

TOTAL QUALITY MANAGEMENT (TQM): IMPLEMENTATION AND COMMON PITFALLS

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Abstract

This paper examines the concept of Total Quality Management (TQM), various implementation procedures, and common pitfalls. TQM means that the organization's culture is defined by and supports the constant attainment of customer satisfaction through an integrated system of tools, techniques, and training. TQM can be regarded as a continuous, customer-centered, employee-driven improvement and is embedded in the organization's culture. If not implemented properly, TQM often leads to the alienation of the workforce and decreased customer satisfaction. We also examine issues related to the quality of products and services, employee satisfaction, customer satisfaction, and creating a "win-win" situation for the organization's stakeholders.

Key words: Total Quality Management (TQM), Pitfalls, Customer Satisfaction, Employee Satisfaction

Introduction

More than two decades ago, in 1980, NBC aired a television documentary titled: "If Japan cans...Why Can't We"? This was the wake-up call for many large corporations in the US, those in electronics and automobile industries, in particular. Thanks to the Total Quality Management (TQM) movement, the quality of much of what we buy in stores today in the US is significantly better than in the past. The underlying principles of TQM are also applicable to the significant growth of both E-business on the Internet and the overall service economy.

Definition. Before we discuss the notion of Total Quality Management, we need to define the term quality. What is quality? According to W. Edwards Deming (2000a), "a product or a service possesses quality if it

helps somebody and enjoys a good and sustainable market". "Trade depends on quality" (p. 2). Quality can be defined as the ability of a product or service to reliably do what it's supposed to do and to satisfy customer expectations. On the one hand, regarding **product** quality, there are several dimensions of quality. They may include: performance, features, flexibility, durability, conformance, serviceability, aesthetics, and perceived quality. On the other hand, when we consider **service** quality, we may include the following dimensions: timeliness, courtesy, consistency, convenience, completeness, and accuracy.

What is TQM? Experts provide the following statement: TQM means that the organization's culture is defined by and supports the constant attainment of customer satisfaction through an integrated system of tools, techniques, and training. This involves the continuous improvement of organizational process, resulting in high-quality products and services (Sashkin & Kiser, 1993). It can be regarded as a continuous, customer-centered, employee-driven improvement and is embedded in the organization's culture.

The TQM concept focuses on the customer and promotes the idea of satisfying customers' needs by creating better products and services at a competitive price (Leonard & McAdam, 2002). There is an important

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purpose, also: Better products and services lead to more satisfied customers and, in turn, lead to more customers which would, in turn, bring more profits for the company. "Most of us are in business to make money from our customers. The equation is supposed to be: 'More satisfaction equals more customers and more customers equal more money'" (Hoare, 1994: 5). Money, after all, is the goal of why these philosophical concepts were born. According to Allan Sloan (2002), **News Week's** Wall Street Editor, Americans have always loved money. De Tocqueville traced love of wealth to the root of all that Americans do (see also Tang & Chiu, 2003; Tang & Weatherford, 2004).

The principles of TQM were well established by W. Edwards Deming and other pioneers such as Joseph Juran, Genichi Taguchi, and Philip B. Crosby (Deming, 2000a, 2000b; Hellsten & Klefsjo, 2000; Lau & Anderson, 1998). Deming was credited for Japan's post-World War II quality revolution. He continued to promote TQM till his death at age 93 in 1993.

Deming's 85-15 rule, one of the most enduring lessons for managers, suggests that when things go wrong, there is a roughly an 85% change the system (e.g., management, machinery, and rules) is at fault. Only about 15% of the time is the individual employee at fault. Productivity depends on people and operations variables. Deming also has identifies the following four common TQM principles:

1. Do it right the first time to eliminate costly rework and product recalls.
2. Listen to and learn from customers and employees.
3. Make continuous improvement an everyday matter.
4. Build teamwork, trust, and mutual respect.

According to Deming (2000b), the importance of quality is related to profits mentioned earlier (Hoare, 1994). For example, "it pays to keep the customers satisfied: if a car owner likes his car, he's apt to buy four more cars of the same make over the following twelve years. The customer is also likely to spread the good news to eight other people". But woe to the car company that delivers a shoddy product, an angry car buyer will tell his troubles to an average of sixteen people (**Car and Driver**, 1983, August, p. 33, cited in Deming, 2000b: 122). "The happy customer that comes back for more is worth 10 prospects. He comes without advertising or

persuasion, and he may even bring in a friend" (cited in Deming, 2000b: 122).

In today's world market, organizations in the US attempt to implement various concepts of quality improvements such as Six Sigma, reengineering, and Total Quality Management (London, 2002). These philosophical concepts have become the business "buzzwords" heard in most board rooms today. Nearly all employees have heard these terms in one form or another. Unfortunately, to most of them, these terms represent the latest "fad" that management is trying to make them "buy-in-to" in order to reestablish the business superiority.

Brief History. The TQM concept originally came about in the US but was met with indifference and a great reluctance by US companies to implement it (Lau & Anderson, 1998). So the original pioneers took their idea to Japanese and transformed the statement "Made in Japan" from meaning "cheap and poor in quality" into meaning "more value for the dollar" (London, 2002; see also Davenport & Tang, 1996; Rhody & Tang, 1995). After the oil crisis in 1973, Japanese companies began to dominate the world's business markets especially in the automotive industry. Companies in the US were forced to become more competitive or continue to lose business and eventually face bankruptcy and business failure. Japanese companies had employed the techniques of TQM to create large transfer of wealth to their companies since the 1980's and early 1990's (James, 2002).

The basic idea of worker participation was effectively used in the US in the 1940s. In 1949, a Quality Control Sub-Committee was organized within the Union (Society) of Japanese Scientists and Engineers (JUSE). This sub-committee later developed into the QC Research Group and introduced quality control to Japan. In September, 1951, the first Quality Control Conference was held in Japan and the **Deming Prize** was awarded for the first time.

In the early 1970s, the US began to study Japanese businesses to find out how Japan had seemingly taken over the world's markets overnight. In reality, while US businesses were sleeping, Japanese businesses had been involved in a long and continual process of developing manufacturing processes which greatly improved their products. The same concept that the US had rejected previously had now become the Japanese way of "doing things right". All the

US companies wanted to convert to the “Japanese Way” and began implementing it right away.

In 1974, Quality Circles (QCs) were re-introduced back to the US. The Lockheed Missiles and Space Company began the very first pure quality circle program (QC) on the Trident Naval Program. A quality circle (QC) is a group of workers from the same work area who voluntarily meet on a regular basis to identify, analyze, and solve various work-related problems (e.g., Tang & Butler, 1997; Tang, Tollison, & Whiteside, 1987, 1989, 1991, 1993, 1996). There has been a long history of research in the literature that is related to quality circles (QCs). QC programs in the US became very popular in the 1980s and beyond (Griffin, 1988; Marks, Mirvis, Hackett, & Grady, 1986; Tang, Tollison, & Whiteside, 1987, 1989). It was estimated, at that time, that over 90% of the Fortune 500 companies used QC programs (Lawler & Mohrman, 1985) involving approximately 200,000 workers in the US (Lawler, 1986). This QC movement has been expanded to the TQM movement.

The buzzword, TQM, creates a great expectation. Everyone talks about the great thing that will bring back lost business and make the business world all right again in the US. Life will once again be grand and US workers will be gainfully employed with a more secure employment future (Anschutz, 1995). However, somewhere along the way, the TQM implementation went wrong, and TQM actually appeared to be the cause of some business failures.

TQM Pitfalls

Total Quality Management (TQM) is one of the ways to improve quality. The organizations' attempts to regain lost business have met with varying results due to the misunderstandings of the TQM implementation processes (Alter, 2000). As more and more companies attempt to implement TQM, a greater understanding of what went wrong can be gained through the empirical research. Our new knowledge in this area may improve future TQM programs. Research has provided solutions to some of the common problems of TQM and pointed out some common pitfalls.

In a study of attributions of quality circles' *problem-solving failure*, Tang and Butler (1997) identified the following reasons: lack of top management support, lack of QC members' commitment, lack of problem-

solving skills, QC members' turnover, the nature of the QC task/project, lack of support from staff members, and lack of data and time. Following the same line of research, some reasons for the failure of the TQM system are: lack of implementation plans, lack of leadership, lack of effective feedback, lack of measurement and reward systems, and lack of employee empowerment (Elmuti & Kathawala, 2002; Emery, Summers, & Surak, 1996). We will provide brief discussion regarding the causes of TQM implementation failure below.

Change. Perhaps one of the greatest initial obstacles to overcome in implementing any new program is “change”. Change is often very slow in coming. People resist change because of the fear and uncertainty change brings. People cling to the familiar. People want things to be left alone; they want life to go on as it was. Besides, change involves additional work. People want to take the easiest path available, so they have a great reluctance to change. In a world filled with uncertainties, it is easier to hold on to the familiar than doing something new. Change would require great effort on everyone's part.

TQM as a Separate System. A great misunderstanding by upper management has taken place. Firms believe that the TQM concept is something that can be bought and installed similar to a piece of machinery. They believe that TQM can be brought in and, with minor adjustments in the machinery, their firm will be up and running with little effort. They fail to understand “that TQM is a long-term business strategy” with many “troughs and peaks” (Dale & Cooper, 1994: 22). That is, TQM can *not* be treated as a separate or a parallel system in an organization. It has to be totally integrated into the mission statement and the whole system of an organization. For TQM to be successful, it has to have top level management's full and enthusiastic support (Tang, Tollison, & Whiteside, 1989). Management has to show employees through their actions and the firm's commitment to TQM goals instead of words alone. Telling employees “My way or the highway” would not be sufficient. That attitude just wouldn't fly.

Top Management Support. “TQM is a way of doing things. The way includes commitment, participation, influencing by example, fair treatment, taking responsibility, motivating, driving out fear, continuous learning, and caring about the customer” (Babbar & Aspelin, 1994: 34). All of these things are dependent upon top management

commitment. To be successful, top management need to “(1) focus on customers, (2) base decisions on facts, (3) focus on processes, (4) improve continuously, and (5) let everybody be committed” (Hellsten & Klefsjo, 2000: 240). The sole responsibility of implementing TQM is the top management. Top executives need to ensure their company’s short- and long-term strategies revolved around the TQM philosophy.

Management has to be committed to the continual process of TQM from the chief executive officer (CEO) down through middle managers to the employee (Lau & Anderson, 1998: 89). All levels of management need to become trained and more than familiar with the ideas of the TQM philosophy so that they are able to implement TQM and measure TQM improvements as benchmarks. Without realistic goals and tangible measurements of success, all their work in implementing TQM will be fruitless. The firm will be lost in its own desire to achieve quality without knowing what quality is.

Often TQM will fail because of the lack of upper management’s understanding, dedication, and involvement. For instance, instead of TQM being first on their meeting agendas, TQM may be presented as an almost “by the way” subject after other more important issues had been presented. The importance of TQM was ranked low on the totem pole. This “off-handed approach” in dealing with the subject of TQM may inadvertently indicate to middle managers that TQM will be “just another fad” which will pass away with time (Dale & Cooper, 1994: 21). Their attitude will be to humor their boss until he came upon the “next” fad.

Middle Management Support.

Oftentimes this middle manager roadblock proves to be a stumbling stone which results in the failure of TQM to be successfully implemented. The process of filtering the concepts from top managers to the lower echelons becomes plugged at the middle manager levels. This resistance results in little of the TQM concepts reaching the employees and misunderstanding and confusion about TQM. Because the middle managers do not “buying into” the TQM program, the employees, then, start to see TQM as a fancy way of getting rid of employees, blaming employees for poor products, etc. (Babbar & Aspelin, 1994).

Because middle managers have used their knowledge and skills to rise to their

current employment level, they often feel threatened and only try to preserve their status by resisting TQM implementation (Feinberg, 1998). In addition to the pressures of mergers and acquisitions and stockholders demands, it becomes a survival maneuver for middle management to maintain their power and value to the firm by not sharing information with others (Lau & Anderson, 1998).

Instead of using employees to help solve problems of quality, managers call in experts to study the problem giving rise to the idea that employees are responsible for the problem. “Continuous improvement through greater effort and through the acquisition of skills and knowledge only makes the individual more valuable to the organization” (Babbar & Aspelin, 1994: 35). The lack of effective communication with employees and a lack of proven recognition and reward systems present some formidable barriers in implementing a TQM system successfully (Elbo, 2001). Deming and Juran’s messages state the same thing: “management must take charge of quality” and emphasized the importance of management’s responsibility by stating “that quality must come even before profit” (Elbo, 2002).

Implementation Plans. Lack of implementation plans and lack of leadership usually are the result of misunderstanding of the concepts behind TQM. Managers often delegate responsibilities of implementing the TQM plan to underlings and then require periodic reports be presented to them. This undermines the process by not recognizing that TQM is the most important part of the firm’s mission and leads to its survivability or failure in the future. This delegation also gives the appearance that TQM is not very important to the company, so employee commitment will not be great. Combined with the confusion and management’s lack of understanding of TQM, mixed signals may be sent from the upper levels of the company to the lowest levels. Without clear goals and direct leadership, chaos and fear rule the company: fear about losing jobs, fear about doing more with less, etc. No one knows what to expect.

Measurement and Feedback. The lack of effective feedback usually occurs because no one wants to be the one who rocks the boat. Management just wants to hear how successful TQM is and not that things are not working. Fear of reprisals becomes a great concern. So going through the motions becomes commonplace.

Measurements may be designed without any real basis for tangible measurement. Imaginary goals are achieved that will not reflect anything of value. On paper, things always appear to look great, but the real goal of increasing customer satisfaction is not being measured. If it is attained by means of customer satisfaction surveys, the information may not be disseminated to the employees. No measurable results are learned, and therefore no actions can be taken to achieve greater customer satisfaction. Only meaningless goals of how well TQM is being implemented are reported. TQM becomes the Albatross around the company's neck. Somewhere, somehow they have lost the way (Hoare, 1994).

Quality Standards. As the values of TQM become more apparent, benchmarks and standards are established to help correct the earlier erroneous ones that have no real measuring capabilities. To ensure that the company is providing quality to its customers, companies turn to quality measurement tools such as the Six Sigma and ISO registrations.

Six Sigma. Motorola popularized the use of stringent quality standards more than 30 years ago. Six Sigma is a quality standard that establishes a goal of no more than 3.4 defects per million units or procedures. In fact, most people will learn this concept in a statistics course. Sigma is the Greek letter that defines one standard deviation from the mean under the normal curve. At One Sigma, it covers two-thirds of the area under the normal bell-shaped curve. At Six Sigma, it shows the highest quality standard for organizations to achieve.

The ISO 9000. The ISO benchmark is a registration process that measures manufacturing and environmental practices. ISO stands for the Switzerland-based International Organization for Standardization program (Savastano, 2002; www.iso.ch). ISO set uniform guidelines for process to ensure that products conform to customer requirements. The ISO 9000 standards are the internationally recognized standards for evaluating and comparing companies in the global marketplace and are the prerequisite for doing business globally. At present, there are only a few such benchmarks by which to compare. As time progresses, more and more benchmarks will be developed that will assist in a tangible measurement of quality provided to the customer.

Employee Empowerment. The most overlooked and underutilized emphasis is employee empowerment (Tang & Crofford,

1995/96). Employee empowerment doesn't mean giving free reign to the employees to do what they think best, but rather a utilization of employee skills and knowledge to guide them and the company's growth toward fulfillment of the TQM concept: customer satisfaction. Management must carefully guide and encourage their employees through training, recognition, and rewards so as to not alienate them and bring about a decline in morale. With the proper training, recognition, and rewards systems in place, a company is well on its way to successful TQM implementation.

Employee empowerment spells the difference between success and failure in the quest for TQM (Gatchalian, 1997). Know your employees and their abilities. Your company hired them for a reason. Find out what that reason is. Use the personnel files of your company to find out about your employees. Their personal backgrounds, education levels, military background and training, technical training, and on-the-job training are right there for your perusal. Get to know your employees personally. Find out what interests and hobbies they have. There are cases where employee suggestions resulted in substantial savings for the company in improved methods of doing a task by reducing wasted time, effort, and resources. Knowing your employees will help you determine the strengths of your employees and place them in better positions for greater empowerment within the company. The expression "You are only as strong as your weakest link" still holds true today. A company is only as strong as its employees.

Training. "Teamwork is a result of successful empowerment of people within the organization. Human resources are the major assets of the organization and their skills and brain power must be effectively honed and harnessed through training and participation in the development of company's mission/vision/plans (MVP)" (Gatchalian, 1997: 431-432). Your employees are the ones who do the job and often have suggestions for doing the job better. Use their knowledge, skills, and experiences to find new ways of improving quality and thereby increase customer satisfaction. Empowerment means just that - empower your employees, don't hold them back!

A foundation of training in skills and knowledge is essential in all aspects of the business. Skill training is evident to success of the business. Training, behind TQM concepts, is essential for employees' understanding of

the organization's mission statements. To better integrate the concept of team empowerment, the employee must first understand what it is they are attempting to do. Without a clear focus on the mission, it becomes easy to lose your way towards achieving the goals you set for yourself. Regular and periodic training seminars prove to be essential to maintaining a straight course toward the goals. It is all too easy to become confused and distracted along the way as problems arise without regular reinforcement through training. The training seminars are also an excellent means to share problems with others and solutions for problems others have found. The whole goal of empowerment is in the sharing of knowledge. "With the best of intentions, we can make an error of judgment. Not to benefit from the error would be to add negligence to the charge" (Hoare, 1994: 6).

Recognition and Reward. With these problems of successfully implementing TQM into the workplace comes the problem of motivation. Use your personal human relations skills as well as referent and expertise power, not company position power, in achieving your goals. Motivation should allow voluntary willingness instead of dictatorial force. But not all employees may be willing to change, so occasionally these situations may require a more forceful approach - perhaps a dismissal or firing. Disagreement is valued, but destructive and disruptive behavior and attitudes can derail the TQM process. It is important that all are willing to put forth effort to implement the changes.

Directors and managers have the opportunity to facilitate "pride and joy in work" (Hoare, 1994: 5). Recognition and awards play a large part in the motivation of employees, but can be undermined by simple seemingly unimportant things. Imagine an upper level manager handing out a reward to an employee he (or she) doesn't know, mistakenly refers to the employee as someone else while presenting the award, and has little or no knowledge of the purpose of this award. Simple things like these can kill motivation quickly. The importance of knowing your employees and what they do for you and your company can not be stressed enough.

Along with recognition and awards come rewards and responsibilities. As people prove themselves time and again, rewards and responsibilities become necessary. One of the goals of the company is to increase profits and

maximize shareholders wealth. Rewards come in various forms, more commonly as monetary rewards. The most common shareholders are those that have invested money in the company in stocks and bonds, but the company employees are also stakeholder of the organization. They may also have invested part of their pay in company stocks and bonds through retirement savings programs. More importantly, these employees have invested their work lives in the company. They should be rewarded by sharing the profits they help generate. Profit sharing plans and employee suggestion rewards are but some of the ways companies use to show value for their employees.

The reward of increased responsibilities can vary from advancement in employment status to achieving a position with a title to include acquiring an office. Prestige is an important factor to consider in meeting employees' expectations. Make sure that employees are valued for their work, thoughts, and ideas. The use of prestige can not be overemphasized. When you value your employees, they will value their company and their jobs within the company.

The process of implementing TQM requires, in many cases, a trial and error process; especially as new ground is broken. The steps the company takes, along the journey, must be built on a strong foundation. The foundation must be built on top management's "commitment, empathy, personal power, management by example, and fairness" (Babbar & Aspelin, 1994: 36). As the process continues, reevaluation of these steps will become necessary. Steps such as "recognizing the need for continuous improvement, accepting change and innovation as essential, developing a vision with a customer and quality focus, sharing the vision, eliciting total participation, restructuring and empowerment, educate and train, motivation, recognition and rewards, all lead to the celebration and revitalization" of the company (Babbar & Aspelin, 1994: 36). But remember that after all this, "the journey's just begun". The process is like continually being on a treadmill. The TQM process is indeed a long-term prospect. The journey won't be easy, but the rewards can be great if you persevere and keep trying. Senior managers need to develop a thorough understanding of TQM by committing time and reading books, articles, attending conferences and classes, and

visiting other companies to view progress they have made in TQM (Dale & Cooper, 1994).

This paper has only scratched the surface of the material available to managers on the subject of TQM and how to avoid the pitfalls along the way as it is implemented. Some of the common problems of TQM have been addressed, but as time goes along, further research will bring to light more solutions to these problems. The most important problem to address will continue to be that of "the lack of top level management's involvement" (Babbar & Aspelin, 1994: 36). Top level management is solely responsible for the implementation of the TQM process, and their efforts will determine the degree of success or failure that is achieved.

Rezumat

Această lucrare examinează conceptul de managementul calității totale (MCT), variate proceduri de implementare și problemele întâmpinate. Prin MCT se înțelege definirea culturii organizației prin sprijinul și efortul constant de satisfacere a clienților printr-un sistem integrat de instrumente, tehnici și training. MCT poate fi privit ca o îmbunătățire continuă, centrată pe client, impulsionată de angajați și este integrat în cultura organizației. Dacă nu este implementat în mod adecvat, MCT poate conduce la înstrăinarea forței de muncă și descreșterea satisfacției clienților. Articolul examinează, de asemenea, aspecte legate de calitatea produselor și serviciilor, satisfacția angajaților, satisfacția clienților și crearea unei situații de tip câștig – câștig pentru actorii organizației.

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