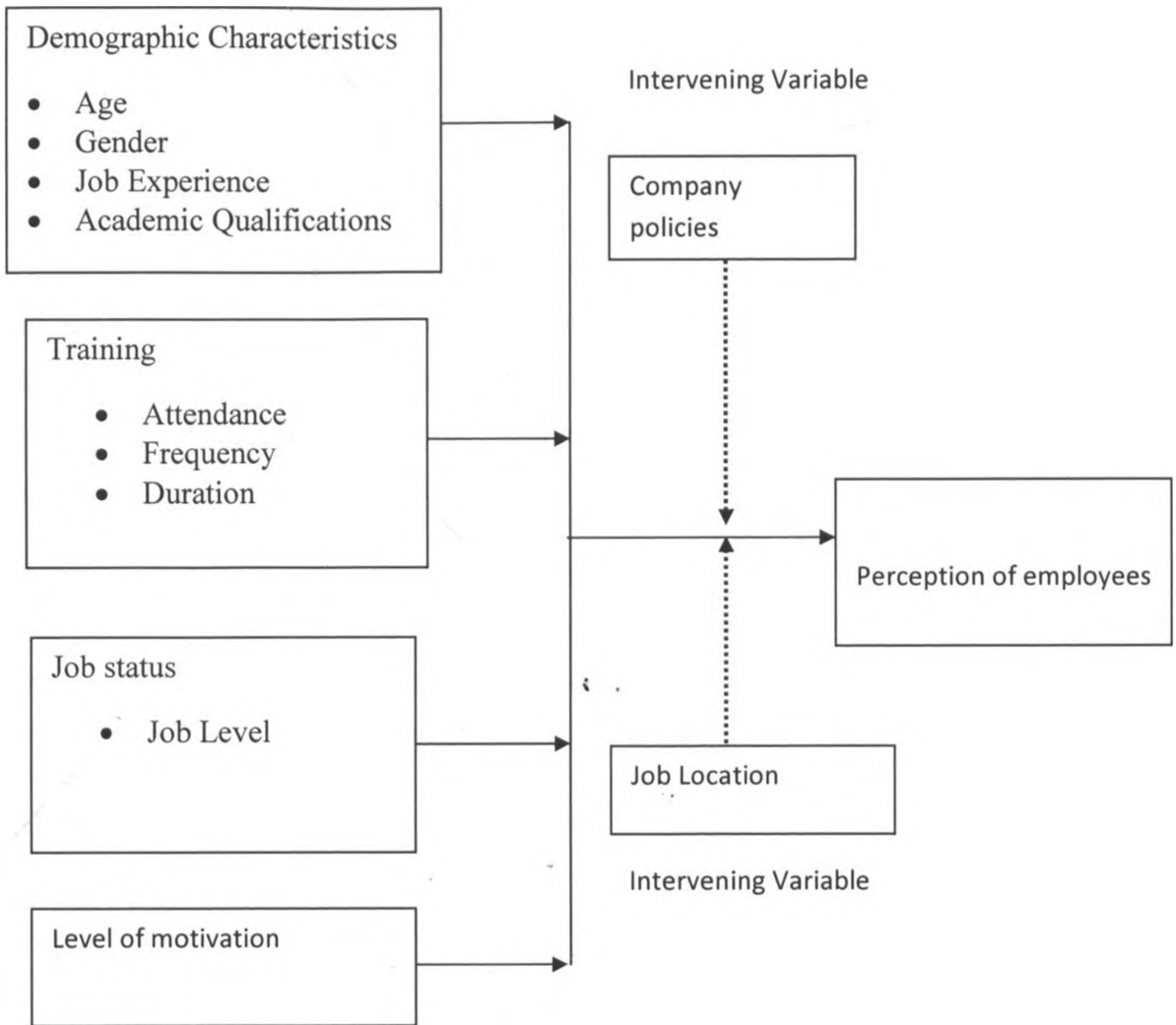


Figure 4 Conceptual Framework

As can be seen from the diagram, the independent variables are the employee related factors while the dependent variable is perception of employees. The independent variables are demographic characteristics, training, job status and motivational level. The dependent variable is perception of employees on implementation of Quality management system. The intervening variable is company policies since there could be policies in place that shape perception of employees but there is nothing the researcher can do to change the policies. The extraneous variable is job location whereby employees in different job locations may hold different perceptions. This can be as a result of different expectations or pressure in implementing QMS processes as when employees in

one location interact more frequently with customers than in others. The extraneous variable will be controlled by delimiting the study to employees working at the Headquarter.

2.9 Summary of the Literature Review

The study has identified various gaps that exist in the reviewed literature in relation to the variables under investigation. In relation to demographic factors, there was little study done on the influence of the factors on perception. For instance age was investigated in relation to performance and the learning process of students. Job experience was also investigated in relation to benefits. Gender was studied in relation to performance while educational level was studied in relation to expectations and perceived benefits.

Training was investigated in relation to performance and not to perception while job status was studied in relation to performance and motivation and not perception. As for levels of motivation, the literature reviewed, dwelt mainly on theories of motivation which therefore need to be validated through research.

In all the cited studies, none was specifically designed to investigate how employee related factors influence their perception on implementation of QMS, yet this is an important aspect of QMS. The studies also left out other important variables, level of motivational and job status.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

In this chapter, discussions are under eight sections. The first is the introduction that gives a summary of the items in the chapter. Next is the research design that explains how the design fits into this study. The target population giving the number of people to whom the results will be generalized is the next item, followed by the sample size and the sampling technique. Data collection instruments explaining their structure is also discussed. Under data collection instruments, piloting of instruments is discussed as well as how instruments were validated and how the reliability of the instruments was determined. The next item is data collection procedure that was used, followed by data analysis technique then ethical considerations that were observed during the study. The final item is operational definition of variables.

3.2 Research Design

Selltiz in Kothari (2004) defines research design as “the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure.” The research design that was adopted in this study is descriptive survey. The study describes the situation as it was at the time of research. Kothari (2004) explains that the major purpose of descriptive research is description of the state of affairs as it exists at present. He says further that methods of research utilized in descriptive research are survey methods of all kinds. This design was used as it is compatible with this study which investigated the influence of employee related factors on their perception of implementation of Quality Management System. The specific variables that were investigated are employees’ demographic factors of age, gender, experience and educational level. The job status of employees, training and motivation levels were also investigated in relation to their influence on employees’ perception.

3.3 Target Population

Mugenda and Mugenda (1999) define target population as the entire group a researcher is interested in or the group about which the researcher wishes to draw conclusion. The target population of this study was 260 employees who worked at the Head office and who were not assigned duties at the regions or other areas. The Company has a total of about 2,105 employees who are distributed within the Headquarter, regions and outside stations but only those who worked at the Head Quarter were targeted as explained in the delimitation.

3.4 Sample Size and Sampling Procedure

In this section the sample size and the sampling technique used are explained.

3.4.1 Sample Size

The sample size was derived using Krejcie and Morgan sample size table (Appendix4). The table gives sample sizes to use depending on the size of the population to which the findings were generalized. According to the framework the sample size was 155 employees based on the target population at the Head office of 260 employees.

3.4.2 Sampling Procedure

The study adopted proportionate random sampling technique. The study sought to have employees in different job levels proportionately represented in the sample by dividing the number of employees in each level by the target population multiplied by the sample size. After the sample size was determined, Excel randomization formula was used to randomly select the participants who were identified using staff returns list for the Headquarter. The sample was distributed as shown in the table below.

Table 3.1 Sample Distribution Table

Level	No of Employees Per Job Level	Sample Size Per Job Level
Management Level	54	32
Supervisory Level	38	23
Operation Level	164	100
Total	260	155

3.5 Data Collection Instruments

Questionnaires were used for this study. One questionnaire was for employees of NCWSC working at Headquarter of the company. The other questionnaire was for key persons in the ISO department that is in charge of QMS implementation at NCWSC. Questionnaires were used because they provide an efficient way of collecting data from large samples. It takes less time say compared to interviews as questionnaires are distributed and then collected later. The questionnaire was divided into five sections. The first part was related to demographic characteristics of employees and the second section training of employees and perception. The third section was on job status of employees and perception while the fourth section addressed level of motivation of employees and perception. The last section had questions related to perception about certain aspects of QMS implementation.

3.5.1 Pilot Testing of the Instruments

Pilot testing is defined as “a small-scale trial run of all the procedures planned for use in the main study” (Monette, Sullivan & DeJong 2002). Pilot testing of instruments was done by collecting data from a small sample from Thika Dam which is one of the outside stations of NCWSC. The sample size for piloting instruments was 10% of the entire sample size of 155. The number of the piloting instruments was therefore 16. Results of piloting were used to adjust the language used in some of the questions in the questionnaire.

3.5.2 Validity of the Instruments

The researcher sought to establish the content validity of the instruments. According to Kimberlin and Winsterstein (2008), content validity addresses how well the items developed to operationalize a construct provide an adequate and representative sample of all the items that might measure the construct of interest. They further assert that there is no statistical test to determine whether a measure adequately covers a content area or adequately represents a construct, and therefore content validity usually depends on the judgment of experts in the field. Validity of the instruments was thus tested by giving the instruments to peers for review and then using their comments to adjust the instruments.

The instruments were also subjected to assessment by experts and their comments incorporated to make necessary adjustments. The results obtained from pilot testing of instruments were also used to make adjustments to the instrument.

3.5.3 Reliability of Instruments

The study sought to establish the internal consistency of the instruments. Internal consistency gives an estimate of the equivalence of sets of items from the same test and the coefficient of internal consistency provides an estimate of the reliability of measurement (Kimberlin & Winsterstein 2008). Reliability was established through the use Cronbach's Alpha correlation coefficient which according to Tavakol and Dennick (2011) is appropriate for measuring internal consistency of a scale instrument. The instrument had a Cronbach's alpha of 0.8 on section D which was on level of motivation and 0.9 on section E which was on employee perception. This was above 0.7 which George and Mallery (2003) describe as being an acceptable level of a reliability correlation coefficient.

3.6 Data Collection Procedure

Data collection procedure followed guidelines issued by the University of Nairobi. The first step was to prepare the research proposal with guidance and correction from the supervisor. Once the proposal was ready, it was defended before a committee/panel as appointed by the University of Nairobi. Once the proposal was successfully defended, corrections were done and then the researcher sought a permit to conduct the research from the National Council for Science and Technology. The next step was to identify and train research assistants who went out into the field and issued and collected questionnaires. The data collected was then coded, summarized, analyzed and a report prepared. The report was forwarded to the Supervisor for corrections before being defended before a panel.

3.7 Data Analysis Techniques

After collecting the questionnaires they were coded by numbering them to enable data identity. The raw data that was obtained from the study was then systematically organized and then coded into numerical codes that represented measurements of variables. Descriptive statistics were then used to analyze the data. Most of the data was in the ordinal scale and descriptive analysis was through percentages, frequencies and crosstabs. The Statistical Package for Social Sciences (SPSS Version 11.5) was used to input and analyze the data.

3.8 Ethical Consideration in Research

The study took into consideration ethical standards necessary to ensure that the rights and privacy of the respondents were respected and that the prerequisite requirements were observed. In order to do this, the study ensured the informed consent as the participants were informed of the choice to participate or not. The study also ensured that the participants' right to privacy was not violated by ensuring that participants' information was kept confidential.

The findings of the study were also presented honestly without manipulating data to suit the researcher's personal or preconceived views.

3.9 Operational Definition of Variables

The operational definition of variables is as shown in the table overleaf.

Table 3.2 Operational Definition of variables

Objectives	Variables	Indicators	Measuring Scale	Tools of data collections	Tools of analysis
To investigate how demographic characteristics of employees influence their perception on implementation of QMS?	Demographic characteristic	Age group	Ordinal	Questionnaire	Percentage Frequencies Crosstabs
		Gender	Ordinal	Questionnaire	Percentage Frequencies Crosstabs
		Job experience	Ordinal	Questionnaire	Percentages Frequencies
		Academic Qualifications	Ordinal	Questionnaire	Percentages Frequencies Crosstabs
To establish the extent to which training of employees influences their perception on implementation of QMS?	Training	Attendance	Nominal	Questionnaire	Percentages Frequencies Crosstabs
		Frequency	Ordinal	Questionnaire	Percentages Frequencies Crosstabs
		Duration of Training	Ordinal	Questionnaire	Percentages Frequencies Crosstabs
To assess the level to which job status of employees influences their perception on implementation of QMS?	Job status	Job level	Ordinal	Questionnaire	Percentages Frequencies Crosstabs

Objectives	Variables	Indicators	Measuring Scale	Tools of data collections	Tools of analysis
To determine how level of motivation of employees influences their perception on implementation of QMS?	Level of motivation	Scores	Ordinal	Questionnaire	Percentages Frequencies Crosstabs

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION AND INTERPRETAION

4.1 Introduction

This chapter entails data analysis, interpretation and presentation of study findings. The first section is the introduction which outlines how the chapter is organized and is followed by the questionnaire return rate. The next section looks at the distribution of demographic characteristics of respondents namely age, gender, job experience and academic qualifications which is followed by perception of employees that shows the classification of perception of respondents. It is followed by demographic characteristics and perception of employees on implementation of QMS and the demographic characteristics that are analyzed in relation to perception are age, gender, job experience and academic qualifications. The next section looks at training and perception of employees on implementation of QMS, followed by job status and perception of respondents. The final section looks at level of motivation and shows how level of motivation was classified and then analysis of level of motivation and perception of employees on implementation of QMS.

4.2 Questionnaire Return Rate

Out of the 155 questionnaires that were distributed, 148 were filled and returned representing a 95% response rate of the targeted respondents. The high return rate was achieved through personal follow up by the researcher in cases where research assistants had difficulties having the questionnaires filled and returned.

4.3 Demographic Characteristics of Respondents

The study sought to find the spread of demographic characteristics among the respondents. The demographic characteristics sought in the study were age, gender, job experience and academic qualifications. The results were as shown below.

4.3.1. Age Distribution of Respondents

In order to understand the distribution of age among respondents, the researcher asked them to indicate their age bracket by ticking in the appropriate box. The results were as indicated in the following table.

Table 4.1 Age Distribution of Respondents

Age Bracket	Frequency	Percentage
20-29 Years	23	15.5
30-39 Years	56	37.8
40-49 Years	53	35.8
50-59 Years	16	10.8
Total	148	100.0

Table 4.1 above shows that 23 (15.5%) respondents were in 20-29 age bracket while 56 (37.8%) were in 30-39 age bracket. The table also shows that 53 respondents (35.8) were in the 40-49 age bracket and 16 (10.8%) were in 50-59 age bracket. This shows that the majority of the employees at NCWSC were in the 30 -39 age bracket.

4.3.2 Gender Distribution of Respondents

In order to get data on distribution of respondents by gender, the respondents were asked to indicate whether they were male or female and the results were as in Table 4.2 below.

Table 4.2 Distribution of Respondents by Gender

Gender	Frequency	Percentage
Male	77	52.0
Female	71	48.0
Total	148	100.0

Table 4.2 above shows that 77 (52%) of respondents were male while 71 (48%) were female. This shows that majority of the respondents were male and therefore NCWSC is dominated by male employees.

4.3.3 Job Experience Distribution of Respondents

Respondents were asked to provide their job experience by ticking on the appropriate age bracket. Results were as were as shown in Table 4.3 below

Table 4.3 Job Experience Distribution of Respondents

Job Experience	Frequency	Percentage
Less Than 1 Year	18	12.2
1-5 Years	16	10.8
6-10 Years	114	77.0
Total	148	100.0

Table 4.3 above shows that 18 (12.2%) of respondents had an experience of less than 1 year, 16 (10.8%) had an experience of 1-5 years, and 114 (77%) had an experience of 6-10 years. This shows that majority of the respondents had worked for between 6-10 years. This means that majority of workers at NCWSC are those who were absorbed from the Water and Sewerage Department and that few employees were newly employed.

4.3.4 Academic Qualifications Distribution of Respondents

The researcher asked the respondents to provide data on their academic qualifications on the questionnaire and the results were as in Table 4.4 below.

Table 4.4 Distribution of Academic Qualifications of Respondents

Academic Distribution	Frequency	Percentage
Certificate	51	34.5
Diploma	54	36.5
Degree	36	24.3
Postgraduate	7	4.7
Total	148	100.0

Table 4.4 shows that 51 (34.5%) of respondents had a certificate, 54 (36.5 %) a diploma, 36 (24.3%) a degree and 7 (4.7 %) postgraduate qualifications. This shows that the majority of employees at NCWSC have diploma qualifications.

4.4 Perception of Employees

In order to understand the perception of employees on implementation of QMS, the researcher asked the respondents to rate questions related to implementation of QMS on a scale of 1-5. Numeral 1 was for strongly disagree, 2 disagree, 3 neutral, 4 agree and 5 strongly agree. The scores to responses on the questions were then categorized and summarized as in Table 4.5 below.

Table 4.5 Classification of Perception of Respondents

Categorization of Scores	Perception	Frequency	Percentage
10-59	Negative Perception	65	43.9
60	Neutral	35	23.6
61-100	Positive Perception	48	32.4
	Total	148	100.0

From Table 4.5 above, 65 (43.9%) of the respondents had a negative perception, 35 (23.6%) were neutral and 48 (32.4%) had a positive perception. This shows that majority of employees of NCWSC had a negative perception on implementation of QMS.

4.5 Demographic Characteristics and Perception of Employees on Implementation of QMS

One of the objectives of this study was to investigate how demographic characteristics of employees influence their perception on implementation of Quality Management System at NCWSC. In order to understand this, demographic characteristics and perception of employees were cross tabulated as follows:-

4.5.1 Influence of Age on Perception of Employees on Implementation of QMS

In order to understand the influence of age on perception of employees, age and perception of employees were cross tabulated and the results were as shown in Table 4.6 below.

Table 4.6 Cross Tabulation of Age and Perception of Employees

Perception		Age Group				Total
		20-29 Years	30-39 Years	40-49 Years	50-59 Years	
Negative perception	Frequency	8	24	25	8	65
	% of total	5.4%	16.2%	16.9%	5.4%	43.9%
Neutral	Frequency	6	11	13	5	35
	% of total	4.1%	7.4%	8.8%	3.4%	23.6%
Positive Perception	Frequency	9	21	15	3	48
	% of total	6.1%	14.2%	10.1%	2.0%	32.4%
Total		23	56	53	16	148
		15.5%	37.8%	35.8%	10.8%	100.0%

From Table 4.6 above, 8 (5.4%) of respondents within the 20-29 years age group had a negative perception, 6 (4.1%) neutral and 9 (6.1%) had a positive perception. In the 30-39 years age group, 24 (16.2%) of respondents had a negative perception, 11 (7.4%) were neutral and 21 (14.2%) had a positive perception. In the 40-49 years age group, 25 (16.9%) had a negative perception, 13 (8.8%) were neutral and 15 (10.1%) a positive perception. In the 50-59 years age group 8 (5.4%) had a negative perception, 5 (3.4%) were neutral and 3 (2.0%) had a negative perception.

This shows that a big number 65 (43.9%) of respondents of all the age groups had a negative perception on implementation of QMS at NCWSC. Those who were positive followed with 48 (32.4%) while those who were neutral had the least number of respondents at 35 (23.6 %). It also shows that a bigger proportion within the 20-29 years age group (6.1%) had a positive perception while bigger proportions of those within 30-39 years, 40-49 years and 50-59 years age groups had a negative perception. The proportion of respondents that had a negative perception within the latter age groups also increased with age.

It therefore means that age had had an influence on the perception of employees. This agrees with the findings of Dimkpa (2005) who found that age had an influence on perception when she investigated the influence of age of women on perception of family stress.

4.5.2 Influence of Gender on Perception of Employees on Implementation of QMS

In order to investigate the influence of gender on perception of employees, the researcher cross tabulated gender and perception of employees and the results were as shown in Table 4.7 below.

Table 4.7 Cross Tabulation of Gender and Perception of Employees

Perception		Gender		Total
		Male	Female	
Negative Perception	Frequency	32	33	65
	% of Total	21.6%	22.3%	43.9%
Neutral	Frequency	21	14	35
	% of Total	14.2%	9.5%	23.6%
Positive Perception	Frequency	24	24	48
	% of Total	16.2%	16.2%	32.4%
Total		77	71	148
		52.0%	48.0%	100.0%

As can be observed from Table 4.7 above, 32 (21.6%) of male respondents had a negative perception on implementation of QMS at NCWSC, 21 (14.2%) neutral and 24 (16.2%) positive perception. It can also be observed that 33 (22.3%) of female respondents had a negative perception, 14 (9.5%) were neutral and 24 (16.2%) had a positive perception.

This shows that a big number 65 (43.9%) of both male and female respondents had a negative perception followed by those with positive perception at 48 (32.4%). The number of respondents who were neutral was smallest at 35(23.6%). For both male and female gender, the number of respondents who had a negative perception was the highest

followed by those with a positive perception and finally those who were neutral. This means that gender had no influence on perception of employees on implementation of QMS at NCWSC.

Most studies done on influence of gender are not on perception but other variables like performance. Some like Hattwick in Nyaga (2007) suggest that gender does not influence performance. The finding compares with that of the current study that found that gender did not influence perception of employees on implementation of QMS at NCWSC.

4.5.3 Influence of Job Experience on Perception of Employees on Implementation of QMS

In order to understand the influence of Job experience on perception of employees, Job experience and perception of employees were cross tabulated and the results were as shown in Table 4.8 below.

Table 4.8 Cross Tabulation of Job Experience and Perception of Employees

Perception		Job Experience			Total
		Less Than 1 Year	1-5 Years	6-10 Years	
Negative Perception	Frequency	7	6	52	65
	% of Total	4.7%	4.1%	35.1%	43.9%
Neutral	Frequency	5	5	25	35
	% of Total	3.4%	3.4%	16.9%	23.6%
Positive Perception	Frequency	6	5	37	48
	% of Total	4.1%	3.4%	25.0%	32.4%
Total		18	16	114	148
		12.2%	10.8%	77.0%	100.0%

From Table 4.8 above 7 (4.7%) of respondents with an experience of less than 1 year had a negative perception, 5 (3.4%) were neutral and 6 (4.1%) had a positive perception. Of the respondents with an experience of 1-5 years 6 (4.1%) had a negative perception, 5 (3.4%) were neutral and 5 (3.4%) had a positive perception. In the 6-10 years experience group, 52 (35.1%) had a negative perception, 25 (16.9%) were neutral and 37 (25.0%) had a positive perception.

This shows the largest number of respondents within all the job experience groups had a negative perception followed by those who had a positive perception while those who were neutral were in the minority. This means that job experience had no influence on perception of employees on implementation of QMS at NCWSC. This finding agrees with Tan (2011) who found out that there were no significant differences in perception of benefits within and between groups of different job experiences.

4.5.4 Influence of Academic Qualifications on Perception of Employees on Implementation of QMS

In order to understand the influence of academic qualifications on perception of employees, academic qualifications and perception of employees were cross tabulated and the results were as shown in Table 4.9 below.

Table 4.9 Cross Tabulation of Academic Qualifications and Perception of Employees

Perception		Academic Qualifications				Total
		Certificate	Diploma	Degree	Postgraduate	
Negative Perception	Frequency	26	22	15	2	65
	% of Total	17.6%	14.9%	10.1%	1.4%	43.9%
Neutral	Frequency	13	12	8	2	35
	% of Total	8.8%	8.1%	5.4%	1.4%	23.6%
Positive Perception	Frequency	12	20	13	3	48
	% of Total	8.1%	13.5%	8.8%	2.0%	32.4%
Total		51	54	36	7	148
		34.5%	36.5%	24.3%	4.7%	100.0%

From Table 4.9 above, 26 (17.6%) of respondents with certificate qualifications had a negative perception, 13 (8.8%) neutral and 12 (8.1%) had a positive perception. For diploma holders, 22 (14.9%) had a negative perception, 12 (8.1%) were neutral and 20 (13.5%) had a positive perception. For respondents who had a degree, 15 (10.1%) had a negative perception, 8 (5.4%) were neutral and 13 (8.8%) had a positive perception. For respondents with postgraduate qualifications, 2 (1.4%) had a negative perception, 2 (1.4%) were neutral and 3 (2.0%) had a positive perception.

This shows that a larger number of respondents with certificate, diploma and degree qualifications had a negative perception while a larger number of those with Postgraduate qualifications had a positive perception. It also shows that the proportion of respondents with positive perception within the groups was lowest at certificate level but highest among those with postgraduate qualifications.

This means that academic qualifications had an influence on the perception of employees on implementation of QMS at NCWSC. This is in agreement with findings of Nyambala (2007) who found that educational level had a significant influence on expectations and perceived benefits of ISO 9001:2001 implementation at Kengen.

4.6 Influence of Training on Perception of Employees on Implementation of QMS

Another objective of this study was to establish the extent to which training of employees influences their perception on implementation of Quality Management System at NCWSC. In order to understand this, training and perception of respondents were cross tabulated as follows:-

4.6.1 Influence of Training Attendance on Perception of Employees on Implementation of QMS

In order to establish how attendance of training influenced perception, training attendance and perception of employees were cross tabulated as in Table 4.10 below.

Table 4.10 Cross Tabulation of Attendance of QMS Training and Perception of Employees

Perception		Attended Training		Total
		Yes	No	
Negative Perception	Frequency	39	26	65
	% of Total	26.4%	17.6%	43.9%
Neutral	Frequency	18	17	35
	% of Total	12.2%	11.5%	23.6%
Positive Perception	Frequency	24	24	48
	% of Total	16.2%	16.2%	32.4%
Total		81	67	148
		54.7%	45.3%	100.0%

From Table 4.10 above, 39 (26.4 %) of respondents who attended QMS training had a negative perception, 18 (12.2%) were neutral and 24 (16.2%) had a positive perception. For those who had not attended training, 26 (17.6%) had a negative perception, 17 (11.5%) were neutral and 24 (16.2%) had a positive perception.

This shows that a large number of respondents who attended training and those that did not attend had a negative perception. It also shows that a bigger proportion of respondents who attended training had a negative perception compared to those who had not attended training. A bigger proportion of those that had not attended training had a positive attitude compared to those who had attended training. This means that attendance of QMS training had an influence on perception of employees on implementation of QMS at NCWSC.

4.6.2 Influence of Training Frequency on Perception of Employees on Implementation of QMS

In order to understand the influence of training frequency on perception of employees, the researcher cross tabulated training frequency and perception of employees as shown in Table 4.11 below.

Table 4.11 Cross Tabulation of Training Frequency and Perception of Employees

Perception		Training Frequency		Total
		Every Six Months	Yearly	
Negative Perception	Frequency	0	39	39
	% of Total	.0%	48.1%	48.1%
Neutral	Frequency	1	17	18
	% of Total	1.2%	21.0%	22.2%
Positive Perception	Frequency	1	23	24
	% of Total	1.2%	28.4%	29.6%
Total		2	79	81
		2.5%	97.5%	100.0%

As can be seen from Table 4.11 above out of the 81 respondents who had attended training, only 2 respondents had attended training every six months. It was not therefore possible to infer the influence of training frequency on perception of respondents.

4.6.3 Influence of Training Duration on Perception of Employees on Implementation of QMS

In order to establish the influence of training duration on perception of employees, the researcher cross tabulated training duration and perception of employees as shown in Table 4.12 below.

Table 4.12 Cross Tabulation of Training Duration and Perception of Employees

Perception		Training Duration	Total
		Less Than A Month	
Negative Perception	Frequency	39	39
	% of Total	48.1%	48.1%
Neutral	Frequency	18	18
	% of Total	22.2%	22.2%
Positive Perception	Frequency	24	24
	% of Total	29.6%	29.6%
Total		81	81
		100.0%	100.0%

From Table 4.12 above, all the respondents attended training for the same duration. It was therefore not possible to establish the extent to which training frequency influenced perception of employees on implementation of QMS at NCWSC.

4.7 Influence of Job Status on Perception of Employees on Implementation of QMS

Another objective of this study was to assess the level to which job status of employees influences their perception on implementation of Quality Management System at

NCWSC. In order to understand this, job status and perception of employees were cross tabulated as follows:-

Table 4.13 Cross Tabulation of Job status and Perception of Employees

Perception		Job Level			Total
		Management Level	Supervisory Level	Operation Level	
Negative Perception	Frequency	14	11	40	65
	% of Total	9.5%	7.4%	27.0%	43.9%
Neutral	Frequency	7	4	24	35
	% of Total	4.7%	2.7%	16.2%	23.6%
Positive Perception	Frequency	11	8	29	48
	% of Total	7.4%	5.4%	19.6%	32.4%
Total		32	23	93	148
		21.6%	15.5%	62.8%	100.0%

From Table 4.13 above, 14 (9.5%) of respondents at management level had a negative perception, 7 (4.7%) were neutral and 11 (7.4 %) had appositive perception. For Supervisory level, 11 (7.4%) had a negative perception, 4 (2.7%) were neutral and 8 (5.4%) had a positive perception. For operation level, 40 (27%) had a negative perception, 24 (16.2%) were neutral and 29 (19.6%) had a positive perception.

This shows that a large number 65 (43.9%) of respondents within all job levels had a negative perception on implementation of QMS, followed by those who had a positive perception and finally those that were neutral.

This means that Job Status had no influence on perception of employees on implementation of QMS at NCWSC. This compares with the findings of Shaffril and Uli (2010) who found that there was no significant difference between different job categories when it came to performance of employees of government agencies in Malaysia.

4.8 Level of Motivation and Perception of employees on Implementation of QMS

The other objective of this study was to determine how the level of motivation employees influenced their perception on implementation of Quality Management System at NCWSC. In order to understand this, the researcher first established the level of motivation as follows.

4.8.1 Level of Motivation of Employees

In order to understand the level of motivation, the respondents were asked to rate their level of agreement or disagreement with statements which were on a scale of 1-5. Numeral 1 was for strongly disagree, 2 disagree, 3 neutral, 4 agree and 5 strongly agree. The results were categorized and summarized as shown in table 4.14 below.

Table 4.14 Level of Motivation Classification

Categorization of Scores	Level of Motivation	Frequency	Percentage
10-29	Lowly Motivated	49	33.1
30	Neutral	14	9.5
31-50	Highly Motivated	85	57.4
	Total	148	100.0

From table 4.14 above, 49 (33.1%) of respondents were lowly motivated, 14 (9.5%) were neutral and 85 (57.4%) were highly motivated. This shows that majority of the employees at NCWSC were highly motivated.

4.8.2 Influence of Level of Motivation on Perception of Employees on Implementation of QMS

In order to understand the influence of level of motivation on perception of employees, the researcher cross tabulated level of motivation and perception of employees as shown in Table 4.15 below.

Table 4.15 Cross Tabulation of level of Motivation and Perception Employees

Perception		Level Of Motivation			Total
		Lowly Motivated	Neutral	Highly Motivated	
Negative Perception	Frequency	27	10	28	65
	% of Total	18.2%	6.8%	18.9%	43.9%
Neutral	Frequency	9	2	24	35
	% of Total	6.1%	1.4%	16.2%	23.6%
Positive Perception	Frequency	13	2	33	48
	% of Total	8.8%	1.4%	22.3%	32.4%
Total		49	14	85	148
		33.1%	9.5%	57.4%	100.0%

From Table 4.15 above, 27 (18.2%) of respondents who were lowly motivated had a negative perception, 9 (6.1%) were neutral while 13 (8.8%) had a positive perception. From those who were neutral in motivation, 10 (6.8%) had a negative perception, 2 (1.4%) were neutral and 2 (1.4%) had a positive perception. From those who were highly motivated, 28 (18.9%) had a negative perception, 24 (16.2%) were neutral and 33 (22.3%) had a positive perception.

This shows that the majority of those who were lowly motivated had a negative perception on implementation of QMS and a majority of those who were highly motivated had a positive perception. This means that the level of motivation had an influence on perception of employees on implementation of QMS at NCWSC. This agrees with theories of motivation which associate levels of motivation with perception. For instance Robins (1996) asserts that unsatisfied needs stimulate individuals and may exert a strong influence on their perceptions.

CHAPTER FIVE

SUMMARY OF FINDINGS, DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter begins with the introduction that outlines how the chapter is arranged. It is followed by summary of findings of this study. The summary is followed by discussions of the findings. The discussions are arranged according to the research objectives of the study and include influence of demographic characteristics on perception of employees, followed by influence of training on perception of employees. Influence of job status on perception is the next discussion followed by the influence of level of motivation on perception of employees. Next section is conclusions of the study followed by the conclusion, followed by recommendations and suggestions for further research.

5.2 Summary of findings

The study found that majority of the respondents (37.8%) belonged to 30-39 years age group and that age influenced perception of the employees on implementation of QMS.

Majority of the respondents were male at 52% and females were 48%. Gender did not have an influence on perception of employees on implementation of QMS as a large number of both male and female respondents had a negative perception on implementation of QMS.

Majority of the respondents (77%) had a job experience of 6-10 years at NCWSC. Job experience did not influence perception of employees as a large number of respondents in all the different experience groups had a negative perception on implementation of QMS.

The study also found that majority of respondents (36.5%) had diploma level academic qualifications. Academic qualifications were found to have an influence on perception of implementation of QMS. The lower the academic qualifications, the higher the proportion of those with negative perception was found to be.

Although a large number of respondents who had attended training (26.4%) and those who had not attended (17.6%) had a negative perception, the study found that a larger proportion of those who had trained had a negative perception compared to those who had not trained. It also found that a larger proportion of those who had not attended training had a positive perception compared to those who had attended training. Almost all the respondents had attended training for the same duration and frequency. Influence of training frequency and duration could therefore not be established.

More respondents in all the job levels had a negative perception on implementation of QMS than those who had a positive perception. At management level, 9.5 % had a negative perception, 7.4 % at supervisory level and 27 % at operation level. Job status in this study did not have an influence on perception of employees on implementation of QMS.

The study found that most of the respondents i.e. 57.4 % were highly motivated. The level of motivation of respondents was found to influence perception of employees on implementation of QMS as a higher number of those who were lowly motivated also had a negative perception while a higher number of those who were highly motivated had a positive perception.

5.3 Discussion of the Findings

This section discusses the findings of the study in relation to the literature review. It looks at demographic characteristics, training, job status and level of motivation and their influence on perception of employees on implementation of QMS.

5.3.1 Influence of Demographic Characteristics on Perception of Employees

Age is a factor that is expected to influence how people perceive events, situations or things. With age comes experience that helps people assess the world around them. In this study age was found to influence perception of employees on implementation of QMS with the percentage of those that had a negative perception increasing with age. The percentage of those who had a positive perception also decreased with age. Age group of 20-29 years was the only one whose majority (6.1%) had a positive perception.

Since age is associated with experience which helps a great deal in assessment of the world around an individual, it would then appear that those who were older had a more objective analysis of implementation of QMS. Majority of the younger employees may not have worked elsewhere and were therefore still enthusiastic about working in a new organization thus showing a positive perception on implementation of QMS.

Gender is another demographic characteristic that was expected to influence perception mainly because of the way men and women are socialized to see themselves and other things differently. In this study, gender however was found not to have influenced perception of employees on implementation of QMS as majority of both male and female respondents had a negative perception on implementation of QMS. This could mean that both gender looked at the implementation of QMS objectively and may point out to the fact that implementation of QMS at NCWSC has not met the expectations of employees across both the male and female genders.

Job experience is associated with learning that shapes perception based on one's past experience. Job experience was therefore expected to influence perception of the employees. This study found that majority of respondents in all the different job experience categories had a negative perception on implementation of QMS and that job experience did not influence their perception. This may point out to existence of certain gaps in the implementation of QMS or that information concerning implementation of QMS has not been well communicated or understood by employees at NCWSC.

Academic qualifications would be expected to influence perception since higher academic qualifications imply higher level of learning and greater ability to analyze issues. In this study, academic qualifications were found to influence perception of respondents. Majority of those with the lowest academic qualifications had a negative perception while majority of those with the highest academic qualifications had a positive perception. This could be because as expected, those with highest academic qualifications were able to be more analytical in their approach and therefore perceived implementation of QMS differently.

5.3.2 Influence of Training on Perception of Employees

Training is designed to create a change in thinking and behavior of people and plays a role in the way people think and view things. It would therefore be expected to influence the perception of employees on implementation of QMS.

In this study, a large number of those who had attended training and those who had not attended training had a negative perception on implementation of QMS. It was however noted that a higher proportion of those who had attended training had a negative perception than those who had not attended. A higher proportion of those who had not attended training were also noted to have a positive perception than those who had attended.

This might mean that those who attended training were more negative because training had prepared them on what to expect after QMS was implemented. They were therefore able to compare what was expected after implementation of QMS and what had been achieved after implementation and concluded that implementation of QMS had not yet achieved what it was meant to achieve. Those who had not attended training on the other hand may have been more positive about implementation of QMS because of not being fully aware of what implementation of QMS was expected to achieve. It could also show that training on QMS may not have achieved its intended objectives.

5.3.3 Influence of Job Status on Perception of Employees

Studies reviewed earlier in the literature review were not conclusive on the influence of job status on perception with some studies finding that job status influenced perception while others found that it did not. The current study found that majority of respondents in all the job levels had a negative perception on implementation of QMS and that Job status did not influence perception.

This again may be a pointer to the fact that expectations of employees across all the job levels concerning implementation of QMS had not been fully realized

5.3.4 Influence of Level of Motivation on Perception of Employees.

Majority of respondents in the current study were highly motivated. The level of motivation was found to influence perception as majority of those that were lowly motivated had a negative perception and majority of those who were highly motivated had a positive perception.

As Graham (1998) posits, people perceive the world in terms of their least satisfied need. Perception of the respondents on QMS could therefore have been colored by the extent to which their needs were being met in the workplace rather than the objective reality of QMS implementation.

5.4 Conclusions of the Study

This study concludes that some of the employee related factors included in this study may influence the perception of the employees on implementation of QMS while some may not.

As for demographic characteristics, age and academic qualifications had an influence on perception while gender and job experience had no influence on perception of employees at NCWSC. It is therefore important to encourage employees to improve on their academic qualifications as it helps them to be more analytical.

Attending training also influenced perception of employees with training making the respondents more objective in their assessment of QMS implementation. Training is therefore an important variable in influencing perception as trainees are more likely to be objective in their analysis than those who have not been trained.

Job status had no influence on perception of employees on implementation of QMS as majority of employees in the different job levels had a negative perception on implementation of QMS. This could be a pointer that the perception of employees in this case was quite objective and reflected what was in place.

The level of motivation also influenced perception since those who were lowly motivated had a negative perception and those that were highly motivated had a positive attitude

towards implementation of QMS. This shows the need to keep employees motivated since the level of motivation may help color perception of employees making them either positive or negative based on their motivation levels.

5.5 Recommendations of the Study

This study recommends that all the employees of NCWSC should be trained on QMS. The training programme should also be reviewed in order to see if it is adequate in content and whether employees understand the contents. Training frequency should also be increased so that employees are constantly aware of QMS requirements and be able to link QMS with changes in the organization.

It is also recommended that NCWSC focuses on motivating its employees as a way of encouraging employees to further embrace implementation of QMS. The level of motivation was found in this study to influence perception and higher levels of motivation would lead to a positive perception on implementation of QMS. A positive perception is critical to the continued successful implementation of QMS.

It is further recommended that the ISO department which is in charge of QMS implementation be made more visible and be facilitated fully to make employees appreciate the importance of having a successful QMS in place. The continued recertification of NCWSC processes is necessary to assure customers and other stakeholders of the commitment of NCWSC to continuously improve on quality of its services and satisfy its customers.

It is also recommended that NCWSC continues to employ new and younger employees as opportunities arise because the younger employees showed that they were more enthusiastic about QMS implementation than the rest.

5.6 Suggestions for Further Research

It is suggested that studies that look at perception of employees on the process of QMS implementation and the effects of QMS implementation on employees be conducted. This is because employees may not embrace implementation of QMS if they do not identify with the implementation process or if they are negatively affected by the implementation.

It is further suggested that research be done concerning the perception of customers of NCWSC on implementation of QMS. This would help to gauge if the company is meeting the expectations of its customers in relation to implementation of QMS and would make the picture of perception on implementation of QMS much more complete.

It is also suggested that further research be carried out that includes other factors that could influence perception of employees on implementation of QMS. For instance the influence of job location, communication and management styles on perception of employees can be included in future studies.

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APPENDICES

Appendix 1: LETTER OF TRANSMITTAL ON DATA COLLECTION INSTRUMENTS

Chege John Kigotho,

P.O. Box 866,

Thika.

Dear Sir/Madam,

Re: Employee Related Factors Influencing Their Perception on Implementation of Quality Management System at Nairobi City Water and Sewerage Company

I am a Master of Arts (Project Planning & Management) student at the University of Nairobi – Thika Extra- Mural Centre. My registration Number is L50/65164/2010. I am conducting a study titled 'Employee Related Factors Influencing Their Perception on Implementation of Quality Management System at Nairobi City Water & Sewerage Company.

To facilitate this study, you have been randomly selected as a participant in answering the questionnaire. You are requested to respond to all the questions as your response will be very useful to this study.

Please be assured that any personal information will be treated with utmost confidentiality.

Thank you for your participation.

Yours faithfully,

Chege John K

Appendix 2: QUESTIONNAIRE FOR EMPLOYEES

BACKGROUND

This questionnaire is intended to collect information for a research project which designed is in partial fulfillment for the requirement for the award of a Masters of Art Degree in Project Planning and Management of the University of Nairobi.

Your answers will be highly appreciated as they will provide important information to this study.

SECTION A: DEMOGRAPHIC CHARACTERISTICS OF EMPLOYEES

1. Which is your the age bracket?

Below 20 years () 20-29 years () 30-39 years
()
40-49 years () 50-59 years ()

2. What is your gender?

Male () Female ()

3. How long have you been working with Nairobi City Water and Sewerage Company?

Less than 1 year () 1-5 years () 6- 10 years ()

4. What is the highest academic Qualification that you have attained?

Certificate () Diploma () Degree () Postgraduate ()

SECTION B: EMPLOYEE TRAINING

(NB: The training include both self initiated and company initiated which could be on the job or off the job.)

5. Have you attended any QMS related training in the last five years?

Yes () No ()

6. On average how frequently have you attended those trainings?

Every 3 months () Every six months () Yearly ()

7. How long has the training(s) you have attended lasted?

Less than a month () 1-3 months () 4- 6 months ()

Over 6 months ()

SECTION C: JOB STATUS OF EMPLOYEES

(NB: The term operation level in this section refers to job grade below supervisory level

8. At what level is your job grade?

Management level () Supervisory level () Operation Level ()

PART D: LEVEL OF MOTIVATION OF EMPLOYEES

Please rate your level of agreement or disagreement with the following statements by ticking in the appropriate box. The rating scale is arranged in the following format:

Strongly agree (SA) = 5; Agree (A) = 4; Neutral (N) =3; Disagree (D) =2; Strongly Disagree (SD) = 1

NO	STATEMENT	RATING				
		SA 5	A 4	N 3	D 2	SD 1
9	I am satisfied with the salary that I receive at NCWSC					
10	I am happy with the job security that I have at NCWSC					
11	I get recognized for my efforts					
12	I have good opportunities for promotion at NCWSC					
13	I am satisfied with working conditions at NCWSC					
14	I am satisfied with the performance appraisal system at NCWSC					
15	I get the necessary support from my superiors to perform my work					
16	I work in a safe work environment with good safety measures					
17	I feel part of the team among my workmates					
18	I am satisfied with my job					

SECTION E: PERCEPTION OF EMPLOYEES ON IMPLEMENTATION OF QMS

Please rate your level of agreement or disagreement with the following statements by ticking in the appropriate box. The rating scale is arranged in the following format:

Strongly agree (SA) = 5; Agree (A) = 4; Neutral (N) =3; Disagree (D) =2; Strongly Disagree (SD) = 1

NO	STATEMENT	RATING			
		SA 5	A 4	N 3	D 2
19	The work environment friendly to implementation of QMS				
20	The work environment is not friendly to implementation of QMS				
21	Work procedures used in implementation of QMS make work less complicated				
22	Work procedures used in implementation of QMS do not make work less complicated				
23	Implementation of QMS has helped to improve work performance				
24	Work performance has not improved through implementation of QMS				
25	Implementation of QMS has led to improved customer satisfaction				
26	Customer satisfaction has not improved through implementation of QMS				
27	Implementation of QMS has helped improve the image of NCWSC				
28	The image of NCWSC has not improved from implementation of QMS				
29	Implementation of QMS has helped NCWSC improve customer service				
30	Customer service has not improved through implementation of QMS				
31	Implementation of QMS has helped improve on communication				
32	Communication has not improved due to implementation of QMS				
33	Implementation of QMS has helped improve involvement of employees in decision making				
34	Involvement of employees in decision making has not improved due to implementation of QMS				
35	Implementation of QMS has given me opportunity for personal development				

NO	STATEMENT	RATING				
		SA 5	A 4	N 3	D 2	SD 1
36	Implementation of QMS has not given me opportunity for personal advancement					
37	The training required to implement QMS is too demanding					
38	The training required to implement QMS is not too demanding					

Appendix 3: QUESTIONNIRE FOR MANAGER IN CHARGE OF QMS IMPLEMENTATION

BACKGROUND

This questionnaire is intended to collect information on employee perception on implementation of Quality Management System (QMS) at Nairobi City Water and Sewerage Company (NCWSC). The research project for which the Questionnaire is designed is in partial fulfillment for the requirement for the award of a Masters of Art Degree in Project Planning and Management of the University of Nairobi.

You are requested to answer all the questions as accurately as possible because your responses are important to this study.

SECTION A: DEMOGRAPHIC CHARACTERISTICS

Please tick the appropriate box

1. What is your position at NCWSC?

Manager () Coordinator ()

2. How long have you been working in NCWSC?

Less than 1 year () 1-5years () 6 - 10 years ()

SECTION B: EMPLOYEE TRAINING

(NB: The training could be on the job or off the job.)

3. Has NCWSC been training its employees in relation to QMS regularly in the last five years?

Yes () No ()

4. Has QMS training been conducted for staff in all the stations of NCWSC?

(NB: Station includes regions, Headquarter and outside stations)

Yes () No ()

5. Are there stations where QMS training has been conducted much more frequently than others?
 Yes () No ()
6. If yes, where has the training been done more frequently?
 Headquarter () Region () Outside Station ()
7. Has the impact of training on perception of employees been evaluated?
 Yes () No ()
8. If there were evaluations what were the findings?
 Training improves on perception of employees ()
 Training does not improve on perception of employees ()
9. In your view does training influence perception of employees on implementation of QMS?
 Yes () No ()
10. If yes to what extent do you think training improves perception of employees on the implementation of QMS?
 To a very great extent () To a great extent () To a moderate extent ()
 To a little extent () To no extent ()

SECTION C: JOB STATUS OF EMPLOYEES

11. In your view do you think employees at different job levels perceive implementation of QMS at NCWSC differently?
 Yes () No ()

12. In your opinion to what level does job level influence perception of employees on implementation of QMS at NCWSC?

Very high Level () High Level () Moderate Level ()

Low Level () Very Low Level ()

PART D: LEVEL OF MOTIVATION OF EMPLOYEES

(NB: Level of motivation here refers to internal drive and energy to perform tasks)

13. How would you rate the level of employee motivation at NCWSC?

Very high () High () Moderate () Low () Very Low ()

14. Do you think that the level of motivation influences perception on implementation of QMS at NCWSC?

Yes () No ()

15. In your opinion to what extent does motivation level influence perception on implementation of employees?

To a very great extent () To a great extent () To a moderate extent ()

To a little extent () To no extent ()

SECTION E: PERCEPTION OF EMPLOYEES ON IMPLEMENTATION OF QMS

16. In your view have the employees of Nairobi City Water and Sewerage Company received the implementation of QMS positively?

Yes () No ()

17. In your view is the work environment friendly to the implementation of QMS ?

Yes () No ()

18. In your view has work procedures associated with implementation of QMS made work less complicated?

Yes () No ()

19. Would you say that implementation of QMS has helped improve work performance?

Yes () No ()

20. Has implementation of QMS helped improve customer satisfaction?

Yes () No ()

21. Has the implementation of QMS helped to improve the image of NCWSC among its customers?

Yes () No ()

22. Has the implementation of QMS at NCWSC helped to improve on customer service?

Yes () No ()

23. Would you say that implementation of QMS has led to improved communication in NCWSC?

Yes () No ()

24. In your opinion, has implementation of QMS helped to improve the involvement of employees in decision making?

Yes () No ()

25. Are there ways in which implementation of QMS has given employees opportunity for personal development?

Yes () No ()

26. If yes please specify how.

27. Is the training required for employees to implement QMS too rigorous?

Yes () No ()

Appendix 4: KREJCIE & MORGAN TABLE FOR DETERMINING SAMPLE SIZE

<i>N</i>	<i>S</i>	<i>N</i>	<i>S</i>	<i>N</i>	<i>S</i>
10	10	220	140	1200	291
15	14	230	144	1300	297
20	19	240	148	1400	302
25	24	250	152	1500	306
30	28	260	155	1600	310
35	32	270	159	1700	313
40	36	280	162	1800	317
45	40	290	165	1900	320
50	44	300	169	2000	322
55	48	320	175	2200	327
60	52	340	181	2400	331
65	56	360	186	2600	335
70	59	380	191	2800	338
75	63	400	196	3000	341
80	66	420	201	3500	346
85	70	440	205	4000	351
90	73	460	210	4500	354
95	76	480	214	5000	357
100	80	500	217	6000	361
110	86	550	226	7000	364
120	92	600	234	8000	367
130	97	650	242	9000	368
140	103	700	248	10000	370
150	108	750	254	15000	375
160	113	800	260	20000	377
170	118	850	265	30000	379
180	123	900	269	40000	380
190	127	950	274	50000	381
200	132	1000	278	75000	382
210	136	1100	285	1000000	384

Appendix 5: RESEARCH AUTHORIZATION LETTER

REPUBLIC OF KENYA



NATIONAL COUNCIL FOR SCIENCE AND TECHNOLOGY

Telephone: 254-020-2213471, 2241349
254-020-310571, 2213123, 2219420
Fax: 254-020-318245, 318249
When replying please quote
secretary@ncst.go.ke

P.O. Box 30623-00100
NAIROBI-KENYA
Website: www.ncst.go.ke

Our Ref: **NCST/RCD/14/012/677**

Date: **8th June 2012**

John Kigotho Chege
University of Nairobi
P.O.Box 30197-00100
Nairobi.

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on *"Employee related factors influencing their perception on implementation of quality management system at Nairobi City Water and Sewerage Company,"* I am pleased to inform you that you have been authorized to undertake research in **Nairobi Province** for a period ending **31st July, 2012**.

You are advised to report to the **Managing Director, Nairobi Water and Sewerage Company** before embarking on the research project.

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

A handwritten signature in black ink, appearing to read 'M. K. Rugutt'.

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

Copy to:

The Managing Director
Nairobi Water and Sewerage Company Limited
Nairobi.

Appendix 6: RESEARCH PERMIT

PAGE 2

THIS IS TO CERTIFY THAT:
Prof./Dr./Mr./Mrs./Miss/Institution
John Kigotho Chege
of (Address) University of Nairobi
P.O.Box 30197-00100, Nairobi.
has been permitted to conduct research in

Location
District
Province


Nairobi

on the topic: Employee related factors
influencing their perception on implementation
of quality management system at Nairobi City
Water and Sewerage Company.

for a period ending: 31st July, 2012.

PAGE 3

Research Permit No. NCST/RCD/14/012/677
Date of issue 8th June, 2012
Fee received KSH. 1,000



Applicant's
Signature

Secretary
National Council for
Science & Technology