3.1. Origin of the Quality Management Concept

The Quality Management System is a management approach that originated in the 1950's and has steadily become popular since the early 1980's. Quality is the conglomeration of the culture, attitude and values of an organisation that strives to provide the customers with the products and services that satisfy their present and future needs. In order to have this in position, all the aspects of the operations of the organisation and its processes are set right at the first time itself and defects controlled to the maximum possible extent. Quality management is a methodology in which management and employees work hand in hand for the continuous improvement in the production of goods and services. It is a judicious blend of quality tools and management tools aimed at increasing business opportunities and bringing down losses due to wasteful practices. Some of the organisations which have implemented quality management practices successfully in the very early stages include Ford Motor Company, Phillips Semiconductor, SGL Carbon, Motorola and Toyota Motor Company, IS/ISO 9001:2000 describes the quality management practices followed for meeting the requirements of the quality management systems.

3.2. The framework of ISO 9001:2000

It is a strategy that is based on Continual Improvement of all the processes, empowerment and involvement of people, progressive learning,
thereby creating the transformation towards an entity that will provide world-class products and services. This management system is the outcome of a dedicated effort seeking to evaluate and improve the quality of goods and services. Much can be achieved by practising innovation and fostering creativity, but competitive advantage is sometimes affected by continuous process improvement. Quality management is an established field of study where academicians, consultants, engineers and quality practitioners have contributed their mite towards its advancement. Deming (1986) provides an operational definition for quality management system, which gives a motivational outlook to the concept. Sink states that quality management system can be successful only if the operational definition is translated into strategies by the leadership of the organization, which in turn, are crystallised into actions and communicated to all the people with conviction and clarity.

However, it may also be viewed functionally as an integration of two basic functions, i.e. total quality control and total quality management. Total quality control is a long-term success strategy. Customer Satisfaction, employee satisfaction, product quality assurance in all its stages, and Continual Improvement and innovation are the main phases of total quality control (Aravati and Mokhtar 2000). Quality management is a way of planning, organising and directing that will facilitate and integrate the capabilities of all employees for Continual Improvement of anything and everything in an organisation to attain excellence (Anthony et al.2000). Thus, quality management system in an organisation brings all the people together to ensure and improve the quality of products and processes, the work environment and the work culture.

It is also a management philosophy that seeks to integrate all the functions such as marketing, finance, design, engineering, production and customer service, so as to align the customer needs with the objectives of the
organisation. An organization is viewed through the management of a set of processes, which states that it must strive to improve these processes continuously by incorporating the knowledge and experience and expertise of the workers. The simple objective of a quality management system is "Do the right things, first time and every time". Even though it was originally applied to manufacturing operations only in the yesteryears, it is now getting recognised as a generic management tool and is applicable to public service and private sector organizations as well. There are a number of evolutionary standards, with different sectors creating their own versions from the common ancestor. ISO 9001:2000 is the foundation for all the functional and managerial requirements, which encompasses many features such as:

3.2.1 Commitment by the Top Management

Top Management Commitment will be very clearly visible through the attention paid by them to the issues which arise sporadically. The belongingness of the employees, their loyalty to the task assigned as well as to the organization, will depend very much on the commitment displayed by the senior management. The Top Management should be committed to overcome any barriers to the implementation of the objectives of the quality management system (Longo and Cox 2000).

3.2.2 Meeting Customer requirements

In a competitive and dynamic environment, the customer requirements keep changing and in this volatile situation, the management should be agile to conceive and execute decisions so that the future needs of the customers are also taken into account (IS/ ISO 9004: 2000, Hauser et al. 1994).
3.2.3 Reducing Cycle time

The cycle time of a process or a product will eventually influence the efficiency of the system. Implementation of WBS (Work Breakdown Structure), restructuring of the processes after a meticulous analysis, and bringing in synergy to the whole team can bring down the cycle time (Hubert 2000).

3.2.4 Reducing Lead Time

Introduction of modern methods like Just in time (JIT) and sophistication of the existing techniques, coupled with the reduction of waste, can bring down the lead time to a great extent, as it reduces the idle time. When the demand is high, compared to the supply, reducing lead time can improve the efficiency of the business operations.

3.2.5 Improvement teams

One of the prerequisites of a Quality Management System is to resort to Continual Improvement. This could be achieved either in steps or at one shot. The improvement teams will be drawn in from various functions and they will have the mandate for implementing the improvement plans on a time-bound basis. These are also termed cross functioning teams (Feigenbaum 1985).

3.2.6 Reducing costs of products and services

In order to reduce the costs, repairs and rejection have to be minimised, and this is possible if the processes are made efficient and effective and monitoring and measurements are done on a continuous mode.

3.2.7 Systems to facilitate improvement

Team building, collaboration and technology upgradation could be the starting point for facilitating improvement. Knowledge management through brainstorming sessions, suggestion schemes, quality circles, etc. can accelerate the improvement (Juran 1993).
3.2.8 Employee Involvement and Empowerment

An empowered employee will get involved in all the activities whole-heartedly and the involvement of all the employees across the organisation will bring in a good work culture, thereby improving productivity (Clause 6.2.2.2. IS/ISO 9004:2000).

3.2.9 Achieving the quantified goals through benchmarking

Achievement of mission and vision is easily accomplished by benchmarking the organisation to another one which is superior in performance in all respects. The goals should be quantified and should be achievable. Benchmarking can be done within the organization between different functions as well as with external agencies (Mike et al.1999).

3.3 Principles of ISO 9001:2000

3.3.1 Management Commitment

Management commitment is mandatory to ensure that the quality built in through the various processes is taken forward to all the levels and functions of the organization and maintained throughout. Providing adequate resources at the right time, to the right extent is an indication of the management commitment. Paying attention to the employees’ issues, making the working environment friendly and comfortable, providing opportunities for growth, etc. will also be the responsibility of the top management. Edward Deming has devised a cycle, which has four steps; plan, do, check and act. This can be successfully used to implement all the quality plans. It is figuratively represented as follows:
What is expected in the various steps are:

a) Plan (drive, direct) ; organize all the activities well

b) Do (deploy, support, participate) ; execute these in an efficient and effective way

c) Check (review) ; verify whether the action taken is complete

d) Act (recognise, communicate, revise) ; implement corrective actions

3.3.2 Employee Empowerment

Training is a process wherein learning takes place and gives rise to a semi permanent change in behaviour. All progressive organisations provide adequate opportunities for training which eventually improves skill, knowledge and attitude. Suggestion scheme is considered a great motivator for improving creativity and instilling innovation. In Japan, an employee is obliged to make six suggestions per year as a matter of practice. An employee will perform well if the power to execute the tasks is assigned to him or her (Clause 6.2.2.2.IS/ISO 9004:2000).
3.3.2 Fact-based decision making

In order to facilitate decision making effectively, there is need to deploy certain tools. This will help to avoid any bias while taking decisions, on account of familiarity or otherwise. The synergy of the team will also improve when decisions taken are fair. The tools used are:

- SPC (statistical process control)
- FMEA (failure modes and effects analysis)
- The 7 statistical tools
- TOPS (Team Oriented Problem Solving)

This factor has been elaborated by Saraph et al. (1989), Ahire et al. (1996) and Black & Porter (1996) in their models.

3.3.4 Continual Improvement

This is a pre requisite of any quality movement. It comprises the following attributes:

- Systematic measurement (what cannot be measured cannot be controlled and hence the need for measurement),
- Overviewing and validation of improvements,
- Cross-functional process management (participation of members from all functions facilitates better business),
- Attain, maintain, and improve standards for the steady growth of an organisation

In organisations where quality standards are implemented, the improvement plans are finalized well in advance, in order to counter the challenges. Proper and timely reviews can reveal the actual status of improvement and suggest corrective action (Clause 8.5.4. IS/ISO 9004:2000).
3.3.5 Customer Focus

Customer is the central point around which any business revolves, and so taking care of their present and future needs is mandatory for success.

This has constituents such as:

- Supplier partnership (suppliers become an important link in the business as their effective partnership and understanding contributes to its growth).
- Relationship with internal customers (healthy relations among the internal customers helps to bring down the level of defects).
- Strictness in quality practices (no waiver is given for variations and salvaging is done only in exceptional cases).
- Customer-driven standards (customers decide the quality as well as the standards).

In an ISO 9001:2000-certified organization, the supply chain management is very strong and proactive. The partnership among the internal customers and their active collaboration, along with a very good rapport with the external customers, is essential to maintain the quality standards (Clause 8.2.1. IS/ISO 9001:2000).

3.4 The concept of Continual Improvement in ISO 9001:2000

ISO 9001:2000 insists on practising Continual Improvement in all facets of the activities right from high level strategic planning and decision-making to detailed execution of work elements in the field. It stems from the belief that if mistakes can be avoided and defects can be reduced considerably, quality can be maintained easily. It will mean effecting the improvement everywhere as a
result of continuously improving the capabilities, people, processes, technology and utilisation of infrastructure.

Continual Improvement should get reflected not only in the quality of the results, but more so in the enhancement of the capabilities to produce better results in the ensuing future. The major thrust areas for capability improvement are demand generation, supply generation, technology, operations and people's capability. The general observations are that though mistakes are committed by people, most of them are caused due to faulty systems and processes. The root cause of such mistakes is to be identified and eliminated, and repetition of these can be prevented by resorting to proper corrective actions.

There are three major mechanisms of prevention:

1. Preventing the mistakes (defects) from occurring (mistake proofing or poka-yoke)
2. Detecting the mistakes early enough to prevent these getting passed on to the next stage of the value-added chain (inspection at source).
3. Stopping production whenever mistakes recur, until the process is corrected, to prevent occurrence of more defects (Stop in Time).

3.5 Implementation of ISO 9001:2000

The first step in the implementation of ISO 9001:2000 is to assess the organisation's present health and its culture. A study of the organisation's history, its present needs and the existing quality of work-life of the employees should precede the discussions leading to the implementation of ISO 9001:2000. If the present reality does not jive with these important preconditions, implementation of ISO 9001:2000 should be kept in abeyance until the organisation reaches a state where success is visible in the near future. [Due to its importance, this may appear again in the latter part of the thesis. If
an organisation has a track record of effective responsiveness to the environment, and if it has been able to successfully change the way it operates when needed, it will be easier to implement ISO 9001:2000.

If an organisation has not been historically reactive and has no skill at improving its operating systems, there will be both employee skepticism and a shortage of skilled change-agents. If this condition prevails, a comprehensive programme of management and leadership development may be instituted. A management audit is a good assessment tool to identify present levels of organisational effectiveness and areas in which the change is needed. An organisation should be basically healthy, prior to administering ISO 9001:2000. If it has significant problems such as a very unstable funding base, weak administrative systems, lack of managerial skills, or poor employee morale, ISO 9001:2000 is not recommended at that point of time.

However, a certain level of stress is probably desirable to initiate QMS. People have to feel the need for a change. Kanter (1983) addresses this phenomenon by resorting to the concept of building blocks which is present in a predominant way to effect organizational change. These forces include departure from traditional thinking, a crisis or a galvanising event, strategic decisions, individual "prime movers," and action vehicles. Departures from traditional activities are those which usually occur at the lower levels of the organisation, and entrepreneurs move away from the normal ways of operating to solve a problem. A crisis, if it is not too disabling, can also help create a sense of urgency which can mobilise people to act. In the case of ISO 9001:2000, this may be a cut in the funding or a threat for this, or demands from the consumers or other stakeholders for improved quality of service. Whenever a crisis props up, an effective leader may intervene strategically by articulating a new vision of the future to take the organisation forward. A plan
to implement ISO 9001:2000 may be such a strategic decision. Such a leader may turn out to be a prime mover, who will take charge of championing the new idea and showing others how it will lead them where they want to go. Finally, action vehicles are needed and mechanisms or structures essential to enable the change should occur and become institutionalised.

3.6 Steps in managing the transition to ISO 9001:2000

Beckhard and Pritchard (1992) have outlined the basic steps in managing a transition for a quality management system such as ISO 9001:2000 through identifying the tasks to be executed, creating the necessary infrastructure, developing the strategies for enhancing commitment, designing the mechanisms to communicate the change, and allocating the requisite resources.

Identification of tasks would include study of the present state of the art, assessing readiness for change through a force field analysis; creating a model of the desired state, announcing the change goals to the organization; and assigning responsibilities and resources. This final step would include appointing an external consultancy and assigning an individual within the organization to oversee the whole mechanism. This should be the responsibility of the top management. In fact, the activity of designing the transition management mechanisms is to be undertaken by the Top Management. Formation of an organization-wide steering committee to plan and review the progress will be the most appropriate action in this direction.

To communicate the change, mechanisms other than the routine ones need to be custom-built and developed. Special meetings of the employees designed as an input or a dialogue session, where executives also will be present, may be used to kick off the process. Quality management newsletters
may be an effective organ to keep the employees abreast of the activities and accomplishments of the organisation.

Management of the resources for the change effort is very important and a judicious combination of IRPs (internal resource persons) and external consultants can give promising results. Consultants may be chosen based on their prior relevant experience and their commitment to adopting the process to align with the organizational needs which could be unique. The consultants will be adding value through various processes including the training of employees. They will be receiving training in change management, which they can pass on to others later. The entire employees should be actively involved in ISO 9001:2000 implementation.

It may be noted in this context that implementation would be a complex, interactive, and long-drawnout process. The leaders will have to maintain their commitment, keep the processes transparent, provide the requisite support, and hold the personnel accountable for the results. There should be total involvement of all the interested parties, which will include stakeholders, shareholders, employees, banks, public, etc.

3.7 The elements of Quality Management System

Quality Management System is a management approach that originated in the 50's and became more popular and acceptable around the early 80's. Quality is the personification of the culture, attitude and the values of an organisation that strives to provide the customers with the products and services which satisfy their needs. This culture insists that quality is present in all the aspects of the organisations’ operations, with the processes being done right in time and defects and waste eradicated or reduced substantially from all its operations.
In order to be successful in implementing a quality management system like ISO 9001:2000, an organisation is obliged to concentrate on the eight key elements (Nayantara 1989).

a. **Ethics:** Professional and business ethics demand that the practices followed in an organization do not harm or bring in damage to others who carry out similar activities. There should not be any attempt by the management to promote unhealthy competition or bring in enmity with other business houses.

b. **Integrity:** The organisation has to practise a very high level of integrity within and among the employees so that they do not resort to malpractices to achieve their objectives. Professional honesty and loyalty imbibed and practised by the organisation will improve the belongingness of the employees.

c. **Trust:** A very high level of trust is required for the growth of the organisation as the flow of information in both directions, top to bottom and bottom to top need to be controlled. Moreover, the information explosion has shrunk the boundaries of the world. Maintaining the security of information as mentioned in the standards like ISMS (Information Security Management System) has become essential to combat competition.

d. **Training:** This is a mandatory requirement for ISO 9001:2000-certified organisations. The training cycle goes through processes such as identification of training needs, implementation of training, training evaluation, retraining if required, and eventually going in for multi-skilling or job rotation as the case may be.

e. **Teamwork:** Team work acts as the engine for the enforcement of quality. Tools such as quality circles, cross-functioning teams, suggestion schemes, etc. serve to promote team work. Team building is as much an art as it is a science and only those with leadership qualities can build a well-knit team.
f. **Leadership:** In order to achieve success, one has to lead from the front and the leader has to be a role model who will practise what he/she preaches. Unless the leader exhibits inborn qualities like empathy, pro-activeness, impartiality, honesty, and loyalty to the organisation, success will remain a dream for ever.

g. **Recognition:** The contributions of the individual employees or of the teams have to be recognized and rewarded then and there. Non-monetary and monetary techniques may be deployed for recognising the efforts depending on the type, volume and the timing of the contribution. However, the dictum “justice delayed is justice denied” is applicable to recognition of the contribution too.

h. **Communication:** This has an important role to play to achieve organizational success. While grape vine communication is to be totally discouraged, accessibility of regular employees to the higher-ups, openness in dealings and real time communication are essential for maintaining the health of the organisation.

These eight elements of a quality management system are further elaborated as follows:

A quality management system such as ISO 9001:2000 has been identified as the philosophy that ensures quality which is the driving force behind leadership, design, planning, and improvement initiatives. In order to make this happen, it requires the consolidation of all the eight key elements of the quality management systems. These can be subdivided into four groups according to their functions:

i. **Foundation** - it includes: ethics, integrity and trust.

ii. **Building Bricks** – this consists in training, teamwork and leadership.
iii. Binding Mortar - it is provided with the help of communication.

iv. Roof – this tops all the others and it is related to recognition.

Fig. 3.2 Elements of quality management system:

**Source:** Nayantara Padhi: *The Eight Elements of TQM;*  
www.isixsigma.com/library/content/c021230a.asp

**I. Foundation:** Quality Management System is built on a foundation of ethics, integrity and trust. It fosters openness, fairness and sincerity and allows involvement of all the employees in the functioning of the organisation. This is the key to opening its ultimate potential and these three elements move together; however, each element makes its unique contribution to the system.

a) **Ethics:** What is meant by this is the professional ethics and is related to the moral principles which take any organisation forward. It establishes a business code of conduct that specifies the guideline which all employees have to follow, in their routine functioning. Individual ethics comprises personal code of conduct which will include dress code, etiquette and manners, values and culture, etc.

b) **Integrity:** Integrity implies honesty, values, fairness, and adherence to the codes of confidentiality and secrecy. This is what external and
internal customers expect, to receive experience in the course of doing business. The reverse of integrity can be termed as, duplicity and no QMS will thrive in such an atmosphere.

c) **Trust** - Trust is the outcome of integrity and ethics. Without trust being present in abundance, the framework of QMS cannot be built. It allows empowerment that encourages proud ownership and enhances commitment. It also allows decision making at the appropriate levels in the organization and motivates individual risk-taking for continual improvement. The measurement carried out on the improvement of processes is taken positively and constructively. Trust is essential to promote Customer Satisfaction and it builds the friendly environment required for a quality system.

**II. Bricks**

Based on the strong foundation of trust, ethics and integrity, bricks are stacked vertically to reach the roof of recognition. The process includes the following:

a) **Training**: This is a very important tool which helps the employees to achieve higher levels of excellence. It enhances skills, knowledge and attitude. Skills will include interpersonal skills, intuitive skills, problem-solving skills, team-building skills etc. In this process, knowledge has to be acquired and a positive attitude is to be developed.

b) **Teamwork**: With the magical binding of teamwork, business will find quicker and better solutions to problems. In a good team, people will feel more comfortable to work and solve problems which may occur, in a productive and consultative way. There are mainly three types of teams.
i. Quality Improvement Teams or Excellence Teams (QIT): These are temporary in nature and are formed with the purpose of dealing with specific problems that may often recur. These teams have a validity of three to twelve months, at the most.

ii. Problem-Solving Teams (PST): These are also temporary teams identified to solve specific problems and also to find out the root causes of problems. PSTs last from one week to three months.

iii. Natural Work Teams (NWT): An NWT consists of small groups of skilled workers who share tasks and responsibilities. They practise concepts such as Employee Involvement teams, self-managing teams and quality circles, and work for one to two hours a week, depending on the need.

c) Leadership: It is possibly the most important element in the quality management system and should be omnipresent. Leadership demands the manager to provide an inspiring vision, generate strategic thinking that are understood by one and all and to instil values across the organisation. Supervisors are the front-line leaders and must be committed to lead the respective group. The leaders should practise what they preach. Leadership should trickle down from the top management to the grass-root level, if implementation of QMS is to become successful.

III. Binding Mortar—Communication

This is what binds all the elements together. Right from the foundation to the roof of the house, the elements are bound by the strong mortar of communication. It acts as a vital link between the sender and the receiver, in the case of all business transactions. The success of quality management calls for
effective communication within and among all the members of the organization, suppliers and customers and interested parties. Effective communication always involves sharing of correct information at the right time in the right way. Any message delivered should be loud and clear and the receiver should understand and interpret the way the sender desired. The different types of communication are:

a. **Downward communication**: This is a more prevalent form of communication in an organisation. Instructions, intimations, changes etc are conveyed down the line in this way.

b. **Upward communication**: This is the route employees adopt to send across their views, suggestions and complaints to the top management.

c. **360 degree communication**: Any communication of a matter of common interest comes under this category. Announcements related to policy, mission, achievements, short-term plans, etc. could be some of the items in this category.

d. **One-to-one communication**: There are some business transactions which are dyadic in nature as in the case of feedback on training, performance appraisal, disciplinary actions, etc. This is totally personal in nature and is time-bound.

**IV. Roof-Recognition**

This is the last and very important link in the entire chain. The suggestions should be rewarded and achievements recognized on an individual and team basis. Employees crave for recognition for themselves and for their teams. Identifying and recognising personnel with creativity is one of the most critical functions of a supervisor. When people are recognized, substantial changes take place in their self-esteem, productivity, quality and the magnitude
of their effort. However, there should not be too much time delay in making recognition known to others. There are nonmonetary rewards, such as letter of appreciation from top management, publicising through in-house journals and notice boards, praising in public, awarding certificates of merit and giving higher responsibilities or positions. Monetary rewards like increased remuneration, perks, etc. are also given, depending on the quantum of the contribution.

It can be concluded that the eight elements discussed so far are instrumental in ensuring the success of a quality management system in an organisation and that the supervisor has a major role in fostering these elements in the work-place. These dimensions were taken into account while preparing the questionnaire to be given to the respondents in the survey.

3.8 Quality Journey in India

Quality is what the customer wants and the perception of the customer influences quality. Juran, the foremost of the quality leaders, defined quality as fitness for use. It is a very concise definition indeed, for a term that has so many dimensions. In short, an expensive product does not become a quality product; on the contrary, it is its fitness for use for the customer, which makes it so.

International Organisation for Standardisation (ISO 9001:2000), the authorised body for standards formulation, was founded in the year 1946 with its headquarters in Geneva, Switzerland. Most countries in the world are members of ISO 9001:2000. This standard is familiar to the professional community because of the unique features of the standard ISO 9001:2000, released for the first time in the year 1987. The definition of quality as per the ISO 9001:2000 standard is: “The totality of the features and characteristics of a product or service, that bear on its ability to satisfy a given or implied need”.

Quality is one of the most sensitive issues in all organisations around the world. Everyone is becoming increasingly conscious of the competitive potential of quality. India has a tradition of achieving high standards in several fields. Architectural wonders like the “Taj Mahal” and the “Konark temple” are testimonies to the rich cultural heritage that demonstrated quality. Similarly, many other products like jewellery, textiles, artifacts and ornamental articles exhibited high quality and as a result became the highly traded merchandise for other countries of the world. For several centuries, Indian trade flourished in the sale of these products. Engineering industries which were set up and run under the colonial rule, quickly established a name for quality. As reported by Piramal (1997), business families like Tata, Birla, Godrej, and Sarabhai, to name a few, started and operated several industries which have now become conglomerates and household names in India. In fact, these names are synonymous with high quality products and trust-worthiness.

However, the post-Independence era did not witness any spectacular improvement in the quality of goods and services produced in the country. According to Agrawal (1993), many positive attributes of the Indian industry have been lost due to protected business environment, and weaknesses surfaced. These weaknesses, according to the study, are: lack of trust and credibility in the working system, lack of clarity or seriousness for achieving targets, lack of precise observance of rules and norms, low quality of materials and defective components, lack of consciousness of time as money, viewing only short-term benefits in place of long term-goals, politicisation of labour unions, lack of accountability and responsibility, lack of management commitment, lack of national quality policy, inadequate economic resources, lack of indigenous technology, inadequate infrastructure, preferring quantity to quality, absence of team spirit, cartel formation, and sellers’ market concept. Besides, reduced
consumerism, Governments’ total control, bureaucratic delays and thirst for making quick profits by the business houses, resulted in quality getting a low priority. Consequently Indian products were constrained to serve only the domestic market and were unable to compete in the international markets. Further, the factors mentioned above have clearly been clearly proved to be the obstacles in the path to progress. India, in spite of possessing good resources and rich scientific and technical manpower, could not produce world-class products acceptable to international markets.

3.9 Evolution of quality initiatives in India

It was in the early eighties that the Confederation of Indian Industries (CII) kicked off its pioneering efforts to promote awareness about quality among Indian industries. In 1982, quality circles took birth in India, and the pioneers to launch this magic tool were Bharat Electronics Limited, Bangalore, and Bharat Heavy Electricals Limited, Trichy. In 1986, the CII, then known as CEI (Confederation of Engineering Industries), invited Professor Ishikawa of Japan to India, to speak about quality to the Indian industrialists. Later in 1987, a quality division was set up by CII and this division owed its birth to twenty-one organisations which agreed to support the cause by pooling of resources and pledging to start the journey towards quality. Their chief executives formed the National Committee on Quality, and quality month was celebrated as an annual event. CII also launched the first newsletter on quality.

In 1987 and 1988, the CII invited the Juran Institute to conduct three workshops in India. In 1989, a team from India attended the Deming Seminar in London. Study teams organised by the CII were taken to Japan and USA to learn quality practices. In 1990, the CII consolidated and focused on training
programmes in India. It organized the launch of the National Quality Campaign led by the Prime Minister of India, in May 1992. It was around this time that the policy of globalisation and liberalisation was adopted in India, bringing a new dimension to the business and industrial sectors. Thereafter, a new line of thinking in terms of quality, productivity, and competitiveness emerged. Since 1993, the CII has been organising the quality summit every year. This provided an opportunity for the business leaders, and the senior managers of the member and non-member organisations of CII to network, learn, and contribute through experience sharing, and listening to the experts. The National Productivity Council (NPC) set up a quality and benchmarking division in New Delhi, and offered quality implementation services, which included modular training programmes and consultancy services.

In 1997, the Government of India announced the setting up of the Quality Council of India (QCI) under the Ministry of Industries, providing 50% of the seed capital of Rs. 1.5 crore. The rest of it was contributed by the corporate sector. The setting up of a national agency for quality certification was done as a part of the World Trade Organisation (WTO) agreement, under which member countries could not trade in noncertified products for two years down the line. The corporate sector too was demanding the setting up of an internationally recognised quality council, as it was found that the certification process from foreign agencies was too expensive. Besides, it would save vital foreign exchange for the country. The QCI was entrusted with the monitoring and administering of the National Quality Campaign and it did oversee the functioning of the National Information and Enquiry Services in an effective way.
3.10 Implementation of Total Quality Management

The first step in the implementation of TQM is the executive decision to be taken by the top management to adopt this approach. Once this is done, a core team is formed to steer the whole process right from the beginning till the end. There will be a vision-building exercise involving all the senior functionaries to chalk out the objectives, plan of action and the effort to be put in for innovation and arriving at the improvement goals. Formation of cross-functional teams involving all the related functions and allocation of specific portfolios to the top management personnel will kick-start the process. Timely and periodical review by the MD or the CEO will discover the lacunae in the system and the scheduled management review meeting will be able to oversee the progress of corrective and preventive actions taken. Once the system is put in place, the top management can take an audit, and on satisfactory completion of the audit, they can decide whether they need to apply for an award. Some of the quality awards are Deming Prize, Malcolm Baldrige National Quality Award, CII-EXIM Award, Rajiv Gandhi Award etc. The review committee will evaluate the organisation from the point of view of People-results, Continual Improvement achieved, Social results, ROI, etc.