

Total Quality – A Strategic Issue for the 1990's

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Introduction

Having been involved in implementing Total Quality (TQ) in Pakistan, I am often asked about the progress being made by organizations in implementing TQ as a strategic issue. Unfortunately, there is no reliable local research reference to quote. However, based on our research of 50 companies of medium size (500-300 employees) an examination was made of key issues as they impact TQ. The first point to note is that in spite of all the awareness and success being achieved at ISO 9000 front, only 6 percent companies are either working or have adapted TQ as their business strategy. The results are:

⇒	Companies having a knowledge of TQ	30%
⇒	Number of companies introducing TQ	6%
⇒	Number of companies wanting to introduce TQ	14%
⇒	Companies with no knowledge of TQ	70%

Regarding the reasons of pursuing TQ and hence the key targets for improvement, results showed potential for improvement in a number of areas grouped into three main headings:

⇒	People (employees, clients/customers, related)	50%
⇒	Process (systems, procedures and processes)	30%
⇒	Product related	20%

It was of great interest that area for improvement such as people featured much higher than in 1990 when it secured only 20 %. At an organizational level, the majority of companies implementing TQ had made significant changes to their organization. The research looked at the whole range of quality improvement activities and identified where effort was being made. The results came out as follows:

⇒	Human Resources	52%
⇒	Process Control	18%
⇒	Quality Systems (ISO 9000)	30%

So what does this tell us? Firstly, very few organizations are addressing TQ. It is assumed that this is either because the benefits are not clear or the realization that TQ is the key to successfully achieving the business strategy has not arrived. Secondly, there seems to be a lack of coherence in pulling together the main elements of TQ which are People, Process and Product. Isolated programs focusing on one or the other only will never achieve the maximum potential for sustained continuous improvement. My conclusion, based on the research and our experience, is that more and more businesses are wanting to implement TQ as a means of securing their long term future but environmental pressures, mostly short-term, detract from getting an organized plan put in place.

Furthermore, the various approaches that are being tried cause so much confusion, and in many cases lead to poor results, that the business executive puts off any attempts to get started.

What is the Best Approach?

From our experience of TQ implementations in Pakistan, I would say that there are several approaches being attempted with varying levels of success. One overall factor comes out that successful TQ implementation takes 3 to 5 years. Also the companies which have failed often take three years to reach a recognition of failure. These approaches can be categorized as:

1. Talking only
2. Training only
3. Problem solving only
4. Copying only
5. Customizing and tailoring

Talking Only

The "Talking Only" approach to TQ is classified by the "big bang" announcement from the CEO to the senior management, sometimes accompanied by various handouts or booklets or even videos distributed to top managers collected during a participation in a TQ seminar or a conference abroad. The material will highlight the need for Quality and Teamwork. Momentous are given out liberally quoting the slogan for TQ. The company newspapers supports the campaign with photos of the key teams and lists plans for big events in the future. In some cases this can bring success. But in most cases this approach to TQ fails within about six months. This makes employees cynical and the chances of introducing an effective TQ initiative in the future are very slim. Often the failure is due to a lack of real commitment by senior management to TQ. Company wide communication on TQ is necessary but it has to actively involve people and actions have to result in Quality Improvement. It should provide employees with the satisfaction of having achieved something which is worthwhile continuing. This approach to TQ is most common in companies who have decided to launch TQ without outside assistance. It does not mean that there is not a real wish to have a TQ culture but the lack of association with the business objectives is where the basic flaw lies.

Training Only

TQ starts with Education and ends with Education. It is a clear indication of how vital education on business needs, business objectives and Quality Management Improvement Tools is to the successful implementation of TQ. TQ is eventually going to involve everyone in the organization from top to bottom and across all departments. In most organizations currently less than 5% of the employees understand Quality and less are involved in doing something about improving Quality. Of all the subjects impacting business today, Quality is the one most written about in every newspaper, technical journal and management books. It is probably also the most talked about at seminars, conferences and other business events. It is also without a doubt the most misunderstood concept of modern management, certainly in South-west Asia including Pakistan. Therefore, a key element (but only one element) of introducing TQ is Education and Training.

Classroom education alone is not sufficient on any topic and this is particularly true with the tools of Quality. Education has to be linked to an experience in order to be of any value. It follows that setting up TQ as a long running series of classroom education provides no real lasting benefits. The consultants who choose this route are the one who somehow are good talkers, have had a foreign tour in the last year or two and have been successfully able to collect some information, training material, and videos. With all this resources in their hands, became consultants by default. Like a forest fire, after the heat of the action, nothing happens after the event.

Problem Solving Only

There is a bit of a misunderstanding about the relationship between Problem Solving and TQ. TQ is a culture where problems are solved by all levels of employees based on the new tools they have been trained in. Focusing only on problem solving can be very detrimental to TQ even if it is based on a genuine root cause analysis. Problem solving can lead to a continuous loop where change in management style and change in organizational culture is forgotten in a drive to yield better and better performance through problem solving. Sometimes organizations try to solve their problems either through implementing Statistical Process Control (SPC) or by introducing Quality Circles. Once again, on their own, such approaches do not provide a lasting change in culture nor do they survive long enough in isolation, to develop continuous improvement.

Another quick fix approach to TQ coming under the category of Problem Solving is where the business wants to become approved to a recognized Quality System (e.g. ISO 9000). This is often initiated by a key customer who insists on suppliers being certified to ISO 9000 or they will take their business elsewhere. This is indeed a problem and one which can be resolved by implementing a system such as ISO 9000 and indeed such a system does imply Quality responsibility across the whole organization, but, having ISO 9000, is not synonymous with implementing TQ. ISO 9000 is only one of the basic building blocks. Problem Solving as a route to TQ either through SPC or Quality Circles or ISO 9000 is an approach used by several of the individual consultants. Such individual consulting boutiques may be suited to tackle few of the sub-components of the assignment but can not be in the position to design, develop and implement a comprehensive TQ effort.

Copying Only

Since TQ is all about involving people and getting measured results from people's efforts, TQ projects must have a strong focus on implementation. There is no standard best practice for implementation. There are no magical steps, however, there are some fundamental guidelines for implementation. TQ must start at the top of the organization, commitment must be cascaded down through all layers of the organization and success must be measured and leveraged to achieve further success across the organization. The cultural issues of attitudes, behavior and beliefs must be constantly monitored to ensure the necessary changes are taking place to bring the organization to the point of achieving the business direction. Some organizations fail by not sufficiently planning the implementation process or worse still they look towards other organizations who are implementing TQ and attempt to copy their approach. Being fully informed on other organization's approach and experience from implementation is very useful but this will fail if one is unable to understand the cultural differences between organizations. Even internally, in a large organization, there can be measurable cultural difference between departments and groups and therefore the implementation process has to be structured accordingly.

Customizing and Tailoring

All companies are at differing stages of maturity in their drive to excellence and the competitive edge that excellence achieves. Even within groups, companies who have reached the same level of maturity will have emphasized different parameters on the route towards excellence. Technology driven companies have typically emphasized procedures (ISO 9000) whereas service companies have made progress with the people aspect of TQ. Organizations whose growth have been through acquisition can be at differing stages on the growth curve, companies with a long traditional history face other problems when attempting to manage the change to TQ. For all these reasons it is clear that any attempt to change culture must be based on a sound measurement of the present culture. For change to be efficient the existing strengths and weaknesses must be recognized. At the end of the day TQ is about the culture of the organization and TQ has to be owned by the organization. TQ and the continuous change process has to be the way of life for the organization. For these reasons, there can only be one successful approach to TQ. This approach has to be based on tailored implementation and since it starts from a critical diagnostic of the present strengths and weaknesses it is extremely difficult for an organization to succeed without outside help. Many of today's failures are due to

companies believing that they know their status and attempting to superimpose a standard approach to TQ. Tailored implementation will contain elements of Education and Problem Solving but the key to success is the customization. Very few companies have the strengths in depth in TQ, in Business Strategy, in Human Resources, in Behavioral skills, Facilitation skills, and Leadership and People Development skills to be able to self develop towards successful TQ. Our approach to TQ is very much structured on the strengths and weaknesses of the clients organization and builds on all the elements of TQ which are already in place. As one progress with implementing TQ, it is always very important to have a vision of what the organization will look like when the TQ culture is in place. For this reason I would like to describe the characteristics of a TQ company.

Characteristics of a TQ Company

Because TQ is an integral part of the way companies succeed with their business objectives, it is quite difficult to be introduced to an organization and to see TQ at work. Some people say that you just know by a feeling that a company has implemented TQ. Of course the visible indicators do help, so long as they are not merely slogans but live charts showing levels of progress. My view is that it has to be more than the above. TQ has to be visible to the employees and to the outsiders. For this reason my measures of the characteristics of a TQ company are four fold - relating to:-

- ⇒ The People
- ⇒ The Process
- ⇒ The Product, and
- ⇒ The Vision of Excellence

People

Firstly all employees should have had an appropriate level of education on the subject of Quality and Quality Improvement. This can take several forms but the end result should be a belief across the organization that Quality performance is important and that everyone has a role to play in understanding Quality. A second aspect of people is that in a TQ company, all employees should be involved daily in quality improvement. This may be through the structured means of Quality Improvement Groups or working as individuals at their daily task recognizing that the tasks must be done right first time every time and constantly searching for new and better ways to achieve quality improvement while reducing costs.

The final point on People in a TQ company concerns the openness of communication. Has the fear been driven out of the organization? Do people feel free to express their viewpoints and to admit if necessary their errors? Is the middle management layer comfortable about the increased communication going up from lower levels or do they still feel threatened. Have the traditional boundaries between departments and work cells been broken down with strong communications seeking to satisfy internal customers rather than defending?

Processes

Quality is a measure of customer satisfaction. Since everyone agrees to improving customer satisfaction there needs to be a methodology and a structure to going about this. The first step is to identify the customer(s). It is most unusual for a business to have only one group of customers. Often forgotten is the shareholder who is a customer for the profits, and the employee who is a customer for many things including education and training. Even with simple products/services who is the customer? For a motorcycle, is it the father who pays the money or the 18 years old son? In a hospital is the customer the aged individual or the relatives who visit and frequently pay for the service?

Having identified the customer, what are the needs and how can performance of the process delivering the service be measured against these needs. At a macro level, the process is the total business. In a TQ company the same procedure is used to the lower levels to set up knowledge of the process and to focus on the needs of the internal customers. Process Improvement involves measuring

the gap and acting on the process (not on the output which would involve sorting and rework) to reduce the gap to zero. In a TQ company, all significant processes will be mapped and will have an owner who has the authority to adjust the process. The next requirement for a TQ company is that the processes themselves shall be statistically capable. That means that 99.8% of the time all outputs from the process fall within the requirements of the customer. Lastly all processes must be cost effective. The initial mapping of processes allows the organization to simplify the business process and to eliminate all non- value added activities. Making a process cost effective is the role of the “owner” and the employees within the process. Using improvement groups and understanding the principles of Cost of Quality, processes can be driven to new levels of cost effectiveness.

Product/Service

One concept that gives great difficulty to business managers is that of Zero Defects. Zero Defects is a standard, a goal and unless everyone accepts Zero Defect as their personal standard, quality of product and service will be compromised. As far as possible, the products and services supplied should be focused on the needs of the customer. Customers today are more sophisticated, more technically aware and more demanding. Advertising and promotion often illustrates the leading edge strengths of the product or service with the result that the customer is aware of the potential value of the product and will buy on his/her perception of value which of course means continuous improvement of quality and performance. However one must not lose sight of the need to reduce cost to bring product/service to the market and the excellent company will be continually striving to reduce costs by eliminating waste, by evolving new and better processes and by maintaining not only the Cost of Quality at the lowest level but also the Cost to Society arising from the product and service at the lowest optimum level.

Vision of Excellence

All businesses want to be considered excellent by their customers, by their competitors and by their own employees. Excellence however is often difficult to define and there are many characteristics to Excellence. Since a secondary goal of a TQ company is to be excellent (the primary goal is customer satisfaction). I have defined here eight parameters on which a TQ company will focus on the road of Excellence.

Prevention Focus: Under short term pressures it is easy to drift into a focus on failure and problems and to set up corresponding efforts to be highly efficient at fire fighting problems. Another route is to emphasize appraisal as a route to reducing failure. It is only when the Cost of Quality philosophy is fully understood that the leveraged benefits arising from “Right first time, every time and on time” is realized and the organization puts more and more investment into prevention.

Continuous Improvement: Most of the companies work very hard, to deliver products and services which “conform to the requirements”. For an excellent company this is not good enough. An excellent company will be continuously looking for ways to do things better.

Company-Wide Participation: It is not sufficient for only a part of the organization to be excellent. In today’s critical market place with more and more sophisticated customers it is necessary for every department and operations, direct and indirect to be absolutely committed to a culture of customer satisfaction. The role of the internal customer helps greatly to make this company-wide activity achievable. Breaking down the barriers between departments and functions can take many years to achieve and one need to be prepared for this.

Performance Measurement: No quality improvement actions can take place or be sustained without measurements. TQ is not a “nice thing to be involved in”, it is a tough measured progression towards excellence. The key is the way in which measurements are made and what is done with the results of the measurements. People do not like to be measured. This is generally because they are under-performing. They know that they have untapped reserves. But that is not the only reason. In most cases, the reason that people do not like to be measured is because of the misuse that management

make of the results by “punishments” rather than “praise” in rewarding improvement efforts. A key building block in a TQ culture is education on and of Performance Management.

Statistically Based: With so many parameters to be measured, there comes a danger of data indigestion. For this reason selective measures based on statistical sampling theory are to be preferred. The excellent company will have all key performance measures monitored based on statistical theory for the prime reason that not only the past can be measured and processes maintained to a high level of capability but the future trends can be more accurately predicted.

Employee Involvement: A non excellent company will be comfortable with 4 to 5% employees responsible for Quality Management. If these core teams keep at it they can do quite well. But what a pity that the other 95% employees are not involved. A TQ company builds on the strength of the Quality Department (the 5%) and educates and involves all employees in managing quality within their own sphere of influence.

Strategic Integrated: TQ has to be completely integrated into all facets of the business. Unless TQ supports and integrates the various strategic initiatives, it will fail, either to get going or to be sustained. It is for this reason that effective TQ companies spend so much time up front on strategic analysis before proceeding with roll out then full launch. Additionally, excellent companies will use the TQ philosophy to integrate all other change programs and improvement initiatives. Furthermore, unless TQ is used as the key to short term and long term strategic achievements then the real life will dominate and the vision of excellence will be clouded by the day to day pressure.

Customer Driven: An excellent company, not only lives on the customer, but also lives for the customer. Every action, every plan will be established based on the needs, explicit and implicit of the range of customers. These customers fall into three categories: (1) The institutional customer (shareholders, board, financiers), (2) The product/service customer (user of the product/service), and (3) The employees (often forgotten as key customers of the business).

A Road Not So Easy

The potential difficulties during the TQ implementation fall into the following categories:

Achieving Cultural Change

The transition to a TQ company involves a major cultural change for employees. They need to recognize that they have responsibility for the quality of their own work, and to understand the effect that their own poor quality may have on their customers, be they internal or external. Managers must recognize that their prime role will no longer be one of supervision of their subordinates, but of continually improving the process under their control. Senior managers must demonstrate commitment to the process, by showing leadership and setting the example. To do this and to keep dealing with day-to-day problems is far from easy. Management and staff have to be convinced of the benefits of changing the way they behave. It is a major problem to gain this conviction without which lasting culture change is not possible.

Poor Communications

A TQ culture demands good communications, without which there can be neither understanding nor trust. Companies should institute regular briefing sessions for all employees. Much more difficult, and ultimately much more important, is the need for a cultural change whereby different functions in an organization communicate openly with one another for the overall benefit of the company.

Results Difficult to Measure

Companies must obtain a clear idea of what deficiencies and gaps exist in customer service, identify what cost-effective improvements are required, and decide what information is needed to monitor the

changes. Without quantifiable, measurable results, and demonstrated success, people will remain skeptical of the value of the process and will not retain enthusiasm.

Initial Results Achieved but then Momentum Lost

Having used an approach that delivers some real benefits in a short time-scale, management then tend to revert back to normal business. This is especially likely to happen if senior management fail to lead the process and set the example. The problem can be avoided only by ensuring that the role of management is changed to one of working within the framework of Policy Deployment to continuously improve the process.

The Time Scale Too Long

In most approaches to company wide quality improvement, education and training starts at the top of the organization and comes down. This process can be as fast or as slow as the companies dictate, but in many companies, particularly the larger ones, this can take years. Lengthy training periods risk either loss of momentum or disillusionment of staff.

A Proven Approach to TQ

We recognize the importance of flexibility in applying our approach since (1) not all companies will have the same starting point for implementing TQ, (2) time scales for improvement may vary between companies or even between different parts of the same company. The approach therefore provides a vision of the process to be followed as well as a plan for implementation.

The Commitment of the Chief Executive

Without this commitment it is really not worth starting. However the way in which that commitment is demonstrated varies. Some CEOs are highly involved in the marketing of quality through presentations and visits. Others take a lower profile, but demonstrate their commitment by personal example. In some companies, commitment is demonstrated by appointing a Director of Quality reporting directly to the CEO with overall authority for quality improvement.

Clear Mission Statement

A mission statement should describe to all employees what the organization exists to do. Properly communicated and a clear statement will allow each employee to evaluate how the work that he does contributes to the overall strategy of the business.

Middle Management Agreement

Middle management can make change happen quickly or stop initiatives. Companies that have embarked on TQ have quickly found that middle management may perceive the TQ as a threat because it challenges their traditional role of supervision the staff within a business. The problem can only be avoided or minimized by proper education and involvement of middle managers from the very beginning.

Clear Definition of Customer Needs

A business must always meet and at times exceed the needs of its external customers that the right internal services are provided and that appropriate service levels are set. Quality Function Deployment (QFD) is an important technique to determine the needs of customers.

Critical Success Factors (CSF)

Every employee must understand clearly the company direction and focus. Start by defining high level statement of the things that the company must get right if it is to be successful, and then break these high level statements down into clear and concise CSFs.

Understanding

This step establishes a common level of commitment and awareness among top management through a series of workshops which will (1) provide them with a basic understanding of the principles and techniques of TQ; (2) will produce a working statement of company quality policy; and (3) confirm the process to be adopted for implementation.

Integrating and Communicating

Communicating the business mission, strategy and vision in a way which obtains the understanding and commitment of all levels of management while empowering them to strive for more and more effective improvements in quality and performance is carried out using Quality Policy Deployment (QFD). A very effective process for structuring QFD is to use the action planning which is ideal as a background to TQ. It is a system that links directly to the strategic objectives and it involves participation and allows co-ordination of all levels and departments and finally it is executed based on measurements and facts rather than targets. Using the action planning each department and function within a business sets achievable objectives and plans based on the overall organizational strategy and vision. The vision which would be a quantified version of the Vision of Excellence discussed later results from understanding the full range of external pressure which can affect the business in attempting to achieve its mission.

Steering Committee

The program of implementing TQ is managed by a steering committee, which has full decision making authority. The steering committee in any organization should be chaired by a senior manager and include the program manager and the functional managers whose areas are involved in the program. The main function of the steering committee is to identify priorities, monitor progress, recommend and communicate policy, coordinate key resources, and resolve conflicts which may arise.

Review

This step looks at the people, systems and costs associated with the quality task. This review identifies the educational and training needs for creating a TQ culture and areas of priority action for quality improvement and cost reduction. Following the review an important early step is to set up measurements, at key points within the business, which reflect the needs of the customer. The next step is to branch onto two tracks. The quick results track is based on priority action driven from a knowledge of quality costs and implemented by task teams. The Change track is delivered through education and training and the widespread use of improvement groups.

Task Teams

Task teams are multi-disciplinary groups set up by management to address specific areas of opportunity. Training is provided as necessary for the accomplishment of the specified tasks. Once the task is completed the team is disbanded unless it is required for another specific task. Task teams may be used for both investigations and for implementation of system changes. The key point is that task teams work to management priorities. Time input by members of task teams may vary depending on the project from a few hours a week to full time involvement.

Education

In all organizations there is the need to extend the understanding of TQ down through the organization taking account of the needs of the various groups at different levels. This education process, using a workshop based approach, can be used both as a communication vehicle for describing management's policies and objectives for TQ, as well as introducing various concepts.

Improvement Groups

Change is however not brought about by education and training alone. Much of the cultural change at operator or office worker level is developed through the use of improvement groups. Improvements

groups are drawn from people within a work area, who identify problems and devise and implement solutions. It is a bottom up activity as opposed to the top down nature of the task teams. Improvement groups are valuable as a vehicle for further education and training, obtaining commitment to the company goals of continuous quality improvement, and achieving local improvements.

Action Planning

Both task teams and improvement groups must prepare action plans for their projects. Action plans must demonstrate an improvement in quality, in customer service or a reduction in cost. In the early days, concentration is often on cost reduction as being the most tangible and the most effective in winning commitment. Action plans must identify the resource requirements, schedules and benchmarks.

Words of Caution

When implementing TQ as a Strategic issue Tackle unpalatable programs before TQ not during or after it. Programs such as restructuring that may have a negative impact on moral or cause major disruption should be implemented in advance of TQ.

Free up Time

TQ will involve a substantial time commitment throughout the organization. The chances of success and of achieving results more quickly and improved if other programs are implemented first to eliminate the most obvious causes of waste and inefficiency.

Choose the Right Approach

Some approaches to TQ involve a program of education and training that progresses down through the organization layer by layer. This process can take years to complete. Education without the scope to apply the learning and coach the learning to subordinates never makes a permanent impact.

Start by Getting Results Quickly

It is important to win some tangible benefits quickly in order to built momentum, to sustain credibility and to generate enthusiasm for the process throughout the company.

Use a Frame Work

A framework, such as ISO 9000, will lay a strong foundation for TQ. However, certification to a Quality Management standard should not be confused with TQ. Nor should it be recognized as such an achievement that the organization sits back and neglects continuous improvement.

Set Clear Objectives

Clarity of objectives is essential. You must have a clear business mission, which must then be broken down into critical success factors and tasks. There must be clear accountability for each task.

Customer Needs

External and internal customer needs must be investigated, and gaps and deficiencies in service documented and addressed. You must also have clear policies for dealing with customers, suppliers and employees. These policies must be understood by everyone, including customers and suppliers, and applied consistently.

Communicate

Employees must understand the objectives of TQ and how they will be expected to contribute. Recognition of group achievement and effort is an essential part of communication.

Get the Commitment of the CEO and the Board

The results achieved by the TQ are generally in proportion to the importance given to it by the company. The CEO must be totally committed to TQ, not just at the outset, but forever.

The Experts

The expert's role in supporting organizations during the implementation of TQ will be to:-

1. assist in establishing the initial business focus for introducing TQ;
2. work with the management team in establishing the implementation process to be followed;
3. use analytical and business skills in identifying the priority areas for improvement;
4. provide education and training, both in the understanding of TQ concepts and for the purpose of introducing and transferring knowledge of technical skills, tools and techniques which can be applied to problem solving situations;
5. support and guide the project management of the implementation process.

Summary

Quality is a measure of customer satisfaction. TQ is a description of the culture of a business which delivers customer satisfaction in all activities. A key part of this culture is the recognition that no deviation from customer requirement is ever acceptable, leading to a process of continuous improvement. To introduce a TQ culture effectively will take three to five years in any business. However, management will not support a program that does not produce early tangible results. To overcome this paradox one has to use a twin track approach to implementing TQ. To introduce TQ there are five main requirements:

1. understanding what quality is;
2. integrating TQ with the business strategy;
3. communicating and involving all levels of management in the business mission, strategy and vision;
4. organizing for continuous improvement; and
5. delivering improvement by the use of quality improvement tools & techniques.

In order to obtain early results, it is necessary to identify the major opportunities for improvement and to select the appropriate tools and techniques, in advance of any attempt to create a company wide culture of improvement. Early successes in these applications are used as the foundation for demonstrating management commitment to be involved and to support cultural change. Quality demands a good investment of time any money to fund a big return. To hit the big benefits, quality has to be revolutionary. It is the high-stakes business and one need to be quite selective on the selection of consultants.