CHAPTER 4

LITERATURE REVIEW – PRIMARY DIMENSIONS OF THE TOTAL QUALITY MANAGEMENT FRAMEWORK

4.1 INTRODUCTION

In chapter 3, an extensive review of the large volume of literature available on TQM revealed 14 dimensions that are crucial for the effective implementation of TQM. These dimensions were divided into two groups of six primary and eight supportive dimensions. A three-phase implementation process was also discussed.

In this chapter, the six primary dimensions – leadership and top management commitment, strategic planning, empowerment, teamwork, continuous improvement, and customer and employee satisfaction – are shown to drive the TQM transformation. Of the six primary dimensions, four form the basis of the "soft" outcomes of the primary dimensions to achieve TQM. These dimensions are leadership and top management commitment, empowerment, teamwork, and customer and employee satisfaction. They are integrated, however, by some "hard" management necessities, including strategic planning and continuous improvement. These dimensions, in their roles as the foundations and cornerstones of the TQM telescopic framework, are examined in greater detail. They are integrated into a TQM telescopic framework (see figure 3.1, figure 3.2 and table 3.3), based on a core set of values and paradigms, to complement the focus on TQM.

4.2 LEADERSHIP AND TOP MANAGEMENT COMMITMENT

Collier & Esteman (2000:207), Dale (2003:36), Evans & Dean (2003:289), Kanji (2002:720), Pun & Hui (2002:380), Oakland (2000:26), Steenkamp (2001:22) and Sureshchandar, Rajendran & Kamalanabhan (2002:73) all state in their research that leadership and top management commitment is the most critical and crucial prerequisite for institutional success when implementing TQM. These researchers agree that leadership and top management commitment provide a focal point for the energies, hopes and aspirations of people in institutions where TQM is implemented.

Leadership is the first criteria building block for the Malcolm Baldrige National Quality Award, EFQM, SAEF and Australian Quality Criteria Framework, as discussed in chapter 2 (see paragraph 2.5.2 to 2.5.5). All these models single out leadership as the "key driver" for successful total quality improvement efforts. When considering the principles (see paragraph 2.3.3) and definitions (see paragraph 2.3.4) of TQM, and on studying the work of the two quality gurus, W.E. Deming (seventh prescription to institute leadership – chapter 2, paragraph 2.3.1.1) and Phil Crosby (first prescription of management commitment – chapter 2, paragraph 2.3.1.4), it becomes clear that in modern times leadership and top management commitment is a necessary condition for the implementation of TQM. The two quality gurus encourage leadership and top management commitment and stating that: "The TQM way of life begins and ends in the leadership of top management."

According to Coetzee (2001:26) leadership rather than management is an essential factor in challenging times, i.e. to implement TQM in an institution. Kanji & Moura (2001:701) state that "management controls, arranges, does things right; leadership unleashes energy, sets the vision, does the right thing." This view is shared by Rath & Strong Management Consultants (2003:479) when they state that the overriding function of management is to provide order and consistency to institutions, whereas the primary function of leadership is to produce change and movement.

Kreitner & Kinicki (1998:516) describe leadership as a social influence process in which the leader tries to obtain the voluntary participation of team members in an effort to reach institutional objectives. Russel (2000:658) state that successful leaders anticipate change, vigorously exploit opportunities, motivate their followers to higher levels of productivity, correct poor performance and lead the institution toward its objectives. Graetz (2000:557) state that the goal of leadership should be to improve performance, increase output, and simultaneously bring pride of workmanship to employees. Leaders thus play a key role in ensuring that the shared beliefs and values permeate throughout the institution by the way they show commitment to task execution, interact with and show concern for others, and articulate and live the core values of the institution. Where culture is out of step with current reality, it is the role of leadership to effect the changes required to re-align the institution. The nature of the leadership that successfully introduce TQM is well expressed by Zairi (1994:6):

“Perhaps in the context of TQM what is expected of leaders is more of the doing, being more in touch, more aware and being much more concerned with developing *means* rather than just concerned with *ends*.”

Bearing these views of leadership in mind, many quality experts maintain that TQM implementation requires a serious *commitment* by top management as it poses potential for fundamental advantages and changes in an institution. The word “commitment” coupled to top management is just as important as leadership. Many quality experts maintain that TQM implementation must be a top-down process, integrated into the corporate culture of an institution (Landon 2003:32; Griffin 1996:637; Kanji & Moura 2001:702; Madu & Kuei 1995:61; Oakland 2000:241; Savolainen 2000:224). According to Townsend & Gebhardt (2002:77) commitment means the willingness to invest one’s self that is your ego, time and effort. Top management must make a commitment to their employees and to capital investment when starting to implement TQM in an institution. They have to create an institution with the culture, knowledge and equipment needed to serve its market. Top managers must commit to and practice a set of values that continuously reinforces TQM principles (see paragraph 2.3.3), and commitment must be present in the form of policies, institutional support structure, investment and individual responsibility and authority. Through visible top management commitment, employees will start to trust and support the institutional goals and feel they are important (Savolainen 2000:218).

According to Söderlund & Julander (2003:292) the leading institutions in today’s world focus on three fronts, namely (1) interface with the customers, (2) quality of products and service and (3) the productivity of their people. To achieve these three fronts leaders today should look beyond their own institutional boundaries, developing partnerships with customers, suppliers and the community. They have to outline the quality goals, quality policies and quality plans so that employees are constantly reminded that the customer, not the product, is the top priority (Eng & Yusof 2003:65). In today’s world the essence of leaders is defined more and more in terms of service to the customer (Vokurka & Lummus 2003:54). Moura & Kanji (2003:132) point out that leaders should develop new relationships with institutional stakeholders; relationships that call for higher levels of involvement and decision-making. Leaders in institutions must understand the primacy of the customer, as quality is what the customer says it is.

They must adhere to the idea that: “Customers’ needs are addressed as quality becomes a fundamental way of managing an institution.” To support Vokurka & Lummus (2003:54), Madu & Kuei (1995:61) claim that leadership is a driving force for the transformation of the TQM environment and leaders must act as educators and parents to empower employees based on an institution’s vision. By following this leadership approach, employees in the institution will regard themselves as marketing persons and appreciate any opportunity they have to serve customers. According to Savolainen (2000:213), demonstrating such commitment is a primary leadership principle for achieving TQM. Without leadership, no TQM process can survive and without a conscious pursuit of and continual growth in leadership, a TQM process will run dry long before everything has been accomplished. The reason for this is that institutions’ customers’ needs and expectations are expanding, while resources to meet those demands are decreasing (Goshal, Piramal & Bartlett 2000:23).

Kanji & Moura (2001:705) adopted the view that leadership today is an important new development to regard it as a long-term relationship or partnership between managers, employees, customers and stakeholders. Blanchard, Carew & Parisi-Carew (1996:14) and Pierce & Niewstrom (2000:9) argue that today’s leader must be someone who can (1) foster teamwork, (2) facilitate problem solving, (3) focus employees’ attention and enthusiasm on continuous improvement, (4) gain follower recognition and acceptance and (5) become a facilitator and orchestrator of group activities; thus the leader must be an enabler of people and a facilitator of teams. To support Blanchard, Carew & Parisi-Carew, Pierce & Niewstrom (2000:9), Kanji & Moura (2001:705) and Stamatis (2002:21) state that outstanding leaders can contribute heavily to total quality by functioning as visible advocates, facilitators, cheerleaders (leaders who focus on the rate of improvement and obstacles in the way), risk takers, high energy visionaries and consensus builders, often using the logical analysis of alternatives to find other choices; as they are a key factor in stimulating an innovative environment. Pierce & Niewstrom (2000:9) furthermore refers to research that confirms the importance of leadership in the process of ascending to world-class status, and emphasises the need for leadership to establish a high performance culture, high performance delivery processes and service in support of this, thereby creating and exceeding customer satisfaction requirements.

From this, the implementation of TQM in an institution requires of management to become leaders. Against this background, the five requirements and competencies for effective leadership to establish TQM in an institution are the following (Savolainen 2000:224; Collier & Esteman 2000:207; Darling 1999:309; Graetz 2000:555; Kanji 2001:261; Moura & Kanji 2003:132; Oakland 2000:26; Pierce & Niewstrom 2000:8; Phillips-Donaldson 2002:35; Steenkamp 2001:23), namely:

- Top management must express values and beliefs through a clear inspired vision of what they want their institution to be, and through objectives – what they specifically want to achieve in line with the basic beliefs. Together they must define what the institution is all about. Clearly defined and properly communicated institutional values, beliefs and objectives, which can be summarized in the form of a mission statement, are essential if directors, managers and other employees are to work together as a team.
- Top management must develop clear and effective business or service strategies, including supporting plans for achieving the mission and objectives. These strategies are the broad directives that members of the institution need to enable them to design operational plans that will actually make the strategies work.
- Top management must identify the critical success factors (hereafter referred to as CSF's) as page 134 indicated. CSF's are what must be accomplished for the mission to be achieved. The key critical or business processes for the institution follow the CSF's – the activities that must be done particularly well for the objectives to be achieved.
- Top management must define the corporate objectives and strategies, CSF's and critical processes that might make it necessary to review the institutional structure. Top management and employees can only be fully effective if an effective structure based on process management exists.
- Top management as leaders must get very close to the employees to empower, energise, encourage and trust them to ensure employee participation. They must develop effective communications – up, down and across the institution – and take action on what is communicated, and they must encourage good communications between all suppliers and customers. They must show appreciation through utilising rewards and recognition for employees' achievements and contributions.

Oakland (2000:27-28) further claims that the vehicle for achieving effective leadership is TQM. The reason for his argument is that TQM covers the entire institution, that is all the people and all the functions, including external institutions and suppliers. The core of TQM must be customer-supplier interfaces, both internally and externally, and the fact that at each interface there are processes to convert inputs to outputs. Therefore, there must be commitment to building-in quality through management of the inputs and processes. How can top management be helped in their understanding of what needs to be done to become committed to total quality and implement the vision? Top management must adopt the following *critical success factors* for leadership excellence, namely (Kanji & Moura 2001:708; Oakland 2000:27; Swift, Ross & Omachonu 1998:24):

- The institution needs *long-term commitment* to improve constantly – TQM must be planned on an institution-wide basis, i.e. it must embrace all locations and departments and must include customers, suppliers and subcontractors. The process of TQM must start with top management and must expand progressively to embrace all parts of the institution.
- Develop and communicate an inspiring *vision*, and define a *mission* that states what the institution stands for.
- Develop a *strategic plan* aligned to the mission and vision and able to create a sustainable competitive advantage over other institutions, which deliver the same services.
- Establish an *institutional structure* and *operational mechanisms* that facilitate the implementation of the mission, vision and strategy.
- Adopt the philosophy of zero defects (see Crosby's seventh principle of zero defects in chapter 2 paragraph 2.3.1.4) to change the *culture* of the institution - this must be based on a thorough understanding of the customer's needs and expectations, and on teamwork, developed through employee participation.
- Train the people to understand the *customer-supplier* relationships - again commitment to customer needs must start from top management. Customer orientation must be achieved for each and every employee, director and manager.
- Demand *continuous improvement* in everything, including suppliers – continuous improvement will bring about improvements in product, service and failure rates.

Continually improve the product or the service provided externally, so that the total costs of service delivery are reduced.

- Adopt modern methods of *supervision and training* (see Deming's eight principle in chapter 2, paragraph 2.3.1.1) to eliminate fear – recognize and publicize efforts and achievements and provide the right sort of training, facilitation and supervision.
- Establishing team-based structures that eliminate barriers between departments by managing the *processes* through improved *communications* and *teamwork*.
- Constantly *educate and retrain* – develop the *experts* in the institution. The experts in any institution are the people who do the job every day of their lives. Top management must challenge subordinates to learn, by setting developmental and career goals; stretching subordinates to their full potential.
- Develop a *systematic* approach to manage the implementation of TQM – TQM requires a carefully planned and fully integrated strategy, derived from the mission.

Leadership and top management commitment, therefore, is a driving force to the state of TQM implementation. In an article in a TQM magazine, Houghton (quoted by George & Weimerskirch 1998:23) describes what leadership means to him: "In the end, quality is something deeply personal. It is a commitment to a way of life – to a way of interacting with others. Quality isn't just a pool for wading. It is an ocean. If you don't take the plunge, if you don't totally immerse yourself, you can't hope to coax a whole institution to jump in. That's why TQM starts at the top, with the leaders of the institution."

The second primary dimension (see figure 3.1 and table 3.3) that influences the success of a TQM effort is the strategic planning employed during implementation. As can clearly be seen in figure 3.1, leadership and top management commitment forms the core of the second dimension, namely strategic planning.

4.3 STRATEGIC PLANNING

The second dimension (see figure 3.1) that influences the success of a TQM effort is strategic planning employed prior to implementation and its deployment across the institution (Cascella 2002:62). The criteria for the Malcolm Baldrige National Quality Award, EFQM, SAEF and Australian Quality Criteria Framework discussed in Chapter 2

(see paragraph 2.5.2 to 2.5.5), single out the importance of strategic planning as a key factor in quality improvement efforts. From the principles of TQM (see paragraph 2.3.3) and the viewpoints of the three quality gurus, W.E. Deming (seventh prescription to institute leadership – chapter 2, paragraph 2.3.1.1), Juran's trilogy (first prescription to quality planning – chapter 2, paragraph 2.3.1.2) and Phil Crosby (first prescription of management commitment – chapter 2, paragraph 2.3.1.4), it is clear that strategic planning is another key success factor in the total quality improvement process. London (2002:27), in researching the concept of strategic planning, concludes that successful institutions now more than ever recognize the importance of strategic planning in achieving desired institutional results. His recent studies show that successful TQM is achieved through its integration with strategic planning. To support this viewpoint, Butz (1995:105) states that TQM must be fully integrated with the institution's strategy and daily working activities.

According to Tearle (1999:1), strategic planning is simply to position an institution to be successful within the future. According to Evans & Dean (2003:347) strategic planning is to establish the direction and course of the institution by defining its long-term goals and objectives, the customers it wants to serve, the services it produces and delivers, and the design of the service system to meet these objectives. They continue by giving a definition of strategic planning: "Strategic planning is the process by which top management of an institution envision its future and develop the necessary procedures and operations to carry out that vision." George & Weimerskirch (1998:49) claim that strategic planning is the intended and realized pattern of institutional guidance and the development of structure and management processes that produce total customer satisfaction.

Bemowski (1996a:38) mentions that "strategic planning defines who we are and where we are trying to go and quality is a strategic issue, not a technical issue, therefore TQM as a strategy must be carefully integrated into the overall strategic planning exercise of an institution." Integration means that top management must establish TQM within an institution's strategic plan and that it has to be one integrated process. Swift, Ross & Omachonu (1998:60) states that strategic planning is a key focus area for top management to help institutions to establish action plans that focus on the continuous improvement of results and customer satisfaction. The function of strategic planning in

the TQM telescopic framework should be to align all the efforts of the institution to achieve customer satisfaction, quality and operational performance goals. Cascella (2002:62) and Claver, Gascó, Llopis & González (2001:470) further state that strategic planning is a process through which an institution must obtain a clear vision of its future. It is also an instrument that can be used to promote total quality as an integrated management system within an institution and a way to focus all personnel within an institution on improved results for customers.

To support Cascella (2002:62), Claver *et al*. (2001:470) state that strategic planning is necessary to utilize opportunities, by reconciles internal strengths and weaknesses with external opportunities and threats to achieve continuous advantage for the institution. Each institution must determine its own strengths or unique capabilities and utilise these to the optimum. Factors such as expertise, availability of resources, products or systems of good quality, consumer loyalty, quality of employees, financial strength, renewal capabilities and customer service must be utilised optimally in the sector in which the institution operates. The latter definitions emphasise what TQM is all about, namely: "… creating a desired future where all the stakeholders' needs are completely satisfied" (Bounds, Dobbins & Fowler 1995:238). Strategic planning ensures that an institution's future is not based on surmises, but that a well thought-out plan is followed to develop the institution to the optimum (Bounds, Dobbins & Fowler 1995:238-239).

According to Butz (1995:105), the way in which TQM is implemented affects its success. According to him TQM must be *fully integrated* into all operations of the institution. The integration process begins with strategic planning, closely linked to leadership and top management commitment (see figure 3.1). In support of Butz's point of view (1995:105), Ghobadian *et al*. (1998:4) claims that synergy between TQM and strategic planning will strengthen institutions' competitiveness and will enable them to achieve success in the modern institutional environment. Strategic planning thus provides the focus for TQM implementation. Full integration provides a basis for employees to understand the direction the institution is moving towards and how the new culture relates to the new direction. TQM alone cannot guarantee success, but TQM coupled with strategic planning offers the best hope, therefore TQM and strategic planning must become a single process. According to Butz (1995:106) three critical

links between TQM and strategic planning are required to accomplish this merger, namely:

- First link: The strategic plan must be customer driven. The customer must be the primary driver for strategic planning to ensure long-term success and survival of the institution. Long-term success and survival of the institution is ensured only when it can continuously provide the best value to its customers, a so-called customer-value-based strategy.
- Second link: The second link is that strategic planning must provide the direction and context for TQM and must precede other TQM initiatives. The TQM process is directed toward enabling change and continuous improvement, and this process must be driven by the institution's strategy.
- Third link: The third link is that a TQM culture and continuous improvement efforts must focus on achieving results that increase value to customers and ensure long-term success.

Fully integration of TQM with strategic planning provides the direction, justification and context for a successful TQM initiative. Total integration of strategic planning and the philosophy of TQM is to provide a vision of the future for the institution that will surmount any turbulence and align the institution, its systems and its people to provide ever-increasing customer value. Implementing an effective strategic plan to achieve quality objectives or bringing institutional improvement requires the foundation of a solid, well-understood strategic planning process.

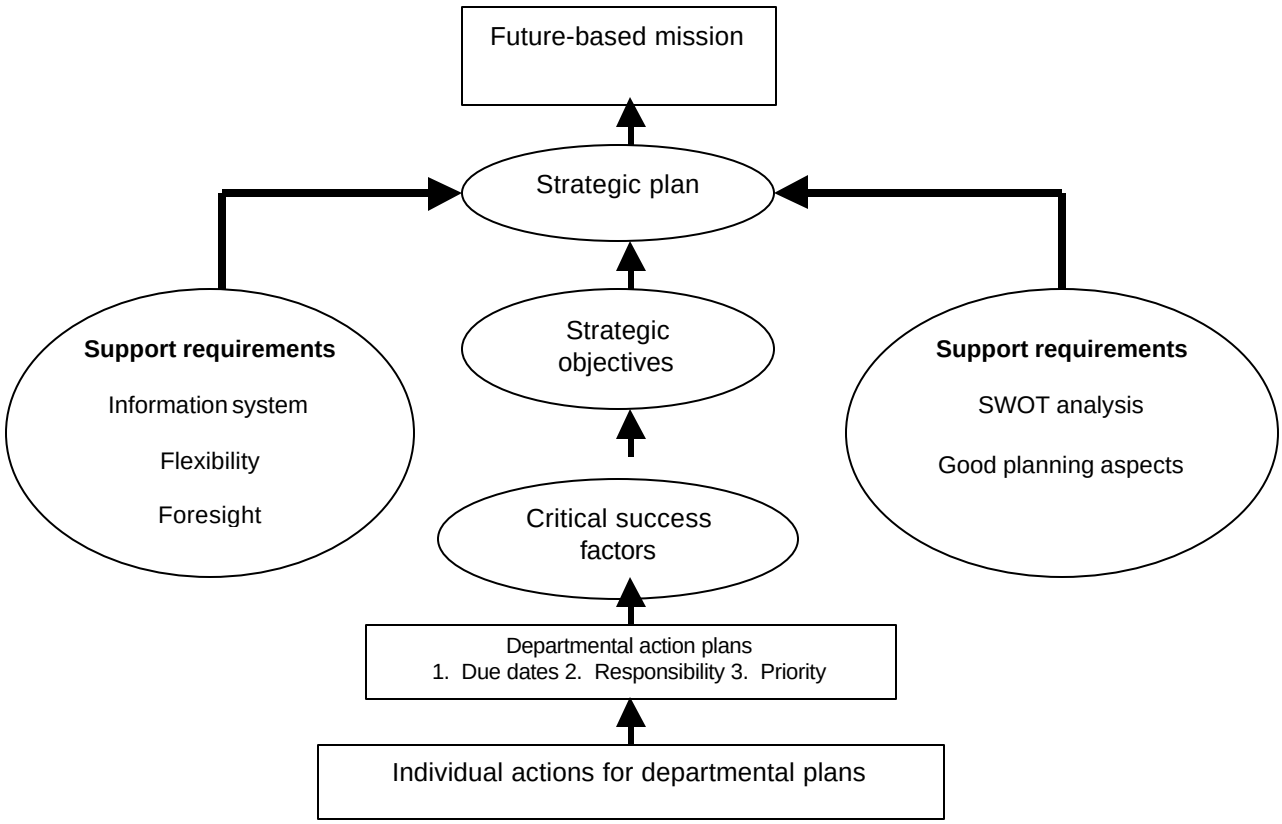
4.3.1 Strategic planning process

According to Billich & Neto (2000:6), Cascella (2002:62-63) and London (2002:27), the requirements for a strategic planning process are based on five activities, namely (1) a future-based mission, (2) strategic objectives, (3) critical success factors, (4) departmental action plans and (5) individual actions for departmental plans as indicated in figure 4.1. Each of these activities will subsequently be discussed in more detail.

(a) Strategic planning must begin with a future-based mission. Prior to attempting a planning process, the institution's mission and objectives must first be

defined, in order to ensure that it is understood by all concerned. The mission should be to focus primarily on customer-driven results and continuous improvement by testing results, and to determine whether they are still in line with the set aim. Establishing a mission and objectives must be in accordance with the principles of TQM as discussed in chapter 2, paragraph 2.3.3. Therefore, it is essential that strategic planning begin with a future-directed mission focused on the right of existence and the direction followed by the institution (Wicks 2001:502). According to Evans & Dean (2003:351), the mission is a statement defining the main reason for the existence of the institution and the importance of customers, shareholders, employees, suppliers and the community. Defining the mission provides a basis for formulating strategic planning and resulting objectives and policy. Strategic planning is done to determine the best manner in which to achieve the aim (mission) of the institution (Stamatis 2002:284).

Figure 4.1: A strategic planning process



Source: Adapted from Kanji (1995:105) and London (2002:28)

A strategic plan creates an institutional vision of quality aims, followed by the development of a strategy, which will enable the institution's resources to meet and

exceed customers' expectations. The vision must drive the institution to change its culture. The key to the initial adoption of quality programmes is continuous communication of the vision to all members of the institution. Successful pursuit of an institution's goals and mission requires a strong future orientation and willingness to make long-term commitments to all stakeholders – customers, employees, suppliers, the public and the community in which the institution is located. Some of the major components of the long-term commitment are developing employees and suppliers, and fulfilling public responsibilities (Mehta 2000:59).

(b) Strategic planning needs strategic objectives. The mission provides the vision and guiding lights and sets down the core values, but it must be supported by measurable objectives that are tightly and inarguably linked to it. Objectives are needed as an aid that can be utilised to achieve the mission. Management by objectives must be applied to coordinate, integrate and optimally utilise the full potential and talents of the workforce. According to Evans & Dean (2003:348), institutional objectives are a series of specific operational objectives which; (1) reflect the business plan, (2) cover the medium to longer term (two to five years) and (3) are capable of precise measurement and demonstration of progress toward achievement. These will help to translate the directional and sometimes "loose" statements of the mission into clear targets and in turn to simplify management's thinking. They can later be used as evidence of success for the team in every direction, both internally and externally. Employees are dependent on supportive aids to achieve objectives. When formulating objectives, top management must ensure that all the resources that can lead to better performance are put at the disposal of the employees. Employees cannot utilise opportunities without a sound infrastructure, an effective organisational structure, the necessary equipment, resources, training programmes or guidance. Future planning that create maximum opportunities and limit obstacles is a requirement for the planning of management by objectives.

(c) Strategic planning needs critical success factors. The development of the future-based mission and strategic objectives is clearly not enough to ensure TQM implementation (Beck, 1996:27). The mission and objectives must be further developed by top management into CSF's to create and move the institution forward. The CSF's are what the institution must accomplish to achieve the mission by

examination and categorization of the impacts. In CSF determination, a management team should follow the rule that each CSF is necessary and together they are sufficient for the mission to be achieved.

(d) Strategic planning needs participation by all departments in an institution. The whole institution must carry out the strategic plan through individual departmental actions, controlled interdepartmental process improvement or problem resolution groups. Structured departmental action plans promote the involvement of the entire institution in the process, and each department should be responsible for developing its own plan and associated performance measures.

(e) The foundation of the strategic plan ultimately depends on the performance of individuals. Individual activities form the content of each department's action plan, providing all employees with the opportunity to participate in the strategic planning process. Strategic planning often fails because it is seen as an event, unlinked to anything else in the institution and understood by only a few higher-ups. Strategic planning, however, depends on the involvement of employees across all levels of the institution and depends on widespread communication and clear definition of the linkages between long-term objectives, strategies and the integral programmes of the planning process. Communication also enhances enthusiasm, support and commitment. The earlier the plan is communicated the better. Strategic planning requires maintaining the involvement of all employees and the role of members of top management as both mentors and leaders cannot and should not be underestimated. All executives must play the role of keeping others honest, harnessed and pulling in the same direction in order to see results.

4.3.2 Support requirements for strategic planning

To support the strategic planning process (see figure 4.1) there are certain support requirements to ensure successful strategic planning. Careful scrutiny of these requirements will show some important underlying prescriptions, which are worth pointing out. These requirements should be based on five activities, namely (1) a Strengths, Weaknesses, Opportunities and Threats (hereinafter referred to as SWOT) analysis, (2) structured planning, (3) the need for an information system, (4) the

construct flexibility and (5) foresight, which will subsequently be discussed in more detail.

(a) Strategic planning needs a SWOT analysis. Rosenberg (1999:26) argues that strategic planning leads to improved decision-making. It can help generate new initiatives, redirect existing expenditures and otherwise improve the quality of work life and community life. It can assist institutions in discovering opportunities for growth and development that exist in an era marked by increased demands on a decreasing resource pool. When planning strategy, managers must analyse conditions in the internal environment of the institution and conditions in the external environment. It has been traditionally assumed that institutions should continuously scan their environment for possible opportunities and threats so that they can formulate strategies and select the best strategic option. This analysis of internal strengths and weaknesses and external opportunities and threats is so pervasive in strategic planning that it even has its own acronym, namely SWOT analysis. A SWOT analysis is required to balance the interface between internal and external environment factors but also to integrate elements within the two factors (Palmer & Ziemianski 2000:76). The wizardry of SWOT is the matching of the specific factors and elements, which create a strategic matrix (i.e. strengths/opportunities; strengths/threats; weaknesses/opportunities; weaknesses/threats), which make sense. The integration leads to the better understanding and consensus about factors influencing the institution. According to Palmer & Ziemianski (2000:77), the SWOT technique has been affected by the concept of customer satisfaction in TQM. In that regard a customer-driven approach has been integrated as a component of strategic planning, referring to analysing customers, their needs and expectations through a SWOT framework.

(b) Strategic planning needs good planning. As it is employees who conduct the planning function, the strategic planning process must be structurally planned and managed. Strategic planning does not just happen, it must be motivated. An important aspect of motivation is the attitude of managers, as well as the atmosphere prevailing at the institution. The driving force behind the process is the emphasis on customers and the requirement to satisfy their needs and expectations. Planning is a continuous process and must therefore be managed by its own structure. The planning structure must not form part of the organisational structure and must therefore not be prohibited

by institutional considerations to study new initiatives. A well-designed planning process provides the opportunity for participation of all involved at all levels of the institution. (Oschman 2002:81.)

(c) Strategic planning needs an information system. An information system is required in strategic planning to support the assumptions and decisions of management, especially with regard to planning focusing on the customer (Naveh & Halevy 2000:89). Billich & Neto (2000:7), rightfully claims that the management information system can help to make strategic decisions that may influence the continued existence of an institution. Rational decisions require at least that the relevant information should be available. Billich & Neto (2000:7) further states that strategic planning without an information system is the same as designing a sports stadium without knowing what type of sport will be played in the stadium.

(d) Strategic planning must be flexible. Changes within an institution require continuous adaptations and changes in direction. Alternative action plans can however be made to achieve the planned objectives. Provision must also be made for emergency plans or contingency plans to be employed should a plan fail. Before adapting objectives to changes, alternative methods should be seek to achieve the set objectives. One could say that the goal posts should not be moved, but that the play pattern should be changed. In practice it often happens that objectives have to be curtailed owing to unfavourable factors rather than applying drastic saving measures or to arrange brainstorming sessions to engage all forces or alternatives to find ways of achieving the set objectives. (Oschman 2002:81.)

(e) Strategic planning needs foresight. According to Garbers-Stauss & Roodt (2001:12) foresight is nowadays the missing link of strategic planning as a strategic enabler. According to the two researchers, foresight involves: (1) exploring and anticipating the future by developing a thorough understanding of forces (clues, indicators, evolving trends) that will shape the future, (2) visioning and re-visioning a desirable future and (3) using this foresight and decision-making to actively shape the future. As such, foresight can enable strategic planning in two major and mutually enhancing ways, i.e. by (1) providing such knowledge and insight into the macro-environment as to enable an institution to identify opportunities and threats with (more)

insight and in advance of the competition, and (2) enabling the institution to manage perceived environmental uncertainty and therewith allowing for clarity of perception and an institution-wide opportunity focus (Garbers-Stauss & Roodt 2001:16). Foresight enables institutions to gain a level of insight into the macro-environment that shall allow them to create their own futures by influencing the future of the operating environments using successions of foresight concepts of the short-term future, flowing *inter alia* from insight into macro-environmental trends. Foresight represents a vehicle for managing perceptions of environmental uncertainty and change, thereby enabling the clarification of perception that is fundamental to prescient and innovative use of macro-environmental phenomena and the pre-sponsive recognition of opportunities (Garbers-Stauss & Roodt 2001:16).

The alignment of activities through strategic planning makes it possible for any institution of any size to focus all its resources on the strategies and objectives that are critical to the success of TQM. Strategic planning connects the internal and external environments, the past and the future and various levels and functions. According to London (2002:26) institutions clearly have a competitive advantage when they can develop an effective strategic plan. The transparency and institutional interactivity enabled by the process of strategic planning foster commitment, cooperation and collective creativity (Sussland 2002:60).

The third primary dimension (see figure 3.1 and table 3.3) that influences the success of a TQM effort is empowerment. As can be seen from figure 3.1, leadership and top management commitment together with strategic planning forms the core of the third dimension, empowerment.

4.4 EMPOWERMENT

The criteria for the Malcolm Baldrige National Quality Award, EFQM, SAEF and Australian Quality Criteria Framework discussed in chapter 2 (see paragraph 2.5.2 to 2.5.5) single out the importance of *empowerment* as a key factor in total quality improvement efforts. In terms of W. E. Deming's 14 points as discussed in chapter 2, paragraph 2.3.1.1, the basis of his philosophy contains the following principles that can be applied to empower employees, namely: (1) institute on-the-job training, (2) break

down barriers between departments to build teamwork, (3) drive fear out in the workplace, (4) eliminate quotas on the shop floor, (5) create conditions that allow employees to have pride in their workmanship and abolish annual reviews and merit ratings, and (6) institute a programme of education and self-improvement. Phil Crosby (12th principle - chapter 2, paragraph 2.3.1.4) and Ishikawa (fifth and seventh principle – chapter 2, paragraph 2.3.1.5) clearly indicate that empowerment of employees is a cornerstone that supports and keeps the entire TQM philosophy together in order to ensure success. Based on a study done by Geralis & Terziovski (2003:45), the two researchers conclude that a holistic approach must be taken to implement empowerment practices at institutions in order to maximise service quality. The results of their study show that empowering the workforce is a powerful strategy that substantially improves service quality in institutions. It is important that management understand the need to implement empowerment practices in a holistic and integrated manner if they want to be successful in promoting employee autonomy.

According to Geralis & Terziovski (2003:46), empowerment is a technique involving the transfer of power and control from higher levels to lower levels throughout an institution by providing employees with tools, resources and discretion to further the interests of the institution (as seen by top management). The theory of empowerment follows the rationale that employee autonomy leads to increased commitment, job satisfaction and productivity and hence improvements in bottom-line measures and quality outcomes. For the purposes of this study, Geralis & Terziovski (2003:47) all encompassing definition of empowerment is used: empowerment involves delegation of responsibility from management to employees and the sharing of information between and within different levels of the institution. Geralis & Terziovski (2003:47) further describes empowerment as a management style that can be succinctly defined as *the authority of subordinates to decide and act*. Pycraft, Singh & Phihlela (2000:473) believe that the dimension ‘empowerment’ concentrates on increasing the autonomy to employees through the sharing of relevant information and the provision of control over factors affecting job performance, which may assist individuals to shape the nature of their own jobs. It involves moving the decision-making process down to the people who are doing the job about which the decision is being made. According to Pun, Chin & Gill (2001:98) empowerment means that all employees feel they have the responsibility and authority to participate in decision-making and problem solving at their appropriate operating

levels. He further defines an empowered workforce as the extent to which people and teams feel they have the responsibility, authority and resources to take action. This authority is given by management for the purpose of developing a human connection within the decision-making process, which sustains improvements through the TQM programme.

4.4.1 Requirements for successful empowerment

Effective customer-orientated service requires motivated employees that creatively render the service in partnership with management. The employee should be empowered in order to foster ownership of the institution, based on a set of shared values between management and the employees that guarantees the trust and support of the employee. Management should develop the potential of each employee in such a manner that a feeling of belonging to the institution is established. The employee should be offered maximum opportunity for self-development and the value added by the employer to his/her life should be employed by management, in partnership with the employee, to the maximum advantage of the employee and the institution. Optimum empowerment of the employee within the institution, based on the skills, abilities and training of the employee and full partnership between management and the employee, should be the foundation of the renewed total quality institution. According to various authors certain points of view exist in respect of the empowerment of employees that will contribute to the institutionalisation of TQM at an institution. Careful scrutiny of these views indicates important underlying aims that are worth discussing.

4.4.1.1 The role of leadership and top management

To survive in a competitive environment characterized by deregulation and converging markets, complex customer needs, corporate restructuring, and downsizing, today's institutional leaders should be searching for innovative ways to enhance the creative potential of their workforce (Oakland & Oakland 2001:781). Empowerment by top management should form part of the mission of the institution to involve the employee in the activities of the institution in partnership with top management. However, should top management themselves not be empowered, it can be expected that they will make

no effort to empower employees. According to George & Weimerskirch (1998:84), empowerment begins with a willingness by managers and supervisors to give others (employees) responsibility. To empower employees, managers must realize that they do not give up the responsibility to make final decisions. Neither do they give up the ability of coaching teams when appropriate. The basic concept of empowerment is management's promise to employees that they will be supported and rewarded for taking action and finding new ways to contribute. Management must still establish the expectations, set guidelines and define the boundaries of authority. It is not a process to giving up their responsibilities (Pun, Chin & Gill 2001:98).

According to Garcia-Lorenzo & Prado (2003:16), the message of empowerment is that leaders must know that employees need strong direction and a target, and great ideas on how to implement TQM at an institution. Leaders must know how to set standards and boundaries and how to invite people to make their unique contributions. Leaders must create the environment in the institution which allows the power, talent and creativity that is yet untapped within employees to be released. Delport (2000:30) emphasises that top management must ensure that employees at all levels and areas accept greater responsibility and ownership. The institution's continued existence depends on it. It also becomes more important for top management to have the skills to direct people to accept responsibility and ownership of the institution's objectives. This can be achieved by expanding the work content of the employee to work diversity and by establishing work involvement by means of task involvement. Without the support of top management it is difficult to establish empowerment and to implement total quality at the institution.

4.4.1.2 Employee involvement

Employee involvement is a long-term commitment, a new way of performing activities, a fundamental change in culture at institutions. Employee involvement is a process for empowering members of an institution to make decisions and to solve problems appropriate to their levels at the institution (Eng & Yusof 2003:65). This can be achieved by making the employee part of the institution, which is essential to the success of the institution. Employees who believe they are important will be motivated to ensure that their efforts are consistent to the institutional goals. Employees who

have been trained, empowered and recognized for their achievements see their jobs and their institutions from a different perspective (Pun, Chin & Gill 2001:97). Many management theorists and leaders believe that today's employee's want and need to exercise initiative and imagination. According to Plsek (2000:70), one of the most important objectives of empowerment is to encourage creative and constructive thoughts amongst all employees so that management can obtain the full advantage of the total employee. Creativity will lead to employees applying technical and administrative innovative ideas to search for opportunities to exceed the needs of customers (internally and externally) in order to establish total quality. In order for employees to be creative at work, they need freedom and full participation in respect of work methods to do things that will lead to greater responsibility (Billich & Neto 2000:8).

4.4.1.3 Rewards and recognition

According to Townsend & Gebhardt (2002:80), "To win, one needs to keep score, but the way one keeps score defines the game." In other words, if one wants people to behave in a certain way, one has to measure and reward that behaviour to reinforce the required behavioural patterns. Institutions will have to determine what behaviours are required to support their strategies and to figure out how to redesign their current appraisal, recognition and reward practices to reinforce these behaviours. Oakland & Oakland (2001:778) defines *recognition* as a reward in the form of an acknowledgement of gratitude perceived as a commendation by the recipient. According to Eng & Yusof (2003:66) *reward* is a gift or prize considered being of value by the recipient. The effective balance between financial and non-financial motivation will vary between institutions and often between different groups of people within an institution. It is, therefore, of paramount importance that institutions develop reward management processes which meet their particular needs and recognize the requirements of their people, rather than attempt to force the institution into a remuneration straitjacket that constrains their ability to operate effectively (Eng & Yusof 2003:66).

Allen and Kilmann's (2001:56) research validates the importance of aligning the reward system in support of TQM and sheds light on how management can use the recognition and reward system to ensure that TQM is as effective as possible. *The increased use*

of appropriate recognition and reward practices should be seriously considered to guarantee that TQM business practices have an even greater effect on the institution's performance. Institutions should therefore implement policies and programmes that link performance to the accomplishment of strategic quality objectives at institutional, group and individual level. Wilkinson (1997:799) states that in the same way that TQM is a never-ending journey of continuous improvement, management must continually review and improve their reward system to ensure that it "focuses on quality, motivates employees to excellence, and supports strategic business objectives". This entails sending the right and consistent signals to all employees.

4.4.1.4 Decision-making

According to Pierce & Newstrom (2000:228), active employee participation and involvement in the decision-making processes can increase ownership and can lead to increased objective achievement. Decision-making is the process of identifying alternatives and choosing an alternative to solve a problem or address an opportunity. Top management must empower employees to make programmed and non-programmed decisions in the workplace. Programmed decisions are decisions that are routine and repetitive and that are associated with standardized decision rules. Non-programmed decisions are decisions that occur so infrequently that standardized decision rules are not available to solve them. Most decisions are made under conditions of risk and uncertainty in which the outcome of the decision is not exactly predictable. Top management should through participation help middle management to empower them to do non-programmed and uncertain decisions, which have broad decision scopes in their respective functional areas. Top management should also (1) empower lower management to be actively involved with non-programmed and programmed decisions, risky and certain decisions, with intermediate decision scopes, and (2) empower employees to be actively involved with programmed and certain decisions with narrow decision scope. Top management should educate middle management, lower management and employees in decision-making processes by using for example group decision-making, brainstorming, self-directed teams and cross-functional teams to ensure rational decisions (Ströh 1999:97). Employees must be given the opportunity to contribute to the decision-making process at the institution as it has been found that employees are then more motivated to achieve objectives.

Delegating decision-making powers and responsibility to the employees provides top/middle management with more opportunities to position the institution strategically. It also helps to deploy the behaviour of employees positively in their own interest as well as that of the institution. Each good decision made can result in a productive action and better results being achieved.

4.4.1.5 Participation

Empowerment will not work without a participative management structure. Research studies have shown that involvement of employees through participation brings about greater commitment to end results. According to Oakland & Oakland (2001:783), involvement leads to higher quality decisions and higher commitment than non-involved approaches to leadership. If the individual and the objectives of the institution are integrated successfully, the results should support personal growth and growth of the institution. Garcia-Lorenzo & Prado (2003:16), adds that it is the best approach to follow in order to improve quality and productivity. Delport (2000:30) is of the opinion that employee participation and ownership is a sure method to improve quality and productivity. According to him this method has received unknown praise and recognition for the improvement of quality and productivity in countries across the world, especially in America and Japan in both the manufacturing and service sector. The participative process can be identified by means of various employee participating programmes, the most popular being: (1) quality circles, (2) quality improvement teams, (3) productivity teams and (4) employee participating programmes. There are also idea groups, small group activities and progress groups that specifically reflect the needs and culture of the institution.

4.4.1.6 Communication for empowerment

Employees cannot be expected to be productive and effective without having accurate and relevant information at their disposal. Hough (1994:25) found that communication has a direct influence on the productivity and performance of employees. Effective communication increases the levels of trust amongst employees and improves problem solving. Communication is essential for the entire empowerment concept. Creating opportunities for participation and taking the needs of employees into consideration

promote effective communication. Delport (2000:31) is of the opinion that should employees be allowed to air their work-related anxieties, their work will improve which will contribute to the total achievement of the objectives of the institution. By giving employees the opportunity to render inputs in respect of their work, management recognises that employees are an important source of knowledge and experience.

From the above references to empowerment it appears that empowerment is intertwined with the two previous dimensions of leadership and strategic planning. The three dimensions leadership and top management commitment, strategic planning and empowerment must be integrated and receive continuous attention to promote total quality within an institution. A fourth primary dimension used to establish total quality within an institution and integrated with the previous dimensions are teamwork (see figure 3.1 and table 3.3) that will subsequently be discussed in more detail.

4.5 TEAMWORK

Developing teamwork is such an important TQM aspect that team building is believed to distinguish successful institutions from unsuccessful institutions. Empowerment alone is not enough, as people cannot always manage things on their own. Institutions must foster a team environment with dynamic and flexible boundaries, where employees can overcome the liabilities inherent in hierarchical, individual-focused management systems. According to Lycke (2003:206) teamwork has been praised as the key to a successful TQM institution. From the principles of TQM (see paragraph 2.3.3) and the philosophy of quality guru, Phil Crosby (second prescription of his 14 points – chapter 2, paragraph 2.3.1.4), it is clear that teamwork is yet another key success factor in the total quality improvement process. Teams form a major part of any TQM effort as teamwork enables different parts of the institution to work together to meet customer needs in ways that cannot be done by means of individual job performance.

Kreitner & Kinicki (1998:414) explain how a work group becomes a team: “A team is a mature group where leadership is shared, accountability is both individual and collective, the members have developed their own purpose, problem solving is a way of life, and effectiveness is measured by collective outcomes.” The definition of a team by

Katzenbach & Smith (1993:304) is “a small number of people with complementary skills who are committed to a common purpose, set of performance goals, and approach for which they hold themselves mutually accountable”. According to the two authors, team development is regarded as a means of improving institutional effectiveness in an ever increasing competitive world, as well as a powerful way of promoting empowerment, innovation and learning.

Teamwork is based on the concept of synergy, where the contribution of the team is more than the contribution of any of its members. Management is responsible for creating the environment required for teamwork to grow, by removing institutional obstructions to co-operation. Teamwork is therefore a behavioural factor that must form part of the institutional culture. An important aspect of teamwork is interdependence. If workers need to work independently, there is no need for teamwork and the results will be minimal. Where there is interdependence and therefore a high level of interaction, teamwork will contribute to improvement.

In two articles written for the magazine “Management Today” under the headings “Teamwork not What it Should be” and “Top Teams“, Warner (1999:23) & Warner (2000:38-39) state that a high premium was placed on teamwork to obtain better performance at institutions. On the theory of work teams, Warner states that employees with different knowledge and skills should be placed together in order to achieve cooperation and interaction. Warner continues by stating that teams should be guided by strategic planning and that they should be empowered to establish the capability to solve problems and to make rational decisions in order to render better services and manufacture better products, to implement processes more quickly and to manage the institution more cost-effectively. According to Warner (1999:23) & Warner (2000:38-39), the current competitive environment requires flexible and expedient actions, aspects that can be achieved by means of teamwork. They further state that institutions should place the decision-making powers in the hands of those close to the information sources and those who have the knowledge to implement such decisions and to react on them. Continuous improvement in service-rendering results, financial results, customer results, marketing results, operational results, community results and employee results is also ensured by using teams such as problem-solving teams,

quality control teams, cross-functional teams, quality circles and small group activities (paragraph 3.2.3.6) (Stevenson 1996: 101).

4.5.1 The importance and advantages of teams

According to Blanchard, Carew & Parisi-Carew (1996:17), Uhlfelder (2000:48) and Oakland (2000:197), the only efficient way to tackle process improvement or complex problems is through teamwork. The use of the team approach to problem solving has many advantages over allowing individuals to work separately, namely:

- More innovative ideas are generated through team interaction.
- A greater variety of complex problems may be tackled – those beyond the capability of any one individual or even one department – by pooling of expertise and resources.
- Problems are exposed to a greater diversity of knowledge, skills and experience and are solved more efficiently. The diverse talents and experiences of the members are best utilized and efforts of different specialists are effectively coordinated.
- The approach is more satisfying to team members, and boosts morale and ownership, through participation in problem solving and decision-making.
- Problems experienced as cross-departmental or crossing functional boundaries can be dealt with more easily, and the potential/actual conflicts are more likely to be identified and solved.
- The team makes more accurate assessments of situations.
- Recommendations are more likely to be implemented than those suggested by individuals, as the quality of decision-making in good teams is high. The effectiveness of decision-making is enhanced and all parties are likely to support decisions.

In order to be effective, teams should display the following attributes (Ferreira 1999:79; Köning 1995:101, Lycke (2003:212); Oakland 2000:206; Adams & Kydoniefs (2000:44), namely:

- Clear objectives and mutually agreed upon goals – No team can be effective unless they know what they want to achieve, but it is more than just knowing what the objectives are. People will only commit if they can identify with and have ownership of the goals and objectives – in other words; team members must agree on goals and objectives.
- Openness and confrontation – If a team wants to be effective, then the members thereof must be able to state their views, their differences of opinion, interests and problems, without fear of ridicule or retaliation.
- Support and trust – Support naturally implies trust among team members. Based on trust, people can talk freely about their fears and problems and receive help from others to become more effective.
- Cooperation and conflict - Cooperation enhances morale and individuals accept one another's strengths and weaknesses and contribute from their pool of knowledge and skills. All capabilities, knowledge and experience are fully utilized by the team; individuals have no inhibitions about using other people's abilities to help solve their problems, which are shared. Allied to this, conflicts are seen as a necessary and useful part of the institutional life. The effective team works through issues of conflict and uses the results to achieve objectives. Conflict prevents teams from becoming complacent and lazy, and often generates new ideas.
- Good decision-making – Objectives need to be clearly and completely understood by all members before good decision-making can begin. In making decisions effective, teams develop the ability to collect information quickly and then discuss the alternatives openly. They become committed to their decisions and ensure quick action.
- Communication – Communication within team context must comply with the characteristics of flexibility, continuity, effectiveness, clarity, structure, openness, applicability and clear formulation.
- Appropriate leadership – Effective teams have a leader with the responsibility to achieve results through the efforts of a number of people. Power and authority can be applied in many ways and team members often differ on the style of leadership they prefer. Collectively, teams may come to different views of leadership but, whatever their view, the effective team usually sorts through the alternative in an open and honest way.

- Review the team process – Effective teams understand not only the team's character and its role in the institution, but also how it makes decisions and deals with conflicts. The team process allows the team to learn from experience and to improve teamwork. There are numerous ways of looking at team processes – using an observer, a team member giving feedback, or the whole group discussing a member's performance.
- Sound inter-group relationships – No human being or team is an island; they need the help of others. An institution will not achieve maximum benefit from a collection of quality improvement teams that are effective within themselves, but fight among each other.
- Individual development opportunities – Effective teams seek to pool the skills of individuals, and it necessarily follows that they pay attention to development of individual skills and try to provide opportunities for individuals to grow and learn.

In order to be effective, members of task teams must be *au fait* (conversant) with the principles of the TQM philosophy, group dynamics, communication (positive negotiation and influencing skills), problem solving and brainstorming sessions. If institutions want task teams to function successfully, it is essential to invest in the self-development, education, training and development of each individual in the task team. In order to function successfully, new roles must be defined, training be provided on how to function effectively within a work team, boundaries for responsibilities be set and personal needs be taken into consideration. Employees will systematically begin to understand the meaning of objectives to improve quality at the institution and they will become more involved in setting objectives. In this way employees will become more independent. The need for leaders and managers to change within the boundaries of task teams and work teams cannot be overemphasised. Leaders and managers at an institution can be a task team's biggest asset or its biggest liability. Without experienced and well-trained leaders, teams can easily come to nothing, deviate from objectives, lose trust, stagnate or simply lack in potential during the growth phase of their development as a team. (Delport 2000:47.)

4.5.2 The role of leadership in teamwork

Developing teamwork is such an important leadership role that team building, as previously mentioned, is said to distinguish successful leaders from unsuccessful leaders. From the principles of TQM (see paragraph 2.3.3) it is clear that top management leadership is one of the key success factors in the quality improvement process. According to Lycke (2003:212), all types of institutions, including schools, health care institutions and public institutions, experience low employee participation and interest in their TQM programmes when top management commitment is missing at any level. Adams & Kydoniefs (2000:47) states that TQM will not succeed if upper management and leadership is only motivated by outside pressures, such as needing to please the board of directors or meet an accrediting agency's standards. If employees see discrepancies in what management says and what it actually does, they will lose interest and faith in TQM. For successful implementation, the administrative team must have a clearly communicated purpose for adopting TQM, be consistent in its application of TQM principles, and not treat it as the latest management fad.

The rapid pace of change due to new technologies, requirements for increasingly faster turnarounds, products of highest quality and intense competition makes it essential that leaders provide team members with more responsibility and autonomy. Team members not only welcome these changes, in many cases they demand it. They want to be challenged, and they desire leaders who not only articulate a vision of the future, but also help them develop the skills necessary to make that vision a reality. Leaders can become more effective by demonstrating a concern for team members and by sharing decision-making with them. According to Bass (1990:1), transformational leaders introduce the kind of leadership required to meet the challenges to run highly effective institutions, work units, work teams and projects, which must perform at the highest level of competitiveness. Bass says transformational leadership is (1) stimulating and inspiring which help team members to envision and articulate new goals and to influence teams to help achieve them, (2) can motivate team members to exceed standard expectations, (3) can move team members to go beyond their own interests for the good of their team and their institution, and (4) such leadership will support the growth and development of team members and as a consequence, the growth and development of the total institution. According to Kreitner & Kinicki

(1998:509), team members exert a greater amount of extra effort when working with transformational leaders. They exhibit a higher level of persistence at solving problems, are more willing to take intellectual risks, and produce a wider range of creative products.

The dimension of teamwork should be integrated with the previous three dimensions of leadership and top management commitment, strategic planning and empowerment and should receive continuous attention in order to enhance total quality at an institution. The fifth primary dimension (see figure 3.1 and table 3.3) that influences the success of a TQM effort is continuous improvement. As can be seen from figure 3.1, leadership and top management commitment, strategic planning, empowerment and teamwork form the core of the fifth dimension, continuous improvement.

4.6 CONTINUOUS IMPROVEMENT

Continuous improvement has established itself as a powerful tool in institutions (Garcia-Lorenzo & Prado 2003:15). From the principles of TQM (see paragraph 2.3.3) and from the writings of the three quality gurus W.E. Deming (fifth prescription to institute continuous improvement – chapter 2, paragraph 2.3.1.1), Juran's Trilogy (see chapter 2, paragraph 2.3.1.2) and Phil Crosby (five fundamental principles – chapter 2, paragraph 2.3.1.4), it is clear that continuous improvement is one of the key success factors in the quality improvement process. The three quality gurus encourage continuous improvement as a requirement in an internationally competitive world characterized by rapidly changing technology and customer demand for higher levels of value.

The term 'continuous improvement' is derived from the Japanese term *kaizen,* meaning to maintain and improve the working standards through small, gradual improvements. *Kaizen* means ongoing improvement involving everyone, including managers and workers. It is a systematic approach to the closing of gaps between customer expectations and the characteristics of process outputs. According to Carpinetti & Martins (2001:284), continuous improvement is both a commitment and a process. He states that the emphasis should be on processes and systems rather than on results in order to deliver even better products and services that will be the end product of

continuous improvement. According to Lindsay & Petrick (1998:155), continuous improvement is the range of system innovation designed and implemented to produce total, ongoing customer satisfaction. The two researchers continue by stating that continuous improvement must make work processes (1) effective (producing desired results), (2) efficient (minimizing the resources used), (3) adaptable (able to flexibly meet changing customer and business needs), (4) reduce costs, (5) achieve competitive parity, (6) and eventually provide the basis for sustained competitive advantage. Stahl (1995:44) support Lindsay & Petrick by stating that the philosophy of continuous improvement involves:

- that managers should continuously work on improving the systems and processes that yield the institution's products and services; and
- the constant refinement and improvement of products, services and institutional systems to yield improved value to customers.

For Pearce & Robinson (2000:15) continuous improvement provides a way for managers to provide a form of strategic control that allows their institutions to respond more proactively and timely to rapid developments in hundreds of areas that influence an institution's success. In reviewing the dimensions in figure 3.1, all the dimensions in the TQM telescopic framework are united as a system to produce *continuous improvement* or *kaizen*. Improvement is a process that may never stop. When objectives are achieved, new objectives are to be set pursuing even higher levels of product, process and service efficiency. The ideal is that quality culture and customer and employee satisfaction should drive the continuous improvement process for the achievement of further results that speak of even better quality.

Czarnecki *et al.* (2000:75) clearly state that the following is required for continuous improvement: (1) a change in culture, (2) responsibility of top management, (3) a systematic method to improve service rendering, (4) a structured approach to problem-solving, (5) participation by all employees and (6) involvement by means of teamwork. Other activities are also involved to guide the institution to continuous improvement. According to Mears & Voehl (1995:29), the most important activities in this regard include: (1) establish a long-term vision for the institution, (2) develop a mission statement, (3) develop a supportive strategic plan and guiding principles, (4) direct all

key activities, (5) develop measurable objectives, (6) review the needs of customers and suppliers, (7) prioritise quality improvements, (8) develop operational plans, and (9) apply Deming's PDCA-cycle (see paragraph 4.6.4.1). Continuous improvement is also linked to effectiveness and efficiency where effectiveness refers to the extent in which objectives are achieved and efficiency to the relationship between inputs and outputs. The TQM philosophy must always have a culture of continuous improvement, applying knowledge management, which forms the basis for becoming better with each cycle of daily work, an aspect that will subsequently be discussed in more detail (Rao *et al.* 1996:15).

4.6.1 Knowledge management

According to Shockley (2000:57), knowledge management or intellectual capital is one of the latest techniques for continuous improvement adopted by institutions. He continues by stating that knowledge management may be defined as the collective knowledge (including experience, skills, data and information) of an institution. It includes knowledge that resides internally as well as knowledge selectively acquired from external sources for improvement of the institution. Alazmi & Zairi (2003:199) and Wilson & Asay (1999:26) state that knowledge management aims to improve institution effectiveness by increasing intellectual specialization and the ability to do the right thing, improve efficiency (do the right thing right), reduce rework, improve focus, and eliminate work that can be automated to ensure continuous improvement. The goal of a knowledge-based institution includes continuous learning, renewal and sustainability. Inherent in knowledge management is the understanding that not only what employees think, but also how they think determines actions. Knowledge management is about how to think better and learn faster, and the foundation of knowledge management is people (Wilson & Asay 1999:26; Brenner 1999:33). The principles driving knowledge management into the forefront are (Wilson & Asay 1999:27-28):

- Focus on processes – Knowledge management is about process enhancement by and sharing how to perform processes, knowledge management can optimise the continuous improvement potential of an institution, and vice versa.

- Focus on total employee involvement – Total employee involvement means the vital involvement, authorship and ownership of all, from top to bottom, in the outcomes of the institution and recognition of the interdependencies it requires and creates.
- Focus on continuous learning and improvement – Continuous, incremental and innovative change toward measurable objectives builds momentum to transform an institution toward world-class knowledge management. Quality activities reduce the gap between current conditions and customer-required conditions and beyond those to ideal conditions, continually expanding the envelope of possibility.

According to Alazmi & Zairi (2003:200) the benefits of knowledge management, which are an extension of TQM, are to ensure breakthrough improvements in the quality of products and services with significant reduction in expenditure of time, energy and cost. Decisions can be made faster and at lower levels. People can work with less supervision and intervention. Cross-collaboration among work teams is enhanced. Knowledge harvesting can be applied to virtually any kind of human knowledge. All institutions have individuals who excel at performing the institution's most important work: its core processes.

4.6.2 Performance management

Meeting customer requirements is the ultimate measure of total quality. Measurements play a vital role in determining how efficient and effective an institution is in serving the customer. Measurements provide critical feedback to institutions on how effective the institution is at meeting its goals, related to such priority concerns as: (1) customer satisfaction, (2) financial targets, (3) market strategies, (4) process improvements, (5) product/service features, (6) quality and costs of poor quality and (6) human resource development.

According to Kueng (2000:70) performance management (hereinafter referred to as PM) used as an ongoing cycle that goes beyond the narrow scope of performance appraisal, can contribute to TQM. It is therefore not very surprising to see that institutions that tried hard to measure their performance have eventually succeeded in securing commanding positions in the market place. One of the reasons TQM fail is because no measurement took place. PM induces curiosity; interrogation and

challenging the way things are done. It ensures understanding, strong focus and builds credibility. It represents the value and the output that people contribute to the customer. Controlling the consistency of such an output and ensuring that the value of the "work effort" will always remain high, can only come through scrutiny, challenging and interrogating (Carpinetti & Martins 2001:284).

Kanji (2002:716) mentioned that PM provides institutions with the opportunity to strengthen the institutional delivery process in the areas of quality, cost and delivery. Traditionally, performance measures are used as an instrument of top-down management control and decision-making. For institutions establishing TQM, however, Crawford (1998:16) mentioned that control and decision-making in institutional process is not the exclusive task of the top management, but all people involved in the process. PM becomes, therefore, primarily a tool for these people to improve the TQM process. To secure that PM is accepted by their users and simultaneously play that role, they have to fulfil some features (requirements) (Andersen & Fagerhaug 2001:171; Booysens & Cloete 2000:23; Crawford 1998:17; Imai 1998:14; Kanji 2002:717), namely:

- Each measure should represent a relevant factor of performance.
- The set of performance measures should allow a holistic view of the performance and has to be manageable, such as an instrument panel of an aircraft. It should, therefore, focus on only a few key process performance measures.
- To get accurate and timely information, all performance measures have to be precise and sensitive to performance changes.
- Only measures that are easily understood and transparent for their users are accepted by the people in charge of improvement.
- The improvement team has to have the power to modify all performance measures by improvement actions.

According to Juran (quoted by Capezio & Morehouse 1993:182), performance measurements provide a "higher precision for communicating quality-related information … vague terminology is unable to provide precise communication. It becomes necessary to 'say it in numbers." Performance measurements keep institutions focused on continuous improvement according to actual results they

achieve in producing products and services as compared to internal baselines and external benchmarks of “Best Practices.” Assessing performance is the only way institutions or individuals can determine whether they are meeting their goals. Knowing how well or how poorly one is meeting specific goals and where one stands in view of the competition drives the continuous improvement process.

4.6.2.1 Balanced scorecard as performance management framework

What managers increasingly need is a PM capability that supports a long-term, forward thinking strategic view across the entire institution and to communicate that strategy down to the individual performance level. They need a PM framework that provides a view across a range of measures that encompasses all of the key issues for continued financial success (Ellis 2000:33; Kanji & Moura 2002:14).

According to Lawton (2002:66), a balanced scorecard is a management decision tool intended to be a framework for linking strategy with operational performance measures. In practice, it is an integrated report; usually showing the diverse areas of performance an institution values most. The term “balanced” in balanced scorecard suggests that objectives and measures along different dimensions, assembled together on one sheet or screen, offer a multidimensional and qualitatively better view of institutional success. It uses measurement to communicate the drivers of current and future success. The four perspectives of the scorecard, namely (1) the financial perspective, (2) internal business perspective, (3) the learning and growth perspective and (4) the customer perspective (Pearce & Robinson 2000:246), provide a balance between short and long-term objectives, between desired outcomes and the drivers of those outcomes, and between objective and subjective performance measures. The performance framework of the institution must in itself be configured and not prefigured. Most importantly, the agents of management can no longer engineer institutional performance at the level of individual tasks. It is the day-to-day stuff of leading people, effectively communicating strategic objectives, modelling individual behaviour and driving institutional culture that really affects institutional performance.

As Kanji & Moura (2002:14) argue, balanced scorecards help management to make fast decisions on what to improve or celebrate. The popularity of scorecards reflects a

general growth of interest in performance measurement and improvement tools. This is a positive trend. The better integrated your measures are, the more holistic your improvement efforts tend to be. According to Kueng (2000:68) balanced scorecards can create a truly balanced scorecard that reflects priorities of both the institution and its customers. To do so requires categories of measures that reflect the key values of both parties. A good scorecard includes measures covering processes, products and outcomes. Both customer and institutional value centre on these three topics. Outcomes refer to the results the institution wants to achieve (Carpinetti & Martins 2001:284). Customers also have outcomes they hope to obtain by doing business with the institution. Outcomes address why the institution exists. Products are the deliverables created by the institution. These are what customers receive. The balanced scorecard measures of process performance emphasise activity or how work is done. The measures may include cycle time, productivity and backlog. Process measures usually focus on operations; whereas outcome measures focus on strategic intent (Kanji & Moura 2002:16).

A truly balanced scorecard aligns strategic objectives with customer priorities. According to Ellis (2000:33), the balance scorecard is currently being deployed in many leading institutions worldwide to help drive and configure the TQM thinking around institutional performance. The success, however, lies in compiling a scorecard that not only drives strategic objectives and initiatives through technologies and process, but also human performance to enhance core capabilities. To sum it up, the era of compliance has ended and with it has ended the dream of prefiguring individual human performance.

4.6.3 Benchmarking

According to Morling & Tanner (2000:419) benchmarking is a positive, proactive process to change operations in an institution in a structured fashion to achieve superior performance. He defines benchmarking as: “The continuous process of measuring products, services and practices against the toughest competitors or those institutions recognized as leaders.”

Institutions use benchmarking to identify the “best practices” of those institutions that have gained recognition for their excellence in a particular area – such as Xerox for the development of human resources and Toyota for customer satisfaction. Benchmarking provides a systematic way to identify superior products, services, systems and processes that can be integrated and adapted into an institution’s current operations (Carpinetti & Martins 2001:284). Gains such as reduced costs, decreased cycle times and improved product quality are aimed at achieving greater precision in meeting internal and external customer requirements (Dervitsiotis 2000:645). Benchmarking is thus a continuous process of measuring against the best and is the rational way of ensuring the institution is satisfying customer requirements and will continue to do so as customer requirements change over time. Benchmarking ultimately reflects an attitude to strive for excellence in all activities (Dervitsiotis 2000:643).

Benchmarking is not a mechanism for determining resource reduction. Through benchmarking, resources will be redeployed to the most effective way of supporting customer requirements and obtaining customer satisfaction as a result of benchmarking activities. It may be that benchmarking will require a resource increase, both people and spending, as a result of more correctly determining true customer satisfaction levels and needs from benchmarking activities (Morling & Tanner 2000:421). The benefits of using benchmarking are that institutions are forced to investigate external best practices of other institutions and incorporate those practices into their operations. This leads to efficiency, high-asset utilization institutions that meet customer needs and have a competitive advantage.

4.6.4 Quality evaluation for continuous improvement

4.6.4.1 Techniques for problem solving and analysis to achieve continuous improvement

There are different techniques necessary to solve problems related to the individual job or the improvement of a work process. These techniques reflect foundation principles that guide total quality institutions in problem solving, measuring and making rational decisions about improvement processes. There are two stages according to Capezio & Morehouse (1993:167) for problem-solving to achieve continuous improvement, namely

(1) stage 1: by explaining the situation and defining the problem (i.e. PDCA, brainstorming) and (2) stage 2: understand the situation by collecting and analysing data (i.e. check sheet, cause-and-effect diagram, Pareto chart, scatter chart, run chart and histogram).

- **Stage 1: Explain the situation and define the problem**

  - **The Shewhart/Deming Cycle** - Total quality and its commitment to continuous improvement require that work and processes be thought of as a circular system. Walter Shewhard conceived a cycle of Plan, Do, Check and Act (PDCA). Deming modified it to Plan, Do, Study and Act (PDSA). This is called the Deming Cycle in Japan, and either the Shewhart or Deming Cycle in the United States. The PDSA or PDCA cycle can be used to ensure continuous improvement (Czarnecki *et al*. 2000:79; Johnson 1993a:120; Lindsay & Petrick 1998:58) using the following process, namely:

    - Plan – Process improvements can be achieved at any level of the institution. Recognize an opportunity and plan the change. Managers, supervisors and employees must first troubleshoot the system and plan improvements together.
    - Do – Once there is an initiative for improvement, it is acted out in a small-scale test (test the change).
    - Study – All the results from the test are examined, analysed and discussed. The impact of elements of the test is related to all other aspects. Thorough analysis requires a clear understanding of these interrelationships.
    - Act – Based on the aims of the test that were determined up front during planning, some decision is made to either adopt, adjust or abandon the plan. At this point, employees are back at the top of the cycle, ready to follow along the path of continuous improvement.

  - **Seven-step method** – The seven-step method is an efficient and systematic procedure for solving problems and improving quality. The procedure consists of a standard sequence of steps that induce an in-depth analysis of a problem, its relevant factors, the possible causes, the possible solutions and their

effectiveness. The seven steps are (1) select a problem and describe it clearly, (2) study the present system, (3) identify possible causes, (4) plan and implement a solution, (5) evaluate effects, (6) standardize any effective solutions, and (7) reflect on process and develop future plans. The seven-step method is an offspring of the PDCA or Shewhart cycle. The PDCA cycle and the seven-step method correspond as follows, namely:

- Plan – (1) Select and describe the problem, (2) study the present system and (3) identify possible causes.
- Do – (4) Plan and implement the solution.
- Check – (5) Evaluate the effects.
- Act – (6) Standardize the solution and (7) reflect on process and develop future plans.

- **Brainstorming** – Brainstorming is an excellent technique for generating ideas from team members about problems and opportunities for improvement. Brainstorming is a tool for maximizing a team's creativity and problem-solving abilities. Some reasons why brainstorming increases the team's ability to generate ideas are: (1) increases involvement and participation, (2) produces the most ideas in the least amount of time, (3) reduces the need to give the "right" answer and (4) reduces possibilities of negative thinking (Andersen & Fagerhaug 2000:144). When using brainstorming as technique for getting ideas, it is important to focus on improvement. When the brainstorming list is completed, the team should reach consensus by identifying the top two or three ideas that will help them reach the improvement goal (Uhlfelder (2000:50).

- **Stage 2: Understand the situation by collecting and analysing data**

The charts and sheets included here have evolved from the quality movement over the years. They are simple graphic representations of underlying processes that track variation and guide people to think in logical ways to correct any variations outside of customer satisfaction. There are ten basic tool charts according to Hradesky (1995:296), Capezio & Morehouse (1993:114-142) and Okes (2002:25). The following charts reflect the foundation principles that guide total quality in

problem solving, measuring and making decisions about improvement processes, namely:

- **Flow charting** – A flowchart is a pictorial representation showing all the steps of a process, and it is used to depict, with a set of symbols, all the steps in a particular process (Draper & Ames 2000:43). The most effective use of flow-charting is identifying the visual representation of the steps and obstacles that a product, process or service follows to completion. Rao *et al.* (1996:185) notes that a flow diagram provides a very effective graphical description of how something works. In quality management, they are used to describe processes during continual improvement efforts and also in other contexts. Flow charts provide valuable documentation and show the interrelatedness of the steps to completion. Flow-charting is particularly useful in the service industries, where the work process involves unseen steps. Flow-charting is also useful and valuable for teams and individuals to see how to improve their work processes (Anton 2001:128).

- **Events log** – An events log is a book located near a critical workstation in which involved personnel record things, which are new, different, changed or otherwise significant to the process operation. Changes can be in the form of equipment, personnel, materials, suppliers, environment or anything else related to the process. It is also appropriate to record in the events log any special test or studies conducted on the process along with the results obtained and whether they are favourable or not (Hradesky 1995:297).

- **Cause and effect diagrams** – According to Rao *et al.* (1996:188) a cause-and-effect diagram is a graph that shows the relationships between a problem and its possible causes. They are typically used to depict causes of certain problems and to group them according to categories, often “methods”, “manpower”, “materials”, “measurements”, “movement” and “machinery”, which provides an excellent tool for grouping and organizing efforts to improve a process. The tool helps to uncover the reasons behind problems by identifying and documenting the causes and sub-causes of a specific problem or effect. The assumption is

that if one or more causes of a problem are eliminated or reduced, then quality will be improved (Clarke 2000:152; Okes 2002:25).

- **Diagnostic process audits** – Diagnostic process audits comprise a thorough and comprehensive survey of every aspect of a process as measured against the process design. The diagnostic process audit, when properly applied, can be a very effective problem-solving technique as well as a tool for improving performance. Process audits are a fast and economical approach to solving problems. Only the events log is faster and more economical. Process audits allow analysis of a process by administrative personnel or technical personnel, as applicable. This provides assurance that the process documentation, tools, and material support are current and conductive to optimum producability and quality. The ISO 9000:2000 (see chapter 2, paragraph 2.6) was developed from early process audit practices (Hradesky 1995:314).

- **Check sheets** – A check sheet is used for recording numbers of occurrences at regular intervals. Check sheets are most effective when data based on observations are to be prepared, with the goal of detecting patterns of problems or defects. Check sheets are most valuable to institutions in identifying exactly what is occurring and how often it is occurring. They provide a systematic method for making observations. Check sheets will show the patterns of problems and the number of occurrences so that institutions are able to investigate and improve this situation (Capezio & Morehouse 1993:170; Okes 2002:26; Stahl 1995:427). Check sheets make it easier to collect data, they tend to make the data collection effort more accurate, and they automatically produce some sort of data summarization, which is often very effective for quick analysis (Rao *et al*. 1996:190).

- **Pareto charts** - The Pareto chart is (1) essentially a bar graph that depicts the types and quantities of problems, and (2) a technique that indicates which problems to solve and in what order (Stahl 1995:428). Pareto charts portray the frequency of occurrence of a variable of interest in various categories, arranged in order of descending frequency (Stevenson 2000:51). Pareto charts are simple to construct and interpret, and they can provide important insights for

problem solving. According to Hradesky (1995:391) Pareto analysis are also used in process improvement to indicate the relative importance of problems and to determine the order in which they should be solved. Pareto charts are most effective when an institution needs to show the relative importance of problems. It can help to select a starting point for problem solving or to identify the underlying cause of a problem. Pareto charts are used after data collection to rank causes so that priorities can be assigned. Their use gives rise to the 80-20 rule according to which 80% of the problems stem from 20% of the causes.

- **Scatter diagrams** – Scatter diagrams illustrate the relationship between two variables, such as height and weight. As points for events are plotted, relationships are determined and similar clusters and deviations are observed. Scatter diagrams are most effective when institutions want to determine the strength of the relationship between two variables and to display what happens to one variable as the other changes. By using the scatter technique, the strength of the variables' relationship will become evident (Capezio & Morehouse 1993:175).

- **Histograms** – A histogram according to Hradesky (1995:338) is (1) a frequency distribution consisting of vertical rectangles whose width corresponds to a defined range of measurements and whose height corresponds to the number of readings that occur within the range, and (2) a graphic format of showing the distribution of a complete set of quantitative data and it is a picture that summarizes numeric data (Rao *et al.* 1996:172). Histograms are most effective when an institution needs to identify and display the distribution of data through bar graphing the number of units in each category. The value of the histogram is to show the amount of variance within a process and to identify a problem with the process if a normal bell-shaped curve is not reflected in the data. The purposes of a histogram are: (1) to visually determine the central tendency, (2) to visually determine the variation and (3) too visually determine the shape of the distribution (Capezio & Morehouse 1993:178).

- **Run (trend) charts** – Run charts show the results of a process plotted over a period of time, for example, sales per month (Capezio & Morehouse 1993:114).

Stahl (1995:420) states that a run chart is a time-ordered plot of data associated with a process.

- **Control chart** – A control chart is a run chart with statistically determined upper and lower control limits drawn on either side of the process average in monitoring process performance. The control limits define the noise or random variation in the process. Data outside of the limits indicate a signal or assignable variation due to a special cause (Stahl 1995:421).

According to Okes (2002:25) quality tools can help institutions understand, analyse and continuously improve institutional processes. Quality professionals must continually look for new ways to understand, analyse and improve institutions.

The sixth primary dimension (see figure 3.1 and table 3.3) that influences the success of the total TQM effort is customer and employee satisfaction. As can be derived from figure 3.1, leadership and top management commitment, strategy and planning, empowerment, teamwork and continuous improvement form the core of the sixth dimension, customer/employee satisfaction.

4.7 CUSTOMER AND EMPLOYEE SATISFACTION

The criteria for the Malcolm Baldrige National Quality Award, EFQM and Australian Quality Criteria Framework as discussed in chapter 2 (see paragraph 2.5.2 to 2.5.5), single out customer (external customer satisfaction) and employee satisfaction (internal customer satisfaction) as the key focus for quality improvement efforts. On studying the principles of TQM (see paragraph 2.3.3), the point of view of the three quality gurus, Deming's 14 points (see chapter 2, paragraph 2.3.1.1), Juran's Trilogy (chapter 2, paragraph 2.3.1.2) and Feigenbaum's fundamental factors affecting quality (see chapter 2, paragraph 2.3.1.3), it becomes clear that customer and employee satisfaction are two of the key success factors in the quality improvement process.

4.7.1 Customer satisfaction

Customer service and satisfaction are at the core of any institution and the main focus of the TQM telescopic framework (see figure 3.1). An institution must give its

customers a quality product or service that meets their needs with reasonable on-time delivery and involving outstanding service (Dean & Terziovski 2001:613). Listening to the 'customers' and responding quickly to their changing needs, expectations and perceptions are some of the basic TQM approaches. By keeping close to their customers, institutions can establish customers' needs, gather information on customer trends and benchmark them with their competitors (Vavra 2002:71). This can be a winning strategy towards winning new customers and retaining customer loyalty (Behara, Fontenot & Gresham 2002:603; Eng & Yusof 2003:65). One definition for the term 'customer' states that a customer is anyone who uses the output of your job; this description recognizes both internal and external customers. Another definition describes a customer as anybody who uses the products and services of an institution; this definition puts the emphasis on the external customer. The first definition also provides the entry for suppliers into the customer chain. Nowadays institutions are beginning to develop their own customer requirements for suppliers. The customer chain may include a number of suppliers and various internal customers. The better an institution understands its customers, the more likely the institution will satisfy the needs and requirements of its customers (Hammond 2000:669).

Parzinger & Nath (2000:355) clearly state that in a TQM environment the job is not done until the customer is satisfied. The definition of customer satisfaction according to Behara, Fontenot & Gresham (2002:603) is the state in which customers' needs, wants and expectations are met or exceeded, resulting in repurchase and continuing loyalty. The foundation principles for customer satisfaction are (Capezio & Morehouse 1993:243) the following, namely:

- Quality begins and ends with the customer – to build a real quality advantage, everyone in the provider institution needs to learn about their customers – who they are, why they use the products/services and how to keep them satisfied. First, last and always customer requirements are the only true measure of quality.
- Quality in the internal and external customer-supplier chain is the key determinants of quality for the end or "ultimate" customer – quality at the source requires that people at the nearest point of experience in a process or system be fully trained to run, measure and evaluate those systems and processes. A responsive attitude

among co-workers and managers will create a willing tone for the institution to function as a “learning institution”.

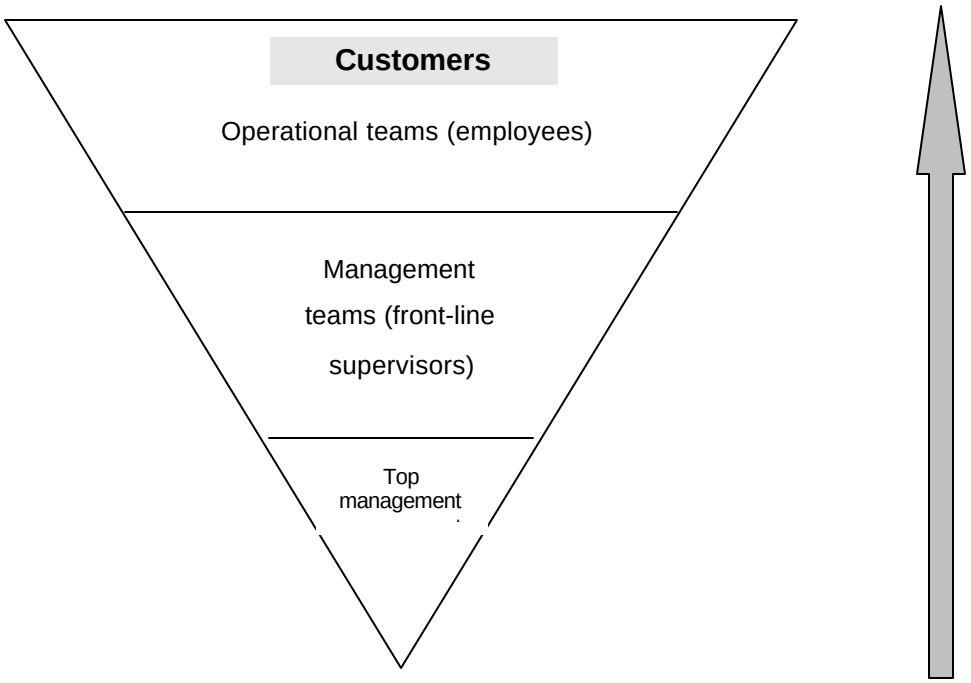
Xerox, a 1990 Baldrige winner in the United States of America, claims that from their core principles to manage TQM, *customer satisfaction* stands alone and ranks first in importance (Capezio and Morehouse, 1993:18). “Satisfaction used to be something that validated the way institutions did business”, George & Weimerskirch (1998:33) say. From the seven guiding principles for TQM of IBM Rochester, also a 1990 Baldrige winner, customer focus ranks first. Success in today’s global marketplace mandates that customer requirements become the cornerstone upon which an institution organizes its resources and dedicates its production. As institutions pursue continuous improvement efforts aimed at eliminating waste and reducing cost, the driving measurement of success will be the institutions’ ability to satisfy customer requirements. Institutions today need to become market-driven – where the needs of customers of clearly defined market segments are the heart of every employee’s job. When institutions commit to achieving “Best Cost” or “Best Service” for their customers, they should commit themselves to doing those things that add value to the product or service (Saliba & Fisher 2000:64).

When customers are satisfied with what they hear, see and feel they will come back for more. Customer satisfaction is that customers will be satisfied to the extent that their expectations and needs are met. These expectations are based on what they have been told and the experiences they have had with the institution’s products or services and with the institution’s competitors’ products or services. Customers care about the product or service attribute set: function, usability, performance, reliability and supportability. Customers also care about getting the best price and best availability. Thus, to be successful, an institution must have the right product, right price and right availability. The level of customer satisfaction is based on what customers hear, see and feel about these product attributes (Parzinger & Nath 2000:355).

“Inverting the Customer-Service Pyramid” demonstrates vividly the shifts in positions that have occurred in the mind-set and operations of market-driven institutions. The customer’s interface with the operating teams in an institution must say what they want from the institution and how well the institution is listening. Customers that serve on

design teams and that participate in user conferences in institutions may become the most valid part of the institutions' market-driven strategy. Institutions that engage their customers in the design, development and evaluation of their products and services are institutions that are serious about achieving quality. It is essential that employees see their work through the eyes of their customers and know how they actually use the products and experience the service provided to them. Employees will gain greater appreciation of the customers' needs and new insight into how best to respond to those needs (Afors & Michaels 2001:82). The inverted pyramid (see figure 4.2) demonstrates how management must support the workers in serving the customers in optimal ways.

Figure 4.2: Inverted pyramid



Source: Own observation

According to Behara, Fontenot & Gresham (2002:605), customers should be put at the top of the chart (see figure 4.2) to remind everyone who is most important to the institution. Customers and front-line workers deserve their place at the top of the institution, for without them everyone else would be looking for employment. Top managers must recognize that the employees who directly provide the goods and services to the customer - whether they are on the production line or at the service desk - are their most valuable assets.

Nowadays the challenge for the top management of institutions is to assist institutions in improving the human and technical dimensions of institutional systems by focusing on increasing customer satisfaction (Lindsay & Petrick 1998:7). According to George & Weimerskirch (1998:34), Xerox relies on "customer obsession" to sustain a competitive advantage. Xerox believes that such an obsession is critical for four reasons, namely:

- It improves financial returns – Customer obsession leads to fully satisfied customers, which produces superior customer loyalty, which improves market share, which improves financial returns.
- It fulfils certain needs of Xerox's employees – Employees have a basic human need to receive positive feedback from those they serve. Giving them permission to be obsessed with customer satisfaction enables them to provide the quality of service their customers will value.
- It provides an integrating focus for empowerment – Customer obsession is a unifying vision that guides everyone's effort toward shared goals.
- It can be institutionalised to provide a sustainable competitive advantage – When customers perceive that the entire institution is obsessed with satisfying their requirements, they become loyal, not because of the product's features and price, but because they know Xerox supports their institutional goals (Gronholdt, Martensen, & Kristensen 2000:510).

Satisfied employees produce satisfied customers (Afors & Michaels 2001:82; Gardner 2001:41). In the new TQM telescopic framework (see figure 3.1) the connection between satisfied employees and satisfied customers is much broader. The intent of an institution to track changing requirements of customers and to improve the service to them is encouraged as employees interact with customer representatives on a regular basis.

Ghobadian *et al.* (1998:89) state that Coca-Cola may be the most valuable trademark in the world, but the value of any trademark is merely a reflection of the degree of customer satisfaction it brings about. He continues that by keeping a firm eye on the customer, and by focusing its efforts on satisfying that customer, any institution can ensure that its greatest asset (highest sales of Coca-Cola) will continue to increase in value. When an institution serves customers with passion, over time they will come to

feel passionate about the institution's products and services. If an institution makes the customer feel special, the products and services of the institution automatically become something special to him or her. That is the ultimate goal of customer satisfaction according to Ghobadian *et al.* (1998:89). Xerox aggregates all the customer information it gathers in a database. It is then used to analyse and determine customer satisfaction levels and trends. This information is updated weekly and reviewed during regular management meetings. Customer satisfaction is always one of the first topics on the agenda of meetings at Xerox and customer satisfaction data are used to identify gaps and develop action plans that address them. The levels and trends are also communicated to employees. Control charts for overall customer satisfaction and the supporting internal process measures are prominently displayed on walls and in work areas throughout the institution, including the boardroom where the top management meets (Wong 2000:431).

4.7.2 External and internal customers

According to Kanji (2001:262), in any institution there are both internal as well as external customers. Institutions with a commitment to excellence need a commitment to satisfying their customers' needs at every level, i.e. internal as well as external. According to Lindsay & Petrick (1998:7), two institutional issues point to the need to focus on total quality, namely:

- Successful institutions place high priority on proactively and systematically understanding and responding to current and future *external customer* needs.
- Successful institutions seek to proactively and systematically understand and respond to current and future *internal customer* (employees) needs.

According to Goodman & Newman (2003:53), Kanji & Wallace (2000:982) and Lindsay & Petrick (1998:7), the benefits of *external customer satisfaction* are (1) that there is greater focus on customer needs and specialized requirements, (2) customers are recipients of value-added services, (3) increased partnership opportunities, (4) an improvement in the quality of products, services and processes, (5) reduced costs, (6) greater reliability, dependability and adaptability, (7) accessible communication through

more frequent and informal interface and (8) greater involvement in the planning and designing stages of requesting certain products and services.

According to Lindsay & Petrick (1998:7) and Rienzer & Testa (2003:175), the benefits for internal customer satisfaction (employee satisfaction) are that there is (1) greater support for continuous improvement, (2) greater empowerment of employees to have more responsibility for planning, problem-solving, decision-making, measuring and evaluating, (3) predisposed, collaborative culture, which encouraging trust and open communication, (4) learning opportunities to enhance professional skills, individual and group achievements, and interpersonal understanding, (5) expanding capacity for better success in the marketplace and (6) expanded commitment to research and development.

According to Lindsay & Petrick (1998:7), the concept of internal customers is newer and stranger to managers. Why? According to Hammond (2000:672) the importance of internal customer satisfaction became a major theme in the TQM revolution. The idea is simple: If internal customers are happy and empowered, they will serve better their external customers with value-added products and services by improved service delivery. For example, the repair-the-problem service provided by aircraft technicians can therefore determine whether the fighter pilot, who is the customer, will be able to successfully complete his mission with the aircraft, or not. The same aircraft technicians can render value-adding service by doing more to satisfy the customer by providing expert advice on the problem experienced and the repair process followed so that the pilot can fully understand the extent of the problem experienced. A second example, aircraft technicians to prepare an aircraft for an intensive flying program ensures 100% serviceability of the aircraft at all times to sustain the operational requirement. External customers will then give the institution an opportunity to serve them. For example, qualified pilots has intensive respect for the aircraft technicians who provide 100% serviceability of aircraft for them to become more experienced pilots within the prescribed time scales during their training. Furthermore, if internal customers are happy and empowered, they will also better serve their other internal customers. When internal customers can work together efficiently and effectively, costs will be reduced. Thus, happy and empowered external customers and happy and empowered internal customers could bring higher performance to the institution.

To be more competitive and offer a product and service that would be perceived by the customer as better (in comparison with others) requires a higher level of involvement during a process of delivering the service. This is because the behaviour of the customer significantly influences the level of quality delivered and experienced. Moreover the customer is going to be the one that judges the quality received, not the institution itself – as it used to be. Therefore, communication between the institution and its customers becomes important. The customer must be provided with the information that is considered by him or her to be necessary and will enable him to participate in the service delivery process (Rienzer & Testa 2003:176).

4.7.3 Employee satisfaction (internal customer satisfaction)

Total customer satisfaction also means having an unwavering focus on the internal customers. Before external customers can be satisfied, obstacles faced by internal customers have to be eliminated. This is because employees are the asset and form an important part of the institution's processes. It is crucial that good working conditions are created for employees to produce and deliver quality outputs and that they are provided with proper training, tools, information and empowerment required for quality excellence. Only then can the entire workforce truly be utilized through active involvement from committed and satisfied employees (Eng & Yusof 2003:65).

According to Palmer & Ziemianski (2000:76), institutions that adopt a TQM approach require employees who solve problems and who can manoeuvre their way through the various problem-solving methods presented in paragraph 4.6.4.1. Employee satisfaction programmes are difficult to instill in institutions (Eskildsen & Dahlgaard 2000:1082). Institutions must involve employees to ensure employee satisfaction in an institution. Managers and academics believed that by involving employees in problem solving, decision-making and institutional operations, performance and productivity would increase (Rao *et al.* 1996:462). Nowadays many institutions, both large and small, involve employees in participatory management programmes, quality of work life programmes and democratic management programmes. To be effective, employee involvement must be the overall approach to management in each institution that wants to transform to the TQM philosophy. The first five primary dimensions of the TQM telescopic framework, namely leadership and top management commitment, strategic

planning, empowerment, teamwork and continuous improvement, are used to encourage employees to have more say over their destiny and to participate in the daily life and processes of the institution to ensure employee satisfaction.

In order to achieve employee satisfaction, the following must be achieved (Eskildsen & Dahlgaard 2000:1082; Palmer & Ziemianski 2000:78; Rao *et al.* 1996:462), namely:

- First, top management must be involved in modelling employee involvement. There must be a corporate philosophy or policy on employee involvement, as it indicates management support for employee satisfaction practices. Top management support is crucial to support employees at all levels to look beyond any pressures for short-term performance in order to focus on the longer time frame required for true employee involvement to take effect. Top management should give employees the opportunity to make decisions. Their involvement and participation should direct their inputs towards strategic operational imperatives. Enabling decision making down to the lowest level in the institution by top management, is a critical factor to employee satisfaction. This does not mean that all decisions must go to all levels, but rather that each employee has the information, the perspective, the tools and the power to make decisions that affect his or her performance. Suggestion-oriented practices (quality circles, suggestion awards) should be used more to make employees more responsible for major decisions. Just like any institutional change employee involvement programmes take time and require extensive commitment from all institutional levels. This commitment takes time to achieve.
- In order for employees to participate effectively, they need power, information, knowledge and rewards that are relevant to the institutional performance. Only then will employees be able to make decisions that will affect productivity and quality.
- Institutions with involved employees have to share institutional performance and financial results, so that employees know the impact of their actions and work. They must share an understanding of technology (process) as well. There must also be a climate in the institution where employee involvement is routine across the institution.
- Reward systems that support participation by rewarding the initiation of change and the fostering of team building should be in place. Reward systems seem to be effective in improving performance as employees see the rewards for their efforts.

- Training in the quantitative and qualitative aspects of decision-making and communication of information are also critical parameters to ensure employee involvement for employee satisfaction. Training should also be provided on how to conduct meetings, facilitate idea-generation and do problem solving (primarily brainstorming).
- True employee involvement requires that power, knowledge, information and rewards be present at all levels of the institution, for when all these factors are present employees can see and understand the relationship between their efforts and institutional success or failure.
- Parallel institutional structures, where special teams or meetings are formed which are separate from the normal procedures of the institution, are one way employees can become involved. Activities such as quality circles (and other participation groups), quality of work life groups, and employee surveys are some of the parallel structures used to transfer power down the institution. Other methods include job enrichment and self-managing teams.
- Providing employee security is perhaps the most effective way to encourage employee involvement; employees can feel “safe” making suggestions and process changes because their jobs are not in jeopardy. Employee security is rare in most institutions today. Flexi-time and job reviews are other human resource practices that can be linked to employee involvement. More and more institutions move toward self-managing teams**,** cross training and training to work across institutional boundaries.
- Problem-solving tools to employees is necessary to get them involved. The tools serve to enable employees to improve their job performance, giving them more control over their environment.

Delivering the above-mentioned approach in an integrated fashion strongly communicates that a high-involvement culture is critical to institutional success, limits the resistance to participatory management, sharing decision and management delay-ring, and makes broad institutional change possible. According to Lawler, Mohrman & Ledford (1995:3), their survey of employee involvement practices in Fortune 1000 institutions indicates that employee involvement has a positive effect on institutional performance and internal institutional conditions. Institutions that ran a coordinated effort between existing employee involvement programmes and TQM programmes

were more successful in achieving desired performance results and adapting to changing conditions. Lawler, Mohrman & Ledford (1995:4) maintain that employee involvement programmes with the emphasis on self-management employee discretion, self-management, feedback, work teams and overall institutional effectiveness, have been used effectively in continuous, process production situations that are capital intensive and require complex coordination, and where the institution is in a very rapidly changing environment. These institutions need breakthroughs and innovations to respond to competitive conditions; thus giving individuals with these capabilities (employee discretion, self-management, feedback, work teams) the autonomy to deliver these breakthroughs is crucial (Lawler, Mohrman & Ledford 1995:4).

Maintaining customer focus and employee satisfaction means (1) focusing every person and every process in the institution on customers – both internal and external – in a balanced way and (2) employee satisfaction must be set equal to customer satisfaction in the institution's strategic plan to ensure the best results for any institution. Actions taken to achieve this focus must be ethically, economically and socially sound for the institution. The customer and employee connection at the top of the TQM telescopic framework (see figure 3.1) closes the loop in the framework, the source of the requirements an institution need to meet and the results of the framework in meeting them. The link between employee satisfaction and customer satisfaction has been verified empirically in chapter 8.

4.8 SUMMARY

This chapter has discussed the six primary dimensions of TQM within the context of the telescopic framework identified earlier. What has emerged in this review is that an integrated framework is necessary in which all six primary dimensions should operate synergistically within an institution. An integrated approach to these primary dimensions must be evident, if an institution wants to transform itself based on the principles and philosophy of TQM. Furthermore, a close link between the six primary dimensions and the supportive dimensions is required to ensure that an institution can transform fully to the TQM philosophy. Chapter 5 will therefore turn to these supportive dimensions and discuss each individual dimension in greater detail. These dimensions

include communication; training; culture forming; change management; support structure, systems and resources; systems thinking; self-assessment; and processes.