The total quality management (TQM) philosophy provides the framework by which continuous improvement is possible in an organization. It is a people-oriented, measurement-driven, customer-focused management philosophy using structured, disciplined operating methodology[1]. A simple way of thinking of TQM is doing the right thing right, the first time, on time, and all the time.

While US industry has supported the TQM principle in theory, it has struggled to implement its practice in a cost-effective manner. A.T. Kearney, an international consulting firm in Chicago, reports that in the late 1980s poor quality products were estimated at 10 to 20 per cent of sales dollars in the average US company. This figure constituted from two to four times the average profit margin. In general, manufacturing was spending 25 per cent of its sales dollars fixing quality problems and some service industries were spending as much as 40 per cent of operating costs to fix similar problems[2].

Crosby[3] has looked at this expenditure for quality and states that quality is conformance to requirements, ensuring that the customer receives what is promised each and every time. His basic measure of quality is zero defects. Utilizing this standard, he then employs his basic measurement, which is money — how much it costs the organization to do it wrong as opposed to doing it right the first time.

Even when a quality focus does exist in organizations, the people who shape these efforts are still restricted. One 1990 survey by the American Society of Quality Control reported that more than 36 per cent of employees in United States organizations do not participate in quality improvement programmes, even when a quality programme currently exists in their facilities. In one particular study of some 1,237 employees, it was noted that one out of every four employees was dissatisfied with his/her company's quality programme[4].

Harari[5] similarly notes that American companies often fail to utilize employees and customers. Less than 30 per cent of employees are utilized in

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TQM programmes with regard to their ideas and suggestions and even fewer customers seem to be involved in the development of TQM programmes. If employees and customers are not involved, then what would the shelf life of such programmes be? Apparently American companies rely minimally on the suggestions of both employees and customers. With such feeble efforts, is it any wonder that many organizations decide that TQM is not producing a sufficient benefit to warrant its continuance?

Comparison of TQM versus Traditional Management
The day-to-day operation of TQM is inherently different from management approaches which are characteristically associated with American industry, particularly that of manufacturing. Listed in Table I are several points first noted by Saylor[1] and restated by the authors.

TQM Guiding Principles
The principles of TQM presume full commitment from all levels of management in both words and actions to a process in which quality is an integral part of production. The company is seen as a dynamic, customer-driven organization which is constantly responding to changing customer needs and technology advancement. Continuous improvement is a daily process in which all levels from the floor to the CEO have responsibility and ownership. The central directive in this organization is to involve people...all people...in this improvement process. Employees jointly develop and own a vision of the organization, participate in the necessary training to accomplish this vision, and are empowered with sufficient authority to produce the quality standard represented in the vision. As success is achieved, employees are regularly recognized and rewarded for their efforts. The organization is involved daily in benchmarking and measuring the input and output of the working environment. Customers are constantly surveyed to determine their satisfaction with products which are received and this customer concept is extended back into the organization to include internal customers (e.g. those individuals who receive the work of others in an assembly process in a manufacturing facility).

<table>
<thead>
<tr>
<th>Traditional management</th>
<th>Total quality management</th>
</tr>
</thead>
<tbody>
<tr>
<td>Looks for quick fix to problems</td>
<td>Adopts a new management philosophy</td>
</tr>
<tr>
<td>Fire-fights problems in a reactive style</td>
<td>Structured, disciplined operations which analyse for prevention</td>
</tr>
<tr>
<td>Focuses short-term to meet production at any cost</td>
<td>Stress long-term, continuous improvement</td>
</tr>
<tr>
<td>Inspects for errors after product is produced</td>
<td>Prevents errors and emphasizes quality of design</td>
</tr>
<tr>
<td>Decisions based on opinions of a few key people</td>
<td>Decisions on data-driven facts drawn from many people</td>
</tr>
<tr>
<td>Motivated by profit</td>
<td>Motivated by customer satisfaction</td>
</tr>
<tr>
<td>Throws resources at a task</td>
<td>Uses people/resources to improve</td>
</tr>
</tbody>
</table>

Table I.
Responding to Changing Market Conditions

Quality is not sufficient in itself to guarantee the success of a company. Occasionally, management focuses totally on the quality of the product and forgets about the consumer interest, needs, and changing market conditions. For example, one of the past winners of the Malcolm Baldrige Award, an AT&T facility, recently announced a closure date, at which time 1,000 people will lose their jobs. How can it be that an award-winning facility closes a short period of time after winning the Malcolm Baldrige Award? AT&T says it is because management lost sight of customer needs, changing market technology, changing market conditions, and the changing marketplace. As a result, AT&T is saddled with a facility producing excellent quality, but with products no one is buying[6].

Harari[5] notes a similar circumstance when stating that some managers tend to become internally focused, and lose sight of what is occurring in the external world. The preoccupation with TQM by top management serves to diminish managers’ attention to the external factors affecting the organization and its products, such as shifting preferences of customers, as well as changing marketplace conditions and technological improvements. Internally focused managers may, in the eyes of the customer, produce products that are outdated, misguided, or unacceptable. Harari refers to one manager’s comments to a colleague of his that “before we invested in TQM, the rap on our company was that we turn out poorly-made products that customers do not want. Now, after TQM, things have changed. Now we turn out well-made products that customers do not want”.

Why TQM Fails

Lack of Total Ownership of the TQM Process

Managers cannot delegate quality. They seem to fail to understand that quality must be ingrained in everyone who receives a pay cheque from the organization. It must be central to everyone’s job description and job role. They fail to understand that quality must be an obsession for everyone within the organization. A common perception in upper management is that quality is the domain of the quality department. As a result, many members of top management presume that the quality department is totally responsible for the quality in the product. Therefore, this absolves them of being personally accountable for any significant effort to increase quality. Many managers simply fail to recognize that quality really must be the foundation of their company’s strategy and strategic planning, as well as its daily operations.

Trying to Create TQM with the Use of a Consultant

Contributing to the difficulties of implementing a significant quality programme is the proliferation of consultants who regularly offer their services to organizations interested in developing TQM programmes. Ernst & Young indicated that 945 different quality management tactics were being utilized in the TQM marketplace[5]. Which technique is correct? On occasion, consultants in the field actually add to the problems of TQM programmes rather than resolve them. TQM consulting is apparently very lucrative for consultants, but the value
of these consultancies to the organization needs to be evaluated carefully and
the appropriate person selected to fit the facility’s needs.

Further, as an outsider, the consultant must bring both knowledge of TQM
and understanding of the organization together to build an atmosphere of trust
in a facility. The capacity to shape a general knowledge of TQM to fit a specific
organization requires establishing open communication with all levels of the
organization[7].

Lack of Incentive for Involvement
A common failure of companies which attempt to implement TQM is their
unwillingness to provide incentive for employee involvement in the TQM process.
Lawrence Schein[8], programme director for quality research for The Conference
Board, reports that within 200 of the Fortune 500 manufacturing and service
companies, 86 per cent give quality achievement awards to individuals and teams.
From that group, 75 per cent provide recognition and/or rewards on a unit or
plant basis. Non-cash awards are provided to personnel in 45 per cent of the
manufacturing facilities while service organizations are more inclined to combine
cash with non-cash awards.

Both manufacturing and service organizations prefer non-cash awards for team
efforts towards quality achievement. Only 6 per cent of manufacturers give cash-
only awards[8].

Leadership Failure
Failure of upper- and middle-management to commit to the total quality process
is a major barrier to TQM. Schein reports that this obstacle was the most
commonly cited failure to implementing a new, comprehensive programme[8].
Additional evidence of the involvement of top management in the failure of TQM
is noted in the 18 May 1992 edition of Fortune[9] in which it is reported that:
‘A quality programme works only when the chief executive visibly backs it... A
quality effort that doesn’t have such leadership is a recipe for disaster’. According
to the Fortune article, the reasons for TQM failure on the part of top management
include the following points:

- Failure of the CEO to work with employees to develop a vision as to what
  the company should be and where it is going.
- Failure to focus the quality effort on customer service.
- Too much emphasis on cost cutting and not enough effort on providing
  quality customer service.
- Failure to lead the company in questioning everything...every procedure,
  every idea, every way of doing business in the past.
- Failure to create small teams, whereby employees develop the confidence
to solve problems related to their jobs and to the product they are making.
- Failure to encourage employees to make suggestions and then to allow
  employees to follow up on their suggestions and make necessary changes
  as they see fit.
This failure to commit is frequently seen in the half-hearted endorsement which top leadership give the new programme. Harari states that the TQM process, on the part of top management, often lacks the passion and the excitement that is sorely needed to ensure the success of such programmes. In an analogy, exciting music is more than playing appropriate notes. It is the passion and the excitement with which a Rubinstein played the piano, as opposed to merely touching the notes, that made all the difference in the quality of his music.

William Muzak[10], manager of a Bridgestone/Firestone textile facility in Canada, indicates similar reasons why management has much to do with the failure of TQM programmes. He states:

- Management often views programmes like TQM as a quick fix, something that will take care of their immediate problems, rather than seeing such a programme as a long-term investment. As a result, TQM goes by the wayside in a similar fashion to other programmes that the corporation has undertaken in the past.

- Managers and organizations often fail to “walk the talk”. For example, top management may appear personally to support TQM programmes, but frequently delegates the responsibility for implementing the programme to others lower down the organizational chain of command. These key top people then become limited in their own involvement with the programme. Consequently, upper management offers little of its time to personal endorsement towards TQM’s success.

- Management often fails to understand that TQM can only take place in an environment where mistakes can take place, and where problems are solved rather than blame is placed.

- Management often fails to work with people who remain in the organization after downsizing, assuring them of job less continuation in the future. For example, management must give assurances to employees that, through TQM programmes, and other productivity gains, that no employee is going to lose his or her job due to these improvements. Management often fails to let people know that they will not be replaced simply because they found a better way of doing the work. When management fails to provide these assurances, then their employees lack motivation to contribute to a process that could cost them their employment. For this reason, many TQM programmes fail because employees see them as vehicles to put themselves out of business.
Not Measuring the Effects of TQM
A TQM programme requires measurable expectation of work and product. Menon[11, p. 12] outlines the less continuous improvement steps which are routinely followed in TQM:

1. identify the problem;
2. quantify the problem;
3. identify the root causes;
4. take actions to rectify the problem;
5. quantify the effects of the actions to determine whether the problem has been solved;
6. set up systems to keep the problems from recurring.

As demonstrated above, routine TQM process requires quantification of the workplace. However, often management fails to measure adequately the TQM process and therefore cannot produce tangible evidence of improvement[12]. Benchmarks must be established and quality standards tracked against those baselines to determine the success or failure of the programme efforts[13].

Poorly Developed Vision/Unwillingness to Follow that Vision
Companies attempt to improve quality without a clearly-developed plan or strategy. Organizations need a long-term outline of current conditions, future goals and specific strategies for reaching those goals developed by a wide array of personnel. This final product should be put in writing[14].

While visions and strategies should be regarded as dynamically responding to market and technology changes, these quality strategies in American companies, as ordained by top management, seem to change with the weather. A study by Ernst & Young found that not one single quality strategy has become habitual within any US industry. No company did the same thing for 90 per cent of the time.

In developing a vision, the organization must understand that the quality programme supports the company’s efforts to generate a cost-effective, customer-desired product. It is possible to overcommit to a TQM programme in a legitimate attempt to improve quality. Harari[5] describes the process as one in which TQM programmes demand sequential, orderly, and quite predictable processes to succeed. As a result, one sees the development of predictable, orderly, bureaucratic systems generated to support the TQM process. The result is increased forms to fill out, new committees and councils, additional meetings, etc., and an increasing number of staff personnel to handle the entire TQM process. Harari calls this the need to “police” the entire TQM process.

Unfortunately, many TQM managers see the TQM process as a number crunching, paperflowing process that usually develops a life of its own within the organization, subordinating other routines and processes of importance to the organization’s success. A good example of how bureaucracies can develop around TQM programmes is the case of Florida Power and Light Company. The quality department utilized 85 full-time individuals to monitor over 1,900 quality teams. The gains in quality were absolutely minimal; employee stress
and depression because of the process were much more significant than the gains in quality. Florida Power and Light has disbanded its bureaucracy. Its TQM structure and the quality department is now headed by six individuals.

**Poor Ability to Communicate with the Workforce**

Another reason TQM programmes fail is that management fails to give appropriate information to employees. For example, top management fails to help employees to be able to answer such questions as: Where are our competitors? What are our own company’s strengths and weaknesses? What are the strengths and weaknesses of our competitors? What is the information concerning the sales and profits of our company? Who are our most significant customers? What do our customers expect from us? How satisfied are they with what we are giving them? In some cases, employees have come to distrust the information which flows from management. Frequently underlying this distrust has been a lack of willingness on management’s part to involve employees in the decision-making process. A lack of fairness has been perceived as existing in the organization and many employees fear reactions from management if they, the employees, attempt to identify problem areas to the organization[15]. As TQM is presented to the workforce, management feels resistance as workers look for hidden agendas and fail to accept the new procedures as genuinely seeking and valuing their input.

**Prior History of Workforce Produces Resistance**

Another reason why TQM often fails is that, due to the bureaucracies formed within an organization, the breakup of such bureaucracies and predictable systems is discouraged by top management. In reality, the organization tends to find a comfort zone, and the destruction of this status quo is fought with great rigour. As a result, TQM programmes must fit within this bureaucracy, management’s comfort zone, and the status quo. Miller and Harker[16] referred to this prior history’s influence as dealing with the cogniterture of an organization. The cogniterture represents an organization’s past history, beliefs, structure and procedures for doing business. Consequently, a manufacturing facility with a 20 year history of producing a product in a specified way experiences substantial resistance as people from top to bottom ask “Why should we change? We have always been profitable working the old way”.

However, for quality to improve, emphasis must be placed on new strategies, new techniques, new and novel ideas, what the customer thinks and what the market demands. TQM also demands a bottom-up approach to quality that emphasizes patience and distrusts obvious answers which may obscure the deeper problems underlying quality[17]. This is very difficult to accomplish if top management does not lead the group in the destruction of the status quo so that there is vitality in the organization, interest in what is best for the customer, the constant encouragement of finding new ways to improve the product throughout the entire organization. In short, the bureaucratic, comfortable, organizational structure destroys entrepreneurship, and that
destruction is also the destruction of successful TQM programmes. It has been stated that success in the business world beyond the 1990s will depend on management’s ability to instigate and nurture organizational chaos. In the future, according to Peter Drucker, organizations must be organized for innovation. Drucker defines organization as ‘creative destruction’. For example, Microsoft insists on destroying its current products only to replace them with new products customers will find exciting and useful[5].

Union Opposition
When a company-wide TQM programme is implemented, changes must occur in that organization. Business simply is not conducted in the same manner as it had been in the past. Streamlining through downsizing and combining of areas frequently occurs as employees become extensively cross-trained and team-oriented. If the employees in the facility undertaking the TQM programme are represented by a union, the bargaining committee may be resistant to the new concepts. This resistance is frequently produced because of fear that the changes will undermine the protection the union has built up for its workforce. The possibility of reclassification exposes some of its employees to mandatory bidding for alternate jobs as they lose their eligibility for the new classification. The union also expresses concern that seniority will be compromised. One workable approach for overcoming the union’s concerns is to include the committee in the planning process prior to the implementation of TQM. Allow them to see how job protection is possible through retraining.

Short-term Profitability Overrides Long-term Plan
Top management frequently fails to compensate management of the organization for quality improvements. In other words, TQM processes are developed and passed on to lower level management as required responsibilities of their roles. Less than 20 per cent of the automobile, banking, health care, and computer industries, according to Ernst & Young, focus on quality performance measures such as customer satisfaction and quality defect rates, as a way of determining senior management compensation[5]. Profitability seems to be the only interest of too many organizations, not compensating top management for improvement in these aforementioned measures related to quality.

Underdeveloped Relationship with Suppliers
Top management fails to realize that a positive, integrated relationship with suppliers is absolutely essential to the success of TQM programmes. Concepts like trust, ethics, mutual support and honesty are important parameters within which a company and its suppliers must begin to operate. Developing a substantially different relationship with suppliers today is absolutely essential to the success of a company, and this relationship should become a part of the TQM process. Because many managers fail to understand that concepts such as these are important to the success of TQM programmes, the success of such programmes will certainly be in jeopardy. Obviously, management must
modify the perception that TQM is the province of management and teams within the organization alone. Without a good relationship with suppliers, customers and employees, total quality is an impossibility. This means that suppliers are not messed about, abused, threatened, cajoled, and deliberately put out of business. How can a supplier be interested in what is best for any company if that particular company hammers it and threatens its security?

Lack of Worker Empowerment
Two primary issues arise to oppose TQM efforts. One is lack of recognition of the employees within an organization as resources and customers. As internal customers of the organization's product, they are aware of the deficiencies of the product and the process. At Federal Express an annual attitudes survey is conducted to ask employees their candid opinion of how the company is doing[18]. MCI surveys its employees every 18 months[19]. In both of the preceding companies, the key to the survey process is the company's response to the employee input...responsible company action to address the major concerns of the employees, which is the second major issue of empowerment.

The annual survey process and management's subsequent response to the results is a positive step towards empowerment. However, to implement fully a TQM programme, employees must be involved on a daily basis in evaluating the quality efforts of their company and given authority to act when quality standards are not being met. Organizations must avoid the common error of relying too heavily on management staff for improvement of service quality in line performance. While this group can provide research, training and strategic insight into the necessary components of a successful TQM programme, an organization must include the line personnel in the quality-improvement process.

Support for the Team Concept
The fully functioning TQM programme relies heavily on teamwork. Some of these teams, such as kaizen programmes, have a very short life-span as they accomplish their purpose and disband. Others such as cross-functional project teams may exist longer. But the true TQM employee empowerment is embodied in self-directed work teams. These teams are theoretically given the authority to shut down equipment if they feel safety or quality standards are not being met. The capacity to implement fully such team-driven programmes has met with substantial resistance throughout the US even though management agrees with the concept of the empowered team. At Milliken & Company, which manufactures carpets and is a former Malcolm Baldrige winner, Hardie[20] reports on the barriers the company has encountered. Management and associates (employees) learned that they did not really know how to communicate and particularly, how to listen to one another. Further, since the company had previously used individual incentive programmes, it met substantial resistance in focusing its associates on quality and removing an incentive programme which paid for production and not quality. As it moved to teams, employees complained about the loss of wages and upper, middle and lower management (in that order)
had to learn the importance of the empowerment process to the future of Milliken. Training proved to be key to that conversion. In 1990, that company averaged over 90 hours of formal training per associate[20].

Summary
As one would expect, industry throughout North America widely embraces the philosophy of TQM but struggles to implement the mechanics of the programme[21,22]. Gloria Kazarian of Human Performance Engineering provides the reader with several additional points to consider for the successful installation of TQM[23]. Your authors also feel that they are pertinent to the TQM process and focus several key issues discussed earlier in this article:

(1) **Top down commitment.** As discussed earlier, top management must be a continuous, visible advocate of TQM. Kazarian suggests that it is better to be a staunch observer to the passing bandwagon of TQM than to jump aboard indiscriminately and stir up unsettling dust which then obscures the progress of the programme.

(2) **Empowered management leadership structure.** The emphasis here is on training efforts which develop the required leadership competences for TQM. The management framework must then: unfreeze the factors in traditional management that stand as barriers to TQM; learn new behaviours which augment the TQM process, and install incentives to reward TQM-related behaviours.

(3) **Create trusting environments.** The organization must set the platform for open communication, shared information, risk-taking without reprisal, and employee involvement and development. These trusting environments reduce the need for hidden agendas and defensive, guarded behaviours.

(4) **Eat the TQM elephant one bite at a time.** The table must be set before this meal is undertaken. Implementing TQM involves an extreme paradigm shift involving the political, structural, and cultural facets that form the foundation of traditional management. When the necessary groundwork has been prepared, the meal is undertaken, one bite at a time. Customers (both internal and external) are consistently asked to rate their satisfaction level with the meal (product).

References


