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President's Message | Santosh Khadagade



Greetings for the ongoing festive season and the coming new year!

Although things look normal, we need to be extremely cautious about a possible return of the pandemic. We wish all that all our members remain safe and healthy.

Top 10 disruptive technologies, Top 10 Technology Trends, Top 10 digital technologies, Top 10 strategic business trends are some of the frequently talked subjects of the recent past. In the past 2 to 3 years, the way in which these trends are getting reshuffled, some getting dropped and new ones added itself, shows how fast the things are changing. Worldwide trends have shown that the speed of change is significantly higher in IT, Healthcare and Financial Services industry and, least in Manufacturing. The Great Resignation phenomenon of the 1930s has repeated in 2021. It actually started in early 2020 and has peaked during 2021. In a way, the pandemic has added fuel to the fire!

Maslow's five stage theory of motivation where security comes at Number 2 seems no longer important due to changing demographics and improvement in living standards. However the need for belongingness, self-worth and even self-actualisation are important than security. Dr. Deming's fourteen principles have become more important today than ever before.

Quality professionals have to keep discovering the applicability of the fundamental quality principles in this exponentially changing technology world. The need to understand the principles, tools and techniques of quality is therefore more important than ever before. This gives rise to tremendous opportunities in the form of training new work force, re-training existing work force and coaching senior management in the industry.

We thank members for participating in the survey conducted by NCQM. We will publish a summary of the feedback in the next issue of the Newsletter.

AGM Notice has already been sent to members along with invitation to attend NCQM Annual Day Function.

We wish to thank all the members for their continued association and support. For any queries, feedback or requirements, please feel free to contact me at president@ncqm.com.

ANNOUNCEMENT

BEQET 2021 is around the corner!

Check out program details inside!!!

For more details, please turn to page 8.

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Quality : The only Strategy

Effect of Disruptive Technologies on Quality and Productivity

A disruptive technology is one that replaces an existing technology and shakes up the industry by replacing existing products and services that creates a completely new industry. Professor of Harvard Business School Dr. Clayton coined the term **disruptive technology** in his 1997 best-selling book. Modern technology has been categorised as follows: sustaining and disruptive.

Sustaining technology relies on incremental improvements to an already established technology. Disruptive technology lacks refinement, often has performance problems because it is new, appeals to a limited audience and may not yet have a proven practical application hence there is a large scope to quality professionals to act on it or work on it for improving its quality and performance.

As disruptive technologies are developing at an exponential rate, it is a challenge to the quality professional to develop themselves to cope-up the fast growing unrefined disruptive technologies to refine by using advanced quality tools and techniques such as DoE, ANOVA, MANOVA, ANCOVA, MANCOVA, MDS, Conjoint Analysis etc., as applicable.

Worldwide IT Industry 2017 Predictions forecasts the emergence of digital transformation (DX) at a macroeconomic scale 2017-2020 by IDC Future Scope are: Cloud, mobility, artificial intelligence (AI), Internet of Things (IoT), etc., will fuel digital transformations which will pose businesses with whole new kinds of challenges. In addition, the IDC report finds that actual change is happening faster than previously predicted. Hence the quality professionals must design and develop new quality tools and technologies which can complement and be helpful to successful refinement of above industry specific technologies and diffusion of its applications across all the applicable industries, functions and processes. The quality professionals are not immune to such changes. If we the quality professionals effectively exploit emergent and disruptive technology, we need to do SWAT analysis of each disruptive technology. Quality professionals must acquire the knowledge, skills and experience necessary to lead organisations through rapid and dramatic change (Ref. Article of CQI&IRCA).



DR K MADDULETY

**Deputy Director,
S P Jain School of Global
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*(This article is reprinted from NCQM
Quarterly issue Jul-Sep 2018)*

Impact on the quality profession

1. **The future quality professionals are comfortable with more data facilitating their role as drivers of solutions rather than firefighters.**

Interdependent business network will form by the growth of a digital ecosystem in which businesses and their interested parties are player. Digitalisation will help quality professionals for improving communication with stakeholders, better understanding their expectations to provide better solutions. **The quality function will increasingly become business drivers.**

2. Service and Software processes are also in a position to use the benefit of robotics and automation in addition to manufacturing production line. The high investment in robotics and advanced robotics in the pursuit of perfection, increased productivity and reduced costs cement the future of the robot. Perfect quality, first time every time, may reduce the need of quality professionals **hence quality professionals should focus to contribute at conceptualization, product design and process design stages by applying advanced QA tools such as DMADV of Six Sigma, QbD, DoE, etc.,**

3. Information Modelling - The complex and detailed digital representations of the physical and functional characteristics **will challenge quality professionals to find innovative ways to assess and manage quality.**

4. Organisations can collect large quantities of data on customers and operations almost instantaneously, which can be used for predictive analysis, and risk-based and evidence-based decision making.

- The typewriter has been replaced by personal computer and forever changed the way we communicate and work. **In 1990s some of the quality professionals applied traditional 5S for PCs to improve its performance.**
- In 1990s the exponential growth of 'personal computing industry' has taken place because of the affordability and a user-friendly interface 'Window Operating System'. Personal computing disrupted the several industries such as television, physical office systems etc.,
- Internet and Emails disrupted postal, post cards, greeting card industries, etc. and disrupted the way we were communicating before 1990s.
- Telecom industry has been disrupted by the mobile technology and cell phone entry which helped us to communicate with people anywhere from globe.
- The laptop computer and mobile computing made a mobile workforce possible and made it possible for people to connect to corporate networks and collaborate from anywhere. In many organizations, laptops replaced desktops and telecommuting replaced physical office structures.
- Pocket cameras, MP3 players, Calculators, GPS devices and cell phones have been replaced largely with Smartphones and its Apps and Tablet.
- Cloud Computing has been a hugely disruptive technology in the business world, displacing many resources that would conventionally have been located in-house or provided as a traditionally hosted service.
- Social networking has had a major impact on the way we communicate and -- especially for personal use -- has disrupted telephone, email, instant messaging and event planning.

Here are a few examples of disruptive technologies:

The measures to be taken by quality professionals to ensure contribution to successful diffusion of disruptive technologies at all the industries of Manufacturing, Service and Software should include:

- Understanding evolution of various technologies and its impact on quality of products and services
- Re-defining, re-designing and integration of various quality tools that are helpful to designing quality technologies and applications.

References:

1. <https://whatis.techtarget.com/definition/disruptivetechology>
2. *The impact of emerging and disruptive technology on the quality profession - CQI&IRCA.*

LOWEST COST (L1) NO LONGER THE ONLY WAY TO SELECT BIDDERS

Just before Diwali week, Indian Government announced significant reforms in its public procurement policy.

In order to ensure quality work and prevent time and cost overruns, the Finance Ministry on 29 October 2021 issued general instructions on procurement and project management, which have expanded the ambit of selecting bidders for executing government projects, and procuring goods and services in ministries and government offices.

According to the revised guidelines, L1 or Least Cost Selection Method, will no longer be the only tendering format for selecting bidders for executing projects. L1 was so far the preferred method used by ministries, public agencies and public sector undertakings (PSUs) for selecting lowest bidders to carry out standard or routine works/non-consultancy services like audit and engineering design of non-complex works.

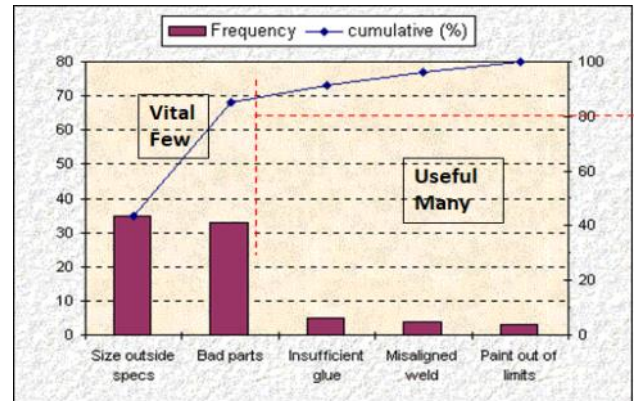
The guidelines issued by the Department of Expenditure's Public Procurement division have now allowed the selection of bidders for works and non-consultancy services through alternative procurement methods like the Quality-cum-Cost Based Selection (QCBS).

Source : The Print (dated 9 Nov 2021)

Quality Tool Discussion

About Pareto Diagrams

- Named after Italian economist, Vifredo Pareto
- States that 20% of the causes contribute to 80% of the problem
- Pareto diagram is a visual method for separating the “vital few” from the “useful many”
- Pareto Diagram can be used in:
 - prioritizing problems
 - analyzing symptoms
 - identifying root causes
 - check if root cause eliminated



Typical pitfalls to avoid:

- No clear distinction amongst categories manifested as:
 - all bars are roughly of the same height
 - More than half the categories account for 60%
- Choose appropriate categories after stratifying the data first.

Readers are requested to share their comments and experiences with the Editor at ast@ncqm.com on the above Quality Tool.

We plan to cover one such tool in each issue of the Newsletter. Readers are requested to send their contributions to the Editor for publishing.



Post Graduate Diploma In Total Quality Management / Diploma in Total Quality Management

PGDTQM / DTQM

:: One year Duration ::

New Join Any Time as per your convenience

Distance Learning Program with online sessions to guide and address difficulties of students



NCQM offers integrated programmes that let you acquire a Diploma in TQM (D-TQM) and a Post Graduate Diploma in TQM (PGD-TQM) in one year. Candidates can opt for D-TQM (6 months to one year) and upgrade to PGD-TQM (6 months) or opt directly for PGD-TQM (one year to one and half year)

Diploma in TQM

- Total Quality Management (TQM)
- Statistical Process Control Techniques with Applications
- Quality and other Management Systems
- Additional Quality Improvement Techniques for Organizational Excellence

Post Graduate Diploma in TQM- Additional Modules

- Advanced TQM Tools and Techniques
- Total Quality Management Applications

DOWNLOAD PROGRAM BROCHURE

Now Register any time

Jan Batch: Registration Received between Oct to March
July Batch : Registrations Received between April to Sept

Please read the program details, fee structure and payment information before starting to Register
Keep your fee payment details: NEFT/IMPS/RTGS Tx No. ready

REGISTER

Guidance for Zero Energy Building Released!

The building sector contributes nearly 40 % of all global greenhouse gas emissions, representing a significant challenge in the race against climate change. If we can achieve net-zero in buildings, then it could change the world. Yes, it is possible, and new guidance has just been published to show us how.

ISO/TS 23764, Methodology for achieving non-residential zero-energy buildings (ZEBs), outlines a step-by-step approach that organizations can follow to reduce the energy consumption of buildings they occupy and counter it with renewable sources. The technical specification considers elements such as heating, cooling, hot water, lighting, elevators, the use of renewable energy, energy management and more.

The guidance also contributes to making many of the United Nations Sustainable Development Goals (SDG) a reality. These include the Goals addressing affordable and clean energy (SDG 7), sustainable cities and communities (SDG 11) and climate action (SDG 13).



Image Source: ISO website

Guidance for Phased Implementation of ISO 50001 published

Implementing an energy management system (EnMS) such as ISO 50001 is a powerful way for an organization to continually improve its energy efficiency, making substantial cost savings while reducing its greenhouse gas emissions. Yet it doesn't have to be done all at once, and each action taken can bring positive changes in its own right. Which is why a new standard has just been published to help organizations – especially small businesses – reap the most benefits at every step.

ISO 50005, Energy management systems – Guidelines for a phased implementation, provides guidance for a step-by-step process to implement an energy management system. It is particularly beneficial for small and medium-sized enterprises (SMEs) that may not have the resources to put in place an EnMS all in one go. By taking a staged approach, organizations can more easily allocate the appropriate resources and priority levels based on their needs and capacities, enabling them to benefit from the standard at the very first step.

ISO 50005 outlines a phased implementation approach using 12 core elements of ISO 50001, Energy management systems – Requirements with guidance for use. The standard is based on a maturity model consisting of four levels, with Level 1 offering the basics for those with little energy management experience, building progressively towards a level that is consistent with conformity to ISO 50001.

Source: ISO website

New WHO Global Air Quality Guidelines aim to save millions of lives from air pollution

Air pollution is one of the biggest environmental threats to human health, alongside climate change. Improving air quality can enhance climate change mitigation efforts, while reducing emissions will in turn improve air quality. New WHO Global Air Quality Guidelines (AQGs) provide clear evidence of the damage air pollution inflicts on human health, at even lower concentrations than previously understood. The guidelines recommend new air quality levels to protect the health of populations, by reducing levels of key air pollutants, some of which also contribute to climate change. WHO's new guidelines recommend air quality levels for 6 pollutants. When action is taken on these so-called classical pollutants – particulate matter (PM), ozone (O₃), nitrogen dioxide (NO₂) sulphur dioxide (SO₂) and carbon monoxide (CO), it also has an impact on other damaging pollutants. In 2013, outdoor air pollution and particulate matter were classified as carcinogenic by WHO's International Agency for Research on Cancer (IARC).

The guidelines also highlight good practices for the management of certain types of particulate matter (for example, black carbon/elemental carbon, ultrafine particles, particles originating from sand and dust storms) for which there is currently insufficient quantitative evidence to set air quality guideline levels. They are applicable to both outdoor and indoor environments globally, and cover all settings. The goal of the guideline is for all countries to achieve recommended air quality levels. Conscious that this will be a difficult task for many countries and regions struggling with high air pollution levels, WHO has proposed interim targets to facilitate stepwise improvement in air quality and thus gradual, but meaningful, health benefits for the population.

Source: WHO website



Image Source: WHO website



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BEQET 2021



OBJECTIVE / PURPOSE

To encourage Educational Institutions in successfully promoting Quality practices in their operations, and there by significantly enhancing satisfaction of their customers, both internal and external.

THE AWARDS

The Awards include an Award Trophy to the winning institution and a Certificate to leader of the team. The Runners – up institutions are awarded with Certificates of Merit, with a Certificate to leader of the team. Other team members of the winning as well as runner up teams can get the certificate on request at a nominal cost.

ELIGIBILITY CRITERIA

- An Institutional / Corporate Member of NCQM.
- Colleges and Management Institutes affiliated to any University in Maharashtra or in any other state.
- All Colleges and Institutions affiliated to NCQM Institutional Members.

ENTRY INTO COMPETITION

- Each College or Institution or Management Institute can nominate upto three (3) teams.
- Only those teams whose projects have been completed during the past two years, and the benefits are being maintained are considered for these awards.
- Each nomination is required to be made on the standard Application Form and submitted to NCQM, along with entrance fee.
 - NCQM Member - Rs. 2500 + GST@18%
 - Non-Member - Rs. 3000 + GST@18%
- The project submitted can be used by NCQM for the purpose of publishing in NCQM Newsletter, Books and Quality Conferences in the future or as and when desired with prior permission.

TIME SCHEDULE

Workshops	- Dec 11,2021
Application Deadline	- Dec 15,2021
Project Submission	- Dec 31,2021
Competition	- Jan 15,2022
Award Presentation	- Feb 12,2022

BEQET 2021 Announcement

ASSESSMENT PROCESS

STAGE 1 – ELIGIBILITY VERIFICATION

Each application will first be scrutinized and assessed by NCQM against the eligibility criteria. NCQM may seek necessary clarifications from the applicant institution, if required. After this Stage 1 assessment, NCQM would inform in writing application's eligibility.

STAGE 2 – FINAL PRESENTATION

1. Applicant's team is then invited for Stage 2 assessment before a Panel of Judges, consisting of at least three eminent members.
2. The assessment will be based on the presentation of their work by the team members.
3. The Panel will primary be guided by the Assessment Criteria described below.
4. Each team is required to impress on the Panel how the members have selected the project and how they had approached solving the problem, the results achieved so far, and initiatives to hold on to the gains.
5. Each team will be given a 15 min. slot for their presentation followed by a 5 min. question – answer session.
6. Based on the final scores and consensus amongst the judges, 3 winners will be announced.

ASSESSMENT CRITERIA

The Assessment Criteria will be broadly along the lines of the 3P+R Model viz. Preparation, Participation, Presentation and Results. Every parameter will be graded on a 5-point scale.

PREPARATION

- Improvement Area Identification
- Project Definition
- Quantification Addressed
- Measurements Followed
- Abilities and Attitudes
- Others, if any "Team Spirit".

PARTICIPATION

- Degree of Horizontal Involvement
- Extent of Vertical Involvement
- Skills Imparted to the Team
- Skills Executed by the Team
- Level of Management Commitment
- Others, if any.

PRESENTATION

- Analytical Skills demonstrated
- Presentation Skills Displayed
- Problem solving methods followed
- Solution Irreversibility
- Extended Application
- Others, if any

RESULTS



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PROJECT STORY FORMAT

1.1 Institution :
 1.2 Project Title :
 1.3 Problem Area :
 1.4 Project Definition :

2.1 Team Members :
 2.2 No. of Meetings Planned :
 2.3 No. of Meetings Held :
 2.4 % Attendance :
 2.5 Project Start Date :
 2.6 Project Close Date :

3.1 Annual Costs of Poor Quality Identified :
 3.2 Benefits Aimed :
 3.3 Benefits Achieved :

4.1 Project Diagnosis
 a. Probable Causes :
 b. Tools Applied :
 c. Conclusions :

5.1 Evolving Solutions
 a. Likely Solutions :
 b. Tools Applied :
 c. Conclusions :

6.1 Experimenting Solutions
 a. Experimentation :
 b. Tools Applied :
 c. Results :

7.1 Project Closure
 a. Target Benefits :
 b. Achieved Benefits :
 c. Tangible Benefits :
 d. Intangible Benefits :
 7.2 Enlarging Application :
 7.3 Audit Schedule
 a. Plan :
 b. Implementation :

8.1 Enclosures, if any :

9.1 Document Prepared By
 Name :
 Designation :
 Place :
 Date :

10.1 Document Approved By
 Name :
 Designation :
 Place :
 Date :

10.2 Tangible benefits authenticated by head of the Institution.
 Name :
 Designation :
 Place :
 Date :
 (Affix Seal of the Institution)



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APPLICATION FORM

Name of the Institution

Address

Institution Head

Contact Person

Contact Details

Project Title

Team Leader

Team Members

Project Highlights with Achievements

Enclosures Attached

The Project Story (format on previous page)

Other Details, if any

Participation Fee

Authorised Signatory

Affix Seal of Institution

Date of Application

Please send in your applications addressed to:

National Centre for Quality Management
 G-503, Kailas Industrial Complex, Vikhroli (W), Mumbai - 400079.
 Tel: (022) 40111962
 Mobile: 9969542885
 Email: ast@ncqm.com / ncqmmumbai@yahoo.co.in
 Web: www.ncqm.com



TRAINING CALENDAR: Dec 2021

Schedule & Fee Per Candidate*	Program Title	Objective	Contents	Who Should Attend
17-18 Dec. 2021 Rs. 4000/- Plus GST	Certified Internal Auditor for IMS (9001/14001/45001)	<ul style="list-style-type: none"> Undertake Effective planning & performing effective audit of Integrated Management Systems Gain Sound knowledge and skills on auditing against these standards and communicating the findings effectively. 	<ul style="list-style-type: none"> IMS Standards, Principles, PDCA Cycle, Process Approach & Risk Based Thinking IMS Requirements & Major changes Highlights on ISO 19011:2018 Audit Planning, Audit Execution Auditing Skills / Techniques, Reporting of Non Conformities and observations, Follow up and Closure Experience sharing by Lead Auditors 	<ul style="list-style-type: none"> Internal Auditors for IMS Functional Managers/ Executives/ Supervisors Potential External Auditors Trainers and consultants
11th Dec. 2021 Rs. 1500/- plus GST	BEQET Workshop for Staff of Educational Institutions	<ul style="list-style-type: none"> Identify problems at work place that service quality Master structured approach to problem solving Gain expertise on Root Cause Analysis tools and techniques 	<ul style="list-style-type: none"> Overview of BEQET Criteria Problem definition & approach to Problem Solving. Importance of data. Basic Quality tools: Histogram, Pareto Chart, Brain Storming, CE Diagram and Control Charts RCA & RRCA Techniques Experience sharing by past winners 	<ul style="list-style-type: none"> Teaching and Non-Teaching Staff

* ** Certificate Courses have examination at the end

* 10% Member discount applicable, Additional Group discount of 10% for 3 or more participants.

* Payment can be made through Cheque/DD in favour of **National Centre for Quality Management** or Net banking (NEFT, RTGS, and IMPS)- please send email request or call for Bank Account details.

Timings: Registration at 9.30 am

Session Timings: 10.00 am to. 5.30 pm

Registration: Send email to ast@ncqm.com / ncqmmumbai@yahoo.co.in, or call Tel: (022) 4011 1962 / 9969542855

