Understanding the Essentials of Total Quality Management:  
A Best Practice Approach – Part 1

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Working Paper No 03/03

January 2003
UNDERSTANDING THE ESSENTIALS OF TOTAL QUALITY MANAGEMENT: A BEST PRACTICE APPROACH – PART 1

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ABSTRACT
This paper presents an overview of the fundamentals of TQM. It provides an in depth review of the essentials of TQM. It explores the quality factors identified by the quality gurus, empirical researches results, experts and consultants contributions and the models of excellence in Japan, USA and Europe. This paper also presents the various issues related to TQM implementation and stressed by quality gurus and writers as being essential for successful implementation of TQM. This involves presenting more than 100 examples of successful experiences of case study organizations in their implementation of TQM. The effort involves understanding the implementation processes with a focus on how and why these processes are implemented. This helps researchers to synthesise the key quality factors for successful TQM implementation process. Part one discusses the “soft” quality factors of TQM in key areas, stressed in implementation case studies and supported by quality gurus and writers and empirical studies, related to leadership and top management commitment, people management, and strategic quality planning.
INTRODUCTION
Factors as top management commitment and leadership, people management, policy and strategy, partnership and resources management and management of processes, are generally considered as the initial inputs to the implementation of TQM. According to the European Foundation for Quality Management (1999), these factors are called the enablers. In this model of excellence, essentially customer satisfaction (results), employee satisfaction (results) and a favourable impact on society (results) are achieved through leadership driving and strategy, people partnership, resources and processes, which lead ultimately to excellence in business results (key performance results). The enablers deliver the results, which in turn drive innovation and learning (Oakland, 2000). This suggests that the quality factors can be classified as “soft” and “hard” quality factors. Leadership and employee involvement are intangible and difficult to measure quality factors. However, cost of quality, statistical process control and quality management systems impact the internal efficiency of the organization.

Wilkinson (1992) highlights that it is practical to refer to the experience at Black and Decker (UK) and the Co-operative Bank plc. to classify the quality factors along “soft” and “hard” criteria. Factors like leadership, employee involvement and quality policy development have long-term nature and some of them are difficult to measure. These factors have an impact on maximizing wide-wide support and involvement in attaining the quality goals of an organization. Such factors are considered as internal marketing issues (Wilkinson, 1992). They include:

- Senior executives commitment and involvement, actively demonstrated.
- Comprehensive policy development and effective deployment of goals.
- Entire workforce commitment to quality goals of the organization.
- Supervisors, unit heads and divisional managers assume active new roles.
- Empowerment.
- Effective communication.
- Teamwork.
- System for recognition and appreciation of quality efforts.
- Training and education.

These “soft” quality factors are long-term issues, something that cannot be switched on and off. These quality factors must be addressed accordingly in the implementation plan. There is a good chance that the TQM process will end up in failure if there is insufficient attention to “soft” factors (Wilkinson, 1992).

The implementation of the “soft” quality factors must be supported by tools and systems “hard quality factors” to achieve the goals. These “hard” quality factors include

- Benchmarking.
- Managing by processes.
- Self-assessment.
- Quality control tools.
- Cost of quality process.
- Documented quality management system.
- Supplier management.
- Customer management.

These “soft” and “hard” quality factors reflect the total quality management model proposed by Oakland (2000). The “soft” quality factors are expected to be rated highly in terms of criticality and emphasis in TQM implementation process. The “hard” quality factors are considered as tactics rather than strategies (Black, 1993).

This review of the available literature is based on such classification of “soft” and “hard” quality factors that are reflected in the sets of criteria of the European Quality Model. The attempt is to provide landmarks for total quality management (TQM).

“SOFT” QUALITY FACTORS
Leadership and Top Management Commitment
The literature of TQM emphasizes the critical role of leadership in the implementation process of TQM. This is apparent in the writings of the gurus, the empirical studies and the implementation case studies.

The European model for excellence (1999) defines leaders as the executive teams, all other managers and those in team leadership position. The model requires a greater focus on the leaders themselves and the improvement of their performance, with an expectation of role- modelling key values (Russell, 2000).

TQM requires increased effort from everyone in the company to satisfy the customer continuously (McAdam et al., 2002). Without clear and consistent quality leadership, quality cannot hope to succeed (Everett, 2002; Buch et al., 2002). This requires that quality leadership to be made a strategic objective (Feigenbaum 1991). This
According to his experience, senior managers are managers in successful implementation process. The Baldrige Award emphasizes the role of top management leadership and quality policy. Easton (1993) attributes the failure of the quality initiatives in the West in the 1970s and 1980s to senior managers’ lack of personal involvement in quality management. Ishikawa (1985) considers that top managers must assume leadership in quality and quality control. Juran (1993) related quality excellence of Japanese companies to the commitment of senior managers to quality. Kano (1993) considers commitment of senior executives as a (more) important factor of TQM whereas, their doubts as the greatest enemy. This is also emphasized by Oakland (1993, 2000). Everything starts with a committed and passionate leader of the business organization. A leader who is really committed to making fundamental changes (Steven and Stanton in Thiagarajan and Zairi, 1997)). According to Easton (1993), the moderate results of TQM programmes of some American companies are attributed to deficient leadership. Zairi (1999a) suggests that if organizations are to compete effectively in this millennium, not only will they have to equip themselves but also in addition, they will have to renew themselves by challenging the status quo and re-examining their corporate leadership process.

The importance of leadership is apparent in all Quality Awards. These awards recognize the importance of leadership by placing this item on the top of the list of criteria and in other criteria necessary to successful implementation of quality management (NIST, 1995, 1999; EFQM, 1992, 1999). Moreover, the importance of top management action, is clearly set in ISO 9000: 2000, requiring evidence of commitment to the development and improvement of the quality management system, involvement in ensuring customer needs and expectations are met, and that policies, objectives and plans are set and supported by necessary resources (ISO/ DIS 9000- 2000, 1999).

In their study, Saraph et al., (1989) identified thirteen variables, which relate to the role of management leadership and quality policy. Easton (1993), (through his experience as an examiner of the Baldrige Award) emphasizes the role of top managers in successful implementation process. According to his experience, senior managers are involved in promoting the importance of quality and customer satisfaction. Bertsch and Williams (1994) reported from their study of twenty large international companies (based in Europe, America and Far East) that senior management assumed active responsibility for the success of the TQM process in their companies. Another study conducted by Booz, Allen and Hamilton as cited in Rao et al., (1996) revealed seven common problems associated with TQM implementation in the service sector. One of the problems identified was lack of leadership from the top. The research concluded that if these problems were avoided, TQM could be the right management approach for changing behaviour and performance. This indicates the importance of leadership in the implementation process of TQM.

The importance of leadership in successful implementation of TQM is also reinforced in the implementation case studies available in the literature. Rao et al., (1996) describe the case of Motorola, when the company was losing market share in the early 1980s to the Japanese competition in their core products. The chairman of Motorola was determined to match and beat the Japanese, and so, he initiated TQM programme. Adapting the concepts learned from the Japanese and the quality gurus to their culture, the company won the Baldrige Quality Award in 1988. In addition to the recognition, the results have also been spectacular. Motorola has regained market share and at the same time increased its profits. This wouldn’t have been achieved without the top management commitment and leadership in the implementation process of TQM. Zairi (1999a) considers one of the best ways to appreciate the true meaning of effective leadership is to look at the experience of successful organizations, such as, Motorola. At the European Air Catering Services, it was the managing director who initiated the Total Quality Performance (TQP). The word performance replaced the word Management to ensure the initiative was seen as affecting the whole company and not just relating to the upper echelons of business (Whitford and Bird, 1996). To summaries the company’s experience; the managing director states the following:

"Getting a culture change like the one we have had over the past six years requires a spark to set it off. Then it becomes a question of people believing in the core philosophy and spreading this belief throughout the organization. For this you need "Champions", dedicated people who believe it is right and are prepared to see it implemented".
He goes on to state:

"Any successful Quality programme has to be led from the very top - not even one step below - otherwise it will fail. People have to see you believe what you are saying, they aren't fools and insincerity shines through immediately".

Finally he concludes:

"The outcome of quality for us, has been to rectify our errors, become more efficient and out perform our competitors - I don't need a calculator to tell me this makes us more profitable".

This is evident in other experiences. According to Browning et al., (1990) the degree of buy-in amongst respondents was favourable for those who saw their managers using the TQM techniques themselves to improve processes. This was the result of the survey they carried out at two UK based Hewlett-Packard Factories. Olian et al., (1991) found in their study that most of the Chief Executive Officers of the sixty two major UK based companies spend more than ten percent of their time in quality improvement efforts.

Kolesar (1993) describes the case at the Aluminium Company of America. He states that the Chief Executive Officer initiated the quality management process. Top management team was formed. This team and the Chief Executive Officer attended quality training and education programmes and visited companies (of high reputation as leaders in quality management) for benchmarking purposes. At the same time, the team was struggling for six months to identify opportunities and challenges before they were able to design and begin the total quality programme. According to Johnston et al., (1991), the quality initiatives will fail if top management just command employees to improve; they themselves must seek new ways to improve systems and continuous improvement. Bertsch and Williams, (1994) describe the following two cases to show leadership and commitment: A top executive at Ericsson- Sweden took ownership of analysis and improving the order-make market system while the vice president at Philips Electronics took the lead of a company-wide task force on quality improvement of software development. At Shorts Brothers- UK, Oakland et al., (1994) pointed out that the president and his senior executives were the first to attend training on the theory, practice and tools of quality improvement.

Zairi (1999a) reports best practices from analysis of full quality award submissions concerning the visible involvement of top management in leading quality companies. At the Royal Mail-UK the managing director and executive team committed to a new way of working called customer first. Support from entire management team, the managing director, senior and middle managers and supervisors were essential to the improved performance and higher customer satisfaction at ICL Manufacturing Division (UK). At D2D (UK), management has shown leadership by being among the first in Europe to gain ISO 9000, apply for EQA, use scorecards with customers and pilot the environmental standard BS 7750. In the US, the CEO at Milliken signs the quality policy statement. At Cadillac, executive staff establish and communicate the vision, values and methods for achieving excellence as a company. At IBM Rochester, each senior manager owns one of the six critical success factors of improved product and service requirements definition, an enhanced product strategy, a six sigma defect elimination strategy, further cycle time reductions, improved education and increased employee involvement and ownership. Zairi (1999a) continues, Motorola is found to place a lot of emphasis on 360-degree feedback initiatives so feedback can be received from a four-directional process involving managers, peers, subordinates and customers. He adds each senior executive is expected to declare a "legacy-leaving" which they would like their entire career to be measured on.

Top management commitment has been identified as one of the major determinants of successful TQM implementation. According to Juran (1974) most of the problems associated with quality are attributed to management. This indicates that successful quality management is highly dependent on the level of top management commitment. This requires that top management commitment to quality must convey the philosophy that quality will receive a higher priority over cost or schedule, and that on the long run, consistent and superior quality will lead to improvement in cost and delivery performance. Deming considered quality responsibility is of the top management. Atkinson (1990) points out that 80 percent of TQM failures are mainly attributed to a lack of requisite commitment of top management.

To achieve quality in any organization, Juran (1993) provides the following steps that must be taken by a responsible Chief Executive Officer:

1. Set up and serve on the quality councils of the company.
2. Establish corporate quality goals and make them part of the business plan.
3. Making provision for training for the entire levels of the company in managing for quality.
4. Establish the means to measure quality results against quality goals.
5. On regular basis, review quality results against quality goals.
7. Revise the reward system to respond to the changes demanded by world-class quality.

Feigenbaum (1961) considers promoting organizational commitment is achieved as a result of top management commitment. This is based on his principle that quality is everybody's business. According to Senge (1990) top management acts as a driver of quality management implementation, creating values, goals and system to satisfy the customers' expectations and improve the performance of the organization. Stalk et al., (1992) consider the clarity of quality goals determines the effectiveness of the efforts associated with quality management. Planning for quality in terms of decision-making, objectives, staffing, tactics, roles, responsibilities, and principles is considered crucial. Few would argue about the important role, which senior executives play in TQM. Their grasp of its purpose and intent is indicative of the amount of time they have given to its consideration, and by implication therefore, their level of involvement (Taylor, 1997).

The critical role of top management in providing leadership has been illustrated for several diverse organizations. At P & P-UK, the Group Managing Director has embraced the quality concept. Top management was committed to regular communication programme and sought to involve staff at all levels in the change process, mapped out the future for P & P and invited the staff to join the voyage (Whitford & Bird 1996). At Davy International, Stockton UK, the Managing Director chaired the steering committee to initiate the TQM programme which was based on a foundation of strategic five year planning embodying company goals and policies (Whitford & Bird 1996). At Wallace Company-USA (Rao et al., 1996), a Quality Management Steering Committee, consisting of all the senior management, was formed. As a first step, they used the Baldrige criteria to perform a self-assessment.

There are plenty of cases cited in the literature reinforcing the importance of top management commitment. There cases are from small and large companies, manufacturing and service sectors, government and non-for-profit organizations (see for example Whitford and Bird, 1996; Olian et al., 1991, George, 1990; Easton, 1998; McAdam et al., 2002).

Commitment of top management is also highlighted as a critical factor by several empirical studies. Ramirez and Loney (1993) found that management commitment was rated as the most critical factor in quality management implementation. Winners of the Malcolm Baldrige Quality Award gave this rating. The study concluded that management commitment is a key factor for success or failure of quality process. Repeating this study in Britain and other Middle and Far East countries (Zairi and Yousef, 1995; Ali, 1997) reinforced the same conclusion. Another study conducted by (Ahire et al., 1996) concluded that top management commitment influences product quality through improved customer focus and effective human resource mobilization. (Ahire et al., 1996) developed an instrument for measuring various quality management constructs that affect product quality. The constructs were empirically tested through a field study of 371 companies in the automotive components manufacturing industry. A comprehensive scale refinement and validation procedure using the confirmatory factor analysis approach was employed. The refined and validated scales were then used for estimating correlation. Another study measured in 181 small firms, the execution of ten implementation constructs and performance along one outcome construct (Product quality). The results indicated management commitment of small firms is an important implementation construct (Ahire, 1996). Dayton (2001) attempted to determine if the TQM critical success factors identified in a 1996 European study by Black and Porter were pertinent to U.S. quality assurance professionals. The survey tool was sent to approximately 1000 members of the American Society of Quality with about 40 percent response rate. The study revealed that all of the TQM factors identified in the 1996 European study were important to the U.S. quality assurance professionals. The factor stressing management commitment was the most important. Same results have been confirmed by several other studies (Flyn et al., 1994; Thiagarajan, 1996; Ali, 1997, Rao et al., 1999; and Zhang et al., 2000; Pun, 2001; Sureshchandar et al, 2001; Lau and Idris, 2001; Li et al, 2001).
Oakland (2000) identified five requirements for effective leadership:

1. Clear beliefs and objectives in the form of a mission statement.
2. Clear and effective strategies and supporting plans.
3. The critical success factors and the critical process.
4. The appropriate management structure.
5. Employee participation through empowerment and (evaluate, plan, do, check, amend - EPDCA) helix.

Therefore, active and visible participation of top management in quality management implementation is decisive in supporting the actions and behaviours that steer the organization to success in internal and external quality performance. Top management is expected to understand that its responsibility for quality cannot be delegated (Rao et al., 1999). Sun (2000) reports that: in his letter to the 3rd Shanghai International Symposium on Quality, Juran (1998) said:

*There is a universal set of actions that are the essential elements of quality management. The first is upper management taking charge of quality.*

**People Management and Empowerment**

While management’s role is critical to achieving total quality, it is often the most overlooked part of the process. Employee involvement evolved out of business’s need to improve performance. The impact of human resources in the organization depends on the kind of empowerment given to them. Kanji (1990) defines TQM as “to obtain total quality by involving everyone’s daily commitment”. Kanji et al., (1993) propose people management, including “team work” and people make quality, as one of the four principles of TQM (also Kanji, 1996 and 1998a). According to Lawler et al., (1992) employee involvement programmes have a positive effect on company performance and internal business conditions. With fewer layers of management to supervise work, and with the nature of managerial work changing to one of managing and facilitating development of leaders at all organizational levels, organizations must have employees that can make decisions about their work. Thus employee involvement programmes can be seen as opportunities for organizations in today’s competitive environment. Some authors consider employee involvement and commitment to the goals of the TQM process as a condition to its successful implementation (Kano, 1993; Buch et al. 2002; McAdam et al., 2002). Haksver (1996) considers top management involvement and leadership not sufficient to TQM success on their own. Oliver (1988) identified four contextual factors affecting employee commitment to participation: explicitness of performance target, revocability of one's actions, consequent publicity, and volition (ownership) of actions. Moreover, Oliver (1988) found that employee involvement groups positively impact employee commitment to quality. Organizations must develop formal systems to encourage, track, and reward employee involvement (Cebeci et al., 2002). Otherwise, the extent and quality of participation declines, leading to a dissatisfied work force (Wuagneux, 2002). Crosby (1989) highlights the need for every one in the organization to understand her or his role to make quality happen. This requires creating a common understanding of quality by all employees and showing the importance of employee involvement to keep and maintain the quality momentum.

When Paul Revere Insurance Company (USA) instituted its “Quality Has Value” programme, significant emphasis was placed on generating and rewarding suggestions. The programme required that each person belong to a quality improvement team. At the home office there were 127 teams averaging 10 people per team. Training was provided on conducting meetings, facilitating idea-generation, and problem solving (primarily using brainstorming). As teams came up with ideas, these were logged into a computerized tracking programme, along with estimated cost savings. At the end of each week, the quality group would evaluate all ideas that had been implemented and certify if it could be counted toward an award. Awards were based on the number of ideas or the dollar savings. In the first year 7109 ideas were logged and 4115 of these were implemented for an annual savings of $3.25 million (Rao et al., 1996). According to the Chief Environmental Health Officer in Bromely UK, it was vital to ensure success to improve quality system to get everyone in the organization involved and help them understand that they have a role to play in making certain everything is delivered as expected to the end user. The most important thing is deciding how you will gain the commitment of the staff. The people involved in the delivery of the service are those who need to be involved in the development of your quality systems (Whitford and Bird, 1996). In the case of shorts Brothers UK, the involvement of its workforce in the quality process implementation
was seen as an important evidence of progress on the right track (Oakland et al., 1994). Quality circle meeting discusses the various ideas suggested by employees at Globe Metallurgical and where possible, accepted ideas are implemented same day. Whereas, at Milliken, suggestions are acknowledged within twenty-four hours and decisions regarding them are made within seventy-two hours (Nadkarni, 1995).

Mak (2000) summarizes the critical ideas in Japanese management and derives several principles related to people management. He states that management should pursue the Tao “road” of people-based management to that recognizes the importance of daily interaction with all employees and a shared identity with them in solving work problems. Lawler, Ledford and Mohrman (1989) studied employee involvement practices in Fortune 1000 firms to determine whether companies had incorporated employee involvement into their managerial approaches. They asked about the degrees to which business information, training, power, and rewards for performance were spread throughout the organization. They wondered whether or not employees felt that they controlled their work, got information about their performance, and were rewarded for their performance all-important aspects of participatory management practice. The results of their survey were that many companies had adopted practices that are associated with employee involvement, such as quality circles, gain-sharing and self-managing work teams. However, the study pointed out that, in 1987, companies were beginning to experiment with employee involvement programmes. Lawler and his group (1992) discovered that most Fortune 1000 corporations tended to adopt a variety of practices for information sharing, knowledge transfer, reward, and power sharing. These practices were adopted only for parts of the organization on selective basis. They concluded that this selective adoption limited the levels of employee involvement in the companies surveyed. However, another study found that companies with a high level of employee involvement have a greater chance for success (Quality progress, 1994). Ahire et al., (1996) found in their empirical study that human resource management is a key link in successful implementation of Quality Management by shaping the Quality Management environment through empowering the employees to make decisions related to quality ensuring a supporting infrastructure for full employee participation, and training employees in technical and management aspects of their role in Quality Management.

In another study, Zhang et al., (2000) found that employee participation is a critical construct for successful implementation of TQM. Similar findings are reported by (Rao et al., 1999; Westlund et al, 2001)

Giving employees so much control over their work and decision-making is difficult in large or small organization if it is hierarchically structured. Many management theorists and business leaders believe that today’s employees want and need to exercise initiative and imagination (Rao et al., 1996). In his recent speech in the 3rd Shanghai International Symposium on Quality, Feigenbaum (1998) states that quality success requires enthusiasm and commitment of people, employees and managers (Sun 2000). Vaill (1993) describes empowerment as “the feeling experienced by all employees when they feel that they are expected to exercise initiative in good faith on behalf of the organizational mission, even if it goes outside the bounds of their normal responsibilities. If for some reason, taking that initiative leads to a mistake, then they trust that they will not be arbitrarily penalized for having taken that initiative”. Therefore, to be empowered to make decisions regarding their work, employees, regardless of organizational level, must understand and know information relevant to the performance of their business. Employee empowerment leads to increasing employee participation (Wuagneux, 2002). According to Ahire et al., (1996), empowerment does not mean only shifting the responsibility for quality decisions to workers, it also entails providing supporting framework, such as the necessary resources and technical support, to assist them in such decision making. Deming (1986) emphasizes the importance to empower employees by giving them the authority and autonomy to do their jobs. This is evident in the writings of Deming (1986) and Juran (1991) as they mention pride of workmanship, self-improvement, self-inspection and self-control.

Major quality awards consider employee empowerment as a major area of assessment (Zink, 1995). The revised (April 1999) EFQM model of excellence, and indeed the April 2000 revision of the UK investors in people standard, both place increased emphasis on the consideration of culture and employee motivation in terms of delivering organizational outcomes. Bowden (2000) states that the EFQM Excellence model criterion for “people satisfaction” was enhanced to recognize more comprehensively that “people results” need to address for more than merely an annual measurement of “satisfaction”.

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Many companies emphasize the importance of employee empowerment. In the General Electric Company, at the beginning of its well-publicized Workout efforts, the general manager of each business unit met with employees to outline the strategy and performance of the business. Employees involved in Workout could then solve problems that would have a definite impact on the performance of the business. While preliminary efforts focused on eliminating reports, meetings and bureaucracy that detracted from productivity, later Workout examined such significant issues as cycle time, manufacturing processes, and cross-functional, or even cross-business, issues (Rao et al., 1996). Employee empowerment is used as an effective strategy by companies like Toyota and Ford (Ahire et al., 1996). At D2D, the people owned processes responsible for the output of the process. This principle applied from the single tasks performed by the individual operator or member of staff, to the ownership of D2D business by the Managing Director. Ownership was given to the person agreed by appropriate management and employees as having the best ability, based on training, skills and experience to optimise and maximize the performance of that process (Oakland 2000). Recent studies identified employee empowerment as a critical factor of TQM implementation (Thiagarajan et al, 2001; Martinez-Lorente et al, 1998; Li et al., 2001; Claver et al., 2001; Davidson et al, 2001; Dale et al., 2001).

Middle Management Involvement
Thiagarajan and Zairi (1997) consider the act of maximizing employee involvement in the quality process requires middle managers within the organization to make major adjustments. The middle management have a particular role to play, since they must not only grasp the principles of TQM, they must go on to explain them to the people for whom they are responsible, and ensure that their commitment is communicated (Oakland, 2000). Only then, says Oakland (2000), will TQM spread effectively throughout the organization. Wilkinson et al., (1994) believe that managing according to the philosophy of TQM requires new attitudes and skills from middle managers. For Thiagarajan and Zairi (1997), this means that middle managers must give up some authority as power and control are pushed to lower levels in the organization. This makes middle managers resist the change in their roles and react with suspicion and uncertainty. Crosby (1989) states that it is hard to get people interested in improvement of any kind if they perceive it as a threat to their authority or life style. This emphasizes the importance of getting middle managers’ buy-in and being involved to contribute positively to successful TQM implementation (Crosby 1989; Ishikawa 1985).

A survey reported in Quality progress (1993), revealed that middle management are the main roadblocks to successful TQM implementation. With the aim to identify specific practices that have contributed to or detracted from TQM success, the survey targeted 536 organizations that have implemented TQM. The study recommended that top management should work hard to understand and involve middle managers in:

- Designing and promoting TQM
- Providing training and development not only in TQM concepts and Practices, but also in new leadership skills
- Creating different but meaningful roles for them in supporting widespread quality improvement initiatives.

In a survey of 161 organizations, it was established that one of the elements that differentiated the successful TQ organizations from the less than successful ones was middle management support. The survey concluded that without middle manager’s support for the quality process, the process would be derailed (Bettman, 1993 in Thiagarajan and Zairi, 1997). According to Manz et al., (1993), the biggest obstacle to successful implementation of TQM is the middle management. This indicates that unless middle managers are convinced that the transition process may cost them in status, power and recognition, only then the implementation of TQM becomes smooth (Johnston et al., 1991). In this regard, Ishikawa (1985) says that middle management can contribute greatly to quality improvement. He calls for top management to provide greater attention to encourage new roles for middle managers.

Johnson and Johnson’s major recall of millions of Tylenol tablets in the 1980s was initiated by a middle-level manager who used his own judgment and interpretation of the company’s values statement (Marchese, 1991). At Nissan UK, supervisors are involved in staff selection, developing and training their staff and motivating and maintaining morale. They are also the channels for all communications to manufacturing staff (Thaigarajan and Zairi, 1997; Thiagarajan et al, 2001). Wacker (1993) reports that at Norand Corporation, middle management training and acceptance were made a priority. Training was designed for middle managers to train them on
how to manage empowered employees and how to become facilitators of quality improvement initiatives and coaches of employee development.

**Training and Education**

Ahire et al. (1996) believe that employee empowerment and involvement framework is not effective unless employees have received formal, systematic training in quality management. Ishikawa believes that education is crucial in determining the success of quality control. Moreover, Ishikawa (1985) states that quality begins and ends with training. For McAdam et al., (2002) training and development are key components of all TQM initiatives. Crosby (1979) considers education of the workforce as being the key to developing awareness and understanding of the new quality philosophy. Oakland (1989) sees training as the single most important factor in improving quality. Oakland (1993) continues to say that training activities should be incorporated within the principles of the quality policy. Oakland (2000) adds that quality training must be objectively, systematically and continuously performed. Firms that establish workplace education programmes report noticeable improvements in their workers’ abilities and the quality of their products (Cebeci and Beskese, 2002). Feigenbaum (1961) points out that the importance of training is to ensure that the skills of the workforce do not become obsolete in an environment of change and an understanding and attitude of quality is developed and maintained.

According to Rao et al., (1996) TQM training should be directed at all levels of the organization since senior managers who understand the TQM process are not only able to break down barriers within their own organizations, but they can also serve as role models for others who may resist to change. Employees should be cross-trained, so that indirect as well as direct tasks can be learned. For Mathews et al., (2001a) the training that underpins quality management determines the likely effectiveness of the quality initiatives undertaken. Deming (1986) emphasized the importance of on-the-job training by making a specific inclusion of this type of training in his considerations of his new philosophy of management. Garvin (1993) attributes failure in TQM initiatives and low success rates to the basic fact that TQM requires a commitment to learning.

In his empirical research of developing a TQM instrument, Zhang et al., (2000) reports that organizations have realized that education and training are an integral part of the TQM initiative. Rao et al., (1999) state that training in quality-related concepts and tools is a prerequisite for the effectiveness of quality improvement activities. In fact, Japan’s phenomenal productivity success is attributed to the national campaign of training every employer in basic concepts of quality improvement (see Juran, 1978; Juran, 1981a; Juran, 1981b; Lee and Ebrahimpour, 1985). Also, the Baldrige Award assesses applicant’s efforts in providing quality training to its employees (NIST, 1999). This is also evident in the EQA (1999) and the ISO 9000: 2000 quality management system (1999).

Ahire et al., (1996) state that first and foremost, companies need to view training costs as investments instead of costs. Availability of adequate resources is a prerequisite for an organization-wide training. Zhang et al., (2000) consider investment in education and training vitally important for TQM success. They add: employees should be regarded as valuable, long-term resources worthy of receiving education and training throughout their career. Galagan (1992) considers participation by various levels of employees and managers in training sessions not only enhance the quality of the immediate session, but due to a breakdown of barriers between ranks, it helps subsequent employee participation. Rao et al. (1996) state that training typically covers problems-solving techniques, problem analysis, statistical process control, quality measurement, organizational diagnosis, group process, and decision-making. For Zhang et al., (2000) all management personnel, supervisors, and employees should accept education and training such as quality awareness education and quality management methods education.

The importance of training and education in the process of TQM implementation is highlighted by several studies. The DDI (1994) study of five hundred and thirty six Total Quality Management US organizations revealed that among all organizations, training in continuous improvement skills, leadership skills and interpersonal skills was common. The study also reported that timing of training is crucial in achieving maximum impact. Another study in Quality progress (1995) revealed that quality driven organizations emphasize interpersonal and technical skills. According to the study, one of the most valued employee characteristics by the surveyed organization is good communication skill. In their findings from a European survey with 450 responses from the UK, Portugal and Finland, Mathews et al., (2001b) concluded that top managers and shop floor
workers receive training in the areas of “soft” quality tools, quality awareness and customer focus, while middle managers and quality specialists receive most quality-related training. Quality awareness and standards is the area in which training is most frequently given. According to the study conducted by General Accounting Office (GAO) as cited in Olian et al., (1991), training programmes were found to be concentrating initially on TQM awareness and leadership, followed by training sessions in problem-solving techniques and continuous improvement skills. Several recent empirical studies revealed that training and education are critical to successful TQM implementation (Thiagarajan and Zaini, 1998; Quazi et al., 1998; Rao et al., 1999; Zhang et al., 2000; Ali, 1997; Yusof and Aspinwall, 2000; Black and Porter, 1996; Ahire et al., 1996; Flyn et al., 1994; Tamimi et al., 1995; Tamimi, 1998; Pun, 2001; Calisir et al., 2001; and Dayton, 2001).

The literature provides many examples of the crucial role of education and training in the process of implementing quality initiatives. Many organizations apply cascading approach of training, which is a method of information dissemination in the organization. This approach involves training a number of managers who after attending the training programmes become trainers to conduct internal training tailored to meet their staff’s needs. This cascading approach is used by organizations such as Xerox (Juran, 1991). The European Air catering Services -UK adopted this approach. Consultants were employed to give in depth training to five selected managers who would consequently facilitate a cascade of training throughout the organization. Four key models were established: organizing for quality, problem solving, interpersonal skills and teamwork. The training was ongoing and all levels of management have been trained. (Whitford and Bird, 1996). Another case is the Bio Products Laboratory-UK. This company started extensive training to implement TQM. Initially 100 Managers were taken off site for a management development seminar, which was based on the principles of the teachings of Deming. After additional managerial seminars, six managers were taken away for a week to be trained as instructors. The six managers did presentations, and they developed an appropriate instructors’ guide to pass on the basic TQM concepts and skills. The six instructors conducted two types of courses for the remainder of the workforce. A short course was aimed at giving an employee the general tools and techniques of TQM, and was primarily chosen by production operators and some of the office staff. A longer course focused more on conceptual thinking and the philosophy of TQM, such as brainstorming, process flow charts, deployment flow charts, and statistical process control. Employees started to get excited, and submit improvement ideas. At the end of the courses they were asked to use the tools and techniques of TQM. Those who submitted ideas were asked to talk to their respective managers and form Quality Improvement Teams to work on improving processes (Whitford and Bird, 1996). The five Top leaders at Wallace Company attended more than two hundred hours in continuous improvement training programme (Binney, 1992). Rank Xerox considers training as an essential factor for the company-wide total quality process. Recognizing this as a fact, a comprehensive training programme was launched for all employees in all levels since the beginning of the total quality initiative (Rao et al., 1996). Similarly, at Shorts Brothers, training is perceived as number one priority. About 400 sessions of training were conducted targeting the president, the management committee and workers (Oakland et al., 1994). Large companies like Fuji and Xerox believe that TQM training must be provided for everyone in the organization to establish a common language of quality and a shared way of thinking. Therefore, they provide training for all employees when they are hired. They believe that by training all employees, TQM concepts are generally understood and implemented which makes communication easier (Johnston et al., 1991). The Industrial Control Services (ICS) embarked on the largest single training programme that the company had ever undertaken. This was to put all employees in the company through an intensive two-day total quality awareness-training programme. The training started in July 1992, following a six-month “sell” by the total quality coordinator to the board of directors and continued every week until February 1993. In addition to the 300 employees, they trained one customer representative and six suppliers’ representatives who had expressed interest in what the company was doing (Shirley, 1997). The NIST Precision Engineering Department has initiated an effort based on the application of the principles, concepts and criteria of the MBNQA. The start up of this Baldrige-based effort has involved: introductory training of all staff to increase the effectiveness of the research and services of the Precision Engineering Department (Swyt, 1999).
According to Easton (1993), employees of Malcolm Baldrige Quality Award applicants attend forty to eighty hours of training per year. Oakland (2000) considers responsibility for quality training of employees rests with management at all levels. The main elements should include error/defect/problem prevention, reporting and analysis, investigation and review. This is evident in the finding of Bertsch and Williams (1994). Almost all of the twenty companies surveyed in the US, Europe and the Far East, they found that quality-training programmes are frequently given by line managers with consultants used whenever needed on short-term assignments.

Rewards and Recognition

It goes without saying that an important feature of any quality improvement programme is showing due recognition for improved performance by any individual, section, and department or division within the company (Dale and Plunkett, 1990 in Zhang et al., 2000). Crosby (1989) considers recognition as one of the most important steps of the quality improvement process. According to Oakland (2000), TQM is user-driven. This means that the ideas for improvement must come from those with knowledge and experience of the processes, activities and tasks. He continuous to say TQM is concerned chiefly with changing attitude and skills so that the culture of the organization becomes of preventing failure-doing the right-things, right first time, every time. London and Higgot (1997) consider a transaction in corporate culture towards one of continuous improvement is a fundamental requirement in establishing a TQM process. In this sense, they consider an effective reward and recognition process provides a clear and visible statement to all employees of the organizational values and the commitment to employee involvement. Many other authors recognize the importance of rewards and recognition in TQM process. Kemp et al., (1997) consider the recognition procedure as basic to increasing the involvement of all employees in the operation of the business. Zhang et al., (2000) state that recognition and reward activities should effectively stimulate employee commitment to quality improvement. To effective support organization’s quality efforts, they need to implement an employee compensation system that strongly links quality and customer satisfaction with pay (Brown et al., 1994). Knouse (1995) recognizes the importance of reward and recognition systems in TQM processes and attributes any failure of the system to the methods of implementation. Kondo (1997) states “we know very well that people doing the work will often display great creativity in a positive way. Utilizing people's creativity in their work is indispensable for motivation”. Many other authors highlight the importance of rewards and recognition in the TQM process (Easton, 1993, 1998; Binney, 1992; Townsend et al., 1992; Haksever, 1996, Rao et al., 1996, Rao et al., 1999; Li et al., 2001; Dayton, 2001; Martinez-Lorente et al., 1998; Everett, 2002).

A study reported in Quality Progress (1994) found that best practice units within the 86 major corporations used rewards as incentives to advance their TQM process. Results from a US Council of Communication survey concluded that recognition for a job well done is the top motivator of employee performance (Sweatman, 1996 in London and Higgot. 1997).

How people are rewarded, recognized and cared for is assessed by the EQA (2000) and MBNQA (2000). Based on reviewing best practices of quality leaders in Europe, Japan and USA, Johnston et al (1991) concluded that rewards and recognition are one of the enablers, which maximizes employees’ involvement. They add, in doing so, rewards and recognition become one of the main contributors to the company’s quality journey.

One of the key items that Xerox (USA) considered in developing the road map to achieve quality was introducing a reward system to recognize people who used the quality tools (Rao et al., 1996). At Exxon Chemical Ltd UK, both a reward and recognition system is in place. The reward mechanism comprises an across-the-board salary increment and individual merit awards. Those whose behaviour is in line with company business needs are made known to management and encouraged. Individuals who succeed in establishing the desired behaviour and results are provided with higher benefits (Thiagarajan and Zairi, 1997).

Informal rewards also are important (Roa et al., 1996), that is rewards do not have to be monetary (Haksever, 1996; Zhang et al., 2000). Recognition for outstanding customer service and support, for being on a team that delivers continual process improvement, and for initiating new activities within organizations are all important rewards in any organization. Haksever (1996) emphasizes this as he states that rewards do not have to do be monetary. Paul Revere Insurance Group applied a non-monetary reward system by providing bronze, silver, and gold lapped pin medals to recognize
and reward successful ideas provided by the quality teams (Bank, 1992). General Electric Corporation recognized its first Workout group’s achievements by publicizing them in the business unit newsletter (Rao et al. 1996). From his experience as a Baldrige Award examiner, Easton (1993 and 1998) points out that there is a widespread amongst the Baldrige applicants to provide an employee recognition scheme for quality. Binny (1992) describes the experience of Ciba Gergy-Italy, when the company felt that the enthusiasm of its employee towards Total Quality process faded, management decided to include quality objectives in the company’s reward to return the employees enthusiasm.

While little has been written on new approaches to pay, which have been adopted in TQM organizations, some organizations are substituting skill-based pay for job-based pay. Skills that are rewarded can include cross utilization skills, or the ability to work a variety of functions as required in the work process (Bowen and Lawler, 1992). However, recognizing the importance of rewards and incentives by TQM companies is practical in several forms. American express company established an incentive pay plan for the 100,000 employees in its consumer-card and consumer-lending groups. The pay out is based on three measures: customer satisfaction, employee productivity, and shareholders wealth creation (Rao et al., 1996). According to Krantz (1989), a framework of appropriate evaluation and reward systems for quality improvement project has been shown to improve quality significantly. Bowen and Lawler (1992) state that it has been noted that the level of employee participation depends on individual or group rewards. Many TQM firms implemented reward systems that offer profit-sharing programmes to enhance the employees’ ownership in their job and quality improvement activities (Stalk et al., 1992). Juran (1991) states that recognition can be used as part of the motivation for the cultural change required for TQM implementation. In Florida Power and light USA, teams were recognized and rewarded with gifts such as baseball caps and sometimes a trip to Japan. Xerox offered additional pay premium (Rao et al. 1996).

The ongoing development of teams provides a much richer mix of skills in the thinking and processes amongst many of the company management and those holding supervisory roles of employees. As in many companies most work processes cut across functional boundaries, leading to a co-operative effort in the solving of process problems (McAdam et al., 2002). Methods such as cross-functional teams, within functional teams, quality control circles, voluntary teams, and suggestion activities can be used for encouraging employee participation (Zhang et al. 2000). According to Dean and Evans (1994), TQM utilizes three major types of teams: steering committees, problem solving teams, and self-managed teams. Steering committees are usually those responsible for establishing TQM related policy and for guiding its implementation problem solving teams usually identify, analyse and develop solutions for organization quality problems. Quality circle teams are formed when a small group of volunteer workers get together to discuss how their tasks can be done effectively and efficiently (Rao et al., 1996). Suggestions are made, ideas presented, and plans created. Usually, these circles then go back to management to present suggestions. Quality circles can be broadly defined as the meeting of minds during a quality journey to attain customer satisfaction through continuous improvement and teamwork (Gho, 2000).

One of the most publicized aspects of the Japanese approach to quality has been the quality circles or kaizen teams. The quality circle may be defined as the meeting of minds during a quality journey to attain customer satisfaction through continuous improvement and teamwork (Gho, 2000).

Teamwork

“Teams are a major part of any Total Quality Management effort because teamwork enables various parts of the organization to work together to meet customer needs in ways that can’t be done through individual job performance”.

(Rao et al., 1996)
Many companies in the Fortune 1000 adopted quality circles as a way of increasing employee involvement and participation in TQM (Rao et al., 1996). Cross-functional teams are common in organizations. They usually are put together to examine organizational processes that require change (Rao et al., 1996). At the University of Michigan Medical center, the admission department was receiving many complaints. A cross-functional team consisting of housekeeper, nurses, transporters, and admission clerks was put together under the leadership of the director of admissions. Using TQM tools, the team made several recommendations. The mean number of complaints (which had been 37.3 per month) dropped to 1.5 complaints per month in the following year (Rao et al., 1996). Zhang (2000) considers cross-functional delegated teams as the quality management methods that organizations can use to achieve employee participation. Self-managed teams (also called autonomous work groups or self-directed teams) have been in place for many years in some organizations. These teams can exist with or without a supervisor, and they usually handle all aspects of work organization for that particular unit (Rao et al., 1996). Each type of team has its advantages and disadvantages, and works best in a particular organizational setting. Parker (1994) summarizes:

- Problem-solving intradepartmental teams work well in traditional organizations, in stable, slow growth industries with predictable markets.

- Cross-functional (Interdepartmental) teams can be effective in companies with fast changing markets, where the need to move speedily to meet customer requirements is paramount.

- Self-directed teams can be used in lieu of problem-solving or cross-functional teams as part of an extended employee involvement strategy.

Reviewing the literature reveals that teamwork is a critical factor in Total Quality Management (Crosby, 1989; Bank, 1992; Kanji et al., 1993; Cebeci et al., 2002; McAdam, 2002; Everett, 2002). Employee involvement encompasses a range of policies that, at the minimal end, permit workers to suggest improvements and at the substantive end give all employees the ability, motivation and authority to improve continuously how the organization operates (Rao et al. 1999). One of the major elements of the human resource focus that has been identified by Mehra et al., (1998) as a critical success factors to the success of TQM programmes is teamwork. Teamwork, therefore, becomes a norm and the quality and quantity of communication increases both vertically and horizontally. These are also some of the needs of a programme to successfully improve productivity (Hoffman and Mehra, 1999).

At Rank Xerox Europe, teams from all levels were formed to improve business processes continuously. Xerox USA went about gaining employee and union support relying on the participation of the union. The union and Xerox agreed to developed problem-solving teams focused on shop floor activities. Over the next two and a half years, over 150 groups successfully solved problems related to eliminating chemical fumes, machine upgrading, organizing tool storage, and reducing machine down time (Rao et al., 1996). At southern Pacific lines, (Carman 1993), the company created about 890 teams of which more than 200 teams were cross-functional to emphasize the importance of team work to succeed in the quality journey. Philips recognizes that it can only be the best with teamwork, sharing knowledge and communication with each other. In Philips teamwork is the key to competitiveness and the route to achieving the full potential. By sharing best practices and providing mutual support, Philips is able to out perform competitors. Competence and knowledge are the foundation for excellence. Philips utilizes company talents fully by working in teams and learning from the best internal external practices. Open communication both within and between teams, departments, businesses and divisions will mobilize the Philips capabilities (Oakland, 2000).

In his business excellence model, Kanji, (1998a) considers teamwork as a core concept to achieve the principle of people based management. In Oakland’s (2000) TQM model teams are considered one of the major components of the model. He states that good teams have three main attributes: high task fulfilment, high team maintenance and low self-orientation.

**Effective Communication**

According to Kanji et al., (1993) effective communication is part of the cement that holds together the bricks of the total quality process. Crosby (1979) suggests that in each department there should be a quality council, which would include a quality professional who would act as a regular centre for communication relating to the programme. There are four principal types of communication: verbal (direct and indirect), written, visual and by example (Oakland, 2000). Effective communication is seen as a means for
keeping momentum and morale for quality improvement process. It is important in directing employees towards the corporate expectations (Thiagarajan et al., 2001; Dayton, 2001). At British Airways Interior Engineering, the launch of the goals was communicated at a weekly brief to all colleagues. This was followed by a series of workshops run by the general manager to groups of colleagues, until everyone had taken part (Fowles and Edwards, 1999). At Nissan UK supervisors are the channels for all communication to manufacturing staff. A five minute meeting is conducted by the supervisor at the beginning of each shift (Ashton 1992).

Many organizations use a variety of communication techniques. At Redland Roof Tiles UK, the company produces a monthly newsletter called the Circular. It is used to introduce or reinforce concepts of TQM and continuous improvement. The tone is friendly and informal with cartoons and anecdotes (Whitford and Bird, 1996). Other companies use advance means of communication as in the case of the Philips Electronics the Chief Executive Officer answers the various questions about TQM that he gets from his employees in eighteen European countries through TV-Satellite network (Bertsch and Williams, 1994). Effective communication is important in the employee empowerment process. The use of teams is a successful means for cross-functional communication in organizations. To increase communication effectiveness Thorn lighting UK, recognized that the existing multi-tiered management structure inhibited communication. Three layers of management were eliminated: a reduction from seven levels to four and the status of the first line supervisor was elevated. This helped push ownership of the manufacturing process further down the organization as well as improving the speed of communications and decision-making. Along with this, the company used the Team Briefing approach to disseminate information. The plant stops for half an hour each month and everyone is briefed on the company's performance and other aspects of the business. The brief is cascaded down from the managing director. The most confidential information such as profit forecasts is shared with the work force and this level of trust has been rewarded. The team briefing has become a two way process with input on issues being fed back to management (Whitford and Bird, 1996).

Effective communication is important for the success of any quality initiative (Martinez-Lorente et al., 1998; Sureshchandar et al., 2001). According to Binney (1992) open and two-way communication helps improving relationships between employees and management to integrate quality with business activities. Smith (1994) points out the importance of communication across the organization to provide continuous customer satisfaction. He describes Digital's worldwide system "Notes " that allows every employee to talk to anyone else to get the information he needs. Effective communication is critical from the beginning of a change effort. Every element of the change must be talked about, presented and discussed across levels of the organization (Rao et al., 1996; Claver et al., 2001). Believable information, which stimulates enthusiasm and clearly demonstrates the reward for participation is the key for successful communication about quality. Communication about TQM can cover a broad range of activities, including face-to-face conversation, group or site visits, videotapes, brochures, booklets, company newsletter, advertising campaign-anything that talks openly about the on going quality initiative. A Japanese insurance company created a one-page poster to communicate its plan in a succinct manner. The top of the poster (about half a page) stated the guiding vision of the company, which emphasized customer focus. Below this were graphic bars showing the activities of senior management, sales personnel, and cross-functional teams from the main and branch offices. The bottom section of the poster pictured the key events such as steering committee meetings, recognition events, and schedule (Rao et al. 1996).

Total quality management will significantly change the way many organizations operate and “do business”. This change will require direct and clear communication from the top management to all staff and employees, to explain the need to focus on processes. Everyone will need to know roles in understanding processes and improving their performance (Oakland, 2000). The key medium for motivating the employees and gaining their commitment to TQM is face-to-face communication and visible management commitment (Oakland, 2000). At ICL Manufacturing Division-UK, face-to-face communication is a key feature with the Managing Director talking to the whole workforce in small groups of 50 people at least once per year. Seven meetings per day starting with the first shift and going through to 10:30 pm. Staff express their view and listen to the Managing Director. Formal Cascade process is used for
announcements on organizational changes, company news, quality results, customer feedback and quality training. Managers and supervisors gather their staff together and make the announcement with questions/answers prepared to assist the managers. Managers take responsibility for finding answers to questions, which staff raise and cannot be resolved immediately. Online satellite broadcasts are used where appropriate and staff not able to see the broadcast are given a video the next day (Zairi, 1999b). At the Division of Alicante of Telefonica Group in Spain internal communication was defined as the support to transmit the decisions and actions of the whole group of workers, describing it as well as an essential tool in moving ahead towards TQM. The Provisional Group for Quality paid attention to the importance of communication from the very beginning. Action was carried out over three lines: downward communication, upward communication and communication for quality with internal and external customers (Claver et al., 2001). At D2D, annual kick off events are held by the Managing Director where he talks to every employee in small groups on the previous year’s performance and strategy in a relaxed atmosphere (Zairi, 1999b). At IBM Rochester, posters were important in getting the quality message across to all employees (Zairi, 1999b).

A study reported that poor inter organizational communication was highly rated as an obstacle to successful implementation programme (Tamimi and Sebastianelli, 1998). Another study revealed that for TQM companies the three most severe obstacles, in rank order based on average severity, were lack of time, poor communication and lack of real employee empowerment. Interesting, the study found that the percentage of TQM and non-TQM companies rating poor communication as a severe obstacle was similar (Salegna and Fazel, 2000).

Larkin and Larkin (1994) suggest the following as the best ways to communicate change to employees:

1. Communicate directly to supervisors.
2. Use face-to-face communication
3. Communicate relative performance of the local work area.

Quality Policy and Strategy
According to Juran and Gryna (1993), strategic quality management is the “process of establishing long-range quality goals and defining the approach to meeting those goals”. Quality gurus and writers strongly emphasize the importance of strategic planning process based on total quality (Deming, 1986; Crosby, 1979; Juran; 1974; Zairi, 1994; Oakland, 1993; James, 1996; Ahire et al., 1996; Sinclair and Zairi, 2001; Dayton, 2001; Martinez-Lorente et al., 1998 and Sureshchandar et al, 2001; Willard, 2002). To establish specific guidelines for action, behaviour and decision-making in the organization, Feigenbaum (1961) states that a formal quality policy is needed. Juran (1974) considers Policy development as an integral part of management’s commitment to quality. Crosby (1979) views quality policy as a standard for practice that sets priorities of what to do and what not to do, he states that without a formal policy, people will develop their own individual, and differing standards of practice. Deming (1986) emphasizes the need of linking quality efforts within an organization with the corporate purpose. Oakland (2000) considers a sound quality policy, together with the organization and facilities to put it into effect, is a fundamental requirement, if a company is to begin to implement TQM. For Rao et al., (1999), strategic quality planning demands the integration of quality and customer satisfaction issues into strategic and operational plans.

Juran (1974) points out the role of policy to pave the way for unity of direction in planning, controlling, and improvement of processes. According to Feigenbaum (1991), in developing a policy framework, there is a need to identify and formalize key quality decisions, problems and documentation. Crosby (1979) believes that actual contents of quality policies include the general managers’ responsibilities, the standard of performance (zero defects), quality function responsibilities and costs of quality reporting. Juran (1974), however, considers the nature of target market, the product offered, the basis of competition, planning responsibilities and relationships with suppliers to be included in the quality policy. Olian et al., (1991) point out that attention to policy development is a critical factor for success in quality management as best organizations use the process of policy development to ensure employee understanding of the organization’s objectives and how to contribute to achieving the objectives.

The Malcolm Baldrige Award (1999) and the European Quality Award (1999) criteria designate a relatively low score to the content of company quality policies in comparison to the practices and results, which arise from policy implementation. The European Quality Award criteria place quality
planning under the category of policy and strategy. The aim is to assess the way in which business plans are centred around a policy and strategy that reflect the principles and concepts of TQM. Similarly, the Balding Award criteria provide explicit guidelines focusing on the extent to which quality requirements are integrated into the overall business plan. The guidelines address how the organization deals with quality, customer satisfaction, and operational performance improvement within its overall business plan. This is emphasized by Juran (1991) as he states that most successful TQM organizations ensure that quality goals are incorporated in the overall business plan.

The research of Dale and Duncalf (1988) concluded from a case study of six companies that those without a formulated quality policy are unlikely to have effective quality-related decision-making processes. They state that organizations without a quality policy tend to have gradually an inspection-oriented approach to the management of quality. The Rank Xerox UK supports this when they initiated their quality improvement programmes as the first step was to develop and communicate a simple and direct quality policy to all employees (Coleman, 1991). This implies that policy development is perceived as the first step in the development of suitable organizational culture for TQM implementation. This is described by Dale and Duncalf (1988) when they consider policy as a framework for effective decision-making, executive action, leadership, and creation of the correct working environment for implementation and improvement. The quality policy should be the concern of all employees, and the principles and objectives communicated as widely as possible (Oakland, 2000). Talking about quality policy and strategy can't be separated from strategic planning process related to Total Quality Management. Such a process is based on determining the needs and requirements of all stakeholders (including the customer), analysing the competitor's strengths and weaknesses, and identifying the process capabilities. (Juran, 1974; Crosby, 1979; Deming 1986; Oakland, 1993, 2000; Zairi, 1994, 1999b; Haksever, 1996; Crepin, 2002; Hitchcock et al., 2002).

Easton (1993) recognizes that strategic quality planning process as ineffective. He believes that this can be attributed to the fact that strategic quality plans do not realistically address implementation issues or deployment of the plan throughout the organization. Zairi (1995), supports this conclusion by stating that what is implemented is different from what is planned. This is evident by the results of a study concerned with strategy development and implementation (Huston as cited in Zairi, 1994) where seventy three percent of the managers surveyed considered implementation is more difficult than development. Zairi (1995) explains the reason behind this as a result of frequent changes faced by strategies while implementation, which creates misalignment and disruption in performance. Zairi (1999b) says the reality is that strategic planning remains as an enigma for many organizations. He adds, most strategic planning efforts, it is reported, fail to deliver because they remain as blueprints locked away in senior executives' filing cabinets. Zairi (1999b) states that one of the best methods to access the effectiveness of policy and strategy is to use criteria of excellence from prestigious models such as MBNQA and EQA. In order to check whether "good" organizations do "walk the talk" and subscribe to the rules in the quality awards policy and strategy assessment criteria, a case study based on a manufacturer of fast moving consumer goods was used to check the validity and applicability of each statement made and to search for evidence of effective subscriptions to the aspects covered. The analysis included winners of the MBNQA and the EQA. Zairi (1999b) concludes that policy and strategy is an integrated process with a dual flow characteristics and the deployment stage (which many senior executives used to regard as a complete process) is only a small portion of the overall process. Indeed, two very challenging aspects represent the communication: a deployment stage and the review and monitoring stage.

Despite these problems, many companies such as Procter and Gamble (Bemowski, 1992), NEC Japan (Smith, 1994), Rank Xerox (Smith 1994; Zairi 1994; Whitford and Bird, 1996), ST Microelectronics (Oakland, 2000) have achieved success in developing, communicating and reviewing strategic plans at all levels in their organizations. Zairi (1994) describes the experience of Rank Xerox: A key process which Rank Xerox can articulate and communicate the vision, mission, goals and vital few programs to all employees. It provides answers to the two questions. What do we need to do? And how are we going to do it. At Texas Instrument Europe, quality steering teams throughout the corporation cascade the requirements of the worldwide quality policy to all employees. Through the European quality steering teams structure, higher-level statements are made relevant to staff by creating individual business and regional vision statement. Specific business excellence goals are further deployed through a policy deployment process.
(Oakland, 2000). The policy and strategy at Royal Mail (UK) are formulated on the concept of total quality as follows (Zairi, 1999b):

- Mission and values were the fundamental inputs to total quality.
- Policy and strategy formulation to implementation and achievement of results is managed through three processes:
  - strategic direction setting,
  - planning, and
  - performance measurement/review.

Executive committee establishes the vision and direction, business units define the actions to achieve the targets and review process takes place within each of the processes.

- Cross-functional forums own elements of the EFQM model and identify implementation plans from feedback received.

- All business units maintain documented management processes, which are reviewed to ensure their relevance.
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