

AN EXPLORATION INTO THE DIMENSIONS OF TQM AIMED AT CREATING MODELS FOR THE EFFECTIVE MEASUREMENT OF TQM

*Patsy Govender**

Abstract

Total Quality Management (TQM) is a comprehensive approach to ensuring employee involvement with the aim of improving corporate performance. It is highly congruent with organisation development approaches and values and when successfully implemented, TQM is tightly aligned with the organisation's overall business strategy, maximises customer satisfaction and changes mindsets towards continuous quality improvement. This theoretical analysis aims to identify the dimensions that are critical for the effective measurement of TQM and then, to operationalise these dimensions into measurement criteria with the aim of creating models for practical application. The models will serve as a basis for the design of a valid and reliable measurement tool to assess the effectiveness of TQM in corporate environments.

Keywords: Organisation Development, Customer Satisfaction, Employee Involvement, Corporate Performance, Business Strategy

* Lecturer, School of Management, Information Technology & Governance, University of KwaZulu Natal (Westville campus), Private Bag X54001, Durban 4000, South Africa
Tel.: +27 31 2607335
E-mail: govenderpa@ukzn.ac.za

Introduction

The growth of globalisation, the competitive business world, and economic deregulation, amongst others, has forced organisations, including local businesses to compete in a new way. This compels a redesign of systems and processes within organisations so that survival and prosperity are endured in this changing consumerist environment. Clearly, although competing in this turbulence involves risk, complacency can threaten organisational survival. Threats alone are enough stimuli to change the way of doing business. With a major leap in business practices, companies are honing their competitive strategies and skills to align themselves, as the trend is a shift from an insular hierarchical structure to a more flexible and open culture which requires change.

When engaging in planned change and development, organisations can help themselves and their environments by rejuvenating and rebuilding their strategies, structures, and processes. Using organisation development as an approach to facilitate change means that organisation members too need to transform the underlying assumptions and values governing their behaviours (Cummings & Worley, 2001). An interplay of the effective ingredients of change (strategies, structures and processes) in tandem with suitable behaviours will result in improved performance, the effective implementation of planned change and effectiveness of the entire

organisation. Hence, organisation development can enable an organisation to accurately assess its current operations and functioning, and determine how to effectively reach their goals and accomplish organisational health (Mullins, 2002).

The direction that OD takes is to bring about planned change aimed at increasing the effectiveness of an organisation through enhanced performance that is, increasing profitability, improving service delivery or optimising outcomes in salient organisational functions. The implication is that organisations must ensure that "they meet satisfactorily, or exceed, the demands and requirements of customers, and are **adaptable** to specific requirements, changes in the external environment and the demands of the situation" (Mullins, 2002: 858).

Although an organisation's potential can evolve over time, managers can creatively formulate new capabilities to cope with change, namely:

- By developing new organisational structures within corporate boundaries in which new processes can be introduced;
- By creating an independent organisation from the existing one and developing new processes and values;
- By merging organisations and realigning processes and values to the new requirements.
- By acquiring a different organisation whose processes and values closely matches the new

ethos (Christen & Overdorf, 1989, cited in Mullins, 2002: 825).

However, fundamental to improvement initiatives and programmes, is the need for managers to instill and nurture in employees the concept of quality and to attain a collaborative mindset to sustain a higher quality organisation. This means that the philosophy of total quality management (TQM) needs to be integrated into the process of change. "If the process is to be effective it requires the creation of an environment where employees are motivated to want to improve on a continuous basis. If the managers cannot create this environment then any systems, tools, techniques or training employed will be ineffective" (Dale, 2003: 124). Conversely, achieving quality of systems, processes and products can enhance organisational survival and prosperity.

Writers have continuously referred to the concept of total quality management as being integral to management philosophy which fits into the core of organisational strategy. Hence, the strategic intent is to improve the quality of the firm and sustain the organisation's quality journey effectively, by meeting quality goals, customer needs and satisfaction. TQM is a 360 degree continuous improvement program "of metrics, information, training, analysis, discretionary investments, process improvements, change and controls, that involve the entire organization" (<http://www.ethicsquality.com/qualitymanagement.htm>: 2) TQM is "based on the premise that all activities in a firm contribute to quality" (Wilkinson, Redman, Snape & Marchington, 1998: 15).

Most companies have closely aligned TQM interventions with their overall business strategy in an attempt to change the whole organisation towards ongoing quality improvement (Manz & Sims, 1984, cited in Cummings & Worley, 2001). It is the senior managers of an organisation who are the key players to TQM's success.

Change and total quality management

Competition is rife in today's business environment and quality is an important part of "the marketing mix as companies seek ways to differentiate effectively their products and/or services from those of their competitors" (Dale 2003: 68-69). Products/services are now advertised based on quality and reliability instead of price. Intense competition has forced companies to develop their quality systems to meet requirements of the ISO9000 series of quality management system standards and/or to introduce the TQM paradigm to enhance quality (Dale, 2003).

Demanding customers with high expectations of product and service quality can be effective change agents in stimulating changes in attitudes towards continuous improvements among their suppliers.

Quality management policies ensure that suppliers develop an effective quality system, with defect-free products and services. TQM places emphasis that the principles of quality management should be applied at all levels, with its integration into business practices and with sophistication when applying tools (Dale, van der Wiele & van Iwaarden, 2007).

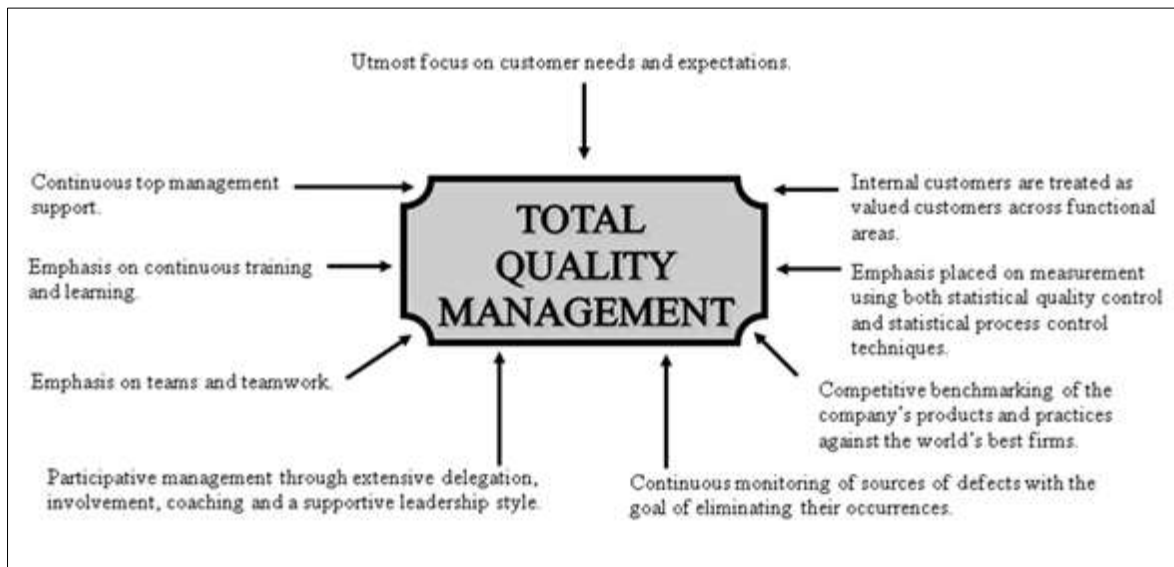
A deeper knowledge and understanding of change and its consequences is imperative to manage change in organisations in a constructive manner (van Tonder, 2004). Corporate changes occur when top managers rethink new directions and new organisational goals; and as an avenue for change, top managers need to advocate a TQM initiative. The chief executive officer may adopt a 'restart situation' to facilitate the quality improvement process to eliminate change barriers and to trigger and nurture individual and department efforts towards TQM, including the potential for a "greenfield venture" such as establishing a new functional unit, division or company (Dale, 2003). Unlike mergers and downsizing, TQM is not a cost-cutting mechanism but involves changing people's attitude and skills to prevent failure and improve quality. Hence, the effective implementation of any managerial intent, including TQM, must start with leadership and clear direction, whose thinking and actions display consensus about, and commitment to, organisational aims, purpose, strategy and priorities. The top management team should initiate a "TQM transformation with an understanding of why TQM is essential to its corporate objective and strategy and how TQM philosophy fits their values" (Beer, 2003: 632-633). Hence, TQM does become a vehicle for corporate change and the accomplishment of its essential components.

Objectives of the study

- 1) To conduct an exploratory analysis of the literature in order to identify and graphically present the critical dimensions/features of TQM.
- 2) To theoretically evaluate each critical dimension of TQM with the aim of developing measurement criteria.
- 3) To develop models comprising of the dimensions of TQM and their respective measurement criteria with the aim of providing a basis from which a valid and reliable tool may be designed to assess the effectiveness of TQM in corporate environments.

The critical dimensions/features of TQM

An exploratory analysis of the literature was undertaken and the critical dimensions/ features of TQM were identified and graphically presented (Figure 1):

Figure 1. The SImensions/features of Total Quality Management (TQM)

The measurement criteria for each dimension/feature of TQM

A theoretical analysis was undertaken of each critical dimension/feature of TQM with the aim of developing measurement criteria.

- **Utmost focus on customer needs and expectations**

Satisfying customer needs alone will not achieve success; and to stay ahead of the competition organisations must *exceed* customer expectations. Hence, essential to high performing organisations, is the need for customer-driven quality and quality-driven leadership (Evans, 2005). In order for organisations to capture attention in a capitalist economy, customers' needs and expectations must be identified and merged into action plans as part of the TQM approach to providing value for money products and services. Only then, will they be able to exceed the needs and expectations of customers and secure a substantial market share. In this regard, various strategies may be adopted:-

- Companies may assess how well their products and services are satisfying customer needs. This may be done using a simple approach to ask customers directly (verbal response) or via a formal approach using imprint analysis referring to a "collection of associations and emotions unconsciously linked to a word, concept or experience. The stronger the emotion, the stronger the imprint" (Evans, 2005: 164) or using psychodynamics. Aligned with TQM principles, organisations can obtain feedback from customers by engaging the participation of all employees who interact with them directly, and creating a culture of prioritizing customer needs

and continuously improving these feedback channels.

- Feed back customer information into the design and features of the organisation's products and services. In attempts to involving employees as participants in the TQM process, quality function deployment may be used as a technique to informing employees of how aspects of their products and services relate to customer satisfaction, thereby enabling them to make informed decisions about how their products may be improved. Evidently, collecting customer feedback on expectations and engaging in market analysis of needs and opportunities is insufficient; instead, this information needs to be translated into strategies for improvement or even expanding the product line.
- The implication is that employees who interact directly with customers need to be carefully recruited, selected, trained and empowered in order to fulfil and exceed the expectations of consumers (Evans, 2005).
- In an environment of e-commerce, ensure that updated, understandable and honest information is put onto company sites. In addition, the company's site design must ensure speedy, efficient and reliable accessibility of the required information by the online consumer.
- In the retail environment, speed, efficiency and superior customer service is also expected in-store, thereby placing further demands on product and store attributes demanding that organisations take cognisance of physical, psychological and aesthetic factors.

- **Continuous top management support**

Organisational values and vision will only be fruitful if efforts are made to improve organisational

performance from the customer's viewpoint. Hence, continuous process improvement, aimed at doing things better and faster, is the core area of total quality management. Essential to the successful implementation of TQM is leadership and top management support. Managers "need to create a corporate culture where quality products and services, business processes and people are central" (Bank, 2000: xi). The effectiveness of managers will determine short and long term success and organisational survival, viability and profitability.

According to Kinnich (2002), the purpose of a manager's job is threefold:

- 1) To guide individuals for the successful completion of tasks and in engaging in activities that support organisational goals. In this regard, managers may:-
 - ❑ Lead by working continuously with subordinates to improve the processes that they control.
 - ❑ Model behaviours that emulate obtaining accurate feedback from customers and effectively acting on this information. Hence, managers can engage in and encourage behaviours that are consistent with quality values.
 - ❑ Make constructive suggestions that will result in an improvement of quality and hence, customer satisfaction.
 - ❑ Inspire and motivate employees to accomplish things that they did not believe they were capable of. In this regard, managers can remove barriers to process improvement and provide employees with recognition of improvement efforts when key milestones are accomplished (Evans, 2005).
- 2) To develop people so that there is continuous improvement regarding the organisation's capability. This involves:-
 - ❑ Investing in employees. This may be done through an organisation-wide culture change programme incorporating amongst others, effective communication, training, teamwork, empowerment and continuous improvement. Other contributory elements to employee development include mutual trust with employees and keeping them motivated and focused on desired goals.
 - ❑ Educating employees of how all organisational processes merge together. Such an understanding will better enable employees to participate effectively in the TQM initiative and embark on setting priorities for the improvement of processes.
- 3) To implement both policies and procedures consistently to protect the organisation.

The sustenance of organisations require that managers maximise market share, growth and output through principles of management including planning, leading, mentoring and enhancing employee involvement. The evolution of these concepts are also provoked by other stressors such as resources and time pressures. Quinn, Faerman, Thompson and

McGrath (2003) maintain that being master managers means being innovative, being a broker, producer, director, co-ordinator, monitor, facilitator and a mentor.

The aforementioned emphasizes that to attain corporate goals and to become a significant role-player in the economy, organisations need to be competitive. However, competition demands quality leadership to lead quality, to develop people competencies and to motivate. By implication, leaders too need to be carefully identified, recruited, selected, trained developed and provided with opportunities to utilise their skills and knowledge.

• **Emphasis on continuous training and learning**

Investments in training and education enhance the capabilities of an organisation and close the gap to accomplishing excellence in performance. Employee education, training, and career development facilitate the attainment of organisational objectives and build employee knowledge, skills and abilities. The return on investment in training that has been effectively conducted is substantial, and companies that invest adequately and effectively, based on a proper training needs analysis, outperform those that do not. An inseparable commitment of organisations that focus on total quality management is to make training and education an essential responsibility of the human resource department, especially to develop the skills and knowledge of empowered employees (Evans & Lindsay, 2005). Fundamental to the TQM ideology is to enlighten employees of the goals of customer satisfaction, to train them on how to identify customer needs and fulfill their expectations, and to emphasize the value of their role in enhancing product and service delivery. Training therefore, incorporates quality awareness, leadership, project management, decision-making, problem-solving, improving communication and team cohesiveness and teamwork, and aspects of process management that enhance effectiveness, efficiency and safety and reduce the occurrence of defective products.

Training in a TQ environment, should take cognizance of the following:-

- Employees throughout the organisation should be given the "right level and standard of education and training" to make certain that their "general awareness and understanding of quality management concepts, skills, competencies and attitudes are appropriate and suited to the continuous improvement philosophy" (Dale, 2003: 28).
- The mode of training and education must be aligned with the operational circumstances of the business environment.
- The training programme must facilitate continuous education and self-development so as to optimally unleash potential and creativity.
- Training and education must be aimed at shaping the attitudes and behaviour of employees to

recognise the importance and needs of customers and to channel activities to optimise the fulfillment of customer expectations (Kelemen, 2003).

Training increases employee morale and its consequent impact on overall productivity unveils lucrative opportunities which transforms itself into outstanding business outcomes.

- **Emphasis on teams and teamwork**

Since work largely depends on a combination of talents and experiences, it is important to take cognisance of the distinct competencies of people, such as their knowledge, skills, capabilities and characteristics. An organisation's success is due to employees' pooled efforts and the sustenance of this is through management's effort and role. Management needs to ensure that stakeholders (managers, employees, customers and suppliers) exercise the right amount of power, receive the necessary preparation and work in synergy as a team to enjoy the benefits of their partnerships and interaction. In a TQ environment which stresses the importance of cooperative links, the emphasis is on teams and teamwork aimed at breaking down barriers and obstacles among individuals, departments and line and staff functions (Evans & Lindsay, 2005). Team activities empower employees, enable the efficient identification of individual training in job-related and problem-solving skills and consequently, increase the pace of quality improvement (Evans & Lindsay, 2005). Colquitt, LePine and Wesson (2010) emphasize team performance and the degree of collective commitment of team members.

In a TQ environment, teams and teamwork can be effectively utilised if cognisance is given to the following:-

- Use management teams, natural work teams, self-managed teams and virtual teams for making decisions on the design of work and the way it is organised (Evans & Lindsay, 2005).
- Use quality circles, problem-solving teams and project teams to manage tasks or issues of a specific nature, especially relating to quality improvement initiatives (Evans & Lindsay, 2005).
- Effective team functioning only occurs if team members are aware of how each one fits into the efforts of the larger team.
- Effective team building necessitates an environment that fosters differing opinions and open resolution of conflict. This emphasizes the need for role clarification and in this regard role analysis techniques and role negotiation techniques may be effectively utilised. Such processes assist in eliminating mistrust or negative feelings, which can hinder the team spirit of the group.

- It is important to pay careful attention to the design, staffing and structure of teams. Equally imperative is the aspect of training to transform a group into a high performance team (Sundstrom, 1999, cited in Quinn et al., 2003).
- Ingredients for accomplishing high performance status include:-
 - Team members need to be well acquainted with each other, especially in terms of being fully aware of the various competencies that each brings to a project or task.
 - Team members need to be given the opportunity to clearly express their approach in solving a problem or managing a project.
 - As the team progresses through the stages of team development (testing, organising, establishing interdependence, producing and evaluating), team members need to constantly ensure that suitable group behaviours are maintained and that activities are prioritised.
 - A formal team-building technique can prove to be fruitful in creating high performance teams. It allows the team the opportunity to focus on evaluating their performance objectively without workplace interruptions. This entails identifying problems/weaknesses or areas for improvement, barriers to improvement as well as strengths that can be enhanced.
 - Managers need to display their commitment to team building initiatives.
- **Participative management through extensive delegation, involvement, coaching and a supportive leadership style**

- **Delegation**

Managers may delegate or shift the responsibility, authority and accountability for the execution of tasks to subordinates, whilst still being responsible for the process. The benefits of delegation is multifaceted:-

- Delegation enables the development of employees' skills and abilities as it requires them to focus on demanding tasks that stretch them beyond their current level of functioning thereby stimulating their creativity, potential and resulting in growth.
- Delegation frees managers off certain tasks thereby allowing them time to concentrate on more demanding and strategic issues.
- Delegation optimises the use of employees' strengths thereby making them more effective and consequently, strengthening the work unit.

However, effective delegation necessitates that the manager:-

- Clarifies the importance of the task and what is required of the subordinate.
- Stringently allocates the task to the most suitable employee so as to facilitate task accomplishment

and employee development and ensures that the person is authorised to undertake the task.

- ❑ Clearly communicates important information, such as, the nature and purpose of the task, the expected outcomes, priority of the task and deadlines.
- ❑ Ensures that the employee has the resources and time that the task demands.
- ❑ Ensures that communication channels are open for consultation, feedback, input and discussion.
- ❑ Allows flexibility and displays trust in the employee's abilities (Quinn et al., 2003). This means that the employee is given the opportunity to assess the progress of the task, take corrective action and engage in decision-making and problem-solving thereby extending his/her skills and abilities.
- ❑ Must monitor the progress of the task.
- ❑ Recognises the employees' efforts and show appreciation by acknowledging the accomplishments of the employees.

➤ **Involvement/Empowerment**

For organisations to effectively implement TQM processes and practices, managers must involve, enable and empower their workers (Waldman, 1994 & Sashkin & Kiser, 1993, cited in Wicks, 2001). Organisations need to empower their employees to be involved in formulating action plans that shape the business vision and mission and to commit fully to the goals of the organisation (Oakland & Oakland, 2001). From an organisational perspective empowerment is "sharing with frontline employees four organizational ingredients: (1) information about the organization's performance, (2) rewards based on the organization's performance, (3) knowledge that enables employees to understand and contribute to organizational performance, and (4) power to make decisions that influence organizational direction and performance" (Bowen & Lawler, 1992, cited in Quinn et al., 2003: 227 - 227). Therefore, this reciprocal relationship also includes a shift of power from higher levels of the hierarchy to employees at the lower level, which implies the delegation of responsibility, decision-making, problem-solving and power sharing to employees. "Unless workers see their efforts as contributing in significant ways to the creation of a product - as adding valued skills, as being responsible for substantial portions of the product, as being able to make decisions that affect the product quality - then it is far less likely they will feel pride of workmanship" (Wicks, 2001: 512). Employee involvement, as a participative process, aims to enable the total workforce to work in tandem with each other towards accomplishing organisational success. Employees feel a sense of empowerment as a result of being involved and the more employees perceive employee involvement efforts to be flourishing, the more they feel empowered (Daily & Bishop, 2003).

Employee involvement and empowerment have numerous advantages in a quality management perspective:-

- 1) It enhances employee commitment to organisational success (Cotton, 1993).
- 2) It improves productivity, organisational quality, organisational performance, employee attitudes, all of which are imperative to secure a significant market share (Lawler, 1994; Daily & Bishop, 2003; <http://www.tkdtutor.com/05Instructors/TQM.htm>).
- 3) Empowerment enables employees to forecast and foresee organisational changes, which makes changes more acceptable and planned.
- 4) The sharing of decision-making authority will motivate employees to exert optimum effort and be willing to take calculated risks (Gitlow, Oppenheim, Oppenheim & Levine, 2005).
- 5) Empowered employees are more likely to take ownership of solving problems or to respond to marketplace opportunities, to be proactive in facilitating improvements and to make decisions in the best interests of the organisation (Evans & Lindsay, 2005). They are more likely to build relationships, work in effective teams and engage in activities needed to improve quality within the system designed by management (Korukonda, Watson & Rajkumar, 1999).
- 6) Involvement leads to self-motivation and empowerment facilitates "self-control, liberation of minds, and creation of problem-solving skills" (Cranny, Smith & Stone, 1992 & Gabor, 1999 cited in Korukonda et al., 1999).
- 7) Besides contributing to the overall performance of the organisation, each employee's morale and confidence is boosted due to a sense of satisfaction, accomplishment and flexibility. Satisfaction is enhanced by the simple knowledge of how one's input contributes to the overall performance of the organisation. In addition, sharing power enables individuals to act more freely in undertaking their tasks.
- 8) Employee involvement and empowerment enables self-managed work teams to effectively manage problems relating to productivity and quality. The aim of team members would be to support and stimulate each other, co-operate to overcome cross functional barriers, and work to eliminate fear within their own team (Hand, 1994). The teams therefore, take ownership, responsibility and are empowered to make changes so as to ensure the ultimate success of a quality end result.

An organisation may attain a more successful quality system if it implements a TQM program that is complemented by a genuine employee involvement effort (Hua, Chin, Sun & Xu, 2000, cited in Daily & Bishop, 2003). TQM and employee involvement and empowerment are compatible and when combined,

have proven to lead to higher levels of productivity gains and employee satisfaction (Lawler, 1995; Wicks, 2001).

However, employee empowerment can only be completely successful if the following founding ingredients exist in the organisation:-

- An environment of trust.
- Genuine worker efforts directed at organisational success.
- Managers being trained to adopt a "hands-off" leadership approach.
- Employees being trained for the amount of latitude that they can take (Smitley & Scott, 1994, cited in Evans & Lindsay, 2005).

➤ **Coaching**

In an environment focusing on product and service quality improvement, coaching becomes an imperative. This means that it is essential for managers to convey information or adopt standards to assist employees in improving their skills so as to enhance performance and manage customer complaints effectively. Skilful coaching and counseling are vital in recognising and rewarding improved and positive performance and correcting problem behaviours or attitudes (Whetten & Cameron, 2005).

➤ **Supportive Leadership Style**

In order to have a universal, holistic approach to an organisation's TQM programme, managers need to be supportive of employees in ensuring quality products and services, meeting customer needs and satisfaction, and analysing and improving processes in functional areas. Leaders need to support effective teams and employee development, and empower employees to reach optimum levels of productivity in accomplishing organisational goals. Having a supportive leadership style needs to be an integral aspect of the management philosophy, which fits into the core of the organisational strategy.

• **Continuous monitoring of sources of defects with the goal of eliminating their occurrences**

A defect is a "nonconformance" on one of numerous possible quality characteristics of an item that causes customer dissatisfaction and may be categorised as a critical defect, major defect or a minor defect (Evans & Lindsay, 2005; Gitlow et al., 2005). Whilst critical defects need close observation, monitoring and control, minor defects do not as they are still useable. Where quality improvement is the focus, defect detection and inspection on a mass basis is not good enough. In a TQ environment, the aim is to constantly improve processes so that products and services are within the specification range, are of quality and have zero defects.

• **Competitive benchmarking of the company's products and practices against the world's best firms**

One way to obtain exceptional results in accomplishing organisational goals is to adopt the approach of competitive benchmarking. Competitive benchmarking involves searching for industry best practices that results in superior performance (Camp, 1989, cited in Evans & Lindsay, 2005). It enables a company to measure their performance against that of the best performing companies in the industry and assessing how these industry leaders accomplish such performance levels. Engaging in such analysis enables the company to assess performance gaps, which serve as a springboard for setting realistic goals and ensuring continuous creativity, innovation and improvement. Hence, competitive benchmarking enables a company to identify its strengths and weaknesses and those of other industry leaders and learns how to integrate the best practices into its own operations in terms of setting targets, developing strategies and engaging in implementation.

• **Statistical quality control and statistical process control techniques**

Statistical quality control (SQC) was introduced by Deming and Juran, who convinced managers in Japan that continuously controlling and improving quality would lead to improved productivity, to 'new world markets' and was needed for survival (Evans & Lindsay, 2005). Walter Shewhart who introduced SQC charts maintains that the process expands beyond inspection to focus on identifying and eradicating the problems in the production processes that cause defects (Evans & Lindsay, 2005). Hence, SPC is "a methodology for monitoring a process to identify special causes of variation and signaling the need to take corrective action when it is appropriate"; and it "provides a rational basis for applying statistical thinking to controlling processes", thereby enhancing consistency of output (Evans, 2005: 298). Customers may request proof of statistical process control from organisations, thereby enabling them to display their ability to deliver quality, which is much needed for survival in a highly competitive corporate environment. Since SPC needs processes to reflect measurable variation, "it is ineffective for quality levels approaching Six Sigma" but SPC is "quite effective for companies in the early stages of quality efforts" (Evans, 2005: 298). Cognizance must be taken of the three applications of control charts: "(1) to establish a state of statistical control, (2) to monitor a process and signal when the process goes out of control, and (3) to determine process capability" (Evans & Lindsay 2005: 693). Having a consistent and reliable SPC is important and the tools/ techniques form an imperative part of the overall TQM strategy.

• **Internal customers are valued customers across functional areas**

The success of TQM entails considering both internal and external customers' expectations. Every employee in an organisation has internal customers who receive inputs, goods or services from suppliers within the company. Internal customers contribute to the company's vision and mission and depend on the department's or function's products or services to ultimately service consumers and external customers (Evans & Lindsay, 2005). Therefore, from this perspective, an employee's task is to fulfill the needs of both internal and external customers, and failing to understand and meet the needs of the former can result in a product or service of inferior quality and have a detrimental effect on the external customer's satisfaction. Hence, both internal and external customers' needs are important in assuring quality and are fundamental for achieving customer satisfaction.

Therefore, TQM necessitates that employees see themselves as customers of, and suppliers to, other employees as this will enable them to understand their contribution within the organisation, to the final end product and ultimately to external customer satisfaction.

Models of the dimensions of TQM and their respective measurement criteria

It is imperative to be able to determine the effectiveness of TQM by assessing the extent to which corporate environments are fulfilling each of the key elements/dimensions of TQM. To be able to do this, this study develops models (Figures 2 to 6) indicating the measurement criteria to evaluate each of the dimensions of TQM such that an instrument may subsequently be designed to assess the effectiveness of TQM in organisations.

Figure 2. Customer Needs and Expectations and TQM

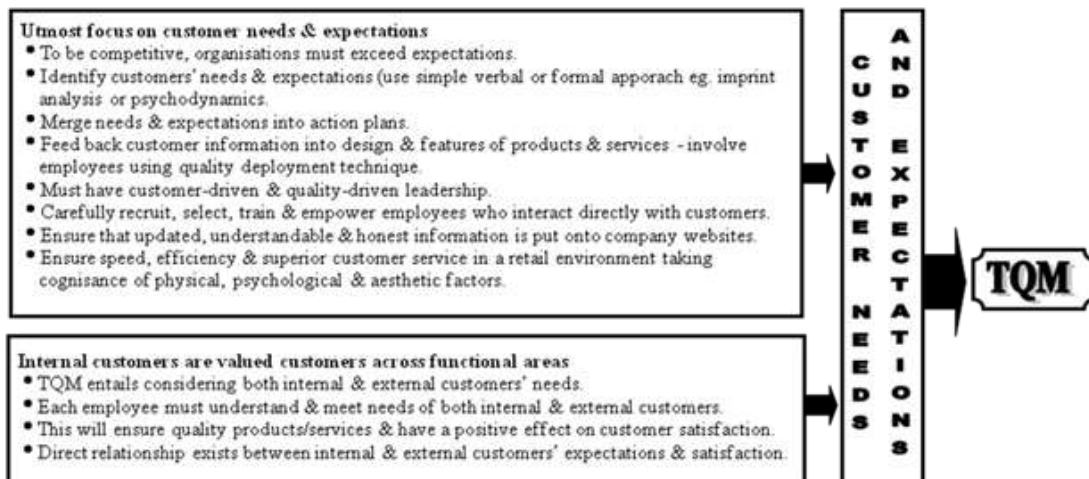


Figure 3. Monitoring and Controlling Quality and TQM

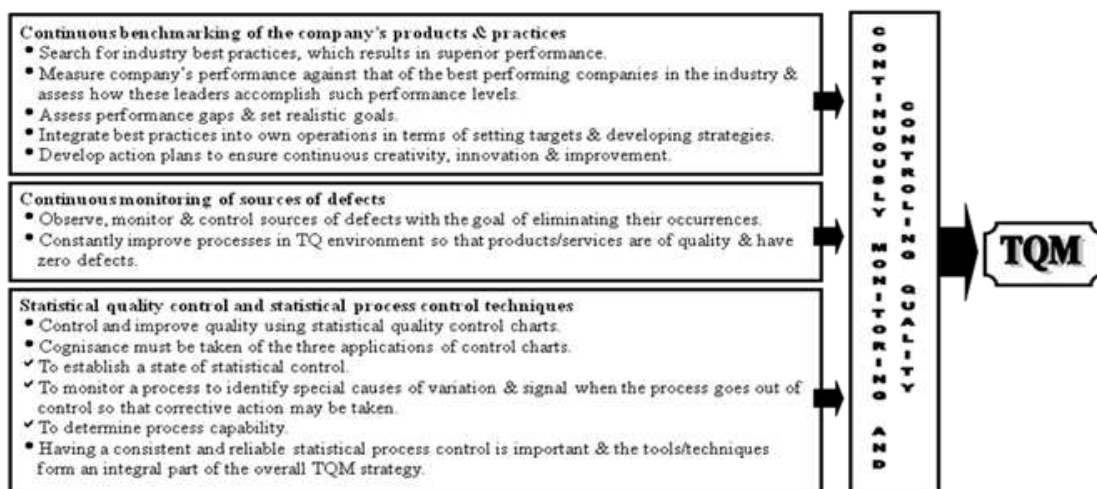


Figure 4. Continuous Top Management Support, Training and Learning and TQM

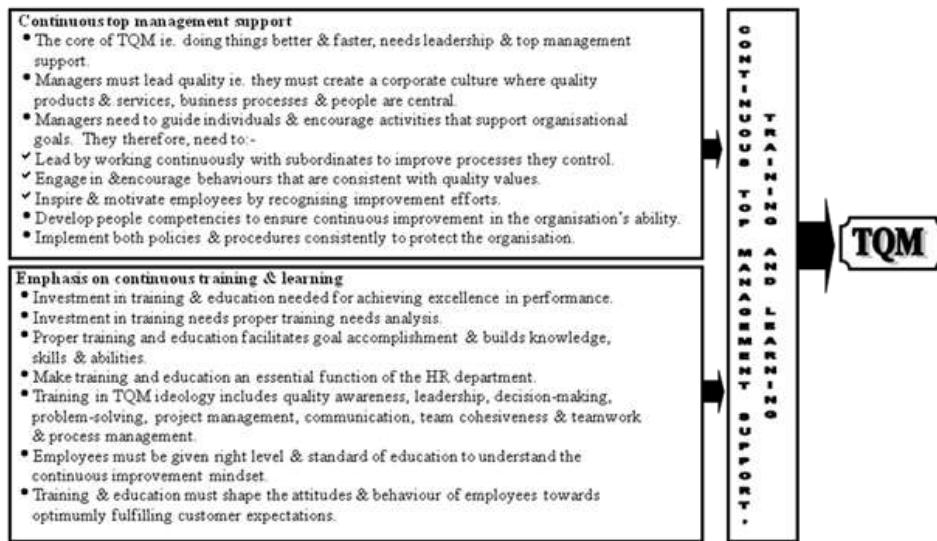


Figure 5. Teams and Teamwork and TQM

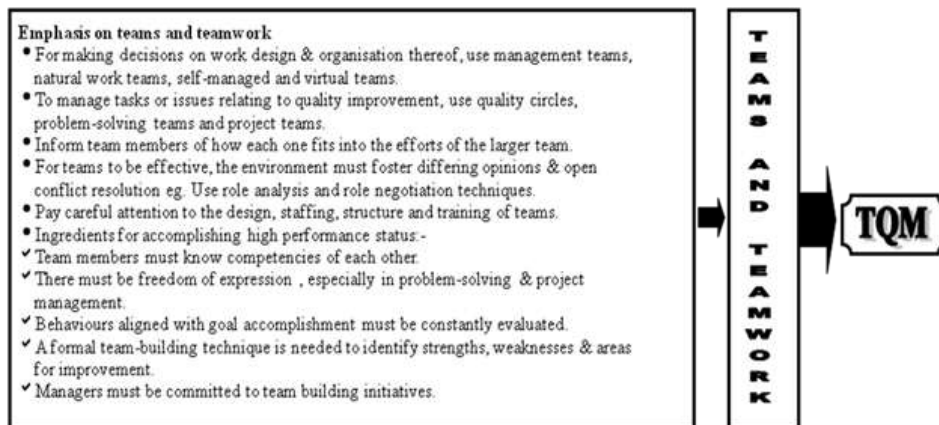
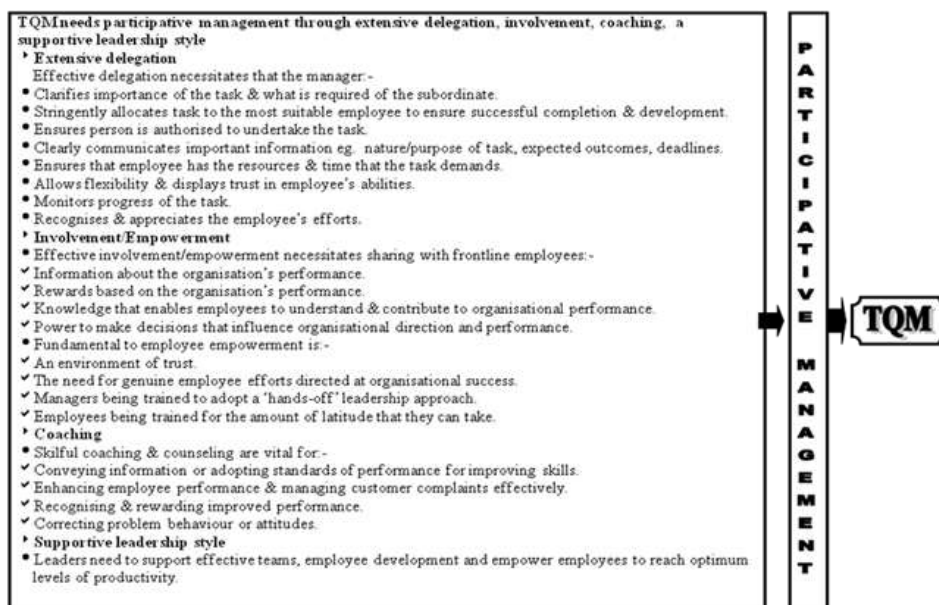


Figure 6. Participative Management and TQM



Recommendations and conclusion

The aim of competitive organisations is to fit TQM into the core of their organisational strategy. This means that the aim is to change the entire organisation towards continuous quality improvement. To accomplish this, organisations need to focus on:-

- Customer needs and expectations (Figure 2),
- Monitoring and controlling quality (Figure 3),
- Ensuring continuous top management support, training and learning (Figure 4),
- Ensuring effective teams and teamwork (Figure 5),
- Creating an environment of participative management (Figure 6)

Guidelines for the accomplishment of each of the aforementioned dimensions of TQM are presented in Figures 2 to 6, which when taken cognisance of, will enable the design of a valid and reliable measurement tool or instrument to be used in assessing the success of a TQM initiative.

References

1. Bank, J. (2000). *The essence of total quality management*. Second Edition. England: Pearson Education Ltd.
2. Beer, M. 2003. Why total quality management programs do not persist: The role of management quality and implications for leading a TQM transformation. *Decision Sciences*, 34(4), 623-642.
3. Colquitt, J.A., LePine, J.A. & Wesson, M.J. (2010). *Organizational Behavior: Essentials for Improving Performance and Commitment*. International Edition. Boston: McGraw-Hill.
4. Cotton, J. (1993). *Employee involvement*. Newbury Park, New Jersey: Sage Publications Inc.
5. Cummings, T.G. & Worley, C.G. (2003). *Essentials of organization development & change*, United States: South Western College Publishing.
6. Daily, B.F. & Bishop, J.W. (2003). TQM workforce factors and employee involvement: The pivotal role of teamwork. *Journal of Managerial Issues*, XV(4), 393-412.
8. Dale, G.D. (2003). *Managing quality*. Fourth Edition. United Kingdom: Blackwell Publishing Ltd.
9. Dale, B.G., van der Wiele, T. & van Iwaarden, J. (2007). *Managing Quality*. Fifth edition. USA: Blackwell Publishing.
10. Evans, J.R. (2005). *Total quality: Management, organization, and strategy*. Fourth Edition. Canada: Thomson South-Western.
11. Evans, J.R. & Lindsay, W.M. (2005). *The management and control of quality*. Sixth Edition. Singapore: Thomson South-Western.
12. Gitlow, H.S., Oppenheim, A.J., Oppenheim, R. & Levine, D.M. (2005). *Quality management*. Third Edition. Boston: McGraw Hill International Edition.
13. Hand, M. (1994). Freeing the victims. *Personnel Review*. February, 20-25.
14. *Internet*. (2006). Ethics and culture management service: Total quality management.
15. Ethics QualitySM For Organizational Excellence. <http://www.ethicsquality.com/qualitymanagement.htm>, 1-7.
16. *Internet*. (2006). Total quality management. <http://www.tkdtutor.com/05Instructors/TQM.htm>, 1-10.
17. Kelemen, M.L. (2003). *Managing quality: Managerial and critical perspectives*. London: Sage Publications.
18. Kinnich, M. (2002). Improving management effectiveness: Human resource tools. *Effective People Management: HR Tools*. Mark Kinnich & Associates.
19. Korukonda, A.R., Watson, J.G. & Rajkumar, T.M. (1999). Beyond teams and empowerment: A counterpoint to two common precepts in TQM. *Sam Advanced Management Journal*, Winter, 29-36.
20. Lawler, E.E. (1994). Total quality management and employee involvement: Are they compatible? *Academy of Management Executive*, January, 68-76.
21. Longbottom, D., Mayer, R. & Casey, J. (2000). Marketing, total quality management and benchmarking: Exploring the divide. *Journal of Strategic Marketing*, 8, 327-340.
22. Mullins, L.J. (2002). *Management and organisational behaviour*. Sixth Edition. London: Prentice-Hall.
23. Oakland, S. & Oakland, J.S. (2001). Current people management activities in world-class organizations. *Total Quality Management*, 12(6), 773-788.
24. Quinn, R.E., Faerman, S.R., Thompson, M.P. & McGrath, M.R. (2003). *Becoming a master manager: A competency framework*. Third Edition. New York: John Wiley & Sons, Inc.
25. Van Tonder, C.L. (2004). *Organisational change: Theory and practice*. Pretoria: Van Schaik Publishers.
26. Whetten, D.A. & Cameron, K.S. (2005). *Developing management skills*. Sixth Edition. New Jersey: Pearson Education International, Inc.
27. Wicks, A.C. (2001). The value dynamics of total quality management: ethics and the foundations of TQM. *Business Ethics Quarterly*, 11(3), 501-526.
28. Wilkinson, A., Redman, T., Snape E. & Marchington, M. (1998). *Managing with Total Quality Management: Theory and Practice*. London: Macmillan Press Ltd.