

**TOTAL QUALITY MANAGEMENT INNOVATIONS AND
PERFORMANCE AMONG NON-GOVERNMENTAL ORGANIZATIONS IN
NAIROBI COUNTY, KENYA**

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DECLARATION

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

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This management research project has been submitted for examination with our approval as university supervisors.

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ERNEST AKELO

DEDICATION

This project is dedicated to my family for support and encouragement and to all the NGOs in Nairobi County.

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ABSTRACT

Organisations need to be innovative in order to survive and prosper. The objectives of this study were to determine the TQM innovations used by NGOs in Nairobi county, Kenya; to establish the challenges facing the implementation of TQM innovation in NGOs in Nairobi county, Kenya; and to determine the relationship between TQM innovations and performance among NGOs in Nairobi County, Kenya. The target population for this research comprised of registered NGOs operating in Nairobi County, these are a total of 47 organizations. A semi-structured questionnaire was used to collect data. A census was carried out on all the 47 NGOs listed. On TQM Innovations adopted by NGOs, the study found that Implementation of Business Continuity Innovations has resulted to NGOs forming short term problem solving teams that have been best useful in helping to access customer preferences. The findings also indicate that under Training Innovations, NGOs teach statistical analysis to front line employees as well as train using the top down implementation strategy to a great extent. The findings also revealed the challenges affecting TQM Implementation. People challenges such as ineffective job performance, lack of worker output and involvement as well as lack of teamwork are seen to a great extent. Based on the results from data analysis and findings of the study, one can safely conclude the following; First, The role of leadership is key and in most cases has a positive impact on TQM implementation to a great extent. Top down implementation where training begins with top level and then cascades to the lower level results in both the leadership owning the process as well as gaining knowledge thus getting easy buy in from the lower levels. The study recommends that organizations should find ways to overcome these barriers and should look at the causes of people not performing jobs effectively. The study also recommends for organizations to think about the correct resources required for each of their organisations. The study recommends that all staff to be taught on application of IT in TQM practices so that the entire organization also understands the role of IT in TQM implementation and come up with long lasting solution.

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CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Increased competition has motivated many senior managers in organizations to evaluate their competitive strategies and management practices with the aim of improving organizational performance, with a diminished workforce and the need to sustain performance, organizations are striving to define, implement and sustain TQM practice. This is a relatively new management philosophy that integrates strategy, management practice and organizational outcomes to create a quality organization that continuously improves and sustains performance (Terziovski and Samson, 1999).

The introduction of total quality management has played an important role in innovations and development of contemporary management practices. Quality is considered as a key strategic factor in achieving business success. In order to enhance the competitive position and improve business performance, companies worldwide, business performance, companies worldwide, large and small, manufacturing and service, have applied the principles of total quality (Dean and Evans, 1994). However in the knowledge-based society, high quality alone is not sufficient. The basis for sustainable competitive advantage has shifted from quality to innovation as a fundamental component of entrepreneurship.

TQM practitioners are expected to focus their attention on work processes rather than on outcome measures and to use scientific methods to improve those processes continuously. If TQM programs do increase the degree to which customer requirements are met and in the process, improve the performance capability of the organization and the well-being of individual members, then global and economic measures of organizational effectiveness surely should improve over the long term as well. This prediction is stated explicitly by the TQM theorists whose work strikes us as entirely reasonable (Hackman and Wageman, 1995).

1.1.1 TQM Innovation

Crossan and Apaydin (2010) define innovation as production or adoption, assimilation and exploitation of a value added novelty in economic and social spheres, renewal and enlargement of products, services and markets, development of new methods of production and establishment of new management system. It is both a process and an outcome. Successful implementation of innovative quality management methods gives the possibility to better adapt to changing conditions and to better adapt to different innovations. Martinez Costa and Martinez Lorente (2008) in their study found a positive link between TQM and innovation.

Crossan and Apaydin (2010) argue that innovation has two parts. The first part is the process for creating ideas and properly implementing them and second is the outcomes which are the end result of implementation. The process is the manner and techniques in which an idea is created and implemented while outcomes are the products, services or business process. According to Zhao (2005) there are three topological innovation approaches which are dominant. The first is the technological and administrative innovation. The second approach is product innovation and process innovation. The third approach is the radical and incremental innovations.

Organisations need to be innovative in order to survive and prosper. Some advocates of TQM suggest that TQM provides the necessary platform for inculcating innovation in an organisation. TQM practices enable organisations to develop a culture of innovation. Such innovations include Business Continuity, Training, Customer focus and supplier Management, Top down implementation and Information and Communication systems and Technology.

The relationship between TQM and innovation is therefore complex. Conflicting arguments do exist that the impact of TQM innovation depends on both the specific quality management elements under consideration and on the type of innovation.

1.1.2 Performance

Performance can be defined as the process of quantifying the efficiency and effectiveness of action. Performance measure is the metric used to quantify the efficiency and/or effectiveness of an action. The terms efficiency and effectiveness are used precisely in this context. Effectiveness refers to the extent to which customer requirements are met, while efficiency is a measure to how economically to firms' resources are utilized when providing customer satisfaction (Fooks, 1992).

Quality awards models provide a general framework to total quality management. The criteria include: quality leadership, human resource development, quality strategy, information resources, quality assurance in process and product, people satisfaction, customer satisfaction, social and environmental impact and, the results (i.e. performance).

TQM has been widely regarded as a tool for improving performance through measures observed such as waste, quality of product, product of service as well as efficiency. Performances such as profit and market share, customer satisfaction, people satisfaction, business performance, and impact on society and environment due to a quality management programme may also be observed.

Quality is not a static attribute, it is constantly changing target because it represents a delighted (not just satisfied) customer. As the customer's expectations rise, so must the product's quality. What is a high-quality product today will not be one tomorrow. This tenet leads to the principle of continuous improvement and every month new ways of improvement must be considered and implemented. Moreover, this continuous improvement should be directed not at outputs but at the inputs and processes that the manager can directly control. The business manager should stop focusing on the output measure of profits, because profit is a short-term measure that can lead to cutting corners. The manager should focus instead, according to TQM on improving organizational processes and inputs in order to improve quality, because increased quality will lead to customer loyalty, and long-range profits will inexorably follow (Scholtes and Hacquebord, 1988).

1.1.3 Non-Governmental Organizations (NGOs) in Nairobi

Non-governmental organizations are voluntary and autonomous organizations whose life exists between the citizens on one hand and the state and market on the other. NGOs are sometimes confused with Community Based Organizations (CBOs). CBOs only benefit their own members and hence they are membership organizations. NGOs, though generally founded out of private initiatives can also be public entities benefiting the other person. They can be “client-oriented” versus “member-oriented” organizations (Fowler and Rick, 2000).

Non-governmental organizations in Kenya gather their membership from international, regional and national NGOs operating in Kenya and working with a host of CBOs and groups. These NGOs are active in a cross section of sectors including: agriculture, water, education, environment, health, human rights, gender and development, children’s rights, poverty alleviation, peace, population, training, counselling, small scale enterprises, disability and many others.

The NGOs council provides overall leadership to the NGO sector. It champions the key values of probity, transparency, accountability, justice and good governance. NGOs registered accumulative growth of over 100% between 1977 and 1987. By 1995 there were at least 23,000 women’s organizations in the country. Most of these organizations are registered under the Ministry of culture and social services. There are a total of 1441 in Kenya, and out of these 47 have their headquarters in Nairobi (Kameri-Mbote, 2008).

NGOs in Kenya play important roles, and operate programmes of education, health, social welfare and economic improvement, especially among disadvantaged sectors. NGOs have also long been involved in pioneering new approaches to meeting needs and solving problems in society. In recent years, they have also been at the centre of renewed searches for sustainable processes of social, environmental and economic development and action on issues such as peace, democracy, human rights, gender equity and poverty eradication (Amutabi, 2006).

1.2 Statement of the Problem

Successfully implemented innovative methods of total quality management give the possibility for organizations to better adapt to changing surrounding and easier adapt different kinds of innovations. A large majority of organizations using TQM modify their performance measurement and reward systems can be assessed and improvement rewarded (Deming, 1993). One issue is still controversial from the literature on TQM innovations is on the measurement of performance improvements in various organizations. In rapid changing surrounding people, who have the newest knowledge and who can use it are very important (Prajogo, 2004).

Non-governmental organizations are now increasingly important in international development. Greater attention is being paid to the total quality management of NGOs, which is often claimed to be 'participatory' in character. In the present world TQM has turned to be a globally strategic force, which may result in numerous benefits including: improved customer satisfaction, superior employee focus and enthusiasm, decreased waste and enhanced overall performance (Yang, 2003).

A number of studies have been undertaken in total quality management in organizations. Gayah, (2012) in his study tries to show how human resource planning practices are affected by TQM and what needs to be improved for implementing TQM in any firm, but his study did not focus on TQM innovation. Oriare (2011) investigated the application of TQM and found out that despite the fact that quality management has been addressed within a firm, Total Quality Management and its underlying assumptions could also be applicable to strategy management. However the study shows application of TQM in a business set up, results of which may not be applicable in a Non-Governmental organization. Mwangi, (2013) in his study found that stakeholders including non - governmental organizations continue to focus their attention on education but he does not mention what other areas are focused on for performance improvement, more so by the NGOs. Similarly the relationship between TQM innovations on NGO performance needs to be studied.

Nafula's (2012) study was on a banking institution. A similar study needs to be undertaken in the NGO set up. Owino (2007) found out factors that influence success in TQM implementation in Kenyan organizations but did not mention specific TQM innovations used by the organisations. Omagwa, (2011) examined the role of employees in implementing Total Quality Management towards improving organization performance. However he did not directly discuss performance improvement as a result of TQM innovations. In all the studies mentioned above, there is little discussion on the TQM as an innovation and its relationship with performance improvement in the NGOs.

This particular study will address the effects of total quality management innovations as a successful approach to quality management in non-governmental organizations, which is evident from the above researches done, that a knowledge gap exists. This therefore necessitates the need for this study to be conducted. This study sought to answer the following questions: What are the TQM innovations used by NGOs in Nairobi County, Kenya?; what are some of the challenges facing the implementation of TQM innovations among NGOs in Nairobi County, Kenya?; and what is the relationship between TQM innovations and performance improvement among NGOs in Nairobi County, Kenya?

1.3 Objectives of the Study

The three specific objectives of the study were:

- i) To determine the TQM innovations used by NGOs in Nairobi county, Kenya;
- ii) To establish the challenges facing the implementation of TQM innovation in NGOs in Nairobi county, Kenya ; and
- iii) To determine the relationship between TQM innovations and performance among NGOs in Nairobi County, Kenya.

1.4 Value of the Study

Academicians and researchers: The study will assist academicians and researchers interested in the total quality management implementation processes and practices in organizations that is both public and private organizations.

Government Blueprint: The study will also act as a resource document for the government, in understanding the need and usefulness of adopting TQM innovations as a successful approach towards improving performance in the public sector.

Policymakers: The study will be a guideline to policymakers, decision-makers and other stakeholders who would be interested in TQM innovations to enhance performance in their organizations, by adopting the TQM practices and approaches.

The study will provide an insight into the benefit and challenges of implementation of TQM that is both direct and indirect components.

CHAPTER TWO

LITERATURE REVIEW

2.1 TQM Philosophy

TQM is a philosophy, not a science. Philosophies are seldom, suddenly born, and they almost never die, they simply get improved upon (Paton, 1994). Therefore, a philosophy can be negotiated and renegotiated, adapted to differences within an organization and cannot be a simple formula or solution to organizational problems. The structure of TQM in an organization lies in the basic values that a manager has to figure out in order to implement it in the organization change. In other words, it is a set of values or a way to reorganize a business, and not a cut-and-paste technique (Miller and Hartwick, 2002). For example, one TQM ideology says “find the problems; constantly improve the system of production and service” (Wilson, 1995).

The TQM philosophy is built on the belief that firms should encourage all of their employees to continuously search for new ideas and improvements. In this regard, it is widely acknowledged that teams play an important part in innovation, especially linked to creativity and knowledge management (McAdam, 2004).

Deming (1993) is of the view that an organization’s primary purpose is to stay in business, so that it can promote the stability of the community, generate products and services that are useful to customers, and provide a setting for the satisfaction and growth of organization members. The focus is on the preservation and health of the organization, but there also are explicitly stated values that the organization’s context (the community and customers) and about the well-being of individual organization members (Ishikawa, 1985).

The TQM strategy for achieving its normative outcomes is rooted in four interlocked assumptions, about quality, people, organizations, and the role of senior management.

The first assumption is about quality. A fundamental premise of TQM is that the costs of poor quality (such as inspection, rework, lost customers, and so on) are for greater than the costs of developing processes that produce high-quality products and services. The view is that organizations that produce quality goods will eventually do better even on traditional measures such as profitability than will organizations that attempt to keep costs low by compromising quality (Juran, 1988).

The second assumption is about people. Employees naturally care about the quality of work they do and will take initiatives to improve it, so long as they are provided with the tools and training that are needed for quality improvement, and management pays attention to their ideas. Organizations must remove all organizational systems that create fear, such as the punishment for poor performance, appraisal systems that involve the comparative evaluation of employees, and merit pay.

The third assumption is that organizations are systems of highly interdependent parts, and the central problems they face invariably cross traditional functional lines. To produce high-quality products efficiently, for example product designers must address manufacturing challenges and trade-offs as part of the design process. Juran (1988) insists that cross-functional problems must be addressed collectively by representatives of all relevant functions. He states that cross-functional teams should set its own goals using local objective setting procedures.

The fourth and final assumption concerns senior management. Quality is viewed as ultimately and inescapably the responsibility of top management. The quality-improvement process must begin with management's own commitment to total quality. Employees' work effectiveness is viewed as a direct function of the quality of the systems that managers create (Ishikawa, 1985).

2.2 Total Quality Management Innovations

TQM innovation is the adaptation of management systems to the changing conditions of the environment. It is a key factor for organizations if they wish to survive and grow.

Total quality management has demonstrated its potential to be a successful way for organizations to eliminate costs, improve productivity and gain a competitive edge in the market place.

Innovation can take several forms; in products, production processes or management systems. Innovation in products is related with research & design and consumer's needs. Innovation with processes relates to changes in machinery and other elements not directly related with employees and have the aim of increasing productivity (i.e. increasing quality and reducing costs). Innovation in management systems has the aim of adapting these systems to new environmental conditions and improving the way in which people are managed and work is organized. This form of innovation can become necessary by changes in the process, such as automation and the application of mistake proofing devices.

2.2.1 Business Continuity Innovation as a TQM Innovation

Organizations that implement TQM are consistent with the founder's ideas in developing means for assessing their customer's preferences, altering relationships with suppliers, using teams (both cross-functional and within-function) to solve problems. A recent survey reports that the single most commonly used TQM practice is formation of short-term problem-solving teams with the overall objective of simplifying and streamlining work practices (conference Board, 1991). Nearly all manufacturing firms using TQM use such teams which ensure continuities, and 90 per cent of service firms do so. Problem-solving teams work on a wide variety of tasks, ranging from cross-functional involvement in product design to solving within-unit workflow problems (Hackman and Wageman, 1995).

2.2.2 Training and Skill Improvement Innovation as TQM Innovation

The second most commonly used practice is training. Organizations that implement TQM invest heavily in formal training for a large proportion of their employees. According to the conference Board (1991), 92 percent of manufacturing companies and 75 percent of

service companies implementing TQM use some form of training as part of their change effort. Typically, nearly all senior and middle managers are trained in quality practices.

More and more organisations are investing in training in problem-solving tools and, to a lesser degree, teaching statistical analysis to front-line employees'. Training using the top-down implementation strategy in organizations is congruent with the founders' assumption that quality is ultimately a management responsibility and that attempts to improve quality must begin at the top. According to conference Board (1991) about 80 percent of first-line supervisors and 50 percent of non-management employees receive a median eight hours of training. Olian and Rynes (1991) found the most common training content to be (in order of frequency)- interpersonal skills, quality-improvement processes and problem-solving, team leading to building, running meetings, statistical analysis, supplier qualification training, and benchmarking.

Training forever emphasizes the urgency of enlightenment as a means towards achieving continuous empowerment. Quality education and training at all levels in the organization becomes imperative as the quest for empowerment heightens. It must be emphasized, that empowerment in the TQM sense also involves sustained education and training of senior executives about total quality management (Gatchalian, 1997).

2.2.3 Customer Focus and Suppliers Management Innovation as a TQM Innovation

The third practice is developing relationships with suppliers. At least 50 percent of TQM organizations collaborate with their suppliers in some way to increase the quality of component parts (Mohrman and Ledford, 1992), often by sending "quality action teams" to consult with their major suppliers. The objective is to help suppliers use TQM to analyse and improve their own work processes.

Benchmarking for suppliers and customers serves multiple functions consistent with TQM philosophy; such as determining what customers can expect from the competition, as part of assessing customer requirements; learning alternative work processes, and in some cases, guiding the establishment of quality-improvement goals(Ciampa, 1992).

TQM is a philosophy which emphasizes that continuous improvement is a process with customer satisfaction as its ultimate goal. This has generated much interest and the quest for implementation globally. “Customer” starts with self, then with the people at work and finally, with the end-user of products and services. In an organization the first target for improvement is one’s own performance and how this can affect the work of others within the company. Therefore within the organization knowledge of customer-supplier (Internal) requirements are important determinants in planning for continuous improvement (Gatchalian, 1997).

2.2.4 Top-Down Implementation Innovation as a TQM Innovation

The fourth practice is top-down implementation. In keeping with the TQM authorities view that quality is ultimately the responsibility of top management, most TQM programs begin with the training of top managers in the quality philosophy, followed by the articulation of an organization-wide quality vision and communication of that vision throughout the organization. Both education about TQM and implementation of TQM practices typically take place in cascading fashion, with each layer carrying the message to the next lower level of the organization (Hackman and Wageman, 1995).

Teamwork collaboration between managers and non-managers is quite important in TQM practice. The first type of teamwork is based on the familiar assumption that non-managerial employees can make important contributions to organizations when they have power and necessary preparation. Teamwork is a necessary top-down implementation practice in TQM, and is based on the notion that organizations as systems cannot be effective if subunits emphasize their own outcomes over those of others. Teamwork practices include identifying the needs of all groups and organizations involved in decision making, trying to find solutions that will benefit everyone involved, and sharing responsibility and credit (Ciampa, 1992).

2.2.5 Information and Communication Systems and Technology as Innovation

The fifth practice is on Information and Communications Technology (ICT). Previous studies have focused on the services sector and examined the relationship between ICT and firm performance (Brynjolfson & Hitt 2000). Baldwin and Sabourin (2002) raise an important point that must be considered when interpreting results. They argue that simply purchasing advanced technologies doesn't necessarily lead to success. A firm's performance may be improved through ICT, improvement of workers' skills as well as organisational innovations. Aiyepku et al (1994) states that the interest in the adoption of ICT to provide information services emerged in Sub-Saharan Africa (SSA), including Kenya, for three reasons: one, the revolution in ICT has resulted in computer hardware becoming cheaper and, therefore, more widely available. Secondly the substantial, value added, utility of ICT in the provision of, and access to, information services for improved planning and organizational management has become more widely recognized. Thirdly, the international development agencies and donor countries have exerted significant pressure upon many governments, institutions of higher learning and other recipients of their aid, covertly and overtly, in developing countries to adapt the extensive use of ICT to improve their workforce performance and organizational management.

ICT plays a key role in growth of customer relations. For example organisations use websites in communicating organisational information and in the recent past a lot of organisations have adopted portals to support in applications for jobs and tenders. Organisations have also adopted e learning to assist both their employees as well as other interested parties. Data storage and exchange has also been enhanced through various ways using latest technology. ICT also plays a major role in monitoring and evaluation, a key issue in the NGOs. Use of mobile phone platforms for communication, alerts, reminders as well as payments has been a plus, not forgetting that most organisations have now adopted e-banking to minimise cash handling. The lack of trained and experienced technical personnel to manage control and maintain the increasingly large numbers of these resources means that their utility values, effectiveness and efficiency, cannot be ascertained. ICT support and training must be made available at the beginning to ensure continuity.

2.3 Total Quality Management Implementation Barriers

There are many persistent issues that organizations face on their road to long-term continuous improvement. These issues can be broken down into three categories of quality problems. TQM programs sometimes fail to create deep and sustained change in organisations. Failure to institutionalise TQM may be attributed to the gap between top management about their intentions for TQM and the reality of implementation at various levels in the organisation. Deming (1993) has argued that management complacency and a lack of organizational discipline can prevent improvement efforts from maturing and developing to the next level (Harrington, 1987). Failure by organisations to initiate honest organization-wide conversation about implementation of TQM can lead to total failure of the system. Managerial capabilities must exist at all levels of the organisation for a successful TQM implementation.

2.3.1 People as a TQM Implementation Barrier

People problems include individuals not performing their jobs effectively, communication breakdowns, lack of teamwork/conflict, poorly trained workers and lack of worker input and involvement are some of the challenges associate with people in an organisation. People do not decide on how they should be managed. It is therefore important to keep employees in the picture at all times especially when implementing or initiating change. Quality experts argue that most quality improvement research tends to focus on the initial start-up phase of the improvement process and fails to take into account the long-term challenges organizations face in getting past the initial phase of the people problem of the quality improvement (Mann and Kehoe, 1995).

The change of organization's culture has been identified as the most common barrier to successful TQM implementation. Therefore organizations need to develop a best practice model for implementation, which is accepted by the culture. So that it is important to develop TQM programmes that are accepted culturally (Gotzamani and Tsiotras, 2002).

2.3.2 Management as a barrier in TQM Implementation

Sometimes TQM programs fail to create deep and sustained change in organisations. Failure to institutionalize TQM may be attributed to the gap between top management about their intention for TQM and the reality of implementation at various levels. Management challenges include ineffective supervision, conflicting/unrealistic goals, poor planning and organizing, lack of resources, and lack of top management support. Autocratic style of leadership adopted by the top management creates an environment of fear.

Improper channel of communication is also challenge in TQM implementation, for getting the lucrative results of the plan it is necessary that all the information flow in the organization at the right time and in the manner. But loop holes in the communication channel act as a barrier in achieving the quality results. A proper path for exchange of information should be developed. No piece of information should be concealed on the part of top management (Paton, 1994). Failure to follow up on initial commitment can also make management look insincere in its efforts to implement TQM.

2.3.3 TQM Systems Implementation barriers

TQM systems problems include ineffective corrective action procedures, people not aware that quality problems exist (ineffective feedback mechanisms), ineffective measurement procedures, unrealistic quality standards, and technology and equipment problems. Quality certifications are sometimes viewed as bureaucratic exercise and ends up as a barrier to TQM practices. Some companies treat quality certification as bureaucratic exercise that enables them to conform to the client requirement or contractual obligations and getting competitive edge in the market (Paton, 1994).

Quality control should remain in the operation of detecting mistakes, finding them as well as fixing them. A system that is unable to bring out an organisations weak and strong points is another challenge .A proper system should allow for feedback, both positive and negative. Lack of a formal system for quality management is not sound for an organisation. Integration of the most relevant of professional systems should not conflict

with policies and priorities. In assessing business excellence (Tanner 2004) they outline that self- assessment results when set against an excellence framework provides an organisation with insights to what their strengths and weaknesses are. The absence of a balanced score card is another challenge as this makes an organisation incapable of developing further strategy for quality assurance. A balanced score card should serve as an instrument for communication, information and learning. Quality procedures must also be reviewed from time to time, what works now may not work in the near future.

Sometimes organisations also focus on the wrong areas in their processes. Analysis should be focused on process rather than function and must be part of Kaizens initiative for continuous improvement.

2.4 Firm's Performance

According to European Foundation for Quality Management (EFQM, 1999) performance is a measure of attainment achieved by an individual. Samson and Terziouski (1999) show that the relationship between TQM practice and performance is significant in cross sectional sense in that TQM practice intensity explains significant proportion of variance in performance. They further show that the categories of leadership, management of people and customer focus are the strongest significant predictors of organizational performance. Firms must align their TQM innovations and implementation to improve performance. The goal of TQM is to improve performance. Although many researchers suggest that total quality management (TQM) is likely to improve a company's competitive position, particularly with regard to performance improvement, little evidence is available to support this hypothesis. It is difficult to generalize about the extent to which the implementation of TQM along with related business strategies actually impact on a firm's performance.

Firms with effective TQM implementation can accomplish the internal benefits such as improving quality, enhancing productivity enhancement, or realizing better operating income (Corbett *et al.*, 2005; Hendricks and Singhal, 1997). Secondly, from the financial performance perspective, careful design and implementation of consistent and

documented quality management systems can contribute significantly to superior financial performance (Corbett *et al.*, 2005). Many highly competitive and world class organizations have implemented TQM strategy in order to continually seek better performance (Abas and Yaacob, 2006)

The business balanced score approach which is an overall method of evaluating performance helps to focus on both the qualitative and quantitative measures, which are the main ethos of performance measurement. A company's performance is of importance when investigating the effectiveness of TQM innovations. Prajogo and Sohal (2004) stated that different practices embodied in TQM show a different role in predicting different types of performance. This study measured performance through four indicators; Employee satisfaction indicators, Customer satisfaction indicators, Financial performance, Operational performance and Organizational performance.

A successful TQM environment requires a committed and well-trained work force that participates fully in quality improvement activities. Such participation is reinforced by reward and recognition systems which emphasize the achievement of quality objectives. On-going education and training of all employees supports the drive for quality. According to Oakland (2000), TQM is user-driven. Recognizing efforts in furthering the Total Quality Management (TQM) goals of a firm and rewarding outstanding accomplishments by individuals, teams and working groups using TQM stresses that quality is a team effort.

For a business the customer comes first. Customer satisfaction is seen as the company's highest priority. The company believes it will only be successful if customers are satisfied. A firm should be sensitive to customer requirements and respond rapidly to them. In the TQM context, being sensitive to customer requirements' goes beyond defect and error reduction, and merely meeting specifications or reducing customer complaints. For NGOs their customers would be their donors, beneficiaries, stakeholders as well as their vendors. Feedback is important as a performance measure. Internally, management should let employees know in what areas they're doing well and in what areas they need to improve. Externally an organization can get feedback on its performance through

feedback from stakeholders such as donors, vendors and customers. They must in turn use the feedback to strengthen and improve on key areas. They may also provide evidence as to whether an organization is fulfilling its goals and meeting stakeholder expectations, thus enjoying good reputation through performance and prudent use of donor funds. Performance measurement allows greater comparability over time and between units; it helps to identify best practice and facilitate new learning (Paton 2003).

Firms generally strive for profit maximization, creating as much shareholder value as possible. To be able to show to their shareholders the value created, performance measurement serves as an important tool. Evidently, businesses and organizations are under great pressure from external actors to perform optimally and make profits. Effectiveness refers to the extent to which customer requirements are met, while efficiency is a measure to how economically to firms' resources are utilized when providing customer satisfaction (Fooks, 1992). Minimization of extent of expenditure and resources (money, time, information) in a process to get an output (result) is known as efficiency. Effectiveness is how well the process achieves its desired output and the desired output is what its user requires. The idea of organizational effectiveness is especially important for non-profit organizations as most people who donate money to nonprofit organizations and charities are interested in knowing whether the organization is effective in accomplishing its goals. Organizations must document their use of funds through proper records in form of accounts which must also be audited. This is a requisite for further funding in most cases.

Many organizations define TQM elements, in some format, as a set of core values and principles on which the organization is to operate. There is no standard or hard-line procedure for implementing TQM. Every company can practice TQM in a manner it deems best for its organization. However, a company's TQM program must always be structured and internally standardized, this means everyone within an organization must practice TQM in the structured manner set forth by management. A management commitment to improvement will be pointless if the workforce is not motivated enough to get involved in this effort.

Documented procedures for all key processes must be in place and must be clear to all. An organisation will also measure its performance by the number of new innovations not just introduced but also successfully carried out. This may be based on previous recommendations or in the spirit of continuous improvement. Organisations should learn from past mistakes, whether their own or others. This also gives a chance not only for remedy but also for improvement and reduces inefficiencies. Project outcomes describe to what degree an organization has achieved its missions both short and long term. This is indicated through satisfaction of the various stakeholders. Measuring impact will show all the changes both intended and unintended derived from an organization's activities. This also gives rise to effectiveness of an organization.

Oakland (2003) emphasizes that TQM is about teamwork; every functional department must work cohesively together and support each other in order to achieve business excellence. The effectiveness of teamwork determines the success of TQM in each organization. The external environment encompasses all issues, occurrences, trends, etc. that are peripheral to the corporation and beyond the control of the organization. The internal environment relates to all aspects within the confines of the organization and generally is within the control of the organization. Both environments exert significant influence over the formation of a company's strategy and its degree of success. Change in the strategic environment is a continuous process and an organization must be prepared to quickly adapt to such changes as they arise. These include changes in information Technology, global changes as well as demographic changes.

Tandon (2002) viewed organizational performance as being related to the measurement of whether or not set goals and objectives have been met. To become a world-class organization, companies must know what others are doing in the market. Therefore it is important for them to search for best practices and methods to manage their activities. One way to achieve best practices is through benchmarking. The basic tenet of benchmarking is that, for an organization, to improve its performances, it must be able to measure its current performance against that of others as well as against its own previous performance (McMann and Nanni, 1994). Bench-marking is a process whereby

organizations pursue enhanced performance by measuring their processes and practices against those in other organizations. Comparisons may be made with competitors, partners, and organizations with similar processes operating in different spheres, and even other parts of the same organization (Neely 2002). Benchmarking as a strategy can be used to measure performance and identify performance gaps, as well as bring innovative ideas into organizational processes, thus improving organizational management (Czarnecki 1999).

No two organizations have the same TQM implementation or the same outcomes in terms of performance. There is no standard recipe for organization success. For an organization to continuously meet consumer needs and expectations performance in all levels is important.

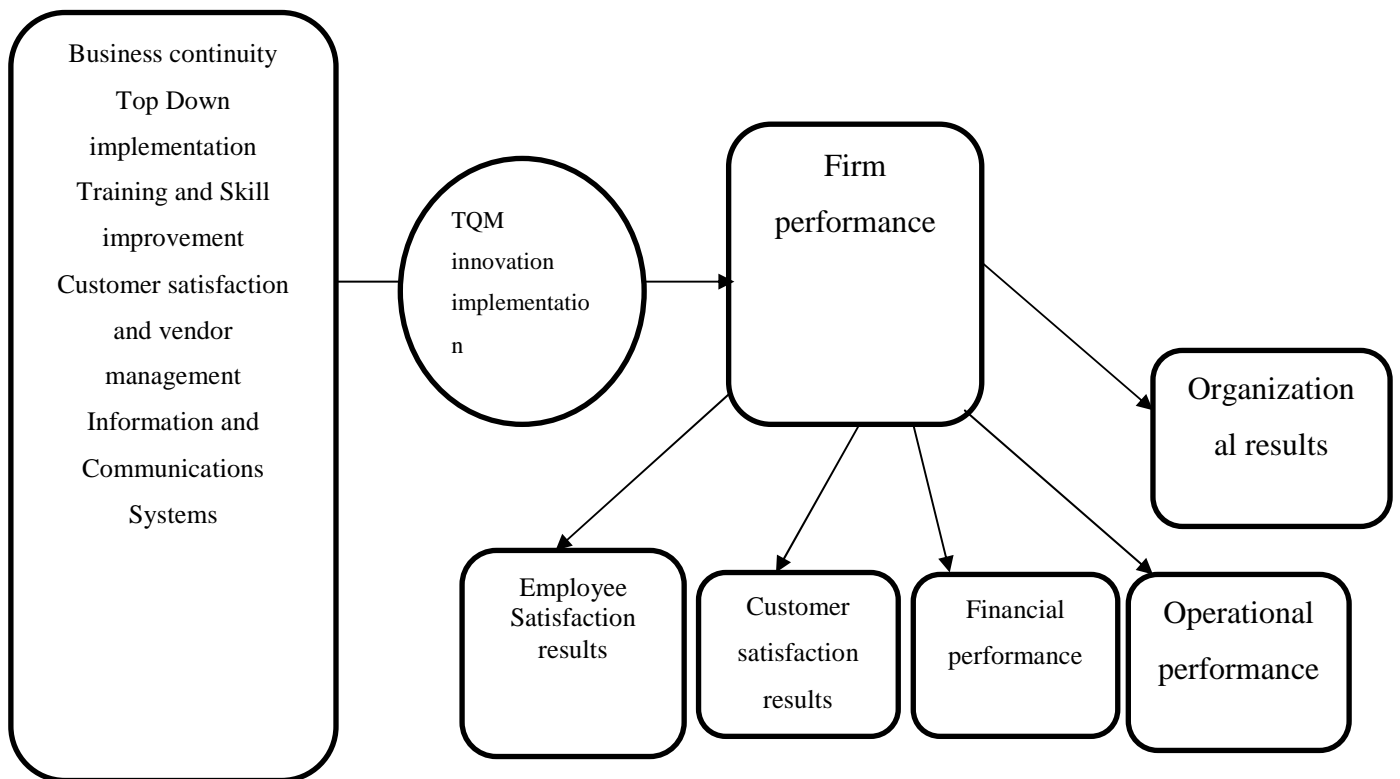
2.5 TQM innovation and firm performance model.

Conceptual framework

The conceptual framework of this study demonstrates the relationship between TQM innovation on one hand as the dependent variable and performance improvement as the independent variable through exploring the overall firm performance subsequent to implementing the innovations.

Independent variable

Dependent variable



CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Research Design

This study adopted a descriptive survey design. This is because the study aimed at giving an accurate description on the total quality management innovations and performance improvement among non-governmental organizations in Nairobi County, Kenya. A descriptive research is more rigorous than exploratory research and seeks to find out who, what, when and how, aspects of the research (Cooper and Schindler, 2006).

This study is a survey research. It is deemed appropriate because the research involves seeking information from managers experienced in total quality management innovations and performance improvement among Non-Governmental Organizations. A cross-sectional study shall be carried out once and the sample population to make measurements at a specific point in time (Lewis, Saunders and Thornhill, 2011).

3.2 Target Population

The target population for this research comprised of registered NGOs operating in Nairobi County, these are a total of 47 organizations. Population is the entire group of individuals, events or objects having common characteristics (Mugenda and Mugenda, 2003).

3.3 Data Collection

Primary data was collected. A semi-structured questionnaire was used to collect data. A census was carried out on all the 47 NGOs listed. According to Mugenda and Mugenda (2003) questionnaires are suitable to obtain important information about the population. Orodho (2004) said this method reaches large number of subject who are able to read and write independently. Total quality management innovations and performance improvement among non-governmental organizations questions were used in order to obtain specific information by providing a list of possible alternatives from which the respondents selected the answer that best described their opinion, while benefits accruing

from total quality management innovations and performance improvement among non-governmental organizations will be used in order to allow respondents to express their feeling and opinion. The study collected information from Administration Managers, from each of the listed Non Governmental Organizations operating in Nairobi County, Kenya.

3.4 Data Analysis

Data from the field was edited and coded according to themes which emanated from the research objectives and questions. Descriptive statistical techniques was analysed in data analysis. Factor analysis was used to reduce the variations in the innovations and TQM challenges. Using the data regression was also used to identify the relationship between TQM and performance improvements.

Descriptive statistics such as mean and percentages were utilized to analyse demographic information and the likert type of responses. Responses obtained from questionnaire were organized, tabulated and analyzed through the use of simple frequencies and percentages. Regression in the relationship between Performance Improvement and TQM innovations was analysed using the basis

$$P = \beta_0 + \beta_1 BCI_1 + \beta_2 TI_2 + \beta_3 TDI_3 + \beta_4 ICT_4 + \dots + e,$$

Where, P is performance, β_0 = constant term, BCI= Business continuity innovations, TI=Training innovations, TDI =Top down Implementation innovations
ICT=Information and Communication systems Technology, E=Error term

CHAPTER FOUR

DATA ANALYSIS AND DISCUSSIONS

4.1 Introduction

This chapter discusses the findings of the study. The purpose of the study was to determine the relationship between Total Quality Management Innovations and performance among NGOs in Nairobi County, Kenya. The researcher made use of frequency tables and figures to present data. Data composed was collated and reports were produced in form of tables and figures and qualitative analysis.

4.2 Response Rate

Table 4.1: Response Rate

	Number issued	Number returned	Response rate
Questionnaire	47	40	85.10%

A total number of 47 questionnaires were sent out, and a total of 40 questionnaires collected. This gave a response rate of 85.1%

4.3 Work Experience

Work experience refers to the number of years an employee has worked in a functional department. It also refers to is any experience that a person gains while working in a specific field or occupation. In reference to this study such experience can in turn influence the ability to deal with quality management issues in the given organization.

The respondents were asked to indicate the number of years they had worked in their respective NGOs and the responses were as given in Figure 4.1 below.

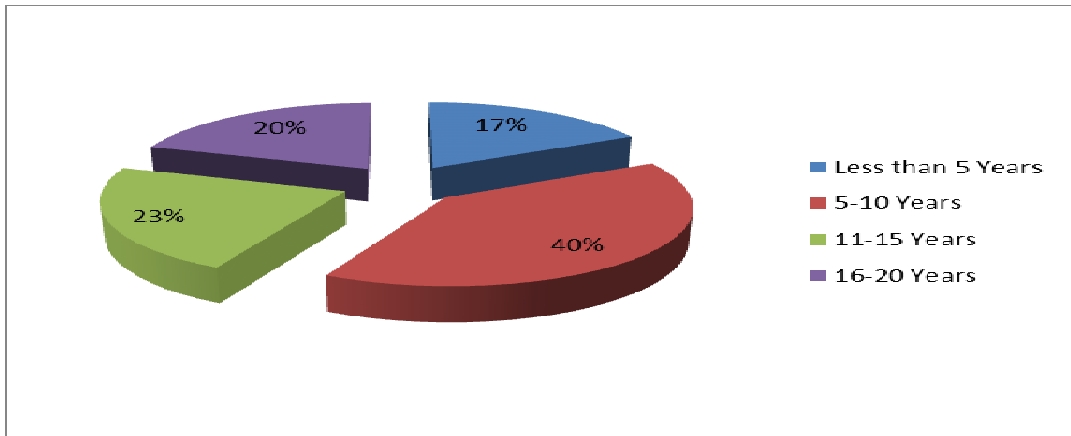


Figure 4.1 Work experience

From the findings in figure 4.1 above 40% of the respondents had worked in the organization for a period of 5-10 years, 23% had worked for a period of above 11-15 years, 20% had worked for a period of 16-20 years while the rest (18%) had served in the organization for a period of over 20 years. This implies that most of the respondents for this study had mastery of the issues being studied.

The findings can be relied on for generalization. Experience is considered important because organizations with experienced personnel are believed to have grown to appreciate the importance of having management structures that are critical for organizational performance. Majority of the respondents had worked for 5-10 years.

4.4 Sector of NGO

NGOs operating in Kenya can be broken down based on their sectors of operation, areas of coverage and objectives. In this study the NGO’s were broken down by Sector of operation. It is worth noting that some of the NGOs work in more than one sector

The respondents were asked to indicate the sector they are working in. The responses are as in the table 4.2 below

Table 4.2 Sector serving in NGO

Sector that NGO belongs to	Frequency	Percentage
Health	6	15
Gender and development	5	12.5
Children's rights	4	10
Human rights	4	10
Environment	4	10
Water & education	3	7.5
Poverty alleviation	3	7.5
Small scale enterprises	3	7.5
Disability	2	5
Peace	2	5
Agriculture	2	5
Training	1	2.5
Counselling	1	2.5
Total	40	100

From the findings, 15% of the respondent were serving in the Health sector, 10% were serving at Human rights, Children's rights and Environment as shown in each case. Further the study, 7.5% of the interviewed respondents were serving ion Water & education, Poverty alleviation and Small scale enterprises as shown in each case, 5% were serving at Disability and Peace sector while 3% were working at Counselling and Training as shown in each case. This implies that the NGOs indeed have presence in numerous sectors. Most of the respondents work for NGOs in the Health sector.

Mbote (2002) pointed out that originally, the concentration of NGOs was largely in social and welfare activities. Today, NGO activities have become more diversified and now cover Environment, energy, Health, food and nutrition, Water and sanitation, population matters, shelter, relief services , programs for disabled people, youth, women , destitute , religion , communication and even education.

4.5 TQM Innovations

Organisations need to be innovative in order to survive and prosper. It is also suggested that TQM provides the necessary platform for inculcating innovation in organisations.

Business Continuity refers to those activities performed daily to maintain service, consistency, and recoverability within an organization.

4.5.1 Implementation of Business continuity Innovations

Business continuity innovations are the key TQM initiatives meant to ensure normal operations of an Organization are carried out even with the potential threats occurring. Such occurrences can affect normal business operations if no plan is in place. In this regard then organizations must try to develop and implement pre-emptive strategies for in order to become resilient.

The respondents were asked to indicate the extent to which they had implemented Business Continuity innovations. The responses were placed on a five likert scale where 1 =very small extent, 2=small extent 3= moderate 4=great extent and 5=very great extent The results are as in the table 4.3 below

Table 4.3 Implementation of Business Continuity Innovations

Business Continuity Innovation	Mean	StDev
The NGO has formed short term problem solving teams to access customer preferences	4.01	1.196
The NGO has formed short term problem solving teams in product design	3.77	1.297
The NGO has formed short term problem solving teams to simplify /solve problems within units	3.7	1.198
The NGO has formed short term problem solving teams to alter supplier relations	3.64	1.284
The NGO has formed short term problem solving teams to simplify and streamline work practices	3.52	1.168

The results imply that the NGOs have to a great extent formed short term problem solving teams to access customer preferences as indicated by a mean of 4.01. Respondents further implied that NGOs have formed short term problem solving teams in product design to a great extent as depicted by mean of 3.77, their NGO has formed short

term problem solving teams to simplify or solve problems within units to a great extent as illustrated by mean of 3.70. Respondents also indicated that their NGO has formed short term problem solving teams to alter supplier relations to a great extent as shown by mean score of 3.64, lastly respondents pointed that NGO has formed short term problem solving teams to simplify and streamline work practices to a great extent as depicted by mean score of 3.52. All these short term problem solving teams have a mandate come up with innovative ways to work around the problems they are facing.

This finding supports the recommendation of the EAC (2011) on the need for training driven towards innovation. A recent survey reports that the single most commonly used TQM practice is formation of short-term problem-solving teams with the overall objective of simplifying and streamlining work practices (conference Board, 1991). As a business continuity factor, problem-solving teams work on a wide variety of tasks, ranging from cross-functional involvement in product design to solving within-unit workflow problems (Hackman and Wageman, 1995).

4.5.2 Implementation of Training Innovations

Training is necessary not only to teach the incremental innovation techniques but also share the philosophy of incremental innovation company widely. Employees should be encouraged and motivated enough so that they may get involved and utilize their improved ability for incremental innovation activities.

The respondents were asked to indicate the extent to which their organization implemented business continuity innovations. The responses were placed on a five likert scale where 1 =very small extent, 2=small extent 3= moderate 4=great extent and 5=very great extent. The results are as in the table 4.4

Table 4.4 Implementation of Training Innovations

Training and skill improvement Innovation	Mean	StDev
The NGO teaches statistical analysis to front line employees	4.15	1.009
The NGO trains using the top down implementation strategy	3.73	0.87
The NGO has invested in problem solving tools	3.47	0.899
The NGO conducts trainings at all levels in the organisation	3.44	0.943

Table 4.4 shows the summary of the study finding on the implementation of training innovation. From the findings the respondents indicated that their NGO teaches statistical analysis to front line employees to a very great extent as shown by mean score of 4.15, respondents also pointed that their NGO trains using the top down implementation strategy to a great extent as depicted by mean score of 3.73. Respondents further purported their NGO has invested in problem solving tools and that the NGO conducts trainings at all levels in the organisation to a great extent as illustrated by mean score of 3.47 and 3.44 respectively.

The findings are in concurrence with those of Mustafa (2012) who found that training and educating managers and staff eases the implementation of TQM system. Many authors have also emphasized on training and education as a vital TQM practices. Sandru and Sandru (2009)) claim that managers, employees and workers need to be familiar with the tools and techniques of TQM in order to be successful in the implementation Business innovations play an important role in quality management. Innovation will only succeed if the quality practices, techniques, and methodologies are used efficiently and effectively. So, it is clear that quality culture and innovative culture overlap with each other as the goal of organization to gain sustainable competitive advantage.

Training is meant to give staff more responsibility, which in turn requires a greater level of skill which must be achieved through training. Skill improvement through training is a necessary condition for successful incremental innovation. That is, skill improvement alone does not assure the good performance but favorable organizational culture for

incremental innovation is additionally required such as supportive institution, incentive systems, leadership, flexible workplace, employees' participation, for instance.

In other words, the effectiveness of training would lower without successful training transfer Training must be a part of the organizations succession planning. In today's business environment any training which is less than visionary will not help the organization meet its' future goals and objectives. Training objectives must be supportive of the company's vision and mission.

4.5.3 Implementation of Top down Innovations

Quality is the responsibility of top management according to the TQM authorities. Most TQM programs begin with the training of top managers in the quality philosophy, followed by the articulation of an organization-wide quality vision and communication of that vision throughout the organization.

The respondents were asked on the extent to which their NGO have implemented Top down Implementation innovations. The responses were placed on a five likert scale where 1 =very small extent, 2=small extent 3= moderate 4=great extent and 5=very great extent. The results were as shown in the table below

Table 4.5 Top down Implementation Innovations

Top down implementation	Mean	StDev
The NGO begins with training of top managers in the quality philosophy	3.74	1.041
The NGO educates about TQM and implementation of TQM practices inn a cascading fashion with each layer carrying message to the next lower level	3.67	1.131
The NGO articulates the organisation- wide quality philosophy and communicates the vision throughout the organisation	3.43	1.021

Most of the respondents were of the opinion that NGO begins with training of top managers in the quality philosophy to a great extent as depicted by mean score of 3.74, The respondents also indicated that their NGO educates about TQM and implementation

of TQM practices in a cascading fashion with each layer carrying message to the next lower level as shown by mean score of 3.67. Finally the respondents said that their NGO articulates the organisation- wide quality philosophy and communicates the vision throughout the organisation to a moderate extent ad illustrated by mean score of 3.43.

The findings are similar with those of Chelegat (2010) that Top down management commitment and participation is one of the critical success factors for TQM implementation. The findings mean that the NGO in Kenya as a quality philosophy begins with training of top managers and educates about TQM and implementation as well as communicating the vision throughout the organisation

TQM must be implemented from the top down in every organization. If management does not have a commitment to a TQM culture, it will fail. The management must provide leadership in implementing the change; the workers do not have the power to do so.

4.5.4 Implementation of Information and communication systems technology innovation

Organizations invest in and implement ICT innovations with a hope to support both the incremental and transformational innovation processes. New ICT techniques give new opportunities for both product and process innovation. Information and Communication Technology (ICT) can have an important impact on the quality of innovations.

The respondents were asked on the extent to which their NGO have ICT systems technology in their organisations The responses were placed on a five likert scale where 1 =very small extent, 2=small extent 3= moderate 4=great extent and 5=very great extent The results were as shown in the table below

Table 4.6 Implementation of Information and communication systems technology innovation

Information and communication systems technology innovation	Mean	StDev
The NGO uses ICT to improve workforce performance	3.84	0.746
The NGO uses e banking	3.70	7.964
The NGO uses mobile phone platforms for communication, alerts, and reminders	3.69	7.968
The NGO uses ICT to improve workforce performance	3.84	0.746
The NGO uses has a website and uses it to communicate organisational information	3.63	0.808
The NGO has invested in modern IT equipment	3.56	0.913
The NGO has an portal used for recruitment as well as tender applications	3.54	0.613
The NGO uses ICT services for improved planning and organizational management.	3.18	0.948

The respondents were asked to indicate the extent to which aspects of Information and communication systems technology innovation have been implemented in their organizations. From the findings in table 4.5 most respondents indicated that their organization moderately used ICT to improve workforce performance to a great extent as depicted by mean score of 3.84; they revealed that their NGO moderately uses e banking and NGO uses mobile phone platforms for communication, alerts, and reminders to a great extent as shown by mean score of 3.70 and 3.69 respectively.

Further respondents indicated that their NGO has a website and uses it to communicate organisational information, and that their NGO has invested in modern IT equipment has an portal used for recruitment as well as tender applications as illustrated by mean score of 3.63, 3.56 and 3.54 respectively. Finally respondents argued that NGO uses ICT services for improved planning and organizational management to a moderate extent as depicted by mean score of 3.18.

This implies that most organizations have actually invested in ICT equipment as well as resources that are ICT based in order to facilitate the work that they are doing. Some of the investment is meant to reduce on resources as well as time and increase efficiency. The findings can be relied upon for generalisation. This was the case for Wanyembi (2002) who indicated that ICT utilization is high, mainly for processing and communication; exploitation, and maintenance of ICT, indicating a realization of benefits that ICT brings as stated in his study. Information technology is increasing important for companies and its effects on global trading are becoming more widely felt

Table 4.7 Communalities

	Initial	Extraction
The NGO has formed short term problem solving teams to simplify and streamline work practices	1.000	.948
The NGO has formed short term problem solving teams in product design	1.000	.993
The NGO has formed short term problem solving teams to simplify solve problems within units	1.000	.962
The NGO has formed term problem solving teams to access customer preferences	1.000	.950
The NGO has formed short term problem solving teams to alter supplier relations	1.000	.956
The NGO has invested in problem solving tools	1.000	.928
The NGO teaches statistical analysis to front line employees	1.000	.982
The NGO trains using the top down implementation strategy	1.000	.943
The NGO conducts trainings at all levels in the organisation	1.000	.882
The NGO begins with training of top managers in the quality philosophy	1.000	.801
The NGO articulates the organisation- wide quality philosophy and communicates the vision throughout the organisation	1.000	.905
The NGO trains using the top down implementation strategy	1.000	.943
The NGO has invested in modern IT equipment	1.000	.734
The NGO uses ICT services for improved planning and organizational management.	1.000	.818
The NGO uses ICT to improve workforce performance	1.000	.605

The NGO uses has a website and uses it to communicate organisational information	1.000	.687
The NGO has an portal used for recruitment as well as tender applications	1.000	.629
The NGO uses mobile phone platforms for communication, alerts, and reminders	1.000	.811
Employees are clear about organization's vision and strategy	1.000	.889
Employees are regularly provided with training in their areas of work and have the skills and knowledge to do their job well	1.000	.838
Managers/supervisors give people the authority they need to do their work effectively	1.000	.920
Team work exists within the organization	1.000	.993
Management provides good leadership and direction for employees	1.000	.962
Employees are given the opportunity to develop new skills	1.000	.950
The organization promotes career development of employees	1.000	.956
Employees are adequately rewarded for their work	1.000	.928
The organization values donors as well as beneficiaries	1.000	.982
Vendors are satisfied with organization's performance	1.000	.943
Donors are satisfied with our organizations performance	1.000	.882
The organization enjoys a good reputation with stakeholders such as government and partners	1.000	.993
Organization promptly resolves customer complaints.	1.000	.962
Over the past few years, the organization has shown steady, measurable cost reduction while maintaining or improving quality.	1.000	.950
The organization has seen an increase in donor funding	1.000	.956
The organization currently has audited financial reports	1.000	.943
The organization has seen an increase in profits (if applicable)	1.000	.928
The organization is able to achieve objectives within their budgets	1.000	.982
The organization has clearly documented procedures	1.000	.943
The organization adapts well to changes in the internal environment	1.000	.882
The organization adapts well to changes in the external environment	1.000	.993
The organization has received recognition from donors or stakeholders	1.000	.948

The number of donors has increased	1.000	.993
The organization has won new projects	1.000	.962
The NGO trains using the top down implementation strategy	1.000	.950
The NGO has formed short term problem solving teams to simplify and streamline work practices	1.000	.956

Extraction Method: Principal Component Analysis.

Table 4.7 shows the communalities obtained through Principal Component Analysis. Communality is the fraction of variance that each item had in common with other items. From the findings, the formation of short term problem solving teams in product design by the NGOs, existence of teamwork within the organization, the adaptation of the organization to the external environment, and the argument that the organization enjoys a good reputation with stakeholders such as government and partners had the highest communality (.993), while the use of ICT by the NGO to improve workforce performance had the lowest communality (.605).

Table 4.8 Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	19.426	44.151	44.151	19.426	44.151	44.151
2	7.984	18.145	62.296	7.984	18.145	62.296
3	3.524	8.010	70.306	3.524	8.010	70.306
4	2.447	5.561	75.867	2.447	5.561	75.867
5	2.421	5.502	81.369	2.421	5.502	81.369
6	1.568	3.563	84.932	1.568	3.563	84.932
7	1.517	3.447	88.379	1.517	3.447	88.379
8	1.172	2.664	91.043	1.172	2.664	91.043
9	.779	1.771	92.814			
10	.749	1.702	94.516			
11	.538	1.223	95.739			
12	.504	1.145	96.884			
13	.400	.909	97.793			
14	.338	.768	98.561			
15	.276	.627	99.188			
16	.130	.295	99.483			
17	.108	.245	99.728			

18	.076	.173	99.900			
19	.035	.080	99.980			
20	.009	.020	100.000			
21	5.381E-16	1.223E-15	100.000			
22	3.445E-16	7.830E-16	100.000			
23	2.951E-16	6.708E-16	100.000			
24	2.846E-16	6.469E-16	100.000			
25	1.587E-16	3.606E-16	100.000			
26	1.329E-16	3.021E-16	100.000			
27	1.172E-16	2.663E-16	100.000			
28	1.062E-16	2.414E-16	100.000			
29	6.949E-17	1.579E-16	100.000			
30	3.331E-17	7.570E-17	100.000			
31	2.105E-17	4.785E-17	100.000			
32	2.517E-18	5.719E-18	100.000			
33	-3.897E-18	-8.857E-18	100.000			
34	-2.292E-17	-5.210E-17	100.000			
35	-5.211E-17	-1.184E-16	100.000			
36	-7.209E-17	-1.638E-16	100.000			
37	-8.981E-17	-2.041E-16	100.000			
38	-1.139E-16	-2.589E-16	100.000			
39	-1.454E-16	-3.304E-16	100.000			
40	-1.813E-16	-4.121E-16	100.000			
41	-2.131E-16	-4.843E-16	100.000			

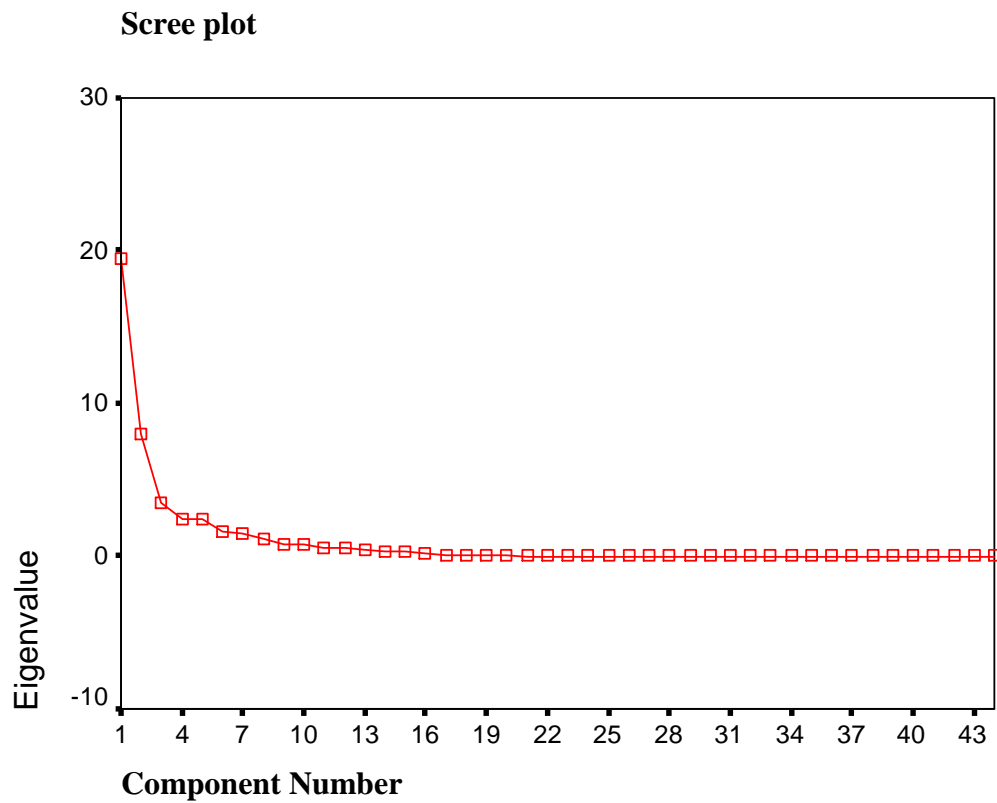
42	-2.887E-16	-6.561E-16	100.000			
43	-1.662E-15	-3.777E-15	100.000			
44	-3.203E-15	-7.280E-15	100.000			

Extraction Method: Principal Component Analysis.

From the table 4.8 above, and through application of Principal Component Analysis, 8 components out of 44 were extracted. The initial Eigen values showed that the first factor explained 44.151% of the variance, the second factor 18.145 % of the variance, the third factor 8.010% of the variance, the fourth (5.561%), the fifth (5.502%), the sixth (3.563%), the seventh (3.447%) and the eighth (2.664%). Other factors had Eigen values of below one. Thus, eight factors were deemed significant for the analysis.

4.6 Scree plot

The scree plot presents a plot of the factor Eigen values against the components numbers. From the plot, it is clear that the curve gradually flattens after the sixth component until the 8th. In other words, the plot shows that the first eight factors are significant.



4.6.1 Factor Rotation

Through Principal component Analysis, the factors were rotated through Varimax with Kaiser Normalization method. The aim here is to ease the interpretation created if the variables have high loadings on the most vital factors. Rotation helps to identify the activities that make up various factors. From the findings the rotations converged at 8 iteration.

Table 4.9: Component Matrix

	Component							
	1	2	3	4	5	6	7	8
Managers/supervisors give people the authority they need to do their work effectively	.900	.306	- .037	- .007	- .034	.041	.002	- .111
The NGO trains using the top down implementation strategy	.872	.331	- .033	- .064	- .154	- .035	- .036	.205
The NGO trains using the top down implementation strategy	.872	.331	- .033	- .064	- .154	- .035	- .036	.205
Vendors are satisfied with organization's performance	.872	.331	- .033	- .064	- .154	- .035	- .036	.205
The organization currently has audited financial reports	.872	.331	- .033	- .064	- .154	- .035	- .036	.205
The organization has clearly documented procedures	.872	.331	- .033	- .064	- .154	- .035	- .036	.205
The NGO articulates the organisation- wide quality philosophy and communicates the vision throughout the organisation	.870	.316	- .069	- .049	- .094	- .104	- .143	- .022
The NGO has invested in problem solving tools	.859	.033	.085	.336	.216	.135	- .058	- .034
Employees are adequately rewarded for their work	.859	.033	.085	.336	.216	.135	- .058	- .034
The organization has seen an increase in profits (if applicable)	.859	.033	.085	.336	.216	.135	- .058	- .034
The NGO has formed short term problem solving teams to alter supplier relations	.818	- .074	- .030	.452	.220	- .022	.140	.086
The organization promotes career development of employees	.818	- .074	- .030	.452	.220	- .022	.140	.086
The organization has seen an increase in donor funding	.818	- .074	- .030	.452	.220	- .022	.140	.086
The NGO has formed short term problem solving teams to simplify and streamline work practices	.818	- .074	- .030	.452	.220	- .022	.140	.086
The NGO has invested in modern IT equipment	.764	.089	.107	- .036	- .060	- .022	- .340	.103

The NGO conducts trainings at all levels in the organisation	.758	.447	- .173	- .158	.040	- .132	.130	- .134
Donors are satisfied with our organizations performance	.758	.447	- .173	- .158	.040	- .132	.130	- .134
The organization adapts well to changes in the internal environment	.758	.447	- .173	- .158	.040	- .132	.130	- .134
The NGO begins with training of top managers in the quality philosophy	.739	.395	- .082	- .250	.076	- .128	- .095	- .008
The NGO teaches statistical analysis to front line employees	.727	.271	.075	- .113	- .208	.462	.140	- .294
The organization values donors as well as beneficiaries	.727	.271	.075	- .113	- .208	.462	.140	- .294
The organization is able to achieve objectives within their budgets	.727	.271	.075	- .113	- .208	.462	.140	- .294
The NGO uses ICT services for improved planning and organizational management.	.655	.451	- .170	- .300	.002	- .183	- .179	.041
The NGO uses mobile phone platforms for communication, alerts, and reminders	.614	.427	- .177	- .375	.080	- .243	- .118	.009
The NGO has formed term problem solving teams to access customer preferences	- .566	.680	- .312	.203	.053	- .134	.014	- .082
Employees are given the opportunity to develop new skills	- .566	.680	- .312	.203	.053	- .134	.014	- .082
Over the past few years, the organization has shown steady, measurable cost reduction while maintaining or improving quality.	- .566	.680	- .312	.203	.053	- .134	.014	- .082
The NGO trains using the top down implementation strategy	- .566	.680	- .312	.203	.053	- .134	.014	- .082
The NGO has formed short term problem solving teams in product design	- .397	.643	.638	.050	.040	.019	.071	.078
Team work exists within the organization	- .397	.643	.638	.050	.040	.019	.071	.078

The organization enjoys a good reputation with stakeholders such as government and partners	- .397	.643	.638	.050	.040	.019	.071	.078
The organization adapts well to changes in the external environment	- .397	.643	.638	.050	.040	.019	.071	.078
The number of donors has increased	- .397	.643	.638	.050	.040	.019	.071	.078
The NGO has formed short term problem solving teams to simplify solve problems within units	- .620	.600	- .394	.080	- .063	.165	.129	.087
Management provides good leadership and direction for employees	- .620	.600	- .394	.080	- .063	.165	.129	.087
Organization promptly resolves customer complaints.	- .620	.600	- .394	.080	- .063	.165	.129	.087
The organization has won new projects	- .620	.600	- .394	.080	- .063	.165	.129	.087
The NGO has an portal used for recruitment as well as tender applications	.387	.273	.394	- .210	- .178	- .338	.224	.092
The NGO uses has a website and uses it to communicate organisational information	- .066	- .015	.291	.026	- .108	- .454	.091	- .609
The NGO has formed short term problem solving teams to simplify and streamline work practices	.083	- .045	- .033	- .426	.800	.015	.341	.008
The organization has received recognition from donors or stakeholders	.083	- .045	- .033	- .426	.800	.015	.341	.008
The NGO uses ICT to improve workforce performance	- .293	- .033	- .061	- .496	.179	.393	- .107	.266
Employees are clear about organization's vision and strategy	.157	- .485	- .120	.009	- .342	- .161	.674	.134
Employees are regularly provided with training in their areas of work and have the skills and knowledge to do their job well	.206	- .419	.009	- .060	- .551	- .066	.523	.186

Extraction Method: Principal Component Analysis.

4.6.2 Isolation of activities for each factor

This technique is based on the factor loadings, which are a correlation between the factors and challenges. Table 4.10 below shows isolation of activities for each factor based on a minimum correlation of 0.4.

Table 4.10: Isolation of activities for each factor

Factor	Variables
Employee Satisfaction	<p>Managers/supervisors give people the authority they need to do their work effectively</p> <p>The NGO trains using the top down implementation strategy</p> <p>The NGO trains using the top down implementation strategy</p> <p>Vendors are satisfied with organization's performance</p> <p>The organization currently has audited financial reports</p> <p>The organization has clearly documented procedures</p> <p>The NGO articulates the organisation- wide quality philosophy and communicates the vision throughout the organisation</p> <p>The NGO has invested in problem solving tools</p> <p>Employees are adequately rewarded for their work</p> <p>The organization has seen an increase in profits (if applicable)</p> <p>The NGO has formed short term problem solving teams to alter supplier relations</p> <p>The organization promotes career development of employees</p> <p>The organization has seen an increase in donor funding</p> <p>The NGO has formed short term problem solving teams to simplify and streamline work practices</p>

<p>Employee training and Customer Satisfaction</p>	<p>The NGO has formed term problem solving teams to access customer preferences</p> <p>Employees are given the opportunity to develop new skills</p> <p>Over the past few years, the organization has shown steady, measurable cost reduction while maintaining or improving quality.</p> <p>The NGO trains using the top down implementation strategy</p> <p>The NGO has formed short term problem solving teams in product design</p> <p>Team work exists within the organization</p> <p>The organization enjoys a good reputation with stakeholders such as government and partners</p> <p>The organization adapts well to changes in the external environment</p> <p>The number of donors has increased</p> <p>The NGO has formed short term problem solving teams to simplify solve problems within units</p> <p>Management provides good leadership and direction for employees</p> <p>Organization promptly resolves customer complaints.</p> <p>The organization has won new projects</p>
<p>Organization structure</p>	<p>The NGO has a portal used for recruitment as well as tender applications</p> <p>The NGO uses has a website and uses it to communicate organisational information</p>
<p>Operational Performance</p>	<p>The NGO has formed short term problem solving teams to simplify and streamline work practices</p> <p>The organization has received recognition from donors or stakeholders</p>

ICT use	The NGO uses ICT to improve workforce performance
Organization's Performance	Employees are clear about organization's vision and strategy Employees are regularly provided with training in their areas of work and have the skills and knowledge to do their job well

Employee Satisfaction: Indicates that performance among NGOs in Nairobi County, Kenya is influenced by the following TQM innovations: managers/supervisors giving people the authority they need to do their work effectively, the NGO training using the top down implementation strategy, the NGO training using the top down implementation strategy, vendor's satisfaction with organization's performance, presence of currently audited financial reports, presence of clearly documented procedures, the NGO articulation of the organisation- wide quality philosophy and communicates the vision throughout the organisation, investment in problem solving tools, employees being adequately rewarded for their work, increase in profits , formation of short term problem solving teams to alter supplier relations, promotion of career development of employees, increase in donor funding, formation of short term problem solving teams to simplify and streamline work practices, investment in modern IT equipment, trainings at all levels in the organisation, donors satisfaction with organizations performance, adaptation to changes in the internal environment, beginning with the training of top managers in the quality philosophy, teaching of statistical analysis to front line employees, the organization that values donors as well as beneficiaries, the organization being able to achieve objectives within their budgets, the uses of ICT services for improved planning and organizational management, and the use of mobile phone platforms for communication, alerts, and reminders.

Employee training and Customer Satisfaction: Indicates that performance among NGOs in Nairobi County, Kenya is influenced by the following TQM innovations: formation of term problem solving teams to access customer preferences, employees being given the opportunity to develop new skills, the organization showing steady,

measurable cost reduction while maintaining or improving quality, training using the top down implementation strategy, formation of short term problem solving teams in product design, existence of team work within the organization, when the organization enjoys a good reputation with stakeholders such as government and partners, adaptation to changes in the external environment, increase in the number of donors, formation of short term problem solving teams to simplify solve problems within units, good leadership and direction for employees, prompt resolution of customer complaints, and winning new projects.

Organization structure: Indicates that performance among NGOs in Nairobi County, Kenya is influenced by the presence of a portal used for recruitment as well as tender applications and a website used in communicating organisational information.

Operational Performance: Indicates that performance among NGOs in Nairobi County, Kenya is influenced by the following TQM innovations: formation of short term problem solving teams to simplify and streamline work practices and recognition from donors or stakeholders.

ICT use: Indicates that performance among NGOs in Nairobi County, Kenya is influenced by use of ICT to improve workforce performance.

Organization's Performance: Indicates that performance among NGOs in Nairobi County, Kenya is influenced by employees being clear about organization's vision and strategy and the fact that employees are regularly provided with training in their areas of work and have the skills and knowledge to do their job well.

4.7 TQM Implementation Challenges

There are a number of barriers that face the process of TQM implementation. Discussed below are some of the barriers or obstacles that NGOs face during implementation total quality management in their respective organizations.

4.7.1 People challenges affecting TQM Implementation

Organizations can encounter a number of difficulties in implementing TQM. Some common barriers include people challenges, management challenges or even challenges within the system. The problems may not be the same across board but may be similar irrespective of the size or type of organisations. An organisation may experience one or two or even all of the problems as indicated.

The respondents were asked on the extent People challenges are affecting TQM implementation in their NGO. The responses were placed on a five likert scale where 1 =very small extent, 2=small extent 3= moderate 4=great extent and 5=very great extent The results were as shown in the table below

Table 4.11 People as a barrier to TQM Implementation

People barriers	Mean	StDev
Problems in people performing jobs effectively	3.71	1.067
Lack of worker output & involvement	3.66	1.027
Lack of teamwork /conflict	3.62	1.133
Communication breakdown	3.43	1.305
Poorly trained workers	3.25	0.91

From the findings most of the respondents pointed that challenges in people performing jobs effectively was to a great extent as depicted by mean score 3.71, respondent also opined that lack of worker output and involvement affects implementation of TQM as shown by mean score of 3.66, Lack of teamwork and conflict affects TQM

implementation to a great extent as illustrated by mean score of 3.62, respondent further indicated that Communication breakdown and Poorly trained workers affected TQM implementation to a moderate extent as depicted by mean score of 3.43 and 3.25 respectively.

This implies that people challenges do affect TQM implementation in various ways. Past research indicates that that most quality improvement research tends to focus on the initial start-up phase of the improvement process and fails to take into account the long-term challenges organizations face in getting past the initial phase of the people problem of the quality improvement (Mann and Kehoe, 1995).

4.7.2 Management as a barrier in TQM Implementation

When management talks TQM, but its actions fail to support the effort, it will ultimately fail to meet expectations. This may lead to mistrust from the lower levels of people within an organisation and may make it difficult to implement TQM in subsequent attempts. For implementation to succeed, management must clearly and frequently communicate the reason for adopting TQM, as if it is another fad.

The respondents were asked on the extent Management challenges are affecting TQM implementation in their NGO. The responses were placed on a five likert scale where 1 =very small extent, 2=small extent 3= moderate 4=great extent and 5=very great extent. The results were as shown in the table below

Table 4.12 Management as a barrier in TQM Implementation

Management as a barrier	Mean	StDev
Lack of resources	3.74	1.041
Improper channels of communication	3.57	0.899
Lack of management support	3.51	0.943
Ineffective supervision	3.35	0.154
Poor planning and organising	3.14	0.947
Conflicting and unrealistic goals	3.03	0.942

Most of the respondents indicated that lack of resources affects implementation of TQM to a great extent as depicted by mean score 3.74, respondents also pointed that improper channels of communication and Lack of management support affects implementation of TQM to a great extent as shown by mean score of 3.57 and 3.51 respectively, poor planning and organising and conflicting and unrealistic goals affects implementation of TQM to a moderate extent as shown by mean score of 3.14 and 3.03 respectively.

This implies that there people challenges that do affect the implementation of TQM innovations with highest frequency being seen in lack of resources and improper channels of communication. Before implementing TQM, management should strive for an organization wide commitment, clearly communicate the organization’s vision, mission, and goals, and foster open communication about the organization’s changed focus.

4.7.3 Barriers of TQM System in Implementation of TQM

TQM systems problems include ineffective corrective action procedures, people not aware that quality problems exist (ineffective feedback mechanisms), ineffective measurement procedures, unrealistic quality standards, and technology and equipment problems.

The respondents were asked on the extent TQM system challenges are affecting TQM implementation in their NGO. The responses were placed on a five likert scale where 1 =very small extent, 2=small extent 3= moderate 4=great extent and 5=very great extent

The results were as shown in the table below.

Table 4.13 Barriers of TQM System in Implementation of TQM

Barriers of TQM System in Implementation	Mean	StDev
Technology and equipment problems	3.66	1.027
Ineffective performance measure procedures	3.62	1.133
Ineffective feedback mechanisms	3.27	1.305
Unrealistic quality standards	3.25	0.91
Ineffective corrective action procedures	3.15	1.009

Most of the respondents said that Technology and equipment problems and Ineffective performance measure procedures affects Implementation of TQM to a great extent as shown by mean score of 3.66 and 3.62 respectively. On other hand respondent purported that Ineffective feedback mechanisms, Unrealistic quality standards and Ineffective corrective action procedures affects Implementation of TQM to a moderate extent as shown by mean score of 3.27, 3.25 and 3.15 respectively.

This implies that most respondents for this study are aware that there are indeed system problems that do affect TQM implementation. Identification of the relevant tools and techniques pertinent to each different element is required for success of each system. Organisations must strive to build in Quality Improvement throughout their units and across their organizations. For this there must be strong and measurable systems that can in turn inform decisions meant to improve TQM in the organization.

Table 4.14: Rotated Component Matrix for TQM Implementation challenges

Rotated Component Factor Analysis For TQM Implementation challenges	Component	
	People Challenges	Management Challenges
Problems in people performing jobs effectively	0.838	
Communication breakdown	0.731	
Lack of teamwork /conflict	0.704	
Poorly trained workers	0.677	
Ineffective supervision		0.723
Conflicting and unrealistic goals		0.715
Poor planning and organising		0.702
Ineffective feedback mechanisms		0.616
Technology and equipment problems		0.615
Unrealistic quality standards		0.614
Eigen Values	2.693	2.474
Variance %	26.93	24.74
Cumulative %	26.93	51.67

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. A rotation converged in 3 iterations

Table 4.8 above presents two components contributing up to 51.67% of the variance to TQM Implementation challenges were extracted with people challenges more (26.9%) than management challenges which had (24.7%). Eigen values explain the summed contribution of responses to the questionnaire items to each generated component. Since the largest Eigen value of 2.693 corresponds to people challenges, this is a component that claims most of the responses.

4.8 Firm Performance Measures

Performance measures should aim at the long-term and should be forward-thinking initiative designed to fundamentally change the way corporations do business. It is not a post-mortem of what happened but a step towards how to do better in the future. The reasons for measuring firm's performance include to know the value of a firm as well as reward employee for contributing to increase in firm value

4.8.1 Employee Satisfaction among NGOs

Employee satisfaction is the terminology used to describe whether employees are happy and contented and fulfilling their desires and needs at work. Many measures purport that employee satisfaction is a factor in employee motivation, employee goal achievement, and positive employee morale in the workplace.

The respondents were asked to rate the extent of employee satisfaction in their NGO. The responses were placed on a five likert scale where 1 =very small extent, 2=small extent 3= moderate 4=great extent and 5=very great extent

The results were as shown in the table below.

Table 4.15 Employee Satisfaction Indicators

Employee Satisfaction Indicators	Mean	StDev
Employees are given the opportunity to develop new skills	3.76	1.044
Management provides good leadership and direction for employees	3.73	0.895
Team work exists within the organization	3.71	1.067
Employees are adequately rewarded for their work	3.66	1.063
Employees are clear about organization's vision and strategy	3.54	1.121
The organization promotes career development of employees	3.49	1.186
Managers/supervisors give people the authority they need to do their work effectively	3.14	0.947
Employees are regularly provided with training in their areas of work and have the skills and knowledge to do their job well	3.03	0.942

Table 4.12 shows the extent to which employee satisfaction measures as an indicator of firm performance. From the findings, most of the respondents stated that Employees are given the opportunity to develop new skills, Management provides good leadership and direction for employees and team work exists within the organization to a great as indicated by mean score of 3.76, 3.73 and 3.71 respectively. Likewise, respondents pointed that Employees are adequately rewarded for their work and that Employees are clear about organization's vision and strategy as shown by mean score of 3.66 and 3.54 in each case. On the other hand respondents purported that the organization promotes career development of employees managers/supervisors give people the authority they need to do their work effectively and that employees are regularly provided with training in their areas of work and have the skills and knowledge to do their job well to a moderate extent as depicted by mean score of 3.49, 3.14 and 3.03.

This is in line with the findings of Onguso (2010) in his study that reviewed job compensation as one of the factors affects satisfaction. The findings also concur with Omega (2012) who found out that organizational culture dimension of organizational supportiveness, emphasis on rewards, performance orientation and innovation orientation have a direct relationship with the job satisfaction of employees.

This implies that NGO in Kenya gives the staffs the opportunity to develop new skills, provides good leadership and direction for them as well as integration of team work within the organization

The findings mean that NGOs have realized ways to make employees happy and contented and fulfilling their desires and needs at work. Many measures purport that employee satisfaction is a factor in employee motivation, employee goal achievement, and positive.

4.8.2 Customer Satisfaction

One of the most important factors for the success of an enterprise is its customers. Without them, a business cannot exist. But to capture customers, a business must try to find out what people want, how much and how often they will buy and how their post-purchase satisfaction will be ensured. Customers include the internal user, the external customer or end-user, together with the other stakeholders, i.e. shareholders, employees and suppliers.

The respondents were asked to rate the extent of customer satisfaction in their NGO. The responses were placed on a five likert scale where 1 =very small extent, 2=small extent 3= moderate 4=great extent and 5=very great extent

The results were as shown in the table below.

Table 4.16 Customer Satisfaction

Customer satisfaction	Mean	StDev
Vendors are satisfied with organization’s performance	4.50	3.303
The organization enjoys a good reputation with stakeholders such as government and partners	4.49	0.595
The organization values donors as well as beneficiaries	4.48	0.811
Organization promptly resolves customer complaints.	4.41	0.61
Donors are satisfied with our organizations performance	4.24	0.661

Table 4.13 illustrates the findings of the study on extent to which customer satisfaction has been experienced within the organization. Most respondents argued that vendors are

satisfied with their organization’s performance; the organization enjoys a good reputation with stakeholders such as government and partners and the organization values donors as well as beneficiaries to a very large extent as illustrated by mean of 4.50, 4.49 and 4.48 respectively. On the other hand respondents purported that organization promptly resolves customer complaints and that donors are satisfied with our organizations performance to a large extent as shown by mean score 4.41 and 4.24 respectively.

This implies that to a very great extent customers are are satisfied, based on the areas on which the researcher asked questions. The findings can be relied upon for genrelaization. This was the case for Awino (2012) who indicated customer satisfaction as one of the variables with a strong drive towards competitive advantage.

4.8.3 Financial performance

Financial performance is the key to a sound organization in terms of meeting the key requirements to run it. The respondents were required to indicate the extent to which TQM implementation improved financial performance of the NGOs.

Table 4.17 Financial performance

Financial performance	Mean	StDev
The organization is able to achieve objectives within their budgets	4.24	0.699
The organization has seen an increase in profits (if applicable)	4.02	1.06
The organization has seen an increase in donor funding	3.76	1.044
Over the past few years, the organization has shown steady, measurable cost reduction while maintaining or improving quality.	3.73	0.895
The organization currently has audited financial reports	3.49	1.186

From the findings most of the respondents indicated that the organization is able to achieve objectives within their budgets, the organization has seen an increase in profits (where applicable), organizations have seen an increase in donor funding and that over the past few years, the organization has shown steady, measurable cost reduction while maintaining or improving quality to a great extent as shown by mean score of 4.24, 4.02,

3.76 and 3.73 respectively. Likewise respondents indicated that the organization currently has audited financial reports which depict improved organization performance to a great extent as shown by mean score of 3.49.

This implies that to a great NGO financial performance improved based on TQM innovations implemented. According to Allen and Rai (1996), financial performance indicates how well a firm uses assets from its primary mode of business and generates revenues. The integration of TQM indicates the firm's overall financial health over a given period of time, and can be used to compare similar firms across the same industry or to compare industries or sectors in aggregation.

4.8.4 Operational Performance

This is a firm's performance measured against standard or prescribed indicators of effectiveness, efficiency, and environmental responsibility such as, cycle time, productivity, waste reduction, and regulatory compliance.

The respondents were to indicate the extent to which TQM implementation improved Operational performance of their respective NGOs. The results are as in the table below

Table 4.18 Operational performance Indicators

Operational performance Indicators	Mean	StDev
The organization is effective at reducing inefficiency throughout the organization	3.76	1.044
The organization has implemented new innovations in the past 6 months	3.73	0.895
Employees are clear about the values and practices required for the organization to be successful	3.66	1.063
The organization has clearly documented procedures	3.49	1.186
The organization learns from past experiences so that mistakes are not repeated	3.1	0.889

From the findings respondents purported that the organization is effective at reducing inefficiency throughout the organization, the organization has implemented new

innovations in the past 6 months and that employees are clear about the values and practices required for the organization to be successful to a great extent as shown by mean score of 3.76, 3.73 and 3.66 respectively. Further respondents argued that their organizations have clearly documented procedures and that the organization learns from past experiences so that mistakes are not repeated which has resulted in improved organization performance to a moderate extent as indicated by mean score of 3.49 and 3.10 respectively.

The findings imply that the NGOs are effective at reducing incompetence as well as implementing new innovations. The integration of TQM look at how well the NGOs turn its assets into revenue as well as how efficiently a company converts its sales into cash. Basically, this integration efficiently and effectively a company is using its resources to generate sales and increase shareholder value. In general, the better this factor is, the better it is for shareholders.

4.8.5 Organization Performance

NGO organization performance can be evaluated in terms of the number of donors, projects carried out, adapting to internal environment as well as external environment. The respondents were to indicate the extent to which TQM implementation improved Operational performance of their respective NGOs. The results are as in the table below

Table 4.19 Organization Performance

Organization performance Indicators	Mean	StDev
The number of donors has increased	4.1	0.768
The organization has documented tangible project outcomes and impact	3.8	0.749
The organization adapts well to changes in the internal environment	3.76	0.888
The organization has won new projects	3.68	0.722
The organization has embraced benchmarking and adopting best practices from other international organizations	3.61	0.862
The organization adapts well to changes in the external environment	3.56	1.141
The organization's structure helps different departments/regions to work together effectively	3.54	1.185
The organization has received recognition from donors or stakeholders	3.05	0.947

Table 4.17 summarizes extent to which TQM implementation influence organization performance within NGOs. According to the findings respondent indicated that the number of donors has increased, the organisation has documented tangible project outcomes and impact and that the organization adapts well to changes in the internal environment to a great extent as depicted by mean score of 4.10, 3.80 and 3.76 respectively. On the same the respondents pointed that the organization has embraced benchmarking and adopting best practices from other international organizations has improved organization performance to a great as shown by mean score 3.68 and 3.61 respectively. The respondents also indicated that their organizations adapt well to changes in the external environment, the organization's structure helps different departments/regions to work together effectively and the organization has received recognition from donors or stakeholders has improved organization performance to a great extent as shown by mean score of 3.56, 3.54 and 3.05 in each case.

The findings imply that most of the organizations have performed well in terms of the number of donors, adapting well to changes in the internal environment as well as winning new projects. As shown by Prajogo and Sohal (2004) A company's performance is of importance when investigating the effectiveness of TQM innovations. stated that different practices embodied in TQM show a different role in predicting different types of performance.

4.9 The relationship between TQM innovation and Performance improvement

To compute the correlation (strength) between the study variables and their findings the researcher used the Karl Pearson's coefficient of correlation (r).

Table 4.20 Coefficient of Correlation

		Performance	Business continuity innovations	Training innovations	Top down innovations	customers satisfaction and ICT
Performance	Pearson Correlation	1				
	Sig. (2-tailed)					
Business continuity innovations	Pearson Correlation	.523	1			
	Sig. (2-tailed)	.0032				
Training innovations	Pearson Correlation	.6140	.3421	1		
	Sig. (2-tailed)	.0021	.0014			
Top down innovations	Pearson Correlation	.7460	.1240	.0621	1	
	Sig. (2-tailed)	.0043	.0120	.0043		
customers satisfaction and ICT	Pearson Correlation	.5210	.3420	.0000	.1660	1
	Sig. (2-tailed)	.0172	.0031	1.000	.0031	

From the findings, it was clear that there was a positive correlation between performance and business continuity innovations as shown by a correlation figure of 0.523, it was also clear that there was a positive correlation between performance improvement and top training innovations with a correlation figure of 0.6140, there was also a positive correlation between performance improvement and Top down innovations with a correlation value of 0.7460 and a positive correlation between performance improvement and Information and Communication systems Technology with a correlation value and Business continuity innovations, Training innovations, Top down Implementation innovations and Information and Communication systems Technology.

Further the researcher conducted a multiple regression analysis so as to determine relationship between Performance Improvement and TQM innovations. The researcher applied the statistical package for social sciences (SPSS) to code, enter and compute the measurements of the multiple regressions for the study.

Table 4.21 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.913	0.834	0.751	0.4538

Coefficient of determination explains the extent to which changes in the dependent variable can be explained by the change in the independent variables or the percentage of variation in the independent variable (Performance) that is explained by all the five dependent variables (Business continuity innovations, Training innovations, Top down Implementation innovations, customer satisfaction and Information and Communication systems Technology).

The five dependent variables that were studied, explain only 83.4% of the Performance as represented by the adjusted R^2 . This therefore means that there are other factors not studied in this research contribute 16.6% performance improvement. Therefore, further research should be conducted to investigate the other factors (16.6%) that influence Performance Improvement.

Table 4.22: ANOVA of the Regression

Model		Sum of Squares	Degree of freedom	Mean Square	F	Sig.
1	Regression	2.113	15	0.528	10.012	.000
	Residual	15.554	25	0.522		
	Total	16.667	40			
a. Predictors: (Constant), Business continuity innovations, Training innovations, Top down Implementation innovations, customers satisfaction and Information and Communication systems Technology						
b. Dependent Variable: Performance						

In this case, the significance value of the F statistic is 0.000 indicating that all the independent variables (Business continuity innovations, Training innovations, Top down Implementation innovations, customer's satisfaction and Information and

Communication systems Technology) explain variation in Performance among the NGOs.

4.9.1 Regression Coefficient

Multiple regression analysis was conducted as to determine the relationship between performance improvement and TQM innovations and the four variables.

Table 4.23 Regression Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.308	1.342		1.623	0.357
Business continuity innovations	0.558	0.310	0.172	4.342	.0276
Training innovations	0.731	0.156	0.210	3.532	.0285
Top down Implementation innovations	0.785	0.322	0.067	3.542	.0202
customers satisfaction and Information Communication Technology	0.620	0.245	0.148	3.458	.0249

As per the SPSS generated table 4.19, the equation

$(Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \varepsilon)$ becomes:

$$Y = 1.308 + 0.558X_1 + 0.785X_2 + 0.620X_3 + 0.731X_4$$

The regression equation above has established that taking all factors into account (Business continuity innovations, Training innovations, Top down Implementation innovations, customers satisfaction and Information and Communication systems Technology) constant at zero, performance improvement will be 1.308. The findings presented also shows that taking all other independent variables at zero, a unit increase in Business continuity innovations will lead to a 0.558 increase performance improvement; a unit increase in Training innovations will lead to a 0.731 increase performance improvement; a unit increase in Top down Implementation innovations will lead to a

0.785 increase in performance improvement and a unit increase in Information and Communication systems Technology will lead to a 0.620 increase in performance improvement. This infers that Top down Implementation innovations contributes most to performance improvement followed by Training innovations then Information Communication Technology while Business continuity innovations plan least contributes the performance.

4.10 New Knowledge Frontier

Future studies may be carried out regarding the relationship between TQM innovations and performance in organizations. One reason for this is that this research found that there was significant improvement in performance as a result of implementation of TQM innovations. It is therefore highly likely that for the study findings to change in the near future hence further study is highly recommended. It would also be prudent for future researchers to study how TQM practices affect performance of organizations as a guideline to which TQM efforts the organizations should employ in order maximize their performance and increase donor confidence.

It is also evident that most organizations do practice TQM. Other studies may be carried out to find out if there are organizations that do not practice TQM and if not , how they are able to achieve the same results such as increased donor funding and improved efficiencies as well as better organizational performance.

The study findings also reveal a high percentage of the NGOs are working in the health sector (15%) . Future studies to find out the reason for this high concentration on health sector would be an ideal start point. More research drawing upon a comparison on the concentration or specialization in various sectors over period of time would be ideal as well as a study on the possibility of changes or shifts in such percentage exists and the reasons thereof.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the summary of the data findings relationship between TQM Innovations and Performance Improvement, the conclusions and recommendations are drawn there to. The chapter is therefore structured into summary of findings, conclusions, recommendations and area for further research.

5.2 Summary of the Findings

The objectives of this study were to determine the TQM innovations used by NGOs in Nairobi County, Kenya, to establish the challenges facing the implementation of TQM innovation in NGOs in Nairobi County, Kenya and to determine the relationship between TQM innovations and performance among NGOs in Nairobi County, Kenya.

On TQM Innovations adopted by NGOs, the study found that Implementation of Business Continuity Innovations has resulted to NGOs forming short term problem solving teams that have been best useful in helping to access customer preferences. Short term problem teams have also been useful to a great extent in product design and in simplifying problem solving within units to a great extent. The findings also indicate that under Training Innovations, NGOs teach statistical analysis to front line employees as well as train using the top down implementation strategy to a great extent. The NGOs have also to a great extent invested in problem solving tools and conduct trainings at all levels in the organisation. On Top down Implementation Innovations, the study revealed that NGOs begin by training of top managers in the quality philosophy and that they educate them about TQM and implementation of TQM practices in a cascading fashion with each layer carrying message to the next lower level to a great extent. On Information and communication systems technology innovation, the study found that NGOs use ICT to improve workforce performance and that NGOs have adopted to technology by using

e banking as well as use of mobile phone platforms for communication, alerts, and reminders to a great extent. NGOs have also invested in modern IT equipment.

The findings also reveal the challenges affecting TQM Implementation. People challenges such as ineffective job performance, lack of worker output and involvement as well as lack of teamwork are seen to a great extent. The study also revealed Management challenges such as lack of resources, improper channels of communication and lack of management support affects implementation of TQM to a great extent. The study also found that Technology and equipment problems and Ineffective performance measure procedures affect implementation of TQM to a great extent under TQM System challenges.

With the implementation of the innovations mentioned above, firms have been able to witness varied performance. The first of such performance measure is employee satisfaction where the findings indicated that Employees are given the opportunity to develop new skills, management provides good leadership and direction for employees and team work exists within the organization to a great extent. Under customer satisfaction, the results pointed that as a result of implementing the innovations vendors are satisfied with organization's performance; the organizations enjoy a good reputation with stakeholders such as government and partners and that the organizations value their donors as well as beneficiaries to a very large extent. The findings also reveal that under Financial performance, the organizations are able to achieve objectives within their budgets, the organizations have seen an increase in profits (where applicable), organizations have seen an increase in donor funding and that over the past few years, the organization have shown steady, measurable cost reduction while maintaining or improving quality to a great extent. On operation performance, the study found that implementation of the innovations have made organizations to be effective in reducing inefficiency throughout the organization and that the organizations have been able to implement new innovations in the past 6 months and finally that employees are clear about the values and practices required for the organization to be successful to a great extent. On Organization Performance, the study indicated that the number of donors has

increased and that the organizations adapt well to changes in the internal environment to a great extent.

5.3 Conclusions

Based on the results from data analysis and findings of the study, one can safely conclude the following, First, the role of leadership is key and in most cases has a positive impact on TQM implementation to a great extent. Top down implementation where training begins with top level and then cascades to the lower level results in both the leadership owning the process as well as gaining knowledge thus getting easy buy in from the lower levels.

Secondly, ICT plays a role to a great extent in facilitating processes and bringing about efficiencies in various ways. Organizations thus continue to invest in modern equipment to keep abreast with technology. Third, to a great extent challenges do affect implementation of TQM innovations. People challenges, management challenges as well as TQM system challenges all do affect implementation of TQM to a great extent.

Fourth, with TQM innovations implemented, Employee satisfaction, customer satisfaction, improved financial performance has been witnessed to a great extent. Finally, Operational performance show positive indicators to a great extent such as effectiveness, efficiency, while overall organizational performance is positively impacted by the innovations and evidenced through increased donors, well documented project outcomes , and the organization easily adapting to changes in the internal environment .

5.4 Recommendations

The findings imply major challenges in TQM implementation such as problems in people performing their jobs effectively, lack of resources as well as problems with Technology and equipment. The study recommends that organizations should find ways to overcome these barriers and should look at the causes of people not performing jobs effectively. The study also recommends for organizations to think about the correct resources required for each of their organisations. Whereas there is heavy investment in systems and equipment they must also be suitable and right for each given situation and may vary from one organization to another. The study recommends that all staff to be taught on

application of IT in TQM practices so that the entire organization also understands the role of IT in TQM implementation and come up with long lasting solution.

5.4 Areas of Further study

This study investigated on the relationship between Performance Improvement and TQM innovations with specific focus to NGOs. The study suggests that further research to be done on challenges affecting implementation of TQM innovation within organization. The study also recommends that further study be done on the impacts of effective implementation TQM innovation on organization performance so as to depict a reliable result that can be employed in improving organization by focusing both negative and positive effects.

TQM implementation has positive effects on overall firm performance. However such positive effects should be examined in detail to see if they are sustainable and continuous studies carried to verify if this then remains true in the long run. It would be good to know then the advantages and disadvantages of TQM implementation.

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APPENDICES

APPENDIX I: Questionnaire

1. Your designation.....
2. Year of establishment (of NGO).....
3. How many years have you worked for this organization? (Tick (√) where appropriate).
 - a) Less than 5 Years []
 - b) 5-10 Years []
 - c) 11-15 Years []
 - d) 16-20 Years []
 - e) 20 Years and above []
4. Kindly indicate the sector that the NGO belongs to? (Tick (√) where appropriate).

Agriculture	[]
Water education	[]
Environment	[]
Health	[]
Human rights	[]
Gender and development	[]
Children's rights	[]
Poverty alleviation	[]
Peace	[]
Population	[]
Training	[]
Counselling	[]
Small scale enterprises	[]
Disability	[]

Other (Please specify.....)
5. How many employees does the organization have? _____

SECTION B: TQM innovations used by in NGOs in Nairobi County, Kenya

6. To what extent has your NGO implemented the following Business continuity innovations (use scale where 1 is very small extent 2 is small extent 3 is moderate 4 great extent 5 is very great

Business continuity innovation	1	2	3	4	5
The NGO has formed short term problem solving teams to simplify and streamline work practices					
The NGO has formed short term problem solving teams in product design					
The NGO has formed short term problem solving teams to simplify solve problems within units					
The NGO has formed term problem solving teams to access customer preferences					
The NGO has formed short term problem solving teams to alter supplier relations					

7. To what extent has your NGO implemented the following Training innovations (use scale where 1 is very small extent 2 is small extent 3 is moderate 4 great extent 5 is very great

Training innovation	1	2	3	4	5
The NGO has invested in problem solving tools					
The NGO teaches statistical analysis to front line employees					
The NGO trains using the top down implementation strategy					
The NGO conducts trainings at all levels in the organisation					

8. To what extent has your NGO implemented the following Top down Implementation innovations (use scale where 1 is very small extent 2 is small extent 3 is moderate 4 great extent 5 is very great

Top down implementation innovation	1	2	3	4	5
The NGO begins with training of top managers in the quality philosophy					
The NGO articulates the organisation- wide quality philosophy and communicates the vision throughout the organisation					
The NGO educates about TQM and implementation of TQM practices inn a cascading fashion with each layer carrying message to the next lower level					

9. To what extent has your NGO implemented the following Information and Communication systems Technology as an innovations (use scale where 1 is very small extent 2 is small extent 3 is moderate 4 great extent 5 is very great

Information and communication systems technology innovation	1	2	3	4	5
The NGO has invested in modern IT equipment					
The NGO uses ICT services for improved planning and organizational management.					
The NGO uses ICT to improve workforce performance					
The NGO uses has a website and uses it to communicate organisational information					
The NGO has an portal used for recruitment as well as tender applications					
The NGO uses mobile phone platforms for communication, alerts, and reminders					
The NGO uses e banking					

SECTION C: TQM Implementation challenges.

10. To what has your NGO faced the following people challenges in TQM

implementation (use 1-5 where 1 is to no extent while 5 is to very great extent)

People Challenges	1	2	3	4	5
Problems in people performing jobs effectively					
Communication breakdown					
Lack of teamwork /conflict					
Poorly trained workers					
Lack of worker output & involvement					

11. To what extent has your NGO faced the following Management challenges in TQM

implementation (use 1-5 where 1 is to no extent while 5 is to very great extent)

Management Challenges	1	2	3	4	5
Ineffective supervision					
Conflicting and unrealistic goals					
Poor planning and organising					
Lack of resources					
Lack of management support					
Improper channels of communication					

12. To what extent has your NGO faced the following TQM system challenges in TQM

implementation (use 1-5 where 1 is to no extent while 5 is to very great extent)

Management Challenges	1	2	3	4	5
Ineffective corrective action procedures					

Ineffective feedback mechanisms					
Ineffective performance measure procedures					
Unrealistic quality standards					
Technology and equipment problems					

SECTION D. Firm Performance measures

13. To what extent has your organisation experienced the following **employee satisfaction indicators** as a result of implementation of the Total Quality Management innovations (use scale where 1 is very small extent 2 is small extent 3 is moderate 4 great extent 5 is very great)

Employee satisfaction	1	2	3	4	5
Employees are clear about organization's vision and strategy					
Employees are regularly provided with training in their areas of work and have the skills and knowledge to do their job well					
Managers/supervisors give people the authority they need to do their work effectively					
Team work exists within the organization					
Management provides good leadership and direction for employees					
Employees are given the opportunity to develop new skills					
The organization promotes career development of employees					
Employees are adequately rewarded for their work					

14. To what extent has your organization experienced the following **customer satisfaction indicators** as a result of implementation of the Total Quality Management innovations (use scale where 1 is very small extent 2 is small extent 3 is moderate 4 great extent 5 is very great)

Customer satisfaction	1	2	3	4	5
The organization values donors as well as beneficiaries					

Vendors are satisfied with organization's performance					
Donors are satisfied with our organizations performance					
The organization enjoys a good reputation with stakeholders such as government and partners					
Organization promptly resolves customer complaints.					

14. To what extent has your organization experienced the following **Financial performance indicators** as a result of implementing Total Quality innovations (use scale where 1 is very small extent 2 is small extent 3 is moderate 4 great extent 5 is very great)

Financial performance indicators	1	2	3	4	5
Over the past few years, the organization has shown steady, measurable cost reduction while maintaining or improving quality.					
The organization has seen an increase in donor funding					
The organization currently has audited financial reports					
The organization has seen an increase in profits (if applicable)					
The organization is able to achieve objectives within their budgets					

15. To what extent has your organization witnessed the following **Operational performance indicators** as a result of implementation of the Total Quality Management innovations (use scale where 1 is very small extent 2 is small extent 3 is moderate 4 great extent 5 is very great)

Operational performance Indicators	1	2	3	4	5
The organization has clearly documented procedures					
Employees are clear about the values and practices required for the organization to be successful					
The organization has implemented new innovations in the past 6 months					

The organization learns from past experiences so that mistakes are not repeated					
The organization is effective at reducing inefficiency throughout the organization					

16. To what extent has your organization experienced the following **Organization performance indicators** as a result of implementation of the Total Quality Management innovations within the last 5 years (use scale where 1 is very small extent 2 is small extent 3 is moderate 4 great extent 5 is very great)

Organization performance Indicators	1	2	3	4	5
The organization's structure helps different departments/regions to work together effectively					
The organization adapts well to changes in the internal environment					
The organization adapts well to changes in the external environment					
The organization has received recognition from donors or stakeholders					
The number of donors has increased					
The organization has won new projects					
The organization has embraced benchmarking and adopting best practices from other international organizations					
The organization has documented tangible project outcomes and impact					

APPENDIX II: List of NGOs Operating in Nairobi County, Kenya

1.	ACDI/VOCA
2.	Action Against Hunger
3.	Action Aid
4.	Adeso
5.	ADRA International
6.	African Medical & Research Foundation (AMREF)
7.	Bill & Melinda Gates Foundation
8.	CARE
9.	Catholic Relief Services (CRS)
10.	Chemonics
11.	Child Fund International
12.	Concern Worldwide US Inc
13.	Deutsche Welthungerhilfe
14.	Elizabeth Glaser Pediatric AIDS Foundation
15.	Engender Health
16.	FHI 360
17.	Futures Group International
18.	GOAL
19.	Handicap International
20.	International Rescue Committee (IRC)
21.	Internews
22.	IntraHealth International
23.	Islamic Relief
24.	Jhpiego
25.	John Snow, Inc. (JSI)
26.	Land O'Lakes International Development
27.	Lutheran World Federation
28.	Management Sciences for Health (MSH)
29.	Marie Stopes International
30.	Mercy Corps
31.	National Democratic Institute (NDI)
32.	Norwegian Refugee Council (NRC)
33.	Oxfam
34.	Pact
35.	PATH
36.	Pathfinder International
37.	Plan
38.	Population Council
39.	Population Services International (PSI)
40.	RTI International
41.	Save the Children
42.	SNV Netherlands Development Organization
43.	Tearfund

44.	William J. Clinton Foundation
45.	Winrock International
46.	World Vision
47.	World Wildlife Fund (WWF)