Amity Management Review
2011, Vol. 2, No. 1, 24-33

HR Intervention of TQM in Reliance Industries Limited

Dr. Shiney Chib*

The problem of quality management is not what people don't know about it. The Problem is what they think they do know. . . . The origins of TQM are usually ascribed to Japan's search for quality improvements in the l950s and its success in molding ideas on quality into a coherent operating philosophy; by the 1960s this combined the ideas of Denning and Juran with the use of Statistical Process Control (SPC) and teamwork. Both Denning and Juran were interested in the wider implications of quality control, and argued that quality control should be conducted as an integral part of the management control systems. This developed into the notion that prevention not detection was the key and the concept was one of "managerial breakthrough" (Juran, 1965) whereby "continuous improvement" was held to be the ultimate goal. By 1960s the challenge to Western markets led to the adoption of Japanese methods of production within the United States. In the 1980s, TQM was taken up by many American companies and Europe followed suit with it. The European Foundation of Quality Management was founded in 1988 to improve the position of European industry in the world markets. This paper explains the HR intervention in the area of Total Quality Management by taking Reliance Industries, Nagpur as a case.

Introduction

The major premise of the TQM philosophy is that quality, defined by Juran as *'fitness for use"*, is the key to business success and that this, rather than price or delivery, is the route to competitive advantage. Moreover, in addition to increasing sales and market share through quality improvements, TQM need not lead to increased costs, rather costs are likely to fall due to a decline in failure rates, rectification, warranty costs, returned goods and a reduction in the costs of detection. TQM is concerned with *'building in'* rather than inspecting quality, with being the responsibility of all employees, rather than merely the responsibility of a specialist department. The benefits of such an approach are regarded as being potentially very significant. Dale and Plunkett (1994) estimate that quality costs in an organization which is not committed to a process of improvement, range from 1014% of annual sales turnover. Thus for many, the most compelling argument for TQM is that it promises to increase long-term business performance and profitability (Dale & Cooper, 1992). Quality is seen not as an option, but as a business requirement in the face of growing competition.

The origins of TQM are usually ascribed to Japan's search for quality improvements in the l950s and its success in molding ideas on quality into a coherent operating philosophy; by the 1960s this combined the ideas of Denning and Juran with the use of Statistical Process Control (SPC) and teamwork. In 1962 the first three quality circles were registered with JUSE (Japanese Union of Scientists and Engineers) and the quality movement spread o the workers with the extensive use of SPC. Both Denning and Juran were interested in the wider implications of quality control, and argued that quality control should be conducted as an integral part of the management control systems (in contrast to its traditional role as a policeman function). This developed into the notion that prevention not detection was the key and the concept was one of *"managerial breakthrough"* (Juran, 1965) whereby *"continuous improvement"* was held to be the ultimate goal. Furthermore, management was charged with responsibility since 85% of failures were regarded as the fault of inadequate management systems. (Ishikawa, 1985). By the 1960s the challenge to Western markets led to the adoption of Japanese methods of production within the United States. In the 1980s, TQM was taken up by many American companies and Europe followed suit with it. The European Foundation of Quality Management was founded in 1988 to improve the position of European industry in the world markets (Wilkinson, Allen & Snape, 1991). One of the problems in the discussion concerning TQM is the apparent lack of a generally accepted description of what it actually is. Until the articulation of definitions in BS4778 Part 2 (1991) and BS7850 Part I (1992) there were no national or international definitions for the term. As with the Human Resource Management debate there is confusion as to what different writers mean when they discuss TQM, although some of the buzzwords are now

* ***Professor, Datta Meghe Institute of Management Studies, Nagpur, Maharashtra.***

prominent in the management vocabulary, for example, Zero defects (Crosby, 1979), Right First Time (Crosby, 1979), Plan, Do, Check, Action (Deming, 1986), Fitness for Use (Juran, 1965).

First the distinction needs to be made between quality control, quality assurance and total quality. Quality control is the control of quality during an operational process and at the post-process stage. Its characteristics are containment and inspection. Quality assurance is the achievement of specified levels of quality by the removal of the root causes of poor quality. Its characteristics are problem solving and prevention. Quality assurance is usually in the hands of a quality manager and a department, and quality is seen as a business function in its own right. Total quality is the application of quality assurance to every company activity, so that zero defects are achieved. In essence TQM is a general business management philosophy, which is about the attainment of continuously improving customer satisfaction by quality led company-wide management. This goes beyond the mere application of total quality ideas to the whole organization and its management by any one business function, to being a new approach to corporate management itself.

TQM has both "hard" and "soft" aspects. The former emphasizes systems, precise data collection and measurement and involves a range of production techniques, including statistical process control, changes in the layout, design processes and procedures of the organization, and most importantly the seven basic TQM tools used to interpret data: process flow charting, tally charts, pareto analysis, scatter diagrams, histograms, control charts and cause and effect analysis. TQM is based on the premise that all activities in a firm contribute to quality. Thus it is important that a firm's activities and procedures are documented so that their effects for quality are understood by everybody. The emphasis on the hard aspects reflects the production orientation of many of the TQM gurus.

The soft side of TQM gets a good deal less attention although it is by no means ignored. Hill (1991, p. 391) says "*while solutions to the technical issues of designing appropriate systems and procedures are fully specified there are lacunae in the treatment of social factors*". Clearly there are implications for the workforce in the quality philosophy with the message that "*quality is everyone's business*", as firms are urged to move away from supervisory approaches to quality control towards a situation where employees themselves take responsibility. The soft side thus puts the emphasis on the management of human resources in the organization and lays particular emphasis on the need to change culture. Thus, TQM has clear implications for human resources whether this he in terms of employees taking greater responsibility for quality having accountability for its achievement, or in terms of the introduction of team working principles into organizations.

TQM appears to be consistent with a move towards human resource management, not only in the emphasis on employee commitment rather than compliance, and in the underlying philosophy, but also it identifies line managers as having a key responsibility for the management of people. Both TQM and HRM call for the involvement of top management, and in this sense can be seen as requiring a more strategic approach to the management of human resources. However, it is commonplace in the literature to point to the failure to adopt such a strategic approach (Wilkinson , 1991).

Literature Review

Total Quality Management (TQM) is now widely recognized as one of the major innovations in management practice over the last decade. For the most part, however, the principal contributions to the analysis of TQM and its operation have come from people in the Operations Management area (for example, Oakland, 1989, Dale & Plunkett, 1990, Dale, 1994). Arguably, this has led to a preoccupation with the so-called "hard" production-orientated aspects of TQM as opposed to its "softer" Human Resource Management (HRM) characteristics. This means that less attention has been focused on people-management issues such as appropriate supervisory styles, compensation/payment systems, teamwork, industrial relations and the implications for different managerial functions. Ishikawa (1985) referred to TQM as a "thought revolution" in management. Similarly Oakland (1989) has described it as a "new way of managing" and has claimed that after the industrial revolution and computing revolution of yesteryear "we are now without doubt in the midst of a quality revolution". However, whilst TQM has been much talked up by gurus/consultants and indeed practitioners promoting their companies, there is growing evidence of its spreading influence if not of its effectiveness. For example, a British Institute of Management survey analyzing the future of middle

managers found 60% of managers and employers saying it was being implemented. Almost half of corporate respondents and over one-third of individual managers agreed that of the suggested techniques and managerial changes, the biggest impact on the future would be TQM (Wheatley, 1991). A subsequent Institute of Management survey reported that 71% of respondents claimed they had a Quality Management Campaign, and a further 11% were planning to introduce one. The phenomenon is a recent one with only 10% having a campaign dating back more than five years (Wilkinson, Redman & Snape, 1993). In recent years, TQM has been taken up by a number of HR writers who have seen it as an opportunity for the function to play a strategic role. Until recently the personnel profession appears to have been slow to see the implications for the function. This may have been because they saw it as refashioned quality circles or more likely because it was seen as essentially quality control/assurance and consequently regarded as a job for operations managers (Wilkinson, Marchington, Ackers & Goodman, 1992). However, the past few years has seen both a shift in emphasis to human resource issues within the quality area and the growing interest of personnel specialists. The former reflects two factors. First, a shift from quality assurance to TQM with a consequent greater emphasis being placed on issues such as employee involvement. Second, growing evidence which suggests that TQM has major problems in the so-called soft areas (Plowman, 1990, Kearney, 1992, Cruise O'Brien & Voss, 1992) and in particular culture, involvement and communication. According to Cruise O'Brien and Voss: Quality depends on broad based employee involvement and commitment. New and innovative human resource policies were reported by managers in a number of organizations, but these were not often related to quality. . . . Divorce of human resources from quality, except in name, could seriously retard the spread of quality through the firm. (1992). This would appear to present the personnel function with a window of opportunity, even if it has little involvement from the start of TQM. In this sense, the shift of focus to human resource issues may not have come about at the behest of the personnel people but because others have recognized a need for their involvement, albeit at a late stage. Thus, a number of writers have begun to identify the opportunities which TQM might offer for the function. Giles and Williams argue that "Quality has high personnel content. It gives strategic importance to policies and processes that personnel managers have traditionally considered to be their own patch" (1991) and thus "quality management is pure strategy on a plate waiting for some personnel input" (1991, p. 30).

Company Profile

Reliance Industries Limited is India's largest private sector company on all parameters and it has been maintaining this status for the past decade. Group's major business venture span from exploration & production of Oil and Gas, petroleum refining and marketing, petrochemicals (Polyester, fiber intermediates, polymers and chemicals), textiles, retails, special economic zones (SEZs) and life sciences. organization is featured in the Fortune Global 500 list of world's largest corporations' for fifth consecutive year and is among the top 25 climbers for four years in a row. Further RIL ranks amongst the world's 25 most innovative companies as per the US financial publication- Business Week in collaboration with the Boston Consulting Group. Reliance Group was founded by Shri Dhirubhai Ambani, a leader of indomitable will and commitment, who started his career as a small time trader in Mumbai with Rs. 500 in his pocket and went on to build the Reliance empire. There is no parallel to this feat, achieved in a man's own lifetime. The top management team at corporate level consists of Shri Mukesh D Ambani, Chairman & Managing Director, who oversees the entire business chain supported by Executive directors.

RIL Nagpur is a group company of Reliance, situated at 35 km from Nagpur city on NH6 in Maharashtra state. It is engaged in the manufacture of Polyester chips and Partial Oriented Yarn (POY). RIL strongly believes that "*Business and people are strongly inter-related. One does not go forward without the other*". They subscribe to the philosophy of coexistence- "*Vasudhaiva Kutumbakam*" the whole world is one family. In line with this philosophy, the company has successfully nurtured and promoted a conducive environment for ideation, involving people at all levels resulting into significant improvement in processes, cost reduction for imparting competitive edge, energy management and safe working environment.

The company encourages participation of people for creation of environment for organizational performance improvement through programs like Six Sigma projects, CASHe (Change Agents for Safety, Health and Environment), Suggestion Schemes, STOP (Safety Training Observation Program) Audits, Management of Change (MOC), Project Proposals, Structured approach for Review of Standard Operating Conditions. We have a well established portal based system for identifying training needs and support

the learning needs of the employees through meticulously designed training programs.

Workforce Description

RIL NMD workforce consists of 501 employees, coming from across the length and breadth of India working at one location having different religion, culture, skill and education. Workforce is segmented into Supervisory, Non Supervisory and Contractual. Supervisory are further categorized as Executives, Managers and Leaders based on their nature of responsibilities. Non supervisory employees include skilled, semi skilled and unskilled. Average age of their workforce is 43 years, with an average experience of 25 years. Employee qualifications range from Matriculate to Graduate to Post Graduate in both technical and non-technical fields depending on the type and nature of profession. Contract workforce is deployed for Material handling, packing and housekeeping throughout the plant, where as supervisory and non-supervisory employees are deployed in key areas of process. Each employee is given ample opportunities for personal and professional learning through training programs that enhance their knowledge, skill and attributes and qualification to take up higher responsibilities in the organization.

Exhibit -1 Workforce Strength

Sr.	Employee Category	Strength
1	Supervisory	105
2	Non supervisory	246
3	Contracted Employee	150
	Total	501

At RIL NMD the non-supervisory staffs are represented by *"Bharatiya Polyester Kamgar Sanghatana"*, a registered trade union. They participate in all continual improvement efforts as well as wage negotiations. The site has a dedicated Occupational Health Center that is equipped to provide first aid and primary critical care in case of any incident leading to injury. Concerns of natural illness of the employees and their families as well as those of the contract labor at work in the company premises are taken care by the qualified medical staff. Emergency facilities like essential medicines, life saving drugs, oxygen cylinder, ambu-bags and 24-hour ambulance are available at site to provide preliminary medical assistance in the event of any eventuality. Almost 20% of total workforce has been imparted with First Aid and CPR training and their availability is ensured in all the shifts in each and every department.

Exhibit - 2 Workforce Requirements

Group	Key Requirements	Expectations
➢ Supervisor	• Safety • Security	❖ Focus on mission, vision and values
➢ Non Supervisory	• Job satisfaction • Knowledge and skill to perform Job	❖ Ethical behavior ❖ Mutual Trust ❖ Cooperation
➢ Contracted Workmen	• Career development • Training	❖ Team work

At Reliance '*Safety overrides all production targets*' and this policy drives us to continuously look for ways to achieve zero accidents at workplace. Safety is every one's responsibility. They says, ensuring the health and safety of employees and people at large is the only sustainable way to remain in business. Workplace safety has been taken care of by way of risk identification, evaluation, reduction and use of PPE in all that we do. In order to improve workplace safety we implement Safety Observation and Training Program (STOP). A unique program followed by Reliance Group across all its sites is Change Agent for Safety Health and Environment (CASHe). This program has been instrumental in creating awareness on HSE issues and resolving them expeditiously with active participation of the line-management and workforce. This program covers both shop floor and the office environment.

Protecting the environment and preserving natural resources is a high priority area for us. Through annual environmental objectives and targets, we identify projects and take action to reduce consumption of natural resources and maximize possible recycling and reuse of wastes. We also set targets for key environment-related performance indicators such as emissions, air quality, water consumption, energy consumption, waste generation and disposal. As a testimony to these efforts, the site is also awarded Five Star Rating for both Safety and Environment by British Safety Council. As per the council this is the only site in the world which went for and won Five Star ratings for both together. All the employees and their families are covered by Group Personal Accident Policy (GPAP) and Mediclaim Policies

Objectives of Study

1. To study the role of HR dept in TQM
2. To study the employees adaptability towards TQM
3. To study the effectiveness of HR - TQM Practices.

4. To study the role of quality assurance in the organization.

Quality begins with the awareness. One important parameter in quality, the gap between the customer's expectations and the supplier's process capacity. The minimal the gap the better is the meeting point of minds of the customer & the supplier.

RIL's Philosophy

According to RIL's policy,"*A customer is the most important visitor on our premises. He is not dependent on us. We are dependent on him. He is not an interruption on our work. He is the purpose of it. He is not an outsider to our business. He is a part of it. We are not doing a favour by serving him. He is doing us a favour by giving us an opportunity to do so. Therefore Total Quality Management is a process for managing Quality. It must be a continuous way of life, a philosophy of perpetual improvement in everything we do.*"

Principles of TQM in RIL

1. Quality can and must be managed.
2. Everyone in an organization has a customer so is a supplier (Internal/External).
3. Not People, Process are the problem.
4. Every Employee is responsible for Quality.
5. Problem must be prevented, not just fixed.
6. Quality must be measured
7. Quality improvements must be continuous.
8. Quality standard is defect free.

HR Intervention in Quality Control

- Create a site level TQM steering team Chairman to be site head.
- Quality Leader to steer PM, DM, members heading various TQM initiatives like QCC, 5S, TPM, Benchmarking etc.
- QL to share the Hazira TQM journey with the steering team.
- Steering committee visits to Hazira site to observe/study/understand TQM activities in various sections of Polyester plant to identify/acquire best practices to implement at their site.
- Conducts training on role of leadership in TQM deployment for top management/ HODs and section heads.
- Conducts training on TQM philosophy, principles for all employees.
- Conducts Training on basic Quality Techniques (Brainstorming, Prioritization Matrix, FMEA) and use them for problem solving.
- Conducts training on 7 basic QC tools (Control Charts, Check Sheet, Pareto diagram, Cause & Effect Diagram, Histograms, Scatter Diagrams & Graphs) and use them for day- to-day problem solving.
- Conducts training on New 7 QC Tools (Affinity diagram, Arrow Diagram, Relation diagram, PDPC method, System Diagram, Matrix Diagram and Matrix data analysis.)
- Conducts training on 5S , QCC, SGA, CASHe, Kaizen, Six Sigma and implement in work place through competitions and suitable reward and recognition.
- The manufacturing process is continuously being fine-tuned to reduce waste, pollution and energy footprint. The fact that the site operates its process with environmental norms much tighter and far better than the norms mandated by MPCB in several parameters proves the commitment of the site team towards responsible nation-building.. As a forerunner of such endeavors, the organization has achieved ISO 9001, ISO 14001 & OHSAS 18001 certification. Also the site was awarded five-star certification in Environment as well as Safety by British Safety Council, UK in December-2010.

The RIL Nagpur Manufacturing Division is guided by the vision, mission and values of the parent company Reliance Industries Limited. Management Systems are designed to achieve the vision, core values and mission set by the legendary corporate RIL leadership. Threading through these objectives are the means of effective communication across job cadres that enables senior leaders to keep the organization buzzing with action for continual improvement.

During the take-over of this site by RIL in year 2000, the RIL corporate vision, mission, values and policies were presented and explained by RIL's top leadership to the site management through a series of meetings. The site-level organizational objectives have also been derived based on the corporate guidelines. RIL's Nagpur Manufacturing Division has adopted and re-oriented its processes and deployed its work systems in line with the corporate guidelines. The corporate policies, vision, mission

and values have been displayed at strategic locations in the plant, included in QSM manuals and incorporated on intranet portals. It is deployed to stakeholders, suppliers, customers and community stakeholders through guest presentations during their site visits. The vision, mission, values and policies are also deployed to the internal as well as external stakeholders through RIL's web-site, Sustainability Reports published and distributed to stakeholders, one-to-one communication by senior leaders to the workforce, and internal review meetings. The personal actions of the senior leaders reflect it by referring to these guidelines during action planning of specific tasks. The site's strategic planning and its deployment has the vision, mission, values and objectives as its backbone and strength.

The vision is like a guiding (North Pole) star. It helps the organization in steering through the uncharted waters of the uncertain times. An example: The polyester vision stands on the four pillars of cost leadership which we get from the captive availability of raw materials

Innovation Leadership - This is based on the strong research and development and technology leadership.

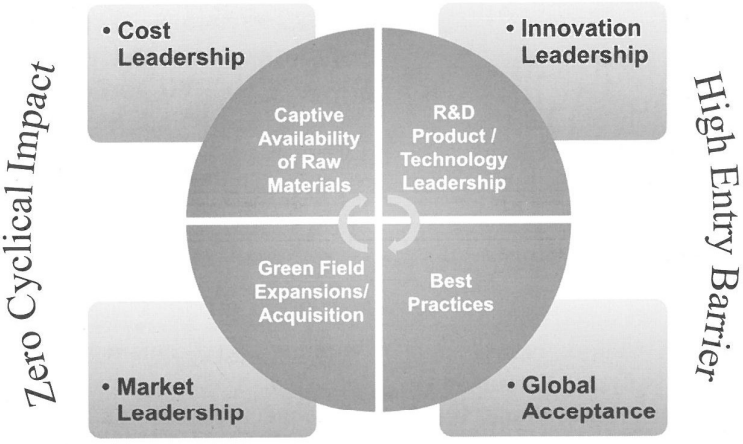
Global Acceptance - being accepted worldwide is the big thing- best practices six sigma, Management System like QMS; EMS & OHSAS have helped building the reliance and trust

Market Leadership - which comes through green field expansions and acquisitions?

And

Cost Leadership - which comes through lowest cost of operation?

Reliance Corporate strategy is concerned with the overall purpose and scope of the business to meet stakeholder expectations. Backward integration has been the cornerstone of the evolution and growth of Reliance. Starting with textiles in the late seventies, Reliance pursued a strategy of backward integration - in polyester, fiber intermediates, plastics, petrochemicals, petroleum refining and oil and gas exploration and production - to be fully integrated along the materials and energy value chain. The site has a time horizon of one year for SHORT TERM PLANS and of three years for LONG TERM PLANS. The time horizons are set based on immediate and long term sustainability requirements defined by key business drivers and strategic objectives. Typically short term plans are reviewed on weekly and monthly basis through periodic reports. Long term plans are compared in MIS at top management levels; wherein the participation, influence and contribution of senior leaders is more demanding. Both, short and long term Plans are derived through consensus with the identified internal stakeholders who are in charge of specific functional roles at the site. These include not only the RIL Group leadership and the site's managerial staff but also the trade unions and contractors catering to specific site operations, as necessary. The planning process consists of drafting action plans for specific tasks that clearly identify the issue, the corrective action



"To continuously grow on a sustainable basis and be the largest, the most innovative, the most profitable and the most admired polyester producer in the world"

(short term plan), preventive action (long term plan) and time-bound targets.

HR Intervene

- *Establishment of corporate TQM steering committee and formation of TQM council at the unit level involving senior Mgt. staff. Even TQM center can be formed to plan, manage and train employees for implementing TQM.*
- *Selection of proper TQM methods required for the organization on conducting required survey based on the need and the organizational climate.*
- *Complete knowledge for implementation of TQM tools for problem solving. In order to make TQM a success and powerful, quality culture must be put in place, which is all about culture change based on a desire to satisfy the customer and eliminate existing problems permanently.*
- *Sustained and continuous effort must be made for companywide TQM activities and avoid it as one time activity/project.*
- *Others: Executive are fully committed*

Customer Satisfaction Index: - Customer satisfaction index value is the reasonable indication of the degree of confidence the customer is having on you. Understanding the relative positions of CSI highlights our strength and the improvement-areas to work for. For comparing ourselves with the competitors and other organizations, we use product benchmarking studies done on the same identified machine for our peers within Reliance and outside.

HR Intervene

Hiring the Budding Star Performers

To build a customer friendly culture HR should hire only such employees who are capable to reinforce customer satisfaction. According to Ron Zemke, president of Performance Research Associates, a consulting firm, a successful customer service representative is one who is an optimist, flexible and able to manage stress and criticism. He should be able to strike a balance between his interests and that of the company and the customer. Scrutinizing a potential candidate should begin from the time he appears for the interview. The candidate's body language and attitude before and during the interview might give some clues about his capabilities.

Training the Budding Stars

On being recruited, a candidate should be trained to establish customer relationships. To serve the customer better one needs to understand his needs. For this the employee should be aware of the different personality traits and their behavioural patterns. The Meyers Briggs Type Indicator questionnaire is an effective tool in identifying personality types. After Six Sigma training to employee there was tremendous improvement in GRM. Effective communication skills need to be imparted. Further developing the voice tone of the employee and his body language take the lead here. Research shows that 55% of the total impact of an employee's interaction with the customers is by body language and 38% by his tone. In particular, employees serving customers telephonically need to improve their listening skills, as it is difficult to comprehend the same over the phone. Listening to the customer attentively and restating it concisely shows the kind of attention a customer is given.

Reliance Innovation Council, RIL has set up the Reliance Innovation Leadership Centre. The Centre acts as a catalyst in providing leadership and support to the business of RIL by harnessing cutting-edge, futuristic but practical, science, technology and innovation initiatives from both within and outside the organization. It will serve as a Nerve Centre with the sole quest of propelling RIL to the forefront of global business leadership. Reliance Innovation Council organized "*Mission Kurukshetra*" to tap the potential and innovative ideas of employees. This is a good motivational tool to employee for generating ideas. At unit level suggestion scheme, Six Sigma projects are being used to encourage employees to generate innovative ideas and practical solutions for the existing problem/ area of concern. Employee feels motivated and finds themselves more confident to perform and achieve organizational goals. The projects and suggestion are financially rewarded. The future leadership is identified within all departments of the organizations. HODs have been given responsibility to develop their successor. The successors are given required input based upon his training need enhancing the skill for higher position. It is our constant endeavor to promote employees instead of inducting fresh blood at higher level. The top management and the working staff have frequent communication and exchange of ideologies by ways tool box talks etc. The employees are amply recognized at various forums like Long service award, suggestion scheme awards etc.

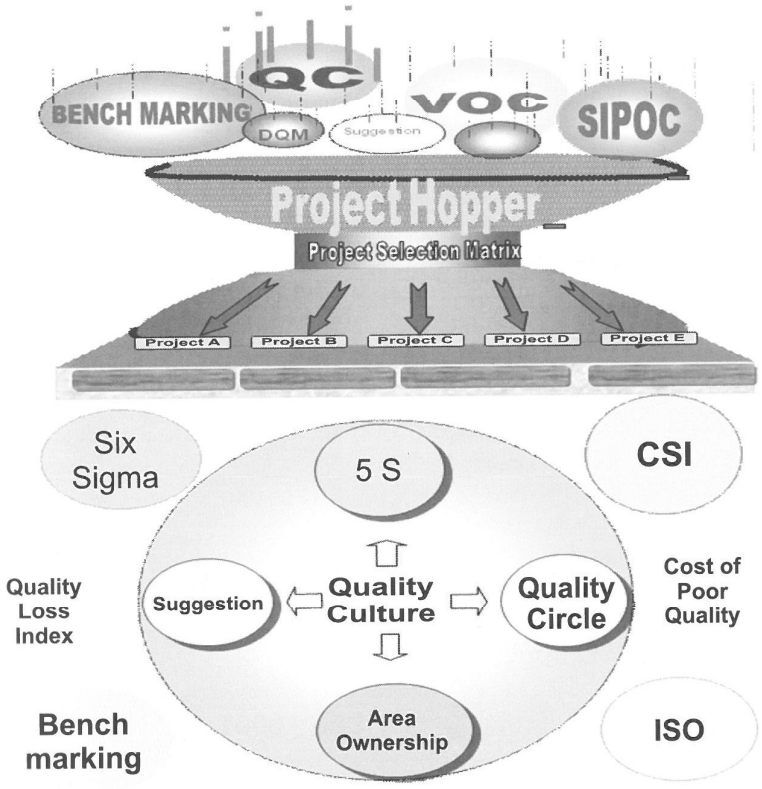
Employee's birthdays are celebrated in the presence of all departmental HoD's. The top management believes Six Sigma to be the next catalyst for sustainable growth. Based on this belief the management supports & has trained 94.12 % employees for six sigma certifications. The drive has not only generated financial gain but also resulted into qualitative and quantitative product enhancement.

HR Intervene

HR has to initiate employee involvement in TQM activity. Ultimately, quality is physically produced by the operator on the shop floor. It is therefore very important that he understands the quality requirements of his job. This is possible provided his involvement in the job is very high and he is a very committed and empowered worker. It is in this context that Japanese have introduced Quality Circles which have generated high level of commitment of workers and finally helped Japan to become as world leader in the business. Quality circles are based on the fundamental principles of collaboration, involvement & empowerment. HR has to facilitate the culture of team work either in the form of Quality Circles, Quality Teams, Task force, so on. In general, HRM is responsible for providing training and development.

HR Intervene

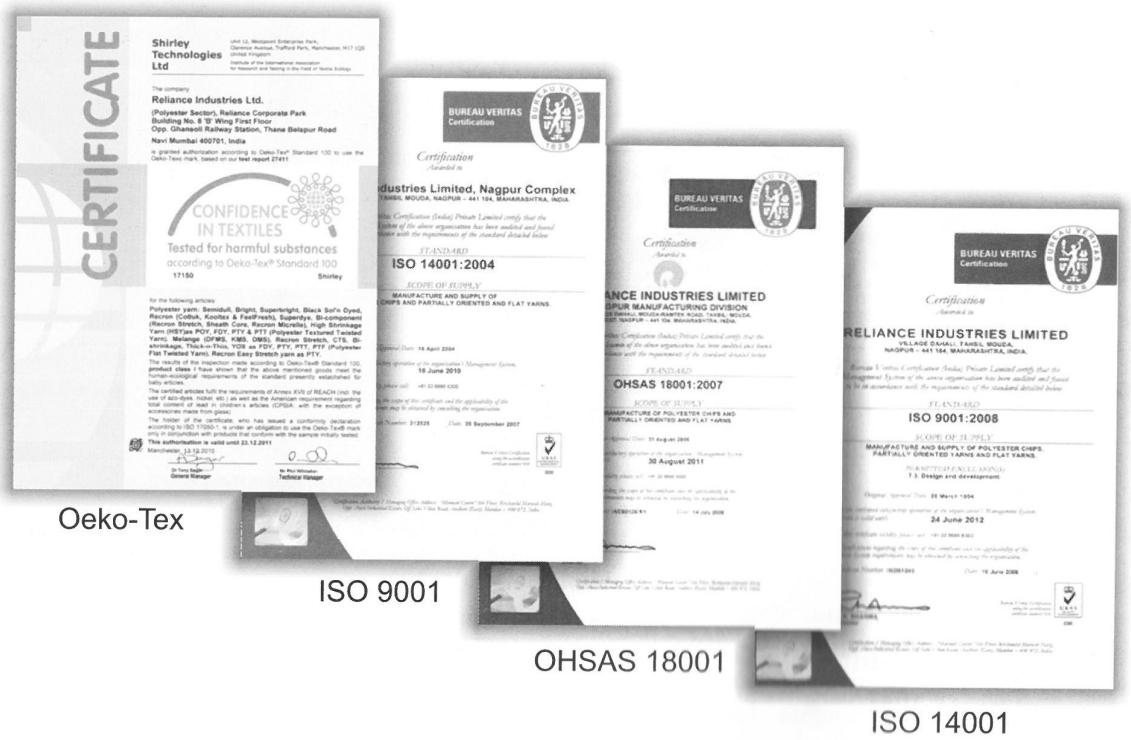
Developing HR capability requires investing in the training and development of both HR specialist and line managers with staff management responsibilities .It is vital that any investment in specialist HR capacity evaluates the HR different ways to deliver the HR function. Even if outsourcing is rejected the in-house HR function should be properly audited and monitored .To be effective the HR function must develop both an operational and a strategic HR capacity. The HR function should not try to run before it can walk robust HR policies and practices should be developed before attempt at devolution or more radical changes in employment practices should be pursued.RIL believes that "Safety override production" & hence safety management system is inbuilt before taking any initiative. The implementation of Management systems like QMS, EMS & OSHAS has wide variety of impact at different levels in the organization. Our Projects are collected in a project hopper for distribution according to the project holders for various quality initiatives. The systems that are used for quality improvement are Benchmarking, Six Sigma, CSI, 5S depending on the project requirement



At RIL, Continuous improvement is an ongoing effort to improve our products. These efforts are seek from "incremental" improvement over time or "breakthrough" improvement all at once. All processes are constantly evaluated and improved in the light of their efficiency, effectiveness and flexibility. RIL-NMD firmly believes that improvement should be a continual process. Improvement in product quality helps in keeping pace with the changing scenario of the fiber industry. Moreover it is also in line with the company policy, mission, vision & goals. In RIL daily management team comprise of all employees are constantly tracking the process output and working on these smaller scale problems, it provides a continuous improvement through CASHe, SGA & Suggestion activities. Sometimes this approach is advocated as team-based approach to carry out the daily management functions. As a set of state-of-the-art tools for solving chronic operations problems, Task based projects are performed using practices like Six Sigma, 5S & other quality tools are used for both continuous and breakthrough improvement.

Quality Assurance in RIL

The company is certified under ISO 9001 for Quality Management, ISO 14001 standards for Environmental Management Systems and OHSAS 18001 for Occupational Health and Safety Assessment Series. The renewed OekoTex (Class 1) certificate for our FILAMENT products is useful for retaining and obtaining customers in the FILAMENT BUSINESSES. Thou' OekoTex is a private label (Europe-based) for product safety that is given after testing that certain harmful chemicals are absent or at acceptable levels in textile products. This certification also fulfils the requirements of REACH so this is a bonus! The company achieved 5 star ratings in Audits conducted by British Safety Council for Occupational Health & Safety and Environment Management in 2009 and also received Sword of Honour award in 2010. In order to boost the morale of employees, encourage their contribution of ideas and bring about the realization that HSE is everybody's business. RIL-NMD has also introduced the use of Multimedia to propagate messages on Safety. Multimedia can directly make our workmen and other stakeholders realize that above all rules and norms. These were also selected to be screened at The National film and book exhibition 2009-10 held at Central Labour Institute Mumbai sharing the screen with prominent entities like Film Division of India and the International Labour Organization.



The HR Challenges Associated with Total Quality Management

Implementation of total quality management may sound like a well executed strategy in the RIL but it was not an uncomplicated experience on the part of the human resource department, according to HR manager, RIL, Nagpur. It involved several human resource challenges to them, including those of:

- *motivating knowledge workers*
- *getting employee satisfaction*
- *overcoming communication barriers*
- *Vastness of the organization*

Conclusion

There is growing evidence that TQM is unlikely to achieve its objectives unless there is a greater awareness of the 'people' factors in quality management (Wilkinson, 1994). Although writers and organizations often refer to the 'human factors', this is rarely treated at anything more than a superficial level: the need for more training, better communications, empowerment of staff, open management styles and so on.

1) HR practitioners may play a creative role at the shaping stage of TQM, for example by designing and delivering senior management development courses or reviewing current organizational cultures.

2) HR can contribute at the introduction phase by designing communications events to publicize the launch of TQM or assisting the Board to produce mission statements.

3) Assistance can he provided to maintain and reinforce TQM by identifying ways in which to recognize and reward achievements, or redesigning suggestions schemes.

4) HR practitioners have a role to play in reviewing TQM, by designing attitude surveys and analyzing their result.

References

Anon. (1988). *Managing Quality and Productivity in Aerospace and Defense*, Defense Systems Management College, Fort Belvior VA.

Anon. (1989). *AIAA/ADPA/NSIA 1st. National Total Quality Management Symposium*, Denver CO, 1-3 November.

Anon. (1992). *Putting the T in Health Care TQM: A Model for Integrated TQM: Clinical Care and Operations*, GOAL/QPC, Methuen MA.

Anon. (1994). "After All Tests Have Been Graded, Will TQM Get an A+ or an F?," *Management Review*, January.

Bemowski, K. (1995). "TQM: Flimsy Footing or Firm Foundation?," *Quality Progress*, Vol. 28, No. 7, July, pp. 27-28.

Berk, J. and S. Berk (1993). *Total Quality Management: Implementing Continuous Improvement*, Sterling Publishing Co. Inc., New York NY.

Breisch, R. E. (1996). "Are You Listening," *Quality Progress*, January, pp. 59-62.

Cullen, J. and J. Hollingum (1987). *Implementing Total Quality*, Springer-Verlag, Berlin.

Crosby, P. B. (1979). *Quality is Free: The Art of Making Certain*, McGraw-Hill Book Company, New York NY.

Crosby, P. B. (1984). *Quality Without Tears: The Art of Hassle-Free Management*, A Plume Book, New York NY.

Gevirtz, C. (1994). *Developing New Products With TQM*, McGraw-Hill, Inc., New York NY.

Gitlow, H. S. and S. J. Gitlow (1987). *The Deming Guide to Quality and Competitive Position*, Prentice-Hall Inc., Englewood Cliffs NJ.

Goldratt, E. M. (1990). *Theory of Constraints*, North River Press, Inc, New York NY.

Hodgson, A. (1987). "Deming's Never-Ending Road to Quality," *Personnel Management*, July, pp. 40-44.

Lawrence, J. J. (1996). "Math Programming's Potential to Aid TQM Implementation," *Quality Progress*, January, pp. 76-80.

Leach, L. P. (1996). "TQM, Reengineering, and the Edge of Chaos," *Quality Progress*, February, pp. 85-90.

Rao, A., L. P. Carr, I. Dambolena, R. J. Kopp, J. Martin, F. Rafii, and P. F. Schlesinger (1996). *Total Quality Management: A Cross Functional Perspective*, John Wiley & Sons, New York NY.

Reichheld, F. F., and W. E. Sasser Jr. (1990). "Zero Defections: Quality Comes to Services," *Harvard Business Review*, Vol. 68, No.5, September-October, pp. 105-111.

Scherkenbach, W. W. (1986). *The Deming Route to Quality and Productivity: Roadmaps and Roadblocks*, CEEPress Books, Continuing Engineering Education Program, George Washington University, Washington DC.

Walton, M. (1986). *The Deming Management Method*, Perigee Books, New York NY.

Zultner, R. E. (1993). "TQM for Technical Teams," *Communications of the ACM*, Vol. 36, No. 10, October, pp. 79-91.