



# QUALITY

*Striving for Excellence*

National Centre for Quality Management

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President's Page

## World-Class Practices



The importance of World-Class Manufacturing has been recognised over the years, more so after Toyota introduced several path-breaking production practices like lean manufacturing and waste elimination. World-class manufacturers are those

that demonstrate industry's best benchmark practices. To achieve this, companies strive to be the best in the field at each of the competitive priorities, *viz.*, quality, price, delivery speed, delivery reliability, flexibility and innovation.

Global companies are aiming at maximising performance in all important areas in order to face competitiveness, squarely. They are intelligently deploying resources to allow conspicuous improvements in all key functions, enhance performance in all qualifying factors and improve competitive edge. They recognise that priorities constantly change over time and are facing them with appropriate structured approaches.

Though costs and their control continue to get due management focus, cost reduction does not remain any longer the overriding priority. What are being attempted are focussed improvements in processes and focussed compliance to systems, all aimed at customers and markets. They are also looking for methods of control that are easier to implement and make the system work better, operationally. These are being viewed as pre-requisites in almost all situations, until they are proven to be impractical and ineffective.

Today, we all recognise that globally competing practices are no more abstract or myth and are standing the scrutiny of ruthless market competition. But, many of these practices, currently towering over others, may trip aside, unless they are made to face contemporary challenges.

Hence the focus on World-Class Practices in this current issue.

— **Mahesh V. Gandhi**  
*President*

Our next issue is on 'Corporate Social Responsibility'

### World Class Quality

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# Practices for emulative performances

Dr. R. H. G. Rau<sup>†</sup>

## Abstract :

*In recent years we have been witnessing an increasing number of Indian organisations and individuals demonstrating competences to propel their performances to global levels. Some of them have even set benchmarks for others to emulate.*

*We also had great performers in earlier years. But now we have an explosion of Indian talent. The whole world is standing up to applaud their outstanding performances. The leading ones have voracious appetite for achievement. They are continuously raising the bar and driving themselves towards enhanced performances, making this an endless journey. Further, modern Indian organisations are increasingly vocal in sharing their best practices and are quick to learn from global experiences.*

## Introduction :

India, as a learning nation, has come a long way during the past decade. The country continues to pass through several meaningful transformations. 'Keeping eyes and ears open' is now a part of organisational strategy, and is getting increasingly adopted by enlightened managements. Further, they are becoming trendsetters to the nation.

Global competition is fierce and ruthless. The inefficient ones are being washed out fast without any trace. When India was pushed into this ring in early 1990s, the first few years have been essentially a period of learning and that of course for corrections. Since then, the industry is moving fast with flying colours.

We have shining examples like Tata Steel, the winner of CII Exim award of the year 2000, becoming a world-class low-cost steel producer in a matter of 4 years with top-driven focus. The TVS group in South made India proud by many of its units meeting the stringent Deming prize standards. Reliance is another example for

achieving world-class standards in its operations. Service managements like HDFC, with global focus, are increasingly competing to be in the good books of every single customer. Each one of them is learning, quickly responding to the market needs and constantly re-engineering its operations to be ahead of the competition.

The Corporate India and its managements have changed hands from the age-old tradition of managing-through-gut-feeling, into a new era showing firm belief that it is the total performance that would provide business differentiation. These new managements are increasingly showing undiluted faith in strategic management approaches, both in letter and spirit.

The Indian IT industry may be recalled here, not only for its business results, but also for the way it is responding to intense challenges and fast-changing market requirements. The leading ones have moved well beyond customer satisfaction and customer delight, and are constantly looking for ways and means to innovatively add value to customers. More importantly they are getting increasingly customer-centric.

## Value-driven approach :

Indian organisations are no more in a rat race. Many are addressing to organisational leadership for operational supremacy. The leading among them are demonstrating common attributes as shown in Fig.1, and they appear to be the key performance drivers. They are being drilled down through a shared vision and a set of values which are held so dear.

- 
- Passion
  - Pride
  - Perseverance

Fig. 1

The three definite drivers

Every single activity designed and implemented is then aligned to the organisational value statements, such as vision, mission and core

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values on one side and a set of measurements, covering both financial, and non-financial on the other. Further, managements continuously review significance of their approach, deployment and the end results, and ensure dynamic improvements. The key deployed strategies are given in Fig.2.

- Shared Values
- Focussed Commitment
- Stretch Targets
- Competence Creation
- Breaking the Barriers

Fig. 2

The five significant strategies

### Customer value :

Indian industry's focus on manufacturing and delivering products strictly to commercial and technical contract is becoming a practice of the past. Currently companies are striving to improve their efficiency in response to fierce competition, and are providing value for money with better service. Customers are able to use a broad range of criteria to make any buying decision, such as performance levels, after-sales service, reliability, maintenance and technical support. Successful companies are also adding value to the basic product or service. Even traditional manufacturing companies are being forced by customers to become more service-oriented. The underlying factor in all these developments is focus on customer and recognition of customer value.

There are several learnings from global practices. For instance, Motorola's Fundamental Value is 'Total Customer Satisfaction' and it is everyone's overriding responsibility. To achieve this objective they have set out :

- (a) key beliefs addressing how they will always act,
- (b) key goals stating what they must accomplish, and
- (c) key initiatives covering how they will do it.

### Customer perceived value :

Today, customer sovereignty is the driver.

Customers and markets are demanding value for their money manifold over what they are paying. We may recall here a quote from Mahatma Gandhi, who said in 1940s : "If I were a taxpayer within the jurisdiction of a local board or a municipality, I would refuse to pay a single paisa by way of additional taxation and advise others to do likewise, unless the money we pay is returned fourfold". Today, possibly tenfold is the demand. Customer-perceived value measurement differs from customer satisfaction in each of the related characteristics as given in Fig.3.

| <i>Customer satisfaction</i>       | <i>Customer-perceived value</i>            |
|------------------------------------|--|
| ● Limited to customers and markets | ● Extends to all                           |
| ● Retrospective                    | ● Prospective                              |
| ● Features oriented                | ● Benefits oriented                        |
| ● Relative to expectations         | ● Relative to alternatives                 |
| ● Useful for improving processes   | ● Useful for predicting customer behaviour |

Fig. 3

Customer Satisfaction vs. Customer-Perceived value

### Process enhancement :

It is now well established that process enhancement is possible only through preventive steps, so vital while managing the processes. All corrective steps mean cost and are being overcome with utmost attention. The tendency to reward only those who are good at fire fighting is being curbed.

Organisational tendency to work towards minor improvements is no doubt laudable. But the need of the hour is to register 'quantum leaps' from fixing the products and services and meeting minimum acceptance levels to breakthrough processes that would produce not only defect-free but also value-added products and services.

Managements have been focussing for too long on averages. They are satisfied when the management information systems throw out average performance figures with improving trends. While such a management approach is desirable, it lacks focus on managing process capabilities, which can be measured only through deviations at every process step. It is this attention to deviation that has resulted in the development of initiatives such as Six Sigma.



It is fashionable to exclusively blame top management for failure in breakthrough improvements. While it has the responsibility to provide the drive, successful process enhancements are the outcome of appropriate support at all levels, reviews, recognitions and rewards.

The competitive realities in a rapidly changing environment demand customer and market focus, as shown in Fig.4, assisted by flexible leadership, team work, empowerment and innovation.

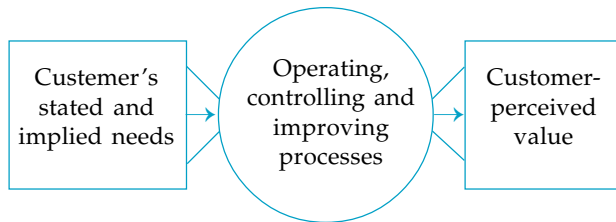


Fig. 4  
Customer - Focussed Processes

Defects have a way of multiplying and the defects in one part of a business system create problems elsewhere. Most people in business then spend a large proportion of their time correcting these defects, looking for things, checking why things are going wrong, rectifying, redoing, apologising to customers, etc. It has been estimated that about one-third of all effort expended in most businesses is wasted because of this so called fire fighting. The benefits of doing things right first time, and every time, are enormous.

Enlightened global companies are also currently focussing on innovation as a tool to be ahead of competition. We have several outstanding examples like Sony who encourage their inventors to convert every new thought into a prototype within two weeks. Innovation is the key to keep pace in the race for excellence.

Innovations themselves have gone through transformations. In today's approach, continuous innovations address all the processes related to management commitment and organisational operations. It is observed that innovation focus often leads to dramatic improvements, far above the recorded achievements through conventional continuous improvement processes.

**Commitment to excel :**

Excellence is best described as doing the right things right, selecting the most important things to be done, and then accomplishing them cent per cent correctly. Excellence is not attained simply by doing what is required. It is achieved by doing beyond what is required. Excellence is, not settling for anything, but the best. Demand the best for oneself, because others are demanding only the best.

Albert Einstein once said that great spirits have always encountered violent opposition from mediocre minds. But it is amazing what ordinary people can do if they set out without preconceived notions. Good is not good where better is expected and when motivated, people give out more than what you expect.

As Bernard Shaw said, we need not always blame circumstances for the position we are in. Successful people who got on in this world are the people who get up and look for the circumstances they want, and if they can't find them, make them. This is equally true for successful global organisations.

Let us take for example, Mumbai's *dabbawalas*. 5,000 men deliver 175,000 lunches every day, making only one mistake in every 2 months, which is equivalent to one mistake in 8 million deliveries; a service failure of less than a Six Sigma company. The drive for such a quality service is the desire to serve each customer without fail, so that he does not go hungry. In business too, we need to realise that we need to serve every single hungry customer with commitment. If we don't take care of the hungry customer, someone else will.

**Conclusion :**

India is well set in continuous improvement mode, for its own survival. The industry is also attempting to look external in its efforts, thereby focussing on markets and customers.

India needs to set new standards for total performance that can change the outlook of everything that is Indian. It needs to build

(Continued on page 13)

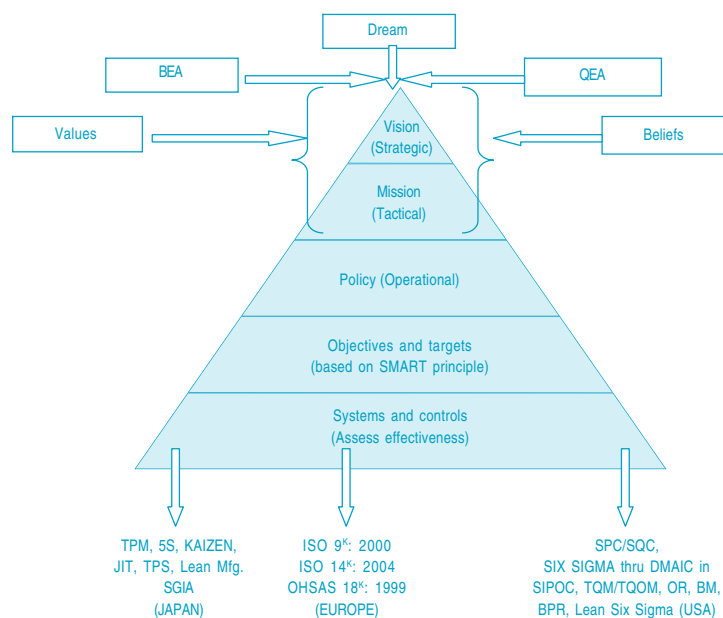


# World-class initiatives undertaken by business/ quality excellence award winners

B. Banerjee<sup>†</sup>

## 1. The frame :

The overall frame of world-class initiatives is derived from vision, mission, values and beliefs of top management. These are grouped as per locations from where they were initiated — Japan, Europe and the USA.



## 2. Awards :

Global awards for quality and business have been instituted to promote and inspire organisations to achieve excellence.

Examples :

### 2.1 QEA = Quality Excellence Award

Example : Deming prize, Japan which is **non-competitive**

### 2.2 BEA = Business Excellence Award

Examples : MBNQA (USA), RBNQA and RGNQA (India) — **A competitive award**

Basics on some of the common ones are given in this article.

<sup>†</sup> Based on presentation to NCQM members on 10-4-2008.

## 3. Total Productive Maintenance (TPM) : 8 pillars of TPM :

TPM is one of the approaches developed in Japan for efficient, reliable and effective operation in industry (see nine themes, on the next page). Let us understand the **power of TPM** by an analogy.

Advice of USA to keep good health will be to go for swimming, horse riding, playing tennis, etc. which are mostly unaffordable or infeasible to a common man in India.

Japanese instead, will keep them fit by regularly practising Yoga and Pranayama, going for morning walk, having healthy diets which are quite simple and cost effective.

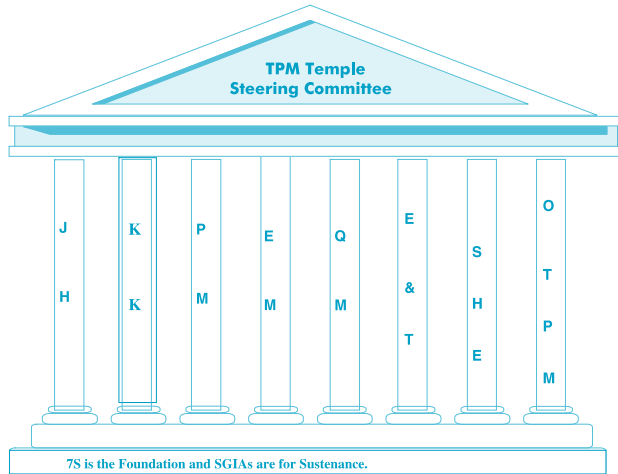
Similarly for maintaining high OEE % (Percentage of Overall Equipment Efficiency) USA's advice will be to retrofit or replace, whilst Japan will ask you to religiously adopt 5S, Jishu Hozen and planned maintenance to achieve the same goal without much of financial commitment.

There are **eight pillars of TPM**. They are :

1. JH Jishu Hozen (Autonomous Maintenance)
2. KK Kobetsu Kaizen (Focussed Improvement)
3. PM Planned Maintenance (not Preventive Maintenance)
4. EM Early or Development Management
5. QM Quality Maintenance
6. E&T Education and Training
7. SHE Safety, Health and Environment
8. OTPM Office and Administration Process Improvement or Office TPM



#



3.1 *Nine themes of TPM*: TPM works on nine themes abbreviated as PQCDSSMGI where

- P Productivity
- Q Quality
- C Cost
- D Delivery
- S Service
- S SHE
- M Morale or motivation
- G Good manufacturing practices (Housekeeping to start with), and
- I Innovation

Study on each theme has to be done by strictly following PDCA (Plan-Do-Check-Act) cycle, which is now modified to PDSA (Plan-Do-Study-Act) approach.

3.2 *Seven S* :

It started with Five S as follows :

| Sr. No. | Japanese | English         | What to do   |
|---------|----------|-----------------|--|
| 1st S   | Seiri    | Sort            | Sort out necessary and unnecessary items. Dispose of the latter ones after verifying with other depts./units.  |
| 2nd S   | Seiton   | Arrange         | Follow 5 principles : Air-free, Search-free, Count-free, Bend-free and Climb-free  |
| 3rd S   | Seiso    | Clean           | Clean to shine initially and later follow schedule.  |
| 4th S   | Seiketsu | Standardise     | All bearings, belts, motors, electrical & electronic items, etc. and even hardware & stationery. In general, standardise all inputs, SOPs (conversion activities) and outputs. |
| 5th S   | Shitsuke | Self-Discipline | Practise-Practise . . . . . Practise — Form habits and then teach others.  |

Later 6th S = Safety including Health and Environment (SHE) and 7th S = Security (of data) have been added.

4. *Lean manufacturing* : by reducing waste of all types, value is added to processes to ensue competitiveness :

It is based on principle of reduction for the following 7 types of Muda (Waste) :

1. **Muda** of overproduction
2. **Muda** of transportation
3. **Muda** of motion
4. **Muda** of scrap and rework
5. **Muda** of Waiting (Maximise value-added time which is less than 5% in India)
6. **Muda** of inventory (RM, stores, WIP and spares), and
7. **Muda** of processing

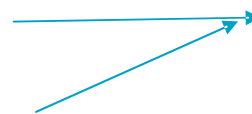
5. *Kaizen* : People involvement in Kaizen leads to incremental improvements in processes. All improvements are done step by step. PDCA is followed by PDSA to institutionalise change :

(KAI = Change, ZEN = Better)

Kaizen means Change for the Better = Continual (not Continuous) Improvement

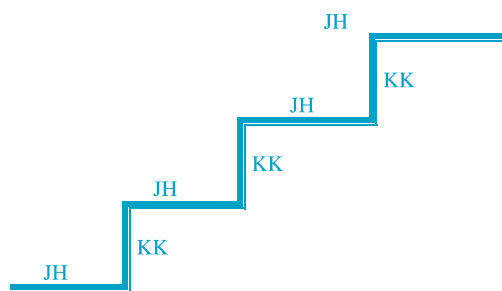
6. *Difference between continuous and continual improvement* :

6.1 *Continuous Improvement* :



#

## 6.2 Continual Improvement :



This graph illustrates that we have to stabilise through JH (Jishu Hozen) and go to next level by applying KK (Kobetsu Kaizen).

For a given period, an organisation normally selects only prioritised areas for continual improvement depending on finance and other resource constraints.

### 7. ISO 9000 Series : Quality Management System ISO 9001:2000 ensures consistency and continual improvement in the QMS to enhance customer satisfaction :

ISO stands for International Organisation for Standardisation. It is not an acronym.

The word ISO is derived from Greek word 'Isos' meaning Equal or Isobar.

BSI (UK) along with 11 other European countries started standardisation of QAMS (Quality Assurance Management Systems) in 1979 through a technical committee (TC-176).

In 1987 : First ISO 9000 Series of Standards came out. In 1994 : First revision of ISO 9000 series of Standards came out. In 2000 : Second revision of ISO 9000 series of Standards came out. Since assurance is built into the system, it is termed as QMS (Quality Management System) now. Next revision is expected by end of 2008.

**7.1 ISO 9001 : 2000 on Quality Management System (QMS) is based on 8 management principles, abbreviated as CLIPSCFM which are elaborated below :**

#### 1. Customer focus :

- |                        |                     |
|------------------------|---------------------|
| (i) External customers | 200 points in RGNQA |
|------------------------|---------------------|

- |  |                     |
|--|---------------------|
| (ii) Internal customers (ISO 9000 — QMS) | 50 points in RGNQA  |
| (iii) Hidden customers (ISO 14000 — EMS) | 100 points in RGNQA |

#### 2. Leadership :

- (i) Visionary leaders *e.g.*, Dr. George Kurian, Mr. Narayan Murthy, Mr. Rajiv Gandhi, Mr. Sam Pitroda
- (ii) Executive leaders *e.g.*, Mr. T. Chandrashekhar Rao

#### 3. Involvement of people ( through Kaizen, 5S, JH and SGI activities)

#### 4. Process approach

#### 5. Systems approach

#### 6. Continual improvement

#### 7. Factual approach (through application of SPC techniques), Data-based management)

#### 8. Mutually beneficial supplier relationship

### 8. ISO 14001 : 2004 on Environmental Management System (EMS) :

EMS aims to protect the environment for sustainable development. It aims to remove, reduce, recycle and reuse all types of waste.

The first conference on environment was held at Geneva on 5th June 1972, in which our late Prime Minister Mrs. Indira Gandhi read a paper written by Dr. K. C. Pant, the then Chairman of Planning Commission. 137 heads of countries participated in this convention. Thereafter, 5th June is celebrated as 'World Environment Day'.

It is **based on 5 tenets :**

- (a) Prevent pollution (air, water, noise, land contamination)
- (b) Conserve natural resources (water, electricity, paper, oil, flora and fauna)
- (c) Meet and exceed all statutory and regulatory requirements of the operating as well as exporting countries.
- (d) Remove, reduce, recycle and reuse all forms of wastes
- (e) Ensure top management commitment on continual improvement on all the above.



✚ ISO 14001 : 1996 was the first EMS standard. Its revision came in 2004. Unlike QMS whose focus is mostly on external customers, EMS mostly focusses on hidden customers.

### 9. OHSAS 18001 : 1999

**Safety, Health and Environment Standard provides desired work environment. Workers feel safe and confident.**

An Occupational Health and Safety related Systems' Standard. It is better if an organisation acquires this also and eventually have an integrated management system comprising QMS, EMS and OHSAS, which is being done by many companies in India and abroad.

### 10. Statistical Process Control (SPC)/Statistical Quality Control (SQC) :

SPC/SQC ensures acceptable specified inputs to processes and control of processes on-line. Process capability studies assess variability of processes.

Basic aim of SPC and SQC is to reduce variability by following **half a dozen proven management actions** :

1. Improve input materials' inherent quality
2. Understand exact requirements of customers and translate them into features and process specifications (QFD = Quality Function Deployment).
3. Reduce tolerances of critical process parameters to half.
4. Have target-oriented technical training and re-training.
5. Religiously adopt Jishu Hozen (autonomous maintenance) **by restoring basic conditions** through **COTS**, where :

**C** stands for cleaning with meaning

**O** stands for oiling (lubrication) — Excess is as dangerous as less. Therefore have standards and follow discipline.

**T** stands for tightening, and

**S** stands for straightening

Also **restore usage conditions** through planned maintenance (**not preventive maintenance**).

6. Follow validated systems.

### 11. Six Sigma :

**Six Sigma is all about making money — improving bottomline, of course with clear focus on customers.**

It follows DMAIC (Define, Measure, Analyse, Improve and Control) approach in all facets of SIPOC (Supplier-Input-Process-Output-Customer). It aims at reducing error level to 3.4 ppm (parts per million) or DPMO (defects per million opportunities) as it is termed in Six Sigma literature. It is again a **top-driven initiative**.

### 12. TQM (Total Quality Management) & WCM (World-Class Manufacturing) :

TQM is an approach to improve flexibility and effectiveness of a business in its entirety.

(World-Class Manufacturing incorporates all components of TQM.

Three major components of TQM are :

- People who need GRAPES (Growth, Recognition, Achievement, Participation, Esteem and Self-Actualisation)
- Tools and techniques such as SPC, OR, IE (Industrial Engineering), etc.
- Systems like ISO 9000, ISO 14000, OHSAS 18000, TS 16949, US FDA, etc.

They are like three legs of a table.

The fourth leg which makes it stable comprises techniques like 5S, Kaizen, TPM, JIT and TPS which originated in Japan and practised by most Japanese companies towards their world-class journey.

A combination of all the four takes an organisation to World-Class Manufacturing (WCM) status.

### 13. TQOM :

**Excellence is achieved when management looks to interest and satisfaction of all stakeholders. Service quality is assured by empowering frontline employees.**

TQOM stands for 'Total Quality Of Management' where total means 'Total' (all).

# Let us take a simple example as to why 'All' in the organisation should get involved into satisfying stakeholders on product/service quality.

Consider a driver who has been sent to airport/rail station to pick up an important guest. Half a dozen attributes which will differentiate him as a TQOM-practising company driver are :

- (a) Punctuality
- (b) Immediate identification of the guest.
- (c) Dress code & smartness
- (d) Mannerism
- (e) Safety in driving
- (f) Condition (both internal and external) of the vehicle.

#### 14. Operations Research (OR) :

**Operations Research deals with optimisation techniques and provides quantification of strategic and operational issues.**

Operations Research abbreviated as OR is a science which deals with mathematical and statistical techniques for bettering decision-making process. Talking informally, it gives a bad solution to a problem for which a worse solution could otherwise be obtained. In fact, OR is war against adhocism. In successfully setting up and running an industry, one is confronted with a number of decisions, many of which are qualitative, yet some are quantitative. These decisions can be either strategic or tactical or operational. Strategic decisions are long-term ones and affect majority of people in the organisation. Plant sizes, its location, make or buy decisions, etc. come under this category. Medium-term decisions such as product mix, inventory policy, etc. are tactical whereas short-term decisions like wastage reduction, outgoing quality audit, reduction of customer complaints, on-time in full delivery, etc. come under operational decision-making category. OR mostly deals with optimisation techniques. Some of the common OR techniques are Assignment problem, Transportation technique, Linear programming, Goal programming, Game theory (Competitive strategies) PERT/CPM (Network analysis), Queuing theory (Waiting line models), simulation, forecasting, scientific

inventory management, investment decisions and replacement policies, dynamic programming, etc.

#### 15. Measures of effectiveness : It is not the 'activities' but the 'results' which count :

Five yardsticks to assess **effectiveness** of any initiative :

- (1) Cost reduction
- (2) Quality improvement
- (3) Productivity improvement
- (4) Customer satisfaction, and
- (5) Systems improvement

**Assess effectiveness on a continuing basis by recent past 12-months' trend against benchmarks/targets.**

##### 15.1 Objectives & Targets :

Develop 'SMART' objectives, where :

- S** : Suited to organisational needs
- M** : Measurable
- A** : Achievable/Agreeable
- R** : Realistic
- T** : Time bound

#### 16. Three visual indicators of a world-class company :

- |  |   |                           |
|--|---|---------------------------|
| <ol style="list-style-type: none"> <li>(1) Nothing on floor<br/>— No spillages/<br/>dust &amp; dirt.</li> <li>(2) No leakage of air,<br/>oil, water, steam,<br/>electricity, gas.</li> </ol> | } | Neat and<br>clean factory |
| <ol style="list-style-type: none"> <li>(3) Place for Everything and Everything in its<br/>Place (PEEP) → <b>One-touch pick-up — No asking, no searching.</b></li> </ol>                      |   |                           |

#### 17. RGNQA (Rajiv Gandhi National Quality Award) : Salient points

RGNQA is a competitive business excellence award instituted by Bureau of Indian Standards (BIS) in memory of the late Prime Minister Mr. Rajiv Gandhi in 1991. It is given once in a year. There are in all 5 awards. One winner in each of the large-scale and small-scale industry for



# manufacturing and service sector and one 'Best of all' award. Also 26 commendation certificates are given.

The applicant organisation is required to submit the application in the prescribed format to BIS. The applications are screened based on eligibility criterion and shortlisting is done for fact finding and on-the-spot evaluation termed as site visit. The team of experts from different fields visits the applicant organisation for evaluation and rating. The top 5 organisations are awarded.

**17.1 Criteria Framework for 2007 RGNQA and highlights on them are given below :**

|                                      |             |   |                |
|--------------------------------------|-------------|---|----------------|
| 1. Leadership                        | 100 points  | <b>How :</b> Follow ADLI process where<br>A : Approach<br>D : Deployment<br>L : Learning<br>I : Integration | Total 500 pts. |
| 2. Policies, Objectives & Strategies | 100 points  |   |                |
| 3. Human Resource Management         | 50 points   |   |                |
| 4. Resources                         | 100 points  |   |                |
| 5. Processes                         | 150 points  |   |                |
| 6. Customer Focussed Results         | 200 points  | <b>What :</b> Follows PDCA approach for results<br>Total 500 points.  |                |
| 7. Employees' Satisfaction           | 50 points   |   |                |
| 8. Impact on Environment and Society | 100 points  |   |                |
| 9. Business Results                  | 150 points  |   |                |
| Total                                | 1000 points |   |                |

Similarly, there are criteria framework for Malcolm Baldrige National Quality Award (MBNQA) and Ramkrishna Bajaj National Quality Award (RBNQA).

**18. Ramkrishna Bajaj National Quality Award (RBNQA) :**

**18.1 Background :**

Since 1996, the IMC-RBNQA criteria have been used by hundreds of Indian organisations to stay abreast of ever-increasing competition and to improve performance. The criteria emphasise openness and transparency in governance and ethics; the need to create value for customers and business; and the challenge of rapid innovation and capitalising on one's knowledge assets.

**18.2 Core values and concepts :** The criteria are built upon eleven interrelated core values and concepts :

- (1) Visionary leadership
- (2) Customer-driven excellence
- (3) Organisational and personal learning
- (4) Valuing employees and partners
- (5) Agility
- (6) Focus on future
- (7) Managing for Innovation
- (8) Managing by facts
- (9) Social responsibility

- (10) Focus on results and creating value, and
- (11) Systems perspective.

These values and concepts are embedded beliefs and behaviours found in high-performing organisations. They are the foundation for integrating key business requirements within a result-oriented framework — a framework that creates a basis for action and feedback.

**18.3 Criteria framework and point values (2008) :**

| Sl. No. | Categories and Items | Point | Values |
|---------|----------------------|-------|--------|
| 1.      | Leadership           |       | 120    |

#

| Sl. No. | Categories and items  | Point | Values |
|---------|---|-------|--------|
| 1.1     | Senior leadership   | 70    |        |
| 1.2     | Governance and social responsibility                                | 50    |        |
| 2.      | Strategic planning  |       | 85     |
| 2.1     | Strategy development  | 40    |        |
| 2.2     | Strategy deployment   | 45    |        |
| 3.      | Customer and market focus   |       | 85     |
| 3.1     | Customer and market knowledge                                       | 40    |        |
| 3.2     | Customer relationship and satisfaction                              | 45    |        |
| 4.      | Measurement, analysis and knowledge management                      |       | 90     |
| 4.1     | Measurement, analysis and improvement of organisational performance | 45    |        |
| 4.2     | Management of information, information technology and knowledge     | 45    |        |
| 5.      | Workforce focus   |       | 85     |
| 5.1     | Workforce engagement  | 45    |        |
| 5.2     | Workforce environment   | 40    |        |
| 6.      | Process management  |       | 85     |
| 6.1     | Work system design  | 35    |        |
| 6.2     | Work process management and improvement                             | 50    |        |
| 7.      | Results   |       | 450    |
| 7.1     | Product and service outcomes  | 100   |        |
| 7.2     | Customer-focussed outcomes  | 70    |        |
| 7.3     | Financial and market outcomes                                       | 70    |        |
| 7.4     | Workforce-focussed outcomes   | 70    |        |
| 7.5     | Process effectiveness outcomes                                      | 70    |        |
| 7.6     | Leadership outcomes   | 70    |        |
|         | Total points  |       | 1000   |

## 19. Deming prize :

Deming prize is awarded to companies that have achieved distinctive performance through application of CWQC. The winners get Deming medal and a certificate of merit.

Companywide quality control (CWQC) is a set of systematic activities carried out by entire organisation to effectively and efficiently achieve companywide objectives and to provide products and services with a level of quality that satisfies customers at the appropriate time and price.

Deming prize has 10 criteria and 66 items in the checklist. The criteria parts are :

1. Policies
2. Organisation
3. Informations
4. Standardisation
5. Human resource development and utilisation
6. Quality assurance activities
7. Maintenance and control activities
8. Improvement activities
9. Effects/Results, and
10. Future plans

Out of 66 items in the checklist, as many as 9 items are directly related to application of statistical techniques.

There are seven criteria for sessions with senior executives. They are :

1. Understanding and enthusiasm
2. Policies
3. Organisation and human resources
4. Human resource development
5. Implementation and evaluation
6. Corporate social responsibility
7. Future vision and future plans

To qualify for the award an organisation must score minimum 70% in the executive session.

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## 20. Role of factory and corporate people to make quality happen :

To get the coveted RGNQA or RBNQA, role of each individual at factory is to :

- (1) ensure that respective work place is kept **spic and span at all time** (and not on audit days only). They also should actively participate in the assessment process.
- (2) build **one-touch pick-up** facility in the system through '**Zoning and Mapping**', and finally
- (3) religiously follow laid down QMS and EMS systems with clear **focus on results** (*i.e.*, with system orientation).

Senior corporate leaders from various functions should be able to defend the statements made in the application write up. They also should actively participate in the assessment process.

## 21. What next ? :

After the award, start work on OFIs (Opportunities for Improvements) brought out during RGNQA/RBNQA exercise and by audit team. Also address relevant findings of customer satisfaction survey and employee satisfaction survey conducted by external/internal agencies. Some of the common prioritised ones are listed below :

### 21.1 Customer satisfaction :

- (1) Improve OTIF (On time in full delivery) %
- (2) Reduce customer complaints
- (3) Ensure proactive visits to customers by mfg. people including VP-Operations/Unit Head.
- (4) Improve 'agility' with respect to any customer interaction.

### 21.2 Quality improvement :

- (1) Execute self-certification (DOL) plan for all suppliers of A-class products;
- (2) Improve GMP (Good Manufacturing Practice) score;
- (3) Reduce field returns; and
- (4) Reduce variability on critical process parameters and important product characteristics.

### 21.3 Productivity improvement :

- (1) Improve OEE of bottleneck machines/equipments/processes;
- (2) Consolidate and reduce cycle time, set-up time and changeover times; and
- (3) Improve yield.

### 21.4 Cost reduction :

- (1) Reduce internal failures (rejections, reworks, use of excess materials over standard);
- (2) Reduce COPQ (Cost of Poor Quality); and
- (3) Quantify and reduce guarantee/warranty replacements.

### 21.5 Systems improvement :

- (1) Apply SPC at all relevant areas/functions;
- (2) Use specific statistical techniques for all root-cause analysis;
- (3) Increase effectiveness of ISO 9001:2000;
- (4) Increase effectiveness of ISO 14001: 2004;
- (5) Continue and consolidate in areas of knowledge management, corporate social responsibility, benchmarking, exit interviews, internal/external training;
- (6) Rationalise on target setting process including competitive/world-class benchmarking with continual improvement built into the system;
- (7) Change mindset to measure defects in PPM towards Six Sigma journey;
- (8) Streamline small group improvement activities (SGIAs) and ensure their success;
- (9) Act on findings of external customer satisfaction survey conducted by external/internal agency;
- (10) Act on findings of employee satisfaction survey;
- (11) Improve communication of various initiatives to shop-floor personnel; and
- (12) Structure important meetings and ensure closing the decision loops.

### Benefits :

Some of the benefits derived from the above

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⊕ various initiatives undertaken by an organisation are summarised below :

### 22.1 *Benefits to organisation :*

- (1) It enhances image tremendously.
- (2) Market share improves — organisation grows.
- (3) Organisation's profitability becomes better.

### 22.2 *Benefits to customers :*

- (1) Customers are assured of 4R — Right quality, right quantity, right time & right price.
- (2) Faster response is assured, and
- (3) Lead time reduces, which helps them in inventory reduction.



### Practices for emulative performances

Dr. R. H. G. Rau

(Continued from page 4)

powerful systems and processes around its core values. India has enviable family value system and it needs to be nurtured in all key functions

### 22.3 *Benefits to individuals like you :*

- (1) As the organisation grows, individuals will also grow. Their jobs are assured. One of the companies where I was working, 'Metal Box' was **closed down as they did not change with time**. Similarly, 'Bright Brothers' — big player in plastic component supply to Maruti met with the same fate.
- (2) Taking part actively in the world-class initiatives by any individual will be a self-development process for him/her.
- (3) Systems become a part of life — a work culture which brings harmony in personal life as well.

of Indian activities. The challenges are enormous and they need to be passionately addressed.

The practices of emulative performers appear to be value-driven approach, attention to customer-perceived values, process enhancement and passion for excellence.



## NCQM NEWS

### Welcome aboard — New Members

#### Corporate Members :

- CM0507 Tek Electromechanicals Pvt. Ltd., Pune  
Mr. Prabhakaran Mundontavitta
- CM0508 Pranav Construction Systems Pvt. Ltd., ..... Navi Mumbai  
Mr. Pratap Rane

#### Institutional Member :

- IM0111 Repro India Limited ..... Navi Mumbai  
Mr. Rajaram Khose

#### Individual Member :

- MI0458 Prof. M. V. Narayanan ..... Mumbai

Following Individual Member converted to Senior Member :

- SM0054 Mr. V. Hariharan Iyer ..... Mumbai

#### Senior Members :

- SM0055 Dr. Deepak Tripathi ..... Mumbai
- SM0056 Mr. S. Viswanathan ..... Mumbai
- SM0057 Dr. M. Palani Natha Raja ..... Madurai
- SM0058 Mr. Dattanand V. Shenoy ..... Pune

#### Student Members :

- T28336 Mr. Nitin Ravi ..... Gwalior
- T28337 Mr. Arjun Singh Bisht ..... New Delhi

#### NCQM Forthcoming Programmes :

1. Integrated Management System — May 9-10, 2008
2. Internal Quality Audit (IQA) ISO 9001 : 2000 — May 22-23, 2008
3. Product Certification/ CE Marking — June 6, 2008
4. Internal Quality Audit — 14001 (EMS) — June 26-27, 2008



- # 5. Root Cause Analysis & use of QC Tools — July 11, 2008
- 6. Supply Chain Management — July 15, 2008
- 7. Six Sigma Yellow Belt — July 22-23, 2008
- 8. Six Sigma Green Belt — July 22-25, 2008
- 9. World Class Supervision — August 8, 2008
- 10. ISO, Quality & You (For Operators) — August 11, 2008
- 11. Being Cost Effective Through 5S & 7W — August 22, 2008
- 12. Lean Management (Waste Reduction & Value Addition) — August 25, 2008

*For further details please contact :*

Programme Coordinator,  
National Centre for Quality Management,  
Mumbai, or  
download the brochure from [www.ncqm.com](http://www.ncqm.com)

**Diploma in Total Quality Management (DIPTQM)** Examinations are scheduled on June 19, 20 & 21 2008.

NCQM conducted free lecture on April 10, 2008 at S.B.M. Polytechnic, Mumbai, for members, on **'Best Practices Adopted by World Class Companies'** by our Senior faculty Mr. B. Banerjee Former Senior Vice President – Quality Assurance, Associated Capsules Group.

**Networking :**

Western Indian Corrugated Box Manufacturers Association (WICMA) and National Centre for Quality Management (NCQM) conducted one day seminar on 'Quality Management' at WICMA Auditorium on April 12, 2008. 35 persons participated in the seminar.

Mr. Pradip Bosmaya, President WICMA welcomed the delegates.

Mr. Baldev Mehta, Vice Chairman, WICMA, R & D Centre, chaired Session-I, when the following speakers addressed the participants on the topics as mentioned.

- (1) Dr. Devendra Mohan, Scientist F, Western Regional Office, Bureau of Indian Standards (BIS) Mumbai gave presentation on 'Importance of Consistent Quality'.
- (2) Mr. N. C. Saha, Professor & Head Laboratories Division, Indian Institute of Packaging (IIP) Mumbai talked on 'Scientific Tests for Corrugated Boards/Boxes'.
- (3) Mr. D. V. Shenoy, Manager QA, Align Components (P) Ltd., Pune gave presentation on 'Practical Aspects of Quality Management in Box plant'

Mr. Pankaj Shah, Member, NCQM Governing Board Chaired Session II when Dr. R.H.G. Rau, Past President NCQM and Former Corporate Quality Advisor, RPG Enterprise made presentation on 'Managing Quality Towards Business Excellence'.

*Admission open*

For July 2008 Batch

**Diploma in Total Quality Management**

**Distant Learning Mode**

*For registration please contact :*

The Course Co-ordinator,  
National Centre for Quality Management,  
Mumbai.

Brochure can also be downloaded from  
[www.ncqm.com](http://www.ncqm.com)

**NCQM Gurgaon Centre** has been revived.

*Centre Co-ordinator :* Mr. Jagadish Chandra Barik.

*Contact :* Mr. Jagadish Chandra Barik,  
Centre Co-ordinator, National Centre for Quality Management, C-2514, 1st floor, Susantlok-1, in front of Gold Souk Mall, Gurgaon-122001, Haryana.

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## Uni Abex — A Global Supplier of Quality Products

Uday M. Gaitonde

Uni Abex Alloy Products Limited, a professionally managed Neterwala Group company, is a pioneer and leading manufacturer of centrifugal and static castings in heat, wear and corrosion resistant alloys. Located at Thane, about 44 kms. away from Mumbai, the company was incorporated in 1972



Uday M. Gaitonde, is a Chemical Engineer from I.I.T., Kharagpur with Post-graduate Diploma in Management Studies from Mumbai University. Currently working as 'President' of Uni Abex Alloy Products Ltd. since August 1999, he has over 33 years of experience in reputed organizations in India and abroad like Hindustan Lever Ltd., The Associated Cement Cos. Ltd., Raychem Saudi Arabia Ltd., Raychem RPG Ltd. and RPG Cables Ltd.

He has diversified experience in greenfield projects and transformation & turnaround assignments.

Services. Material of construction varies as per ASTM, DIN and other international standards. Special modified grades of heat resistant and corrosion resistant alloys are made through decades of Research & Development. Uni Abex has been successfully meeting requirements of domestic and interna-

and commissioned in 1975. Uni Abex had collaboration with Abex Corporation, USA, from 1972 to 1991 and subsequently with Schmidt +Clemens GMBH + Co., Germany, from 1992 to 2002 for manufacture of static and centrifugally cast high alloy steel products.

The products manufactured by Uni Abex are used in core sector industries such as Fertilizer, Refineries, Petrochemicals, Iron & Steel, Galvanizing Plants, Furnace Manufacturers, Decanter manufacturers, Valve manufacturers and Engineering industries.

Uni Abex manufactures products of international design and specifications under reputed third party inspection agencies such as Lloyd's Register of Industrial

tional markets.

Uni Abex has a wide product range such as Reformer Tubes for refineries, fertilizer & petrochemical plants; Furnace Rollers, Radiant Tubes & Retorts for heat treatment furnaces; Air Injection Tubes for sponge iron plants; Sink Rolls & Stabilizer Rolls for galvanizing lines; Glendon Coils for mini blast furnaces; components such as bowl cylinders, bowl cones & conveyor cylinders and decanter machines.

Uni Abex employs state of the art technology and modern manufacturing, quality control and testing equipments to manufacture and test the products at all stages as per international specifications. Quality Assurance Plan, derived from customers'



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specifications, forms the basis for quality assurance throughout the manufacturing and testing processes.

The company has been certified to ISO 9001:2000 standards by internationally reputed Lloyd's Register Quality Assurance and has also been approved by Engineers India Ltd. (EIL) and Projects & Development India Ltd. (PDIL). The company is also committed to Environment, Health & Safety and has initiated ISO 14000, OHSAS 18000 certification process in keeping with international standards.

The company is committed to on-time delivery of quality products at competitive prices and has taken various initiatives to achieve this objective. The Company also undertakes 'customer satisfaction level' survey of its customers once every two years by independent market research agencies and takes corrective measures based on the feedback received after the survey.

The Company has initiated Total Quality Management (TQM) process to continually improve everything it does in pursuit of its vision of becoming a cost-efficient global supplier of quality products.

As part of the organisational development objective, the Company has implemented various HR initiatives such as competency mapping, employee survey, training & development and Human Resource Management System to improve competency and versatility of its human capital.

The company has implemented various IT measures like Enterprise Resource Planning (ERP) system and Human Resource Management System (HR Align) to facilitate on-line information for effective and efficient management of resources for achieving business objectives.

As part of its business strategy of global leadership, the company along with Neterwala Group of companies has formed a Joint Venture Company (JVC) with Manoir Industries SAS, France. The new company, called 'Manoir Petro India Ltd.' will be a 60 : 40 JVC between Manoir Industries and Uni Abex Alloy Products Ltd./Neterwala Group of companies. Manoir Industries, France, is a designer and manufacturer of highly engineered specialty metal components and assemblies for the petrochemical, aerospace, energy, steel and defence industries. Manoir Industries, with 10 manufacturing facilities and joint ventures in China and India, employs over 3,000 employees and produces more than 6000 metric tonnes per annum of centrifugally cast tubes and static cast components in heat-resistant alloys and is the world's largest producer of furnace components for petrochemical, refineries, fertilizer, direct iron reduction and galvanizing industries.

Uni Abex Alloy Products Ltd. has achieved turnaround and transformation and is now ready to take off as a global supplier of quality products, on time, at competitive prices !



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