

**CHANGE MANAGEMENT PRACTICES IN TOTAL QUALITY
MANAGEMENT IMPLEMENTATION - A SURVEY OF ISO 9000
CERTIFIED FIRMS IN KENYA**

BY 5/11/2003
BY

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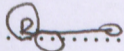
**MANAGEMENT RESEARCH PROJECT SUBMITTED IN PARTIAL
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DECLARATION

This research project is my original work and has not been submitted for a degree in any other University.

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This research project has been submitted for examination with my approval as the University Supervisor.

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DEDICATION

With love to Millicent, Julius and Roger.

supported me and contributed in one way or another during the MBA degree program.

My sincerest thanks to:

- My Supervisor, Prof. K'obonyo for the assistance and guidance given to me to realise this research project.

With love and appreciation to:

- All the respondents for taking valuable time out of their schedules to answer the comprehensive questionnaire.

- My family, especially my wife Millicent and my children Julius and Roger for their patience and support throughout the MBA study.

Equally to the Almighty God. Without his blessings, none of this would have been possible.

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ABSTRACT

Globalisation has led to a major shift in the competitive environment forcing firms to seek new ways to forge ahead of their rivals. Many organisations are adopting Total Quality Management (TQM) in search of competitive advantage. While TQM has proven to be an effective process for improving organisational functioning, its value can only be assured through a comprehensive and well thought out implementation process. TQM is an organisation-wide effort to improve quality through changes in structure, practices, systems and culture. The way changes are managed, and the appropriateness of the approach adopted, have major implications for the success of the TQM project. The study sought to determine the change management practices applied by Kenyan firms during TQM implementation. ISO 9000 certification was used to signify presence of TQM. A survey of ISO 9000 certified firms in Kenya was carried out.

The objectives of the study were:

- To establish the Change Management practices used by ISO 9000 firms during TQM implementation
- To establish the main barriers in TQM implementation by ISO 9000 certified firms in Kenya.

A total of 60 firms were sampled through simple random method. 52% of the sampled firms responded. The data collected was analysed using descriptive statistics. The major findings were:

Change Management principles are very much applied by Kenyan firms during TQM implementation. The change management practices applied by Kenyan firms are consistent with those in the developed countries. However, Kenyan firms placed less emphasis on the use of change agents, changing reward systems to support the change initiative, celebrating short term wins, encouraging local variation during implementation and dealing with resistance.

The main motives for adopting TQM by Kenyan firms is to improve organisational effectiveness, improve operational efficiency, improve competitiveness, support company strategy and improve market image.

The main barriers to TQM implementation are workers antipathy to gathering and analysing data on quality, deep seated culture that is resistant to change and the length of time it takes to implement the change.

There are no significant differences in the change management practices in TQM implementation between local, foreign and jointly owned firms. However, differences were noted between manufacturing and service firms on the application of communication, reward system, recruitment and development of employees. Manufacturing firms applied these principles more than service firms.

The biggest improvements from the TQM program were on internal process efficiency, product or quality, internal communication and profitability.

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CHAPTER ONE - INTRODUCTION

The chapter has four parts. The first part provides a brief background to the study. The second part of this chapter states the problem. The third part provides the objectives of the study. The fourth part highlights the importance of the study.

1.1 Background

The magnitude, speed, unpredictability and impact of change in the external environment is greater than ever before. Local markets are becoming global markets, protected markets are being opened up to fierce competition and as a result, firms have suddenly felt the pressure to improve their products and services to meet world standards. These dramatic changes have led to a major shift in company competitiveness. Businesses have had to rethink their approach towards management and search for new concepts and methods that give guidance in this turbulent environment.

One of the most important contributions to competitive advantage in recent years derives from an organisation's quality strategy. It seems essential these days to properly manage quality, which results both in productivity improvement and cost reduction. Organisations have been keen to stress their attention to product and service quality not just in their external public statements but also in the way they implement their chosen strategy internally. Cole (1997) argues that no business strategy will succeed fully in today's competitive conditions unless it gives adequate priority to quality issues.

The inspiration of modern approaches to quality management comes from the achievements of Japanese companies, epitomised by Total Quality Management (TQM). TQM is a management approach to long-term success through customer satisfaction. The ISO 9000 quality standards and quality award criteria has led to the practical development and diffusion of the TQM concept. It has been adopted by over 400, 000 companies world-wide. In Kenya about 100 firms have been certified. The main strength of the ISO 9000 standards and the reason they have been adopted world-wide, is that they assure customers who do business with registered firms that fundamental quality systems are in place within those organisations and they can time and again deliver the product or services that meet the client's quality requirements which is the essence of TQM.

Though TQM appears to be central to the success of Japanese companies, evidence from literature points at a high failure rate in TQM implementation. TQM's value can only be assured through a comprehensive and well thought out implementation process (Packard, 1995). Many organisations have unsuccessfully tried to adopt the approaches which the specialists recommend, or which other more successful organisations have adopted. The reality is that such approaches are developed in a particular context. TQM is in fact a large-scale systems change and without attention to contextual factors, well-intended changes may not be adequately achieved. Therefore a study based on the way changes are managed and the approaches applied in the Kenyan context, is important for organisations intending to implement a TQM solution in Kenya.

1.2 Statement of the problem

Organisations are in a period of rapid and unprecedented change brought about by forces of global competition, rapidly changing technologies and deregulation. Many organisations are adopting Total Quality Management (TQM) in search of competitive advantage. There is increasing evidence that despite the increase in TQM adoption, many organisations have failed to achieve the objectives sought in implementing TQM. Studies on the adoption of TQM by companies in Europe indicate a high failure rate of as much as 80 per cent (Economist Intelligence Unit, 1992; Cruise and Voss, 1992; Kearney, 1992; Whyte and Witcher, 1992; Wilkinson et al, 1993; Zairi et al, 1994). Much of the evidence of TQM failure indicates that TQM has a problem in the soft areas of culture, involvement and communication.

TQM is an organisation-wide effort to improve quality through changes in structure, practices, systems and above all, attitudes (Dale and Cooper, 1992). The way changes are managed and the appropriateness of the approach adopted, have major implications for the way people experience change and their perception of the outcome. In the literature there is evidence from researchers and practitioners that Organisational Change Management is a useful tool to facilitate successful cultural transformations to ensure that the outcome of the change initiative is positive. Studies on change management practices in TQM implementation have mainly been carried out in the developed countries. The Kenyan environment is markedly different from that of the developed countries in terms of culture, attitude to work, approach to quality, state of infrastructure, technology, business and political environment. Differences in context are likely to lead to differences in the change management practices in TQM implementation. Therefore what has been documented in these

studies might not necessarily apply in Kenya hence the need for the study. The study intends to establish the change management practices in TQM implementation among ISO 9000 certified firms in Kenya.

In order to research these issues it is intended to answer the following questions:

1. What are the change management practices adopted by ISO 9000 certified firms in Kenya during TQM implementation process?
2. What are the main barriers in TQM implementation in Kenya?

1.3 Objectives of the study

The purpose of the study is to establish the extent to which Change Management practices are utilised during TQM implementation among ISO 9000 certified firms in Kenya. The specific objectives of the study are:

1. To establish the Change Management practices used by ISO 9000 firms during TQM implementation
2. To establish the main barriers in TQM implementation by ISO 9000 certified firms in Kenya.

1.4 Importance of the study

The findings from this study will be important to the following:

1. To the Companies considering the implementation of TQM to understand the critical element of change management.
2. To scholars the study is expected to contribute to the existing literature in the field of change management and stimulate further research to extend or refine the present study.

CHAPTER TWO - LITERATURE REVIEW

The chapter has six parts. The first part defines what TQM is and highlights the reasons for failures of TQM implementation. The second part of this chapter presents the various approaches on organisation change management. The model of change management prescribed by Kanter et al. (1992) is highlighted. The third part of this chapter looks at resistance to change in TQM implementation and how it is handled. The fourth part of the chapter present literature on impact on change management on TQM implementation. The fifth part of the chapter section examines ISO 9000 quality standards and the reasons for their adoption. The final part of the chapter looks at the status of ISO 9000 in Kenya.

2.1 Total Quality Management

In recent years changes in product markets, technology and legislation have led organisations to search for new approaches to managing organisations. Due to the increased demands on the organisation's competitiveness, customers have gained a central role in the organisations' focus. According to Oakland (1993), consumers nowadays place a higher value on quality than loyalty to home based producers, and price is no longer the major determining factor in consumer choice. Product and service quality are now high on the agenda for both private and public sector organisations, with quality certification and total quality management (TQM) emerging as key issues (Bank, 1992). Under these conditions, enhanced quality is no longer seen as an option for management, but essential if market share is to be retained, let alone developed. Spencer (1994) describes TQM as one of the essential approaches in revitalising a company's competitive position. The quest for quality can be seen as a search for a competitive advantage (Porter, 1980).

The quality movement started in Japan with its Deming Prize for quality. First awarded in 1951, it marked the beginning of an effort that has accelerated over the past 20 years. In the late 1950s the U.S. Department of Defence adopted a series of quality standards that were later adopted by the British standards Institute and have now evolved into the International Organisation for Standardisation (ISO) 9000 standards.

The quality movement is more than just a series of awards and quality standards; the movement involves a total rethinking of how a business should be run. The term total quality management (TQM) has been coined to describe a philosophy that makes quality values the driving force behind leadership, design, planning and improvement initiatives. The belief is that for long-term financial success, quality is essential (Chase et al., 2001).

One Problem facing those attempting to analyse the TQM phenomenon is that TQM is not a single unified entity. There are several objective definitions of total quality management. For instance, Chase et al.(2001), defines TQM, as managing the entire organisation so that it excels on all dimensions of products and services that are important to the customer. He argues that TQM is an integrated system of principles, methods and best practices that provide a framework for organisations to strive for excellence in everything they do.

Oakland (1993) describes TQM as a comprehensive approach to improving the competitiveness, effectiveness and flexibility through planning, organising and

understanding each activity and involving each individual at each level. Tan (1997) defines TQM as “ a team approach strategy that integrates and encompasses the goals of the organisation with its human, capital and financial resources”. Dale and Cooper (1992), see TQM is an organisation-wide effort to improve quality through changes in structure, practices, systems and above all, attitudes. According to Berry (1990), TQM means building a total customer-focused management system and supporting culture that has, as its driving force, meeting customers’ needs the first time and every time.

appearing to be more well developed in manufacturing than in services (Wilkinson et al. 1997)

Despite the variety of definitions, TQM has some well-known basic principles, such as customer orientation, total participation and commitment, strategic focus, process management, continuous improvement and teamwork. The common themes noted are: First, quality can be defined as “fitness for use”, including both quality of and conformance to the design. Second, quality management emphasises not only the external customer but also the internal customer. Hence the concept of a quality chain is central, with every member of the organisation linked ultimately to the final customer via a series of internal customer-supplier relationships, each of which can be evaluated in quality terms. Third, the aim of TQM is to have quality “built in” rather than inspected. Quality becomes the responsibility of all employees rather than of a specialist department. Associated with this is the notion that prevention rather than detection is the key, with “continuous improvement” as the ultimate goal (Juran, 1980). Fourth, rather than assuming that quality improvements necessarily lead to increased costs, it is anticipated that they will fall due to a decline in failure rates, warranty costs, returned goods and a fall in the costs of detection. Finally management is charged with the ultimate responsibility for quality. According to Ishikawa (1985) about 85 per cent of failures are regarded as the fault of inadequate management

systems. Therefore, any TQM initiative must be seen to be enthusiastically endorsed by the top management, who must actively participate, by example.

There is considerable evidence, which points to the spread of TQM initiatives (Economist Intelligence Unit, 1992; Cruise and Voss, 1992). A survey carried out for the institute of Management suggests that TQM is becoming more widespread, with 71 per cent of respondents claiming to have a quality campaign, although as yet appearing to be more well developed in manufacturing than in services (Wilkinson et al., 1993).

Studies by Hendriks and Singhal (1997) showed that TQM leads to improved financial performance. Berry (1990), who states that the principal advantages and benefits of TQM are improved profitability and competitiveness, improved organisational effectiveness and improved customer satisfaction supports them.

Despite the increase in TQM adoption, there is increasing evidence that TQM has not fulfilled its promise. (O'brien and Voss, 1992; The Economic Intelligence Unit, 1992; Wilkinson et al.(1992); Wilkinson et al., 1993). Omufira (2001) in her study on TQM implementation in Kenyan construction industry, concluded that poor implementation is a major drawback and attributed poor communication and lack of early involvement of workers as the main factors to this state of affairs. According to Ishikawa (1985), human resource issues are critical to implementation.

Wilkinson et al.(1992), suggests that the reasons for these failures could be partly be due to the fact that the principal contributions to the analysis of TQM and its

operation have come from people in the production management/operations area. With backgrounds in operational research and statistics, many leading gurus sought to develop “objective” means of gaining “hard” information about processes of production and service delivery. Much attention and effort has been directed at the measurement and documentation of procedures and outcomes through the use of flow-chart, scatter diagrams, control charts and so on. Less consideration has been given to the “softer” process of managing human resources in a manner likely to be consistent with the TQM philosophy of continuous improvement.

According to Grant et al. (1994), TQM is a challenge to conventional management techniques and to the theories that underlie them. Therefore it cannot be simply grafted on to existing management structures and systems.

2.2 Organisational Change Management

Organisations are in a period of rapid and unprecedented change brought about by forces of global competition, rapidly changing technologies and deregulation. The pertinent issue is how organisations can cope with both the environment in which they operate and the constraints, challenges and threats they face? The most important motive for change in a business enterprise according to Kanter (1984) is to improve the organisation’s ability to meet and satisfy customer needs. To date, major change efforts have helped some organisations adapt significantly to shifting conditions, have improved the competitive standing of others, and have positioned a few for a far better future. But in too many situations the improvements have been disappointing and the carnage has been appalling, with wasted resources and burned-out, scared, or

frustrated employees. The root cause of many failures was a lack of change leadership and poor management of employee resistance to change (Kotter, 1996).

Undoubtedly, the way changes are managed, and the appropriateness of the approach adopted, have major implications for the way people experiencing change and their perceptions of the outcome. The institute of management (1995) study established that managers appeared to report considerable levels of dissatisfaction with the outcome of change. The study found that while most managers supported the case for change, many were anxious not only about the outcome of change but also about the process of change itself. Many managers have doubts about both the approach to and outcome of change. The reality, according to many observers, is that organisations can and do experience severe problems in managing change effectively (Beer et al., 1990; Taylor, 1995). It is clear that to manage change successfully, even on a small scale, can be complex and difficult. Therefore, managers have the right to be anxious about organisational change given the many examples of change projects which have gone wrong. (Cummings and Huse, 1989; Kanter et al., 1992). Change management is the process, tools and techniques to effectively manage people and the associated human resource issues that surface when implementing business changes.

Organisations have been following different approaches to change management. Some are choosing to follow the prescriptions of writers such as Handy (1989), Kanter (1989) and Peters and Waterman (1982), while others are seeking to emulate Japanese experience as popularised by writers such as Hamel and Prahalad (1989) and Whitehill (1991). However, whatever particular form change takes and whatever objectives it seeks to achieve, organisations cannot expect to achieve success unless

those responsible for managing it understand the different approaches on offer and can match them to their circumstances and preferences. On this basis, understanding the theory and practice of change management is important (Burnes, 1996).

There are two main approaches to change. The first, the planned approach to change views organisational change as essentially a process of moving from one fixed state to another through a series of predictable and pre-planned steps (Cummings and Huse, 1989). The second, the emergent approach, starts from the assumption that change is a continuous, open-ended and unpredictable process of aligning and realigning an organisation to its changing environment. Advocates of emergent change argue that its more suitable to the turbulent environment in which modern firms now operate because, unlike the planned approach, it recognises the need for organisations to align their internal practices and behaviour with changing external conditions. Proponents of planned change, however, dispute this criticism and argue for its continuing relevance.

So despite the large body of literature devoted to change management, and the many tools and techniques available to change agents, there is considerable disagreement regarding the most appropriate approach. Burns (1996) argues that, neither the emergent nor planned approach is suitable for all situations and circumstances. According to him, managers instead of having to adapt their organisations to the circumstances in which they find themselves, can attempt to amend the circumstances. Therefore, managers in organisations faced by a dynamic and unpredictable environment could seek to change markets and/or products, influence the behaviour of

competitors or change customers' perceptions, in order to reduce uncertainty and increase predictability.

No two approaches to change appear to be exactly the same and in some cases they almost entirely contradict each other. Many managers often think that their job is to implement the particular approach to strategy and change which the specialists recommend, or which other more successful organisations have adopted. Burns (1996) argues that though most 'experts' would claim some sort of universal applicability for their favoured approach or theory, the reality is that such approaches are developed in particular circumstances, at particular times and often with particular types of organisations in mind. It follows that a key role for organisations and their managers is to understand the approaches on offer, identify their own circumstances and needs, and choose the approach which best suits them.

According to Cole (1997), the basis of organisational change is a desire for different behaviours to lead to better results. In order to change organisational behaviour, one can alter the people, the organisational structure and context, or both. Cole (1997) looks at both and prescribes the following the key variables that have to be considered when looking at organisational change as:

- Organisational structure (including tasks and roles)
- People (including skills, management style and leadership)
- Systems (administration procedures, production systems, computer networks, budgetary control systems).
- Technology
- Organisation mission and goals (including strategy)

- Organisation Culture (including sub-cultures/ alternative cultures)
- External environment.

Issues such as resistance to change, organisation development and the role of change agents are also very important.

The way in which 'successful' companies handle change has been a focus of interest for a number of researchers, including Peter and Waterman(1982), Goldsmith and Clutterbuck (1985) and Clifford and Cavanagh (1985). In the process of managing change at the strategic level, the companies that have been successful have shown an ability to harness the external forces bearing on them and their own internal strengths. Goldsmith and Clutterbuck(1985) for example noted in their research on top firms, the recurrent themes as:

- absence or removal of barriers to change
- natural curiosity about how things are done elsewhere
- international perspective
- directed research and development
- role of the chief executive.

The absence or removal of barriers to change included organisational structures that facilitated the flow and implementation of ideas, for which there were high incentives if things went well, but low punishment if they went badly. Other significant factors were clear objectives, direction and guidance from senior management, and enough growth in the firm to enable people not to worry about losing their current job, since another would be available as a result of change.

Kanter et al. (1992) recognises that requiring people to change is ineffective without also providing a supportive organisational context. They argue that an organisation's various components for example: structure, policy, relations between units, products, goals, technology and values are interdependent and mutually reinforcing. Their model of change links strategic decisions to their organisational causes and consequences. It prescribes a holistic approach that encompasses strategic, organisational and individual elements, which drive, create and support business change. The strategic decision to do things a new way are spurred by either internal departure from tradition (often traceable to grass roots innovation) or some kind of external crisis or other galvanising event. In order to reach implementation stage, these decisions require not just a prime mover but also continual reinforcement through related organisational changes such as redesigned procedures and processes, additional communication vehicles and revised incentive and reward programmes.

Kanter's et al. (1992) model of change management focuses on managing the political context by providing information, resources and support for the change effort. The main theme is that for organisational change to be successful it needs to be holistic and systematic, addressing individual, social and organisational factors. The model suggests a number of actions that should be taken during change management:

- Build coalitions by seeking support from power sources and stakeholders.
- Articulate a shared vision of the mission, goals and desired results.
- Define the structure and process that will guide the change, including clear reporting relationships, co-ordination between activities and teams and accountability for outcomes.

- Ensure communication to keep people informed and education and training to increase their capabilities.
- Institute policy and systems review in order to align the strategy with resource allocations, operations, systems and staffing.
- Enable local participation and innovation by clearly specifying fixed goals while encouraging local variation in their implementation.
- Ensure standards, measures and feedback mechanisms as a way of monitoring the process and results.
- Provide symbols, signals and rewards which demonstrate and support commitment to changes

This model provides the conceptual framework for this study.

While the change management concepts and methods vary, the basic elements are similar:

- A vision to align the organisation
- Communicating why the changes are necessary
- Involving affected people actively in the change process.
- Provide people with the skills to actively support the change process.
- Marketing new approaches.
- Institutionalise new approaches to avoid erosion effects

2.3 Resistance to change

Some of the obstacles to TQM implementation are that it can be seen as time-consuming, bureaucratic, formalistic, rigid, impersonal and/or the property of a

specialist group (Oakland, 1993). Implementation of a large-scale change such as TQM will inevitably face resistance, which needs to be addressed directly by the change agents. According to Packard (1995), a key element of TQM involves working with customers and the notion of soliciting feedback from them, perhaps with customers defining quality, is a radical one to many organisations especially the public ones. Worker antipathy to the use of statistics and data may carry over into TQM, which encourages the gathering and analysis of data on service quality. Management resistance to employee empowerment is also likely, especially if they see that more employees involvement in decision making will result in managers having less. Resistance in other parts of the organisation will show up if TQM is introduced on a pilot basis or only in particular programs (Hyde, 1992).

Lewin(1951) states that most people need to be persuaded of the need to change. Through the 'Force-field theory' he suggests that every human group has simultaneously within it pressures that keep it together and provide it with stability and others, which provide the spur for change and adaptation. This theory suggests that all behaviour is the result of an equilibrium between two sets of opposing forces (what he calls 'driving forces' and 'restraining forces'. Driving forces push one way to attempt to bring about change; restraining forces push the other way in order to maintain the status quo.

Generally, human beings seem to prefer to use driving forces to bring about change. They want to 'win' by exerting pressure on those who oppose them, but as Lewin's model suggests, the more one side pushes, the more the other resists, resulting in no change. The better way of overcoming resistance, therefore, is by focusing on the

removal, or at least weakening, of the objections and fears of the resisting side. It is therefore important to determine their fears and establish how to address them.

Another way to address resistance is to get all employees on the same side, in alignment towards the same goal (Packard, 1995). Bennis and Nanus (1985) state that this requires visionary leadership.

A powerful way to decrease resistance to change is to increase the participation of employees in making decisions about various aspects of the process. Packard (1995) argues that this increases the employee commitment to the resultant outcome, as they will feel a greater stake or sense of ownership in what is decided. He justifies the second rationale on the basis that employees have a great deal of knowledge and skill relevant to the issue at hand (increasing quality, identifying problems and improving work processes), and their input should lead to higher quality decisions.

To avoid resistance that is seen after TQM is successfully adopted in one part of the organisation and attempts made to diffuse it, Packard (1995) suggests that each new area (program, division, department) should have a new assessment and contracting process. Different circumstances should be expected in each part of the organisation. He cautions against the use of "off the shelf" models or trying to standardise all aspects of the process.

2.4 Change Management and TQM implementation

At its simplest, TQM is an organisation-wide effort to improve quality through changes in structure, practices, systems and above all, attitudes (Dale and Cooper, 1992). Changing a culture, structures and processes is risky and can even produce

negative results which is proved by many studies. According to Kotter (1995), about two third of major change initiatives are not successful. Change has therefore to be carefully planned and change process has to be managed and overviewed.

The literature above has shown that there is a high failure rate in TQM implementation mainly due to the approaches in handling the people related issues. Therefore, even well established change initiatives, for which a great deal of information, advice and assistance is available, are no guarantee of success. Many senior managers recognise the need for change to deal with the new realities of competitiveness, but lack an understanding of how the change should be implemented. They often belief that changing the formal organisational structure, having vision or mission statements, "culture change" programmes, training courses and new payment systems will, by themselves, make the transformations (Oakland, 1993). He further points out that that research at European Centre for TQM, has shown that there is an inverse relationship between successful change and having formal organisation-wide change. This is particularly true if one functional group, 'owns' the programme. In several large organisations in which total quality has been used successfully to effect change, the senior management did not focus on formal structures and systems, but set up process-management teams to solve real business problems.

Oakland (1993) argues that, an approach to change, based on process alignment and starting with the mission statement, analysing the critical success factors and moving on to the key or critical processes, is the most effective way to engage the staff in an enduring change process.

processes may also need attention through the realignment of budgeting and resource

Packard (1995) explains that TQM is at first glance seen primarily been seen as a change in organisation's technology. That is, the way clients are processed, the service delivery methods applied to them and ancillary processes such as paperwork, procurement processes and other procedures. But TQM is also a change in an organisation's culture, that is its norms, values and belief systems about how organisations function. And finally, it is a change in an organisation's political system: decision making processes and power bases. For substantive change to occur, changes in these three dimensions must be aligned.

Cohen and Brand (1993) emphasise top management commitment to the change and recommend finding and nurturing a core group, which is interested in organisational change. Hyde (1992) noted that TQM results in radical change in culture and the way of work in an organisation. Therefore a fundamental factor is leadership, including philosophy, style and behaviour. These must be congruent as they are presented by a leader. Any manager serious about embarking on a culture change such as TQM should reflect seriously on how he or she feels and behaves regarding these factors.

Other key considerations have to do with alignment among various organisational systems (Hyde, 1992). TQM must be built into other systems, particularly those involving planning and rewards. For example, human resource systems, including job design, selection processes, compensation and rewards, performance appraisal and training and development must align with and support the new TQM culture. Changes in other systems will also be required. Information systems will need to be redesigned to measure and track new things such as service quality. Financial management

processes may also need attention through the realignment of budgeting and resource allocation systems

Organisation structure and design will be different under TQM: layers of management may be reduced and organisational roles will change. In particular, middle management and first line supervisors will be operating in new ways. Instead of acting as agents of control, they will serve as co-ordinators and leaders who assist line workers in getting their jobs done. To deal with fears of layoffs, all employees should be assured that no one will lose employment as a result of TQM changes: jobs may change, perhaps radically, but no one will be laid off. Hyde (1992) recommends that we “disperse and transform, not replace, mid-level managers.”

Another systems consideration is that TQM should evolve from the organisation's strategic plan and be based on stakeholder expectations. A manager should not adopt TQM because it is popular and being seen to be at the cutting edge. (Packard, 1995). He explains that this is not a good motivation to use TQM and will be likely to lead to a cosmetic application, resulting in failure and disappointment. TQM should be used because an organisation's leaders feel a need to make the organisation more effective.

Oakland (1993) says, that there are basically two approaches to TQM implementation: The first which he calls the “blitz” approach, involves the whole organisation, in its current “business as usual” state, is exposed very rapidly to TQM and mass education, or even hype, is started. However, he points out that this could lead to many problems associated with not knowing what to do next (or first) and some organisations have suffered indigestion by trying to swallow the “elephant” whole, instead of a bite each time.

The second approach he calls the slow, planned, purposeful approach, causes a gradual change to take place, so that “business as usual” becomes total quality management.

Oakland(1993) prescribe a seven-step approach to TQM implementation.:

- ◆ Gain Commitment to change through the organisation of the top team
- ◆ Develop a shared mission or vision of the business or of what change is required
- ◆ Define the measurable objectives, which must be agreed by the team, as being the quantifiable indicators of success in terms of the mission
- ◆ Develop the mission into its critical success factors to coerce and move it forward
- ◆ Break down the critical success factors into the key or critical process and gain process ownership
- ◆ Break down the critical processes into sub-processes, activities and tasks and form improvement teams around these
- ◆ Monitor and adjust the process alignment in response to difficulties in the change process

2.5 ISO 9000

First published in 1987 and revised in 1994, the ISO 9000 family of standards represents an international consensus on good management practices with the aim of ensuring that the organisation can time and again deliver the product or services that meet the client’s quality requirements. These good practices have been distilled into a set of standardised requirements for a quality management system, regardless of what the organisation does, it’s size or whether it in the private or public sector. ISO 9000

is the offspring of the International Organisation for standardisation. It is a non-governmental, world-wide federation of national standards bodies from some 140 countries. The standard addresses how an entire organisation assures the quality of its products and services. It is a management systems standard that looks at almost all functions in the organisation.

The success of the ISO 9000 family of standards is still growing and the number of countries where ISO 9000 is being implemented has increased. As at end of December 2000 at least 408,631 ISO 9000 certificates had been awarded in 158 countries world-wide.

While ISO 9000 does not specify precisely what kinds of quality processes must occur, or how, it does require that appropriate quality activities be defined, that processes be documented and that proof be supplied that the company consistently adheres to both. ISO 9000 registration does not ensure a defect-free or quality product or service but it does indicate that a basic quality system is in place and that the registered organisation is at least capable of providing its customers with quality products and services. To become registered to ISO 9000, a company must hire an independent third party to conduct an on-site audit of its operations and verify that it is in compliance with the requirements of the standard

The main strength of the ISO 9000 standards and the reason they have been adopted world-wide, is that they assure customers who do business with registered firms that fundamental quality systems are in place within those organisations. It ensures that the organisation can deliver service or product in a consistent manner and if it has a

system in place to maintain customer focus and drive improvement. For many international companies, ISO 9000 is seen as a key to doing business in global markets and improving competitiveness, particularly since for many regulated products in the European Union, ISO 9000 registration is a requirement.

In the literature research evidence suggests that firms adopt ISO 9000 standards in order to achieve internal benefits such as quality or productivity improvements, or in response to pressure from customers, especially foreign customers. Others argue that the standard is too generic to cause performance improvement, but can be seen as a signal of good management. In some cases firms seek certification in the belief that it will enhance their market position, or that it will help improve their internal productivity.

2.6 ISO 9000 in Kenya

Four registrars have been listed to undertake certification in Kenya. These are SGS Kenya Ltd., Lloyds, Bureau Veritas (K) and Kenya Bureau of Standards. However Lloyds are no longer operating in Kenya. There are presently 107 ISO 9000 certified firms, operating in Kenya.

Ndolo(2002) established that ISO 9000 certified firms in Kenya believed that certification had resulted in internal benefits, improved customer satisfaction and competitive advantage in the international market.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Research design

Primary data was collected through a survey in order to achieve the aims of the study.

3.2 Population

The population of interest consisted of firms that had implemented a TQM solution. The ISO 9000 quality standards aim at ensuring that the organisation can time and again deliver the product or services that meet the client's quality requirements which is the basis of the TQM concept. Hendricks and Singhal (1997) used quality awards to signify presence of an effective TQM. In this study ISO 9000 certification was taken to signify the presence of a TQM programme. The population for the study was based on a list of ISO 9000 certified firms in Kenya as at 31st March 2003. This had a total of 107 firms as compiled by Quality System Assessments committee (see appendix 3).

3.3 Sample size and sampling technique

In deciding on the sample size, the suggestion made by the Economist (1993) of a minimum sample size of 30 for statistical analyses as a useful rule of the thumb was adopted. A study by Kioko (2002) on ISO 9000 registered firms achieved a response rate of 100% with a sample size of 30 firms. Making an assumption that this might drop to 50% an actual sample size of 60 was used. Simple random sampling method was used. The firms sampled using this technique are presented in appendix 4.

3.4 Data description and collection method

The study used primary data gathered from the respondents through a survey. The instrument for data collection was a structured questionnaire comprising closed and

open ended questions (see appendix 2), developed in line with the objectives of the study.

A comprehensive questionnaire was designed to collect data from Quality Managers or other senior managers with a broad view of the Company and the Organisational change management techniques used during the TQM implementation project. Many of the questions used rating scales to record responses.

The questionnaire consisted of the following parts:

Part 1: Background information on Company

Part 2: Information on TQM Project set up

Part 3: Information on Change Management Techniques.

Part 4: Information on TQM Project outcomes

A covering letter was sent with the questionnaire and it was guaranteed that the information gathered by the survey would be kept confidential to increase the reply rate.

3.5 Data analysis technique

Data was analysed using descriptive statistics. Tables were used to display the results in order to identify any trends and patterns and compare the data received. Chi-square statistic was used to test for the significance of the differences in change management practices and implementation barriers between:

- Local, foreign and jointly owned firms.
- Firms in different sectors
- Firms with only local, regional and international operations
- Firms of different sizes

CHAPTER FOUR: DATA ANALYSIS AND FINDINGS

In this chapter the results of the survey are presented. A detailed analysis on organisations' profiles, reasons for implementing TQM, change tools and techniques used, implementation barriers and project outcomes is presented in this section.

4.1 Profiles of Respondents and response rate

A total of 31 firms responded, giving a response rate of 51.7%. The targeted respondents were Quality Managers or other senior managers with a broad view of the company and the organisational change management techniques used during the TQM implementation process. 61.3% of the questionnaires were filled by Quality Managers and 38.7% by other management representatives.

4.1.1 Distribution of respondents by company ownership

The distribution of respondents by company ownership showed that 45.2 % were foreign owned, while 25.8 % were locally owned and 29 % had joint ownership.

Table 1 - Distribution of respondents by Company Ownership

Ownership	No. of Respondents	Response Rate (%)
Local	8	25.8
Foreign	14	45.2
Joint	9	29
Total	31	100

4.1.2 Distribution of respondents by Industry

The distribution of respondents by industry is shown in table 2

Table 2 - Distribution of respondents by Industry

Industry	No. of Respondents	Response Rate (%)
Manufacturing	18	58.1
Service	13	41.9
Total	31	100

The results indicate that majority of respondents were in manufacturing sector at 58.1 %, while 41.9 % were in service sector.

4.1.3 Distribution of respondents by Scope of Company Operations

The distribution of respondents based on scope of company operations is shown in table 3

Table 3 - Distribution of respondents by scope of Operations

Scope of Operations	No. of Respondents	Response Rate (%)
Local	9	29
Regional	14	45.2
International	8	24.8
Total	31	100

Majority of respondents scope of operations was regional at 45.2 %, while 29 % had a local scope of operations and 24.8 % had an international scope.

4.1.4 Distribution of respondents by Company Size

The distribution of respondents based on number of employees is shown in table 4

Table 4 - Distribution of respondents by number of employees.

No. of employees	No. of Respondents	Response Rate (%)
Less than 50	2	6.4
50-100	1	3.2
101-300	15	48.4
301-500	6	19.4
Greater than 500	7	22.6
Total	31	100

The results indicate that majority of respondents had 101-300 employees (48.4%).

4.1.5 Distribution of respondents based on year of ISO 9000 Certification

The distribution of respondents based on year of first ISO 9000 certification is shown in table 5

Table 5 - Distribution of respondents by year of First ISO 9000 certification

Year of Certification	No. of Respondents	Response Rate (%)
1996	2	6.5
1997	3	9.7
1998	6	19.4
1999	6	19.4
2000	4	12.9
2001	3	9.7
2002	7	22.6
Total	31	100

The results indicate that the highest percentage (22.6%) of respondents got ISO 9000 certification in 2002.

4.2 Company Position on TQM Implementation

61 % of the respondents had implemented TQM on a company-wide basis, 25.8 % had implemented it only in core business departments and 12.9 % did so on pilot basis.

4.3 Reasons for adopting TQM

Respondents were asked to rate the degree to which any of the specified factors influenced their decision to adopt TQM, on a scale varying from “very important” to “not important”. Respondents rated 9 potential reasons for the TQM initiative. A weighted mean was calculated for each reason. Table 6 shows the results obtained and the mean score for each reason. The higher scores for the mean indicate higher levels of each construct.

Table 6 - Reasons for adopting TQM

	Reasons for adopting TQM	Weight			Mean Score
		2 Very important	1 important	0 not important	
1	To improve Market image	20	10	1	1.61
2	To motivate employees	10	17	3	1.23
3	To support Company Strategy	22	8	0	1.73
4	To improve Competitiveness	25	6	0	1.81
5	Pressure from customers	3	8	19	0.47
6	To improve Operational efficiency	27	4	0	1.87
7	To win new customers	14	8	8	1.2
8	To improve Market share	17	9	5	1.39
9	To improve Organisational effectiveness	28	3	0	1.9
10	Others: International recognition, continual improvement, quality assurance	3	1	0	1.75

The results indicate that the most important reason for adopting TQM is to improve organisational effectiveness. It had the highest mean score of 1.9 out of a maximum possible of 2, indicating that most of the respondents regarded this factor to have had a lot of influence on their decision to implement TQM. Other important reasons for adopting TQM were: to improve operational efficiency (1.87), improve competitiveness (1.81), support company strategy (1.73) and improve market image (1.61). Very few respondents enter other reasons besides the listed ones. Those who did so gave reasons such as need for quality assurance, continual improvement and to gain international recognition to have also influenced their decision to adopt TQM.

Pressure from customers was considered to be the least important reason for adopting TQM and indeed achieved a very low mean score (0.47) when compared to the rest of the factors.

4.4 Consultants used in TQM implementation

The respondents were to indicate the type of consultants used to plan/execute the TQM implementation. They could choose more than one type of consultant. The results are shown in table 7.

Table 7 – Type of Consultants used in TQM implementation

Consultants	No. of Respondents	Response Rate (%)
TQM consultant	19	61.3
Change Management Consultant	7	22.6
Human Resources Consultant	1	3.2
Information Technology Consultant	1	3.2
Others	7	22.6

The results indicate that most respondents engaged a TQM consultant (61.3%). A Change management consultant was also engaged by a number of respondents (22.6%). This indicates that a large number of respondents regard TQM as representing Organisational change. Those who indicated others (22.6%), mainly used their own staff to manage the implementation alongside the TQM consultant.

4.5 Effect of TQM implementation on Productivity

The respondents were to indicate the extent to which productivity slowed down as TQM was being introduced. The results are shown in table 8.

Table 8 - Effect of TQM implementation on Productivity

Extent of Productivity slow down during TQM implementation	No. of Respondents	Response Rate (%)
A little	5	16.1
Not at all	24	77.4
Significantly	2	6.5
Total	31	100

The results indicate that most (77.4%) of the responding companies' productivity was not negatively affected as TQM programme was being introduced. This indicates that the change management strategies were appropriate.

4.6 Approach used in TQM implementation

The respondents were asked to indicate the approach used in TQM implementation.

The results are shown in table 9.

Table 9 - Approach used in TQM implementation

Approach used in TQM implementation	No. of Respondents	Response Rate (%)
Introduced slowly through Pilot Program	19	61.3
Whole company rapidly exposed to TQM	8	25.8
Other Approaches	4	12.9
Total	31	100

The results indicate that majority of firms (61.3%), introduced TQM slowly through a pilot programme. This is in line with what is recommended by Oakland (1993) who advocates for a slow, planned purposeful approach since it minimises risk, enabling gradual change to take place.

4.7 Analyses of initial state of quality management

83.9 % of the respondents stated that the state of quality management was analysed before the TQM programme was implemented and only 16.1% stated that no such analysis was done. Analysing the state of affairs is regarded as very important by writers who see change management as a process of moving from one fixed state to another through a series of predictable and pre-planned steps (Cummings and Huse, 1989). This indicates that most respondents regard TQM as planned change.

4.8 Strategy for achieving TQM target

Respondents were to indicate whether strategy was developed to reach the target established by the TQM framework. 90.3% of the respondents indicated that they developed a strategy for achieving the target established by the TQM framework. Only 9.7% of the respondents did not.

4.9 Communication channels used

Respondents were to answer how the implementation of TQM and the changes required were communicated to the people affected. The results are presented in table

10. Table 11 shows the results obtained and the mean score for each change

Table 10 - Communication channels used

Communication channel used	No. of Respondents	Response Rate (%)
Workshops	26	83.9
Company newsletter	11	35.5
e-mail	10	32.3
Notice Board	16	51.6
No Communication was required	0	0
Other means	9	29

The most widely used channel of communication during TQM implementation is workshops. 83.9% of the respondents reported to have used it. No respondent indicated that no communication was required. Other means of communication (29%) were task group meetings, training sessions, management and departmental meetings.

4.10 Organisational Change Management Practices

Respondents were asked to rate the extent to which the organisational change methods/tools were applied during the implementation of TQM, on a scale varying from “very much” to “not at all”. Respondents rated 18 change methods based on the Kanter model of change. A weighted mean was calculated for each change method applied. Table 11 shows the results obtained and the mean score for each change method applied in TQM implementation.

Table 11 - Organisational change management practices

	Change methods/tools	Weight			Mean Score
		2 Very Much	1 Partially	0 Not at all	
1	Communicated regularly and openly with people involved	28	3	0	1.9
2	Encouraged local variation during implementation	9	15	6	1.1
3	Celebrating short term wins	7	15	9	0.9
4	Early involvement of people being affected	24	6	1	1.7
5	Established a (shared and motivating) vision	23	7	1	1.7
6	Aligning and mobilising leaders	23	8	0	1.7
7	Coaching of people involved	25	6	0	1.8
8	A sense of urgency was established	15	13	3	1.4
9	Defined structure & process to guide change	22	9	0	1.7
10	Dealing with resistance	7	17	6	1
11	Vocal and visible support of senior management	24	7	0	1.8
12	Facilitated learning/ skill building	22	9	0	1.7
13	Empowered people to act on the defined vision	19	11	1	1.6
14	Institutionalised new approaches through policy changes	17	12	1	1.5
15	Feedback (through employee survey, customer inquiry)	15	13	3	1.4
16	Used Change agents	8	9	13	0.8
17	Reward systems changed to support the change initiative	7	11	12	0.8
18	Hired, promoted, developed employees who could implement the vision	9	15	0	1.1

“Communicating regularly and openly with people involved” in the TQM programme is the most extensively applied element of change. It had a high mean score of 1.9 out of a maximum of 2, indicating that it was applied very much by most of the respondents.

Table 12 – Company Ownership and Organisational Change Management Practices

Change Management Practice	Mean Score	P-Value
Communicating regularly and openly with people involved	1.90	0.00
Vocal and visible support of senior management	1.75	0.09
Coaching of people involved	1.70	0.12
Early involvement of people being affected	1.65	0.15
Establishing a shared and motivating vision	1.60	0.18
Aligning and mobilising leaders	1.55	0.21
Facilitating learning/ skill building	1.50	0.24
Empowering people to act on the defined vision	1.45	0.27
Institutionalising new approaches through policy changes	1.40	0.30
Defined structure & process to guide change	1.35	0.33
Dealing with resistance	1.31	0.36
Using change agents	1.27	0.39
Changing reward systems	1.23	0.42
Celebrating short term wins	1.19	0.45
Encouraging local variation during implementation	1.15	0.48
Hiring, promoting and developing employees who could implement the vision	1.11	0.51
Establishing a sense of urgency	1.07	0.54
Providing feedback (through employee survey, customer inquiry)	1.03	0.57

Other elements of change that were applied to a large extent by respondents were: vocal and visible support of senior management, coaching of people involved, early involvement of people being affected, establishing a shared and motivating vision, aligning and mobilising leaders, facilitating learning/ skill building, empowering people to act on the defined vision, institutionalised new approaches through policy changes. These change elements had mean scores ranging from 1.5 to 1.8 on a scale of 0 to 2.

On the other hand, other change methods such as, using change agents, changing reward systems to support the change initiative and celebrating short term wins were applied the least. On overall they had mean scores close to 1, indicating that they were applied partially. Other change elements that were applied partially were: Encouraged local variation during implementation, dealing with resistance, hired, promoted and developed employees who could implement the vision, establishing a sense of urgency and providing feedback (through employee survey, customer inquiry).

management practices in TQM implementation depended on the company ownership. We can therefore conclude that there are no significant differences in the change management practices in TQM implementation between local, foreign and jointly owned firms.

4.10.1 Company Ownership and Organisational Change Management Practices

The responses on organisational change methods used during TQM implementation were tested using chi-square to check whether or not change management practices depended on the company ownership. The results are presented in table 12.

Table 12 – Company Ownership and Organisational Change Management Practices

	Change methods/tools	chi-square	P-Value
1	Communicated regularly and openly with people involved	0.2	0.9
2	Encouraged local variation during implementation	1.66	0.8
3	Celebrating short term wins	0.94	0.92
4	Early involvement of people being affected	3.07	0.3
5	Established a (shared and motivating) vision	3.81	0.43
6	Aligning and mobilising leaders	0.41	0.82
7	Coaching of people involved	2.73	0.26
8	A sense of urgency was established	3.26	0.52
9	Defined structure & process to guide change	2.79	0.25
10	Dealing with resistance	1.31	0.86
11	Vocal and visible support of senior management	0.75	0.69
12	Facilitated learning/ skill building	1.99	0.97
13	Empowered people to act on the defined vision	1.32	0.86
14	Institutionalised new approaches through policy changes	4.09	0.39
15	Feedback (through employee survey, customer inquiry)	2.8	0.59
16	Used Change agents	7.35	0.12
17	Reward systems changed to support the change initiative	1.64	0.8
18	Hired, promoted, developed employees who could implement the vision	1.05	0.91

The P-values for all the change methods/ tools are greater than 0.10 indicating that there is little or no real evidence to support the hypothesis that change management practices in TQM implementation depended on the company ownership. We can therefore conclude that there are no significant differences in the change management practices in TQM implementation between local, foreign and jointly owned firms.

4.10.2 Type of Industry and Organisational Change Management Practices

The responses on organisational change methods used during TQM implementation were tested to check whether or not change management practices depended on the Industry. The results are presented in table 13.

Table 13 – Type of Industry and Organisational Change Management Practices

	Change methods/tools	chi-square	P-Value
1	Communicated regularly and openly with people involved	4.6	0.032
2	Encouraged local variation during implementation	0.6	0.74
3	Celebrating short term wins	0.19	0.91
4	Early involvement of people being affected	0.88	0.64
5	Established a (shared and motivating) vision	1.46	0.48
6	Aligning and mobilising leaders	1.87	0.17
7	Coaching of people involved	0.23	0.63
8	A sense of urgency was established	0.23	0.3
9	Defined structure & process to guide change	2.4	0.86
10	Dealing with resistance	0.03	0.66
11	Vocal and visible support of senior management	3.23	0.072
12	Facilitated learning/ skill building	0.39	0.54
13	Empowered people to act on the defined vision	2.94	0.23
14	Institutionalised new approaches through policy changes	2.31	0.32
15	Feedback (through employee survey, customer inquiry)	3.45	0.18
16	Used Change agents	0.27	0.87
17	Reward systems changed to support the change initiative	5.63	0.06
18	Hired, promoted, developed employees who could implement the vision	7.22	0.027

The P-value for most of the change methods/ tools is greater than 0.10 indicating that that there is little or no real evidence that the application of these change tools in TQM implementation depended on the industry. However for items 1, 11,17 and 18 the P values were less than 0.1. The P-values for the change items: “Communicated regularly & openly with people involved” and “Hired, promoted, developed employees who could implement the vision” was between 0.01 and 0.05 indicating

that there was some evidence that the extent to which they were applied, depended on the industry. The P- values for the change items: “Vocal & visible support of senior management” and “Reward systems changed to support the change initiative” was between 0.05 and 0.10 indicating there was suggestive evidence that the extent to which they were applied, depended on the industry. The change practices with P-value less than 0.1 were analysed across industry and the results are shown in table 14.

Table 14 - Analysis of Change Practices across Industry

Item No.	Change methods/tools	Weighted Mean		P-Value
		Manufacturing	Service	
1	Communicated regularly and openly with people involved	2	1.77	0.032
11	Vocal and visible support of senior management	1.89	1.6	0.072
17	Reward systems changed to support the change initiative	1.06	0.62	0.06
18	Hired, promoted, developed employees who could implement the vision	1.28	0.77	0.027

The results indicate that the manufacturing sector is leading in the degree of application of all these change tools. A very significant result is that “communicating regularly and openly with people involved in TQM implementation” is applied universally within the manufacturing sector given the weighted mean score of 2 out of a maximum possible 2. The contrast across industry appears to be significant on the last two change methods i.e. “changing reward systems to support initiative” and “hiring, promoting & developing employees who could implement the vision”. The results indicate that firms in the manufacturing sector are changing their reward system to support the TQM initiative more than those in the service sector. Firms in the manufacturing sector also hired, promoted, developed employees who could implement the vision more readily than those in the service sector.

4.10.3 Scope of Company Operations and Organisational Change Management Practices

The responses on organisational change methods used during TQM implementation were tested to check whether or not change management practices depended on the scope of operations of the company. Results are presented in table 15.

Table 15 - Scope of Company Operations and Change Management Practices

	Change methods/tools	chi-square	P-Value
1	Communicated regularly and openly with people involved	0.2	0.91
2	Encouraged local variation during implementation	6.66	0.16
3	Celebrating short term wins	4.22	0.38
4	Early involvement of people being affected	4.52	0.34
5	Established a (shared and motivating) vision	1.27	0.87
6	Aligning and mobilising leaders	1.06	0.59
7	Coaching of people involved	1.39	0.5
8	A sense of urgency was established	2.4	0.5
9	Defined structure & process to guide change	2.1	0.35
10	Dealing with resistance	6.89	0.14
11	Vocal and visible support of senior management	1.17	0.6
12	Facilitated learning/ skill building	0.15	0.93
13	Empowered people to act on the defined vision	8.2	0.085
14	Institutionalised new approaches through policy changes	8.73	0.068
15	Feedback (through employee survey, customer inquiry)	8.18	0.085
16	Used Change agents	6.94	0.14
17	Reward systems changed to support the change initiative	5.74	0.22
18	Hired, promoted, developed employees who could implement the vision	9.73	0.045

As shown in table 15, the P-value for most of the change methods/ tools is greater than 0.10 indicating that that there is little or no real evidence to support a relationship for these change elements and scope of company operations. However, change items 13, 14,15 and 18 the P-Values were less than 0.1. The P-value for change items “Empowered people to act on the defined vision”; “Institutionalised new approaches through policy changes”; “Feedback (through employee survey, customer inquiry)”

was between 0.05 and 0.10 indicating that there was suggestive evidence that the extent to which they were applied depended on whether the firm had a local or regional or international scope in its operations.

The P-value for “Hired, promoted, developed employees who could implement the vision” was 0.045 indicating that there was moderate evidence that it’s degree of application depended on the firm’s scope of operations. The change practices with P-value less than 0.1 were analysed across scope of company operations and the results are shown in table 16.

Table 16 – Analysis of Change practices across scope of company operations

Item No.	Change methods/tools	Weighted Mean			P- Value
		Local	Regional	International	
13	Empowered people to act on the defined vision	1.33	1.79	1.5	0.085
14	Institutionalised new approaches through policy changes	1.11	1.62	1.88	0.068
15	Feedback (through employee survey, customer inquiry)	1.11	1.29	1.88	0.085
18	Hired, promoted, developed employees who could implement the vision	0.56	1.21	1.38	0.045

The results presented in table 16 indicate that firms with an international and regional scope of operations applied these change tools more than those that operated locally. The distinction is more pronounced in the application of change tool of hiring, promoting and developing employees to implement the vision. Firms with regional and international scope of operations applied it more than those that operated locally. They also institutionalised the new approaches through policy changes to a greater extent than those operating locally. Firms with regional and international scope of operations also empowered their people more than those operating locally. It is also interesting to note that those operating regionally empowered their employees more than those that operated internationally ($\bar{x} = 1.79 > \bar{x} = 1.5$).

Firms with an international scope applied feedback through employee surveys and customer inquiries much more than those that operated locally and regionally. ($\bar{x} = 1.88 > \bar{x} = 1.11$ and $\bar{x} = 1.33$).

4.10.4 Company Size and Organisational Change Management Practices

The responses on organisational change methods used during TQM implementation were tested to check whether or not change management practices depended on the size of the Company.

Table 17 - Company size and Change Management Practices

	Change methods/tools	chi-square	P-Value
1	Communicated regularly and openly with people involved	1.36	0.85
2	Encouraged local variation during implementation	5.72	0.68
3	Celebrating short term wins	9.88	0.27
4	Early involvement of people being affected	4.95	0.76
5	Established a (shared and motivating) vision	8.58	0.38
6	Aligning and mobilising leaders	8.21	0.084
7	Coaching of people involved	7.54	0.11
8	A sense of urgency was established	7.34	0.5
9	Defined structure & process to guide change	2.87	0.58
10	Dealing with resistance	2.9	0.94
11	Vocal and visible support of senior management	6.46	0.17
12	Facilitated learning/ skill building	2.67	0.61
13	Empowered people to act on the defined vision	4.11	0.85
14	Institutionalised new approaches through policy changes	9.54	0.3
15	Feedback (through employee survey, customer inquiry)	14.5	0.07
16	Used Change agents	8.58	0.38
17	Reward systems changed to support the change initiative	10.95	0.2
18	Hired, promoted, developed employees who could implement the vision	7.58	0.48

As shown in table 17, associated with chi-square tests, the P-value for most of the change methods/ tools is greater than 0.10 indicating that that there is little or no real evidence to support that their application depended on the size of the company.

However for change items 6 and 15 the P-values were less than 0.1. That is P-values for “Aligning and mobilising leaders” and “Feedback (through employee survey, customer inquiry)” was between 0.05 and 0.1, indicating that there was suggestive evidence that their application depended on the size of the company.

The change practices with P-value less than 0.1 were analysed across firms with different number of employees and the results are shown in table 18.

Table 18 - Analysis of Change practices across firms of different sizes

Item No.	Change methods/tools	Weighted Mean (Number of Employees)					P-Value
		< 50	50-100	101-300	301-500	> 500	
6	Aligning and mobilising leaders	1	2	1.73	2	1.71	0.084
15	Feedback (through employee survey, customer inquiry)	0.5	1	1.67	1	1.29	0.07

On the application of the change tool “aligning and mobilising” leaders, firms with less than 50 employees applied it least when compared to firms of a larger size. Firms with 101-300 employees led in the application of feedback through employee survey and customer inquiry while those with less than 50 employees applied it least.

4.11 Staff Training

Respondents were asked to rate the extent to which six types of staff training were carried out during TQM implementation on a scale varying from “All staff”, “Some staff” to “No staff”. A weighted mean score was calculated for each type of training. Table 19 shows the results obtained and the mean score for each type of training carried out during TQM implementation.

Table 19 - Staff Training

	Training	Weight			Mean Score
		2	1	0	
1	Leadership Training	1	25	3	0.9
2	Cross-functional training	10	17	4	1.2
3	Problem Solving	12	17	2	1.3
4	Productivity and Quality	22	9	0	1.7
5	Training on team building	11	16	4	1.2
6	Technical Training	5	23	3	1.1
7	Others	0	4	0	1

The results indicate that Productivity and Quality training is given more priority by majority of the firms during TQM implementation. All the training types had a mean score above one, meaning that they were all given by the firms to at least some of their staff. Other forms of training were on continuous improvement, customer relations and internal audit.

4.12 Problems/barriers during TQM implementation

Respondents were asked to rate the extent to which they experienced specified potential problems/barriers during TQM implementation. They rated 17 items of TQM implementation potential problems/barriers on a scale varying from “very much”, “partially” to “not at all”. A weighted mean was calculated for each problem/barrier experienced. Table 20 shows the results obtained and the mean score for each problem/barrier.

Table 20 - TQM implementation problems/barriers

	Weight	2	1	0	
	Problems and barriers	Very Much	Partially	Not at all	Mean Score
1	Not enough (visible) support from senior management	0	12	18	0.4
2	Technological limitations	0	18	12	0.6
3	Implementation took longer than expected	4	15	11	0.8
4	Workers antipathy to gathering and analysis of data on quality	4	17	8	0.9
5	Resistance of Middle Management to change	3	12	15	0.6
6	Inadequate resources	3	11	16	0.6
7	Budget was higher than expected	2	10	16	0.5
8	Inter-Departmental conflict	2	13	15	0.6
9	Resistance in other departments	3	15	11	0.7
10	Project was oversized, Scope was not well defined	1	7	22	0.3
11	Goals were too aggressive, Organisation not able to cope	1	7	20	0.3
12	Organisation Systems and procedures were not adapted to the new situation	5	10	15	0.7
13	No clear goals/objectives	1	7	22	0.3
14	Deep seated culture that was highly resistant to change	4	15	10	0.8
15	Seen as property of a specialist Group	5	10	15	0.7
16	Management resistance to employee involvement in decision making	0	12	17	0.4
17	Less consideration given to Employee issues	4	9	17	0.6
18	Others	0	0	0	

The results indicate that the main problem during TQM implementation is workers antipathy to gathering and analysis of data on quality ($\bar{x} = 0.9$). The other key problems experienced during TQM implementation were that implementation took longer than expected ($\bar{x} = 0.8$), deep seated culture that was highly resistant to change ($\bar{x} = 0.8$), resistance by other departments ($\bar{x} = 0.7$), Organisation systems and procedures that were not adapted to the new situation ($\bar{x} = 0.7$), it was seen as property of a specialist group ($\bar{x} = 0.7$) and less consideration was given to employee issues ($\bar{x} = 0.6$).

4.12.1 Analysis of Problems/barriers of TQM implementation by Company ownership

The responses on problems/barriers experienced during TQM implementation were tested to check whether or not they depended on the Company ownership.

Table 21 - TQM implementation Problems/barriers by Company ownership

	Problems and barriers	Chi- Square	P-Value
1	Not enough (visible) support from senior management	1.79	0.41
2	Technological limitations	6.91	0.032
3	Implementation took longer than expected	12.58	0.014
4	Workers antipathy to gathering and analysis of data on quality	2.5	0.65
5	Resistance of Middle Management to change	5.04	0.28
6	Inadequate resources	4.39	0.36
7	Budget was higher than expected	4.28	0.37
8	Inter-Departmental conflict	6.59	0.16
9	Resistance in other departments	7.11	0.13
10	Project was oversized, Scope was not well defined	8.26	0.083
11	Goals were too aggressive, Organisation not able to cope	1.28	0.87
12	Organisation Systems and procedures were not adapted to the new situation	6.87	0.14
13	No clear goals/objectives	4.17	0.38
14	Deep seated culture that was highly resistant to change	7.82	0.098
15	Seen as property of a specialist Group	8.21	0.094
16	Management resistance to employee involvement in decision making	3.63	0.16
17	Less consideration given to Employee issues	4.41	0.35

As shown in table 21, associated with chi-square tests, the P-value for most of the problems/ barriers are greater than 0.10 indicating that there is little or no real evidence to support the hypothesis that problems/barriers are dependent on company ownership. However for items 2, 3, 10, 14 and 15 the P values were less than 0.1. The P-values for “Technological limitations” and “Implementation took longer than expected” were between 0.01 and 0.05 indicating that there was moderate evidence that the extent to which they were experienced depended on the company ownership.

The P-values for “Project was oversized, scope not well defined”, “Deep seated culture that was highly resistant to change” and “Seen as property of a specialist group” were between 0.05 and 0.1 indicating that there was suggestive evidence that the extent to which the problems were experienced depended on the company ownership.

The problems/barriers with P-value less than one were analysed across Company Ownership and the results are shown in table 22.

Table 22 - Analysis of Problem/barrier across Company ownership

Item No.	Problems/barriers	Weighted Mean			P-Value
		Local	Foreign	Joint	
2	Technological limitations	0.5	0.9	0.3	0.032
3	Implementation took longer than expected	0.7	0.9	0.3	0.014
10	Project was oversized, Scope was not well defined	0.1	0.6	0	0.083
14	Deep seated culture that was highly resistant to change	0.4	1.2	0.4	0.098
15	Seen as property of a specialist Group	0.6	0.9	0.3	0.094

It is interesting to note that on all these 5 potential problem areas, foreign owned firms experienced them the most while jointly owned firms experienced them the least.

4.12.2 Problems/barriers of TQM implementation by Industry

The responses on problems/barriers experienced during TQM implementation were tested to check whether or not they depended on Industry.

Table 23 - TQM implementation Problems/barriers by Industry

	Problems and barriers	Chi-Square	P-Value
1	Not enough (visible) support from senior management	2.16	0.14
2	Technological limitations	0.0006	0.98
3	Implementation took longer than expected	6.64	0.036
4	Workers antipathy to gathering and analysis of data on quality	5.52	0.063
5	Resistance of Middle Management to change	1.82	0.4
6	Inadequate resources	2.17	0.34
7	Budget was higher than expected	3.59	0.17
8	Inter-Departmental conflict	7.7	0.021
9	Resistance in other departments	4.7	0.094
10	Project was oversized, Scope was not well defined	2.53	0.28
11	Goals were too aggressive, Organisation not able to cope	4.73	0.094
12	Organisation Systems and procedures were not adapted to the new situation	4.12	0.13
13	No clear goals/objectives	1.46	0.48
14	Deep seated culture that was highly resistant to change	2.12	0.35
15	Seen as property of a specialist Group	3.88	0.14
16	Management resistance to employee involvement in decision making	0.83	0.36
17	Less consideration given to Employee issues	3.53	0.17

From table 23, associated with chi-square tests The P-value for most of the problems/barriers are greater than 0.10 indicating that there is little or no real evidence to support the contention that they are dependent on industry. However for items 3, 4, 8, 9 and 11 the P values were less than 0.1. As can be observed from table 23, the P-values “Implementation took longer than expected” and “Inter-Departmental conflict” the P values were less than 0.05 implying that these problems/barriers experienced were industry specific. The P-values for “ Workers antipathy to gathering and analysis of data on quality”, “Resistance in other departments” and “Goals were too aggressive, Organisation not able to cope” the P values were between 0.05 and 0.1

indicating that there was suggestive evidence that the extent to which the problems were experienced depended on the industry.

The problems/barriers with P-value less than one were analysed across industry and the results are shown in table 24.

Table 24 – Analysis of Problems/barrier across Industry

Item No.	Problems/barriers	Weighted Mean		
		Manufacturing	Service	P-Value
3	Implementation took longer than expected	0.56	1.08	0.036
4	Workers antipathy to gathering and analysis of data on quality	0.61	1.17	0.063
8	Inter-Departmental conflict	0.29	0.92	0.021
9	Resistance in other departments	0.5	1	0.094
11	Goals were too aggressive, Organisation not able to cope	0.22	0.45	0.094

As shown in table 24, the results indicate that for all the problems/barriers were experienced to a greater extent by firms in the service sector than by manufacturing firms. In fact the problems are approximately twice as high in the service sector compared to the manufacturing sector.

4.12.3 Problems/barriers of TQM implementation in relation to Scope of company operations

The responses on problems/barriers experienced during TQM implementation were tested to check whether or not they depended on the scope of company operations. The results are presented in table 25.

Table 25 - TQM implementation Problems/barriers in relation to Scope of company operations

	Problems and barriers	Chi- Square	P-Value
1	Not enough (visible) support from senior management	1.16	0.56
2	Technological limitations	0.86	0.65
3	Implementation took longer than expected	5.63	0.23
4	Workers antipathy to gathering and analysis of data on quality	4.45	0.35
5	Resistance of Middle Management to change	1.85	0.76
6	Inadequate resources	3.65	0.46
7	Budget was higher than expected	9.17	0.057
8	Inter-Departmental conflict	7.58	0.11
9	Resistance in other departments	1.09	0.9
10	Project was oversized, Scope was not well defined	4.99	0.29
11	Goals were too aggressive, Organisation not able to cope	5.92	0.21
12	Organisation Systems and procedures were not adapted to the new situation	4.58	0.33
13	No clear goals/objectives	3.49	0.48
14	Deep seated culture that was highly resistant to change	4.19	0.38
15	Seen as property of a specialist Group	6.67	0.15
16	Management resistance to employee involvement in decision making	1.13	0.57
17	Less consideration given to Employee issues	2.33	0.68

Only one problem/barrier: “Budget was higher than expected” was significant at chi-square = 9.2, $P < 0.1$. This suggests that problems and barriers are largely independent of the scope of operations.

The problems/barriers with P-value less than one was analysed across company scope of operations and the results are shown in table 26.

Table 26 Analysis of Problems/barriers across operational scope

Item No.	Problems/barriers	Weighted Mean			P-Value
		Local	Regional	International	
7	Budget was higher than expected	0.5	0.29	0.75	0.057

The results indicate that the problem of implementation budget being exceeded was

greatest among firms with an international scope of operations and least among regional firms ($0.75 > 0.5 > 0.3$, $P < 0.1$). The problems of budget overrun were greater among international firms, followed by regional ones and then local ones.

4.12.4 Problems/barriers of TQM implementation in relation to Size of the company

The responses on problems/barriers experienced during TQM implementation were tested to establish whether or not they depended on the size of the company.

Table 27 - TQM implementation Problems/barriers in relation to Size of the company

	Problems and barriers	Chi- Square	P-Value
1	Not enough (visible) support from senior management	6.29	0.18
2	Technological limitations	5.09	0.28
3	Implementation took longer than expected	5.88	0.66
4	Workers antipathy to gathering and analysis of data on quality	4.96	0.76
5	Resistance of Middle Management to change	2.39	0.97
6	Inadequate resources	11.13	0.19
7	Budget was higher than expected	4.8	0.68
8	Inter-Departmental conflict	4.9	0.77
9	Resistance in other departments	9.55	0.3
10	Project was oversized, Scope was not well defined	2.4	0.97
11	Goals were too aggressive, Organisation not able to cope	2.63	0.86
12	Organisation Systems and procedures were not adapted to the new situation	8.97	0.38
13	No clear goals/objectives	3.13	0.93
14	Deep seated culture that was highly resistant to change	8.18	0.42
15	Seen as property of a specialist Group	12.14	0.15
16	Management resistance to employee involvement in decision making	3.55	0.47
17	Less consideration given to Employee issues	6.97	0.54

As shown in the table none of the problems/barriers had a significant relationship with the size of the company, suggesting that company size is independent of TQM implementation problems.

4.13 TQM Program and shared vision

Respondents were requested to indicate if the implementation of the TQM Program has resulted in a shared vision in the company. The results are in table 28.

Table 28 - TQM Program and shared vision

Shared vision achieved with TQM implementation	No. of Respondents	Response Rate (%)
Yes	27	90
No	3	10
Total	30	100

As shown in table 28, 90% of the respondents indicated that the implementation of TQM program has resulted in a shared vision in the company. This result is in line with literature where vision is viewed as very important for managing change.

4.14 Outcomes of the TQM Programme

Respondents were asked to indicate the extent of the outcomes from the TQM programme. They rated the outcomes on a scale varying from “very good improvement”, “some improvement” to “no improvement”. A weighted mean was calculated for each outcome. Table 29 shows the results obtained and the mean score for each outcome.

Table 29 - Structural changes from the TQM Programme

Change	Weight			Mean Score
	2	1	0	
1. Layers of Management reduced	9	12	12	0.8
2. Changed from functional to process based structures	19	7	5	1.3
3. A cross functional structure was created	15	6	7	1.3
4. Offsite cross levels of functional & process	1			

Table 29 - Outcomes of the TQM Programme

	Outcomes	Weight			Mean Score
		2	1	0	
		Very good improvement	Some Improvement	No Improvement	
1	Product or quality	21	9	1	1.6
2	Customer Satisfaction	13	16	0	1.4
3	Internal Process Efficiency	22	9	0	1.7
4	Market Share	6	17	6	1
5	Employee Motivation	4	19	7	0.9
6	Industrial Relations	5	15	10	0.8
7	Employee Satisfaction	4	19	7	0.9
8	Internal Communication	17	14	0	1.5
9	Profitability	16	12	2	1.5

The biggest improvement as a result of the TQM programme is on internal process efficiency ($\bar{x} = 1.7$). Other key improvements are on product or quality ($\bar{x} = 1.6$), internal communication ($\bar{x} = 1.5$) and profitability ($\bar{x} = 1.5$). It is interesting to note that matters touching directly on the employees such as Industrial relations, Employee Motivation ($\bar{x} = 0.9$) and Employee satisfaction ($\bar{x} = 0.9$) had shown the least improvement as a result of the TQM programme.

4.15 Structural changes from the TQM Programme

Respondents were asked to indicate the extent of the potential structural changes that resulted from the TQM project. Table 30 indicates the results of the structural changes.

Table 30 - Structural changes from the TQM Programme

	Changes	Weight			Mean Score
		2	1	0	
		Significantly	Partially	Not at all	
1	Layers of Management reduced	7	12	12	0.8
2	Changed from functional to process based structures	19	7	5	1.5
3	A cross functional structure was created	15	9	7	1.3
4	Others: cross breed of functional & process	1			

The results indicate that the most significant structural changes that occurred as a result of TQM project were changes from functional to process based structures ($\bar{x} = 1.5$). Structural changes like creation of a cross-functional structure ($\bar{x} = 1.3$) and reduction in the layers of management ($\bar{x} = 0.8$) occurred partially. The least changes were noted in the reduction of layers of management ($\bar{x} = 0.8$).

4.16 Cultural changes resulting from TQM Programme

Respondents were asked to rate the extent to which the potential cultural changes were as a result of the TQM project. Table 31 shows the results of the cultural changes.

Table 31- Cultural Changes resulting from TQM Programme

Weight	2	1	0	Mean Score	
Cultural changes	Significantly	Partially	Not at all	Mean Score	
1	Radical challenge in the Values	10	17	2	1.3
2	From Individualism to Co-operative team working	20	11	0	1.6
3	From functional to cross functional approach to work	18	8	5	1.4
4	From directive leadership to team leader/coach approach	11	14	6	1.2
5	From focus on productivity to focus on Quality	22	7	2	1.9
6	From focus on profits to focus on customer satisfaction	16	14	1	1.5
7	From decisions based on gut-feeling to analytic fact-based approach	20	11	0	1.6
8	From shut off to a more open management.	19	8	3	1.5
9	Others	2			

The biggest cultural changes that resulted from the TQM project was the change in focus from productivity to focus on Quality ($\bar{x} = 1.9$). Other key cultural changes that can be noted from the analysis are changes from individualism to co-operative team working ($\bar{x} = 1.6$), from decisions based on gut feeling to analytic fact-based approach ($\bar{x} = 1.6$), from focus on profits to focus on customer satisfaction ($\bar{x} = 1.5$) and from shut off to a more open management ($\bar{x} = 1.5$).

4.17 Process changes due to TQM Programme

Respondents were asked to indicate the extent to which the company processes had changed with the implementation of the TQM Program.

Table 32 - Process changes due to TQM Programme

Extent of Changes in Processes with TQM implementation	No. of Respondents	Response Rate (%)
Partially	16	53.3
Very Much	14	46.7
Not at all	0	0
Total	30	100

As can be observed from table 32, 53.3% of the respondents indicated that the company processes changed partially with the implementation of the TQM, 46.7 % indicated that their processes changed very much and none reported that their processes did not change. We can thus conclude that the implementation of TQM leads to changes in company processes. In describing how the processes have changed, a number stated that the processes have become more efficient, effective and customer focused.

4.18 Changes required to ensure success of a TQM Programme

Respondents were asked to rate the changes required to successfully implement a TQM solution. They rated the changes required on a scale varying from “very important”, “important” to “not important”. A weighted mean was calculated for each construct. Table 33 shows the results obtained and the mean score for each construct.

Table 33 - Changes required to ensure success of TQM Programme

		Weight			Mean Score
		2	1	0	
	Changes	Very important	important	Not Important	
1	Cultural changes	23	7	1	1.7
2	Changes in Processes	14	13	4	1.3
3	Changes in Organisational Structure	9	15	7	1.1
4	Others	2			

The most important changes required to successfully implement a TQM solution are cultural changes ($\bar{x} = 1.7$). Changes in Processes and Organisational structure were also considered to be important by respondents though on a much lower scale ($\bar{x} = 1.3$, $\bar{x} = 1.1$). Very few respondents gave other reasons besides the given ones. Those who did so also gave leadership and a shared vision between management and employees as very important factors.

4.19 Factors necessary for successful TQM implementation

Respondents were asked to rate the main factors that can ensure that TQM is implemented successfully. They rated the factors on a scale varying from “very important”, “important” to “not important”. A weighted mean was calculated for each factor. Table 34 shows the results obtained and the mean score for each factor.

Table 34 - Factors necessary for successful TQM implementation

		Weight			Mean Score
		2	1	0	
Factors		Very important	important	Not Important	
1	Early involvement of people being affected by the changes	31	0	0	2
2	Commitment/Buy in of middle management	25	6		1.8
3	Commitment/Buy in of senior management	31	0	0	2
4	Aligning Company procedures & systems to support the initiative	21	10	0	1.7
5	Appropriate resources & Management systems	23	8	0	1.7
6	Appropriate training and coaching for people involved	27	3	0	1.9
7	Establishing a shared and motivating vision	23	8	0	1.7
8	Vocal and visible support of senior management	25	6	0	1.8
9	Realisation and celebration of short term wins	5	19	7	1.3
10	Creating an open communication and collaboration atmosphere	24	7	0	1.8
11	Communicating and explaining the changes involved with the implementation	22	9	0	1.7
12	Establishing a sense of urgency/ burning platform	8	14	8	1
13	Change of reward systems to support change initiative	13	15	2	1.4
14	TQM should evolve from organisation's Strategic plan	22	8	1	1.7

The results indicate that the most important factors for a successful TQM implementation are early involvement of people being affected by the changes ($\bar{x} = 2$) and Commitment/Buy in of senior management ($\bar{x} = 2$). All the respondents marked these factors to be very important. Other important factors are: appropriate training and coaching for people involved, commitment/buy in of middle management, vocal and visible support of senior management, creating an open communication and collaboration atmosphere, aligning Company procedures and systems to support the initiative, appropriate resources and management systems, establishing a shared and motivating vision, communicating and explaining the changes involved with the implementation and letting TQM to evolve from organisation's strategic plan.

CHAPTER FIVE: DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

This chapter discusses, summarises and concludes on the findings of the study in relation to the objectives put forward in chapter 2. Study limitations, recommendations and suggestions for further research are also presented.

5.1 Discussion and Summary

The study sought to achieve two objectives namely:

1. To establish the Change Management practices used by ISO 9000 firms during TQM implementation
2. To establish the main barriers in TQM implementation by ISO 9000 certified firms in Kenya.

The response rate of 52% represents a significant proportion (29%) of ISO 9000 certified firms in Kenya.

The study established that implementation of TQM is a change process that results in significant changes in organisational structure, culture and processes. Change Management concepts are very much applied by Kenyan firms during TQM implementation.

The results support those of Grant et al. (1994), Oakland (1993), Dale and Cooper (1992), Packard (1995) and Hyde (1992) that TQM results in radical changes to organisational structure, practices, systems, processes and culture. The study results rate cultural changes as a more important success factor for TQM implementation over structural and process changes. The most significant structural changes that

occurred as a result of TQM project were changes from functional to process based structures. Regarding the cultural changes, the study established that the TQM project resulted: in a change in focus from productivity to quality, led to more co-operative team working, more analytic approach at problem solving, focus on customer satisfaction over profits and a more open management style.

83.9 % of the respondents reported that they analysed their current state of quality management before the TQM programme was implemented. Analysing the present state of affairs is regarded as very important by writers who see change management as a process of moving from one fixed state to another through a series of predictable and pre-planned steps (Cummings and Huse, 1989). This indicates the planned change model is followed during TQM implementation by Kenyan firms.

The main motives for adopting TQM by Kenyan firms, is to improve organisational effectiveness, improve operational efficiency, improve competitiveness, support company strategy and improve market image. These results are consistent with other writers who argue that the main motives for TQM is to improve competitiveness, organisational effectiveness, efficiency and principally be able to meet and satisfy customer needs (Porter, 1980; Spencer, 1994; Oakland, 1993; Kanter, 1984; Berry, 1990). Pressure from customers was considered not to be an important reason for adopting TQM. The initiative for adopting TQM is mainly due to desire to improve organisation and improve competitiveness. Most firms in Kenya are voluntarily choosing the path of TQM and only a few have been pressurised by their customers.

The Change management tools and methods that were applied very much during TQM implementation include:

- * Communicating regularly and openly with people involved in the TQM programme
- * Vocal and visible support of senior management
- * Coaching of people involved, early involvement of people being affected
- * Establishing a shared and motivating vision
- * Aligning and mobilising leaders
- * Facilitating learning/ skill building
- * Empowering people to act on the defined vision
- * Institutionalising new approaches through policy changes.

The Change methods applied partially during TQM implementation are:

- * Encouraging local variation during implementation
- * Dealing with resistance
- * Hiring, promoting, developed employees who could implement the vision
- * Establishing a sense of urgency
- * Feedback through employee survey, customer inquiry.

Change tools like using change agents, changing reward systems to support the change initiative and celebrating short term wins are applied the least. This may be due to their cost implications.

The results show that factors at both the individual and organisational levels are well taken into account during the change process. This confirms that change management

practices in TQM implementation by ISO 9000 certified firms in Kenya are consistent with those advocated by Kanter et al. (1992) who recognise that a supportive organisational context is very important in order for the change process to succeed. The study established that most of the elements of Kanter et al. (1992) model of change were very much applied except for change elements like, using changing reward systems to support the change initiative and celebrating short term wins that were applied moderately.

The study results indicate that the most important factors for a successful TQM implementation in Kenya are: early involvement of people being affected by the changes, Commitment/Buy in of senior management, appropriate training and coaching for people involved, commitment/buy in of middle management, vocal and visible support of senior management, creating an open communication & collaboration atmosphere, aligning company procedures & systems to support the initiative, appropriate resources & management systems, establishing a shared & motivating vision, communicating and explaining the changes involved with the implementation and that TQM should evolve from organisation's strategic plan. These results support those advocated by change writers including Goldsmith and Clutterbuck (1985), Kanter (1984), Kotter (1996) and Kanter et al.(1992).

The study also established that there are no significant differences in the change management practices in TQM implementation between local, foreign and jointly owned firms.

The results indicate that firms within the manufacturing sector communicated more regularly and openly with people involved in TQM implementation, changed their reward system more to support the TQM initiative and more readily hired, promoted, developed employees who could implement the vision than those within the service sector.

When comparing problems across company ownership, it was established that foreign

On the scope of company operation, it established that firms with an international and regional scope of operations more readily hired, promoted and developed employees to implement the vision, institutionalised the new approaches through policy changes to a greater extent and empowered their people more than those that operated locally. However those operating regionally, empowered their employees more than those that operated internationally.

Firms with an international scope applied feedback through employee surveys and customer inquiries much more than those that operated locally and regionally.

Goals were too aggressive, were experienced to a much greater extent by firms in the

The main problems/barriers experienced by Kenyan firms during TQM implementation, identified by the study were:

- * Workers antipathy to gathering and analysis of data on quality.
- * Implementation took longer than expected
- * Deep seated culture that is highly resistant to change
- * Resistance by other departments,
- * Organisation systems and procedures were not adapted to the new situation,
- * TQM seen as property of a specialist group
- * Less consideration was given to employee issues.

The results indicate that most of the problems are centred mainly around the organisational culture & people related issues and to a less extent around technological issues. These findings are consistent with those put forward by many writers including Oakland (1993), Packard (1995) and Hyde (1992).

When comparing problems across company ownership, it was established that foreign owned firms experienced the problems of technological limitations, project being oversized, scope not being well defined, deep seated culture that was highly resistant to change much more than the Jointly & locally owned firms. A possible explanation could be that they more readily acknowledged their experience with these problems.

The results for the problem/ barriers across industry sector show that problems like Implementation taking longer than expected, Inter-Departmental conflict, Workers antipathy to gathering and analysis of data on quality, Resistance in other departments, Goals were too aggressive, were experienced to a much greater extent by firms in the service sector than by manufacturing firms. This might be due to the fact that manufacturing firms have more experience with quality issues than service firms.

The results across scope of operations show that the problem of implementation budget being exceeded was greatest among firms with an international scope of operations and least among regional firms.

The results across firms of different sizes, established that there were no significant differences in the problem/barriers between firms of different sizes.

The biggest improvements of the TQM programme were on internal process efficiency, product or quality, internal communication and profitability. These results are consistent with those of Hendriks and Singhal (1997), Berry (1990) who stated that the principal advantages and benefits of TQM are improved profitability and competitiveness, improved organisational effectiveness and improved customer satisfaction.

Matters touching directly on the employees such as Industrial relations, Employee Motivation and Employee satisfaction had the least improvement as a result of the TQM programme. Wilkinson et al. (1992) had also pointed out that often, less consideration is given to the “softer” issues like Employee Motivation, Employee Satisfaction, and Industrial Relations, arguing that this could be the reason for many TQM failures.

5.2 Conclusion

The results of the study provided some evidence on the change management practices and problems experienced during TQM implementation by Kenyan firms. The conclusion drawn from the study is that, change management concepts are very much applied by Kenyan firms during TQM implementation. The change management practices applied by Kenyan firms are consistent to those in the developed countries. Some differences were noted on the emphasis placed on the use of change agents, changing reward systems to support the change initiative, celebrating short term wins, encouraging local variation during implementation and dealing with resistance. These change elements were applied partially by Kenyan firms in contrast to what is in

literature that recommends they be applied very much. Other differences noted though on a lower scale was on establishing a sense of urgency and use of feedback through employees & customer survey that were also applied partially.

5.3 Limitations of the study

It is evident from the study that change is a fundamental aspect of TQM. The results indicate that organisations should deal openly with change. For TQM implementation to succeed it is important for top management to have a clear vision, communicate openly, build commitment & support from all stakeholders, align organisational systems & practices to support the initiative and TQM should evolve from organisation's strategic plan. Patience is also required, as the results indicated that most TQM projects took longer than anticipated to implement. Majority of the firms, follow a slow, planned purposeful approach in TQM implementation involving pilot projects. Oakland (1993) also recommended this approach.

The study also established that the main barriers during TQM implementation is on workers antipathy to gathering & analysing data on quality, deep seated culture that is resistant to change and that implementation often takes longer than anticipated and resistance in other departments.

The study confirmed that implementation of TQM, results in significant changes in organisational structure, culture and processes. The most significant structural change was in a change from functional to process based structures. Reduction in the layers of management was minimal.

The study established that the main benefits from the TQM programme were on

internal process efficiency, product or quality, internal communication and profitability.

5.3 Limitations of the study

The study did not assess the conditions that existed in the firm before TQM was implemented. The prevailing conditions before TQM implementation would provide answers as to why the change management practices were applied.

Another limitation was on the time factor. A number of firms had not returned the questionnaire by the deadline, only 52 % responded.

5.4 Recommendations for further research

The study focused on companies that have successfully implemented TQM, signified by ISO 9000 certification. It would have been important to study even those that have tried to implement TQM but failed. Focus should be on why these change management practices are chosen and whether they can be related to the success or failure of the implementation.

The study results indicate that a number of organisations' structures changed from functional to process based structures. Establishment of a cross-functional structure was also noted to some extent. It would be interesting for future research to establish the organisational implications for these structures.

The study noted that organisational culture is an important factor for successful implementation of TQM. Future research should consider looking into how different company cultures affect the success of TQM implementation. and establish the kind of company culture could best support TQM.

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The results indicate that firms within the manufacturing sector communicated more regularly and openly with people involved in TQM implementation, changed their reward system more to support the TQM initiative and more readily hired, promoted, developed employees who could implement the vision than those within the service sector. Future research should seek to establish the reasons for these differences.

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APPENDIX 1: LETTER OF INTRODUCTION



UNIVERSITY OF NAIROBI

FACULTY OF COMMERCE

MBA PROGRAM - LOWER KABETE CAMPUS

Telephone: 732160 Ext. 208
Telegrams: "Varsity", Nairobi
Telex: 22095 Varsity

P.O. Box 30197
Nairobi, Kenya

DATE 23/6/2003

TO WHOM IT MAY CONCERN

The bearer of this letter RONALD M. MITUMO

Registration No: D61/P/7883/2000

is a Master of Business Administration (MBA) student of the University of Nairobi.

He/she is required to submit as part of his/her coursework assessment a research project report on some management problem. We would like the students to do their projects on real problems affecting firms in Kenya. We would, therefore, appreciate if you assist him/her by allowing him/her to collect data in your organization for the research.

The results of the report will be used solely for academic purposes and a copy of the same will be availed to the interviewed organizations on request.

Thank you.


M. B. A. OFFICE * ATTN: P. O. BOX 30197
JACKSON MAALU
CO-ORDINATOR, MBA PROGRAM
UNIVERSITY COMMERCE FACULTY

APPENDIX 2: QUESTIONNAIRE

Change Management Practices in Total Quality Management implementation - A Survey of ISO 9000 certified firms in Kenya.

NB: This study regards Total Quality Management (TQM) as a systematic and co-ordinated company-wide effort to continuously improve the quality of a firm's products and services, so that they meet the customers' needs and expectations. ISO 9000 certification is taken to signify presence of a TQM system.

SECTION 1: Background information on the firm

1. Company Name _____(optional)

2. Company Ownership (Please tick as appropriate)

a) Local ()

b) Foreign ()

c) Joint (foreign and local) ()

3. Please indicate the industry that you are primarily involved in.

a) Manufacturing ()

b) Service ()

c) Any other, specify _____

4. Please indicate the main scope of your company's operations?

a) Local ()

b) Regional ()

c) International ()

5. Please indicate the number of employees in your company

a) less than 50 ()

b) 50-100 ()

c) 101-300 ()

d) 301-500 ()

e) Greater than 500 ()

6. In which year did you receive ISO 9000 certification? _____

7. What is the scope of your certification? _____

SECTION 2: Information on TQM Project set up

8. What is your company's position in the process of TQM implementation?

- a) Pilot stage, (e.g. only in one department) ()
- b) Implemented Company wide ()
- c) Implemented only in core business departments ()

9. What were the most important reasons for the decision to adopt the Total Quality management programme?

	Reasons	Very important	important	not important
1	To improve Market image			
2	To motivate employees			
3	To support Company Strategy			
4	To improve Competitiveness			
5	Pressure from customers			
6	To improve Operational efficiency			
7	To win new customers			
8	To improve Market share			
9	To improve Organisational effectiveness			
10	Any other, specify _____			

10. Please indicate which consultants were used to plan/execute the TQM implementation.

- a) TQM consultant ()
- b) Change Management consultant ()
- c) Human Resources Consultant ()
- d) Information Technology consultant ()
- e) Any other, specify _____

11. To what extent did the productivity of your company slow down during the TQM implementation?

- a) A little ()
- b) Not at all ()
- c) Significantly ()

12. What approach did you use in TQM implementation?

- a) TQM introduced slowly through a pilot programme ()
- b) Whole company rapidly exposed to TQM ()
- c) Other approaches(Please specify) _____

13. Was the state of quality management at the time the TQM was introduced analysed before the TQM was implemented?

- Yes ()
- No ()

14. Was a strategy developed on how to reach the target established by the TQM framework?

- Yes ()
- No ()

SECTION 3: Information on Change Management Techniques

15. How was the implementation of TQM and the changes required communicated to the people affected?

- a) Workshops
- b) Company newsletter
- c) e-mail
- d) Notice Board
- e) No communication was required
- d) Any other, specify _____

16. To what extent were the following organisational change methods/tools used during the implementation of TQM?

	Change methods/tools	Very Much	Partially	Not at all
1	Communicated regularly and openly with people involved			
2	Encouraged local variation during implementation			
3	Celebrating short term wins			
4	Early involvement of people being affected			
5	Established a (shared and motivating) vision			
6	Aligning and mobilising leaders			
7	Coaching of people involved			
8	A sense of urgency was established			
9	Defined structure & process to guide change			
10	Dealing with resistance			
11	Vocal and visible support of senior management			
12	Facilitated learning/ skill building			
13	Empowered people to act on the defined vision			
14	Institutionalised new approaches through policy changes			
15	Feedback (through employee survey, customer inquiry)			
16	Used Change agents			
17	Reward systems changed to support the change initiative			
18	Hired, promoted, developed employees who could implement the vision			

17. What kind of training did your staff receive during the TQM implementation?

	Training	All staff	Some staff	No staff
1	Leadership Training			
2	Cross-functional training			
3	Problem Solving			
4	Productivity and Quality			
5	Training on team building			
6	Technical Training			
7	Others, Specify _____			

18. To what extent were the following problems/barriers experienced during the TQM implementation?

	Problems and barriers	Very Much	Partially	Not at all
1	Not enough (visible) support from senior management			
2	Technological limitations			
3	Implementation took longer than expected			
4	Workers antipathy to gathering and analysis of data on quality			
5	Resistance of Middle Management to change			
6	Inadequate resources			
7	Budget was higher than expected			
8	Inter-Departmental conflict			
9	Resistance in other departments			
10	Project was oversized, Scope was not well defined			
11	Goals were too aggressive, Organisation not able to cope			
12	Organisation Systems and procedures were not adapted to the new situation			
13	No clear goals/objectives			
14	Deep seated culture that was highly resistant to change			
15	Seen as property of a specialist Group			
16	Management resistance to employee involvement in decision making			
17	Less consideration given to Employee issues			
18	Others, Specify _____			

SECTION 4: Information on TQM Project Outcomes

19. Has the implementation of the TQM Program resulted in a shared vision in the company?

- a) Yes ()
b) No ()

20. Please indicate the extent to which the following outcomes were achieved as a result of the implementation of the TQM programme

	Outcomes	Very good improvement	Some Improvement	No Improvement
1	Product or quality			
2	Customer Satisfaction			
3	Internal Process Efficiency			
4	Market Share			
5	Employee Motivation			
6	Industrial Relations			
7	Employee Satisfaction			
8	Internal Communication			
9	Profitability			
10	Any other, specify _____			

21. Please indicate the extent to which of the following structural changes resulted from the TQM project?

	Changes	Significantly	Partially	Not at all
1	Layers of Management reduced			
2	Changed from functional to process based structures			
3	A cross functional structure was created			
4	Any other, Specify _____			

22. Please indicate the extent to which the following cultural changes resulted from the TQM project?

	Cultural changes	Significantly	Partially	Not at all
1	Radical challenge in the Values			
2	From Individualism to Co-operative team working			
3	From functional to cross functional approach to work			
4	From directive leadership to team leader/coach approach			
5	From focus on productivity to focus on Quality			
6	From focus on profits to focus on customer satisfaction			
7	From decisions based on gut-feeling to analytic fact-based approach			
8	From shut off to a more open management.			
9	Any other, specify _____			

23. Have the company processes changed with the implementation of the TQM Program?

- a) Partially ()
- b) Very Much ()
- c) Not at all ()

If the processes have changed, then please describe how they have changed:

24. What changes are required to successfully implement a TQM solution?

	Changes	Very important	important	Not Important
1	Cultural changes			
2	Changes in Processes			
3	Changes in Organisational Structure			
4	Any Other, specify _____			

25. What are the main/ important factors for a successful TQM implementation?

	Factors	Very important	important	Not Important
1	Early involvement of people being affected by the changes			
2	Commitment/Buy in of middle management			
3	Commitment/Buy in of senior management			
4	Aligning Company procedures & systems to support the initiative			
6	Appropriate resources & Management systems			
7	Appropriate training and coaching for people involved			
8	Establishing a shared and motivating vision			
9	Vocal and visible support of senior management			
10	Realisation and celebration of short term wins			
11	Creating an open communication and collaboration atmosphere			
12	Communicating and explaining the changes involved with the implementation			
13	Establishing a sense of urgency/ burning platform			
14	Change of reward systems to support change initiative			
15	TQM should evolve from organisation's Strategic plan			

Thank you very much for sparing time for this questionnaire.

Name _____ Job Title _____

(Optional)

Appendix 3: Population

ISO 9000 CERTIFIED FIRMS IN KENYA AS AT MARCH 2003

1. Tetra Pak (K) Ltd.
2. Samaki Industries Ltd.
3. Van Leer E.A. Ltd. - Plastic Division.
4. Caltex Oil (K) Ltd. - Lube Plant.
5. Galsheet (K) Ltd.
6. DHL International (K) Ltd.
7. Kenya Postel Directories
8. Mobil Oil (K) Ltd.
9. Caltex Oil (K) ltd. - Distribution
10. Mobil Oil (K) Ltd. -Lube plant
11. Magadi Soda Ltd.
12. Kenya Shell Ltd.
13. Coates Brother E.A. Ltd.
14. Atlas Copco Kenya Ltd.
15. Standard Chartered Bank.
16. Kenya Petroleum Refineries Ltd.
17. Azicon Engineering Ltd.
18. Prestige Packaging Ltd.
19. Highland Canners Ltd.
20. Van Leer E.A. Ltd. - Steel Division
21. Nation Media Group
22. Nation Carriers Ltd.
23. Kenya Bixa Ltd.
24. Institute of Advanced Technology
25. Carnaud Metal Box Ltd.
26. Total Kenya Ltd.
27. Heidelberg East Africa.
28. Triad Architects.
29. Firestone E.A. Ltd.
30. Unilever Kenya Ltd.
31. Box Clever Kenya Ltd.
32. Associated Battery Manufacturers
33. Total Kenya Limited - Service Station Network.
34. Bags & Balers Manufacturers Ltd.
35. Kenya Shell Distribution.
36. Delmonte
37. Tibbet and Britten
38. Nation Newspaper Division.
39. Crown Foods
40. Kenol Kobil
41. Vestergaard
42. Homegrown Kenya.
43. Kenya Breweries Ltd. - Tusker Brewery.
44. GlaxoSmithkline
45. Kenya Breweries Ltd. - Maltings.

46. Africa Marine and General Engineering Services
47. Gilgil Telecommunications Industries Ltd.
48. Afromeat (K) Ltd.
49. Paging Services Ltd.
50. SGS Laboratories
51. Kenya Breweries Ltd. - Kisumu Brewery.
52. General Motors Kenya Ltd.
53. Wanjohi Consulting Engineers
54. Kenya Breweries Ltd. - Molo
55. Sapac Ltd.
56. Coastal Bottlers Ltd.
57. Central Glass Industries
58. ASP Company.
59. Zakhem Construction Kenya Ltd.
60. Zakhem International Construction Ltd.
61. Southern Engineering
62. Steel Africa
63. Intertek Services
64. Kenya Bureau of Standards - Laboratory.
65. Pan Paper Mills (EA) Ltd.
66. Alloy Steel Castings Ltd.
67. Allpack
68. Ariman Technologies Ltd.
69. Bidco Oil Refineries Ltd.
70. Bidco Elianto Division (Nakuru)
71. Blow Plast Ltd.
72. Cargill Kenya Ltd.
73. Carton Manufactures Ltd.
74. Empack Ltd.
75. Dodhia Packaging Ltd.
76. Cook N' Lite Ltd.
77. Citi Bank N.A. Kenya
78. E.A. Elevators Co. Ltd.
79. E.A Packaging Industries Ltd. (Msa)
80. E.A Packaging Industries Ltd. (Nbi)
81. E.A. Spectre Ltd.
82. Friendship Containers Man. Ltd.
83. General Plastics Ltd.
84. Health First International Ltd.
85. Iberafrica Limited - Nairobi
86. Johnson Diversey Ltd.
87. Kaluworks Limited (Msa)
88. Kenya Litho Ltd.
89. Mabati Rollings Mills Ltd.
90. Metal Crowns Ltd.
91. Mulitiport International Ltd.
92. Oasis Ltd.
93. Proctor & Allan (E.A.) Ltd.
94. Roy Transporters Ltd.

95. Sadolin Paints (E.A) Ltd.
96. Silpack Industries Ltd.
97. Slumberland Kenya Ltd.
98. Spinners & Spinners Ltd.
99. Taws Ltd.
100. Thermopak Ltd.
101. Tread Setters Tyre Ltd.
102. Twiga chemicals
103. Unga Technical Department
104. Unique Sun Apprels EPZ Ltd.
105. Vipul Shah & Co,
106. Vitaplast Ltd.
107. Wartsila E.A. Ltd.

11. Standard Chartered Bank
12. Kenya Petroleum Refineries Ltd.
13. Prestige Packaging Ltd.
14. Nation Media Group
15. Institute of Advanced Technology
16. Total Kenya Ltd.
17. Heidelberg East Africa
18. Triad Architects.
19. Fyresone E.A. Ltd.
20. Unilever Kenya Ltd.
21. Total Kenya Limited
22. Delmonte
23. Crown Foods
24. Kendo Kobil
25. Vastergard
26. Homegrown Kenya
27. Kenya Breweries Ltd - Tusker Brewery.
28. GlaxoSmithKline
29. Gigt Telecommunications Industries Ltd.
30. SGS Laboratories
31. Kenya Breweries Ltd - Kisumu Brewery.
32. General Motors Kenya Ltd.
33. Wanjohi Consulting Engineers
34. Sapac Ltd.
35. Coastal Bottlers Ltd.
36. General Glass Industries
37. ASP Company
38. Zafesa Construction Kenya Ltd.
39. Southern Engineering
40. Steel Africa
41. Interack Services
42. Kenya Bureau of Standards - Laboratory.
43. Bidco Oil Refineries Ltd.
44. Dodda Packaging Ltd.
45. Cook N' Lye Ltd.

Appendix 4: Sample

1. Tetra Pak (K) Ltd.
2. Van Leer E.A. Ltd. - Plastic Division.
3. DHL International (K) Ltd.
4. Kenya Postel Directories
5. Mobil Oil (K) Ltd.
6. Caltex Oil (K) Ltd.
7. Magadi Soda Ltd.
8. Kenya Shell Ltd.
9. Coates Brother E.A. Ltd.
10. Atlas Copco Kenya Ltd.
11. Standard Chartered Bank.
12. Kenya Petroleum Refineries Ltd.
13. Prestige Packaging Ltd.
14. Nation Media Group
15. Institute of Advanced Technology
16. Total Kenya Ltd.
17. Heidelberg East Africa.
18. Triad Architects.
19. Firestone E.A. Ltd.
20. Unilever Kenya Ltd.
21. Total Kenya Limited
22. Delmonte
23. Crown Foods
24. Kenol Kobil
25. Vestergaard
26. Homegrown Kenya.
27. Kenya Breweries Ltd. - Tusker Brewery.
28. GlaxoSmithkline
29. Gilgil Telecommunications Industries Ltd.
30. SGS Laboratories
31. Kenya Breweries Ltd. - Kisumu Brewery.
32. General Motors Kenya Ltd.
33. Wanjohi Consulting Engineers
34. Sapac Ltd.
35. Coastal Bottlers Ltd.
36. Central Glass Industries
37. ASP Company.
38. Zakhem Construction Kenya Ltd.
39. Southern Engineering
40. Steel Africa
41. Intertek Services
42. Kenya Bureau of Standards - Laboratory.
43. Bidco Oil Refineries Ltd.
44. Dodhia Packaging Ltd.
45. Cook N' Lite Ltd.

46. Citi Bank N.A. Kenya
47. E.A. Elevators Co. Ltd.
48. E.A Packaging Industries Ltd. (Nbi)
49. E.A. Spectre Ltd.
50. General Plastics Ltd.
51. Health First International Ltd.
52. Iberafrica Limited - Nairobi
53. Johnson Diversey Ltd.
54. Mabati Rollings Mills Ltd.
55. Oasis Ltd.
56. Proctor & Allan (E.A.) Ltd.
57. Spinners & Spinners Ltd.
58. Twiga chemicals
59. Unga Technical Department
60. Wartsila E.A. Ltd.