













Fully Automated Laboratory Digital X-Ray Tread Mill Test
Pulmonary Function Test Digital E.C.G. Echocardiogram
Colour Doppler Scan Mammography NCV EEG













Dear Friends

It is indeed a pleasure to approach our stakeholders through this issue of Quality India. During this quarter we organised 4th Regional Quality Conclave (RQC) in collaboration with the Federation of Indian Chambers of Commerce and Industry (FICCI) at Guwahati on the theme "Quality for Manufacturing Competitiveness." The primary objective of the Conclave was to discuss ways that could lead to improved competitiveness and quality in Manufacturing Sector. The Conclave had four sessions on 'Zero Defect Zero Effect (ZED),' 'Reducing Cost of Poor Quality,' 'New Technologies for Smart and Sustainable Manufacturing' and 'Policy Measures for Enhancing Quality and Competitiveness.' The Conclave witnessed participation of around 200 delegates from various segments of manufacturing such as tea, textiles & apparels, bamboo-based and mineral-based handicrafts, FMCG, members of regional chambers and associations. This will now be a continuous process throughout the year.

We have started GeM Vendor Assessment project with an unprecedented approach of assessing manufacturers through our in-house Video-based app. We hope that the idea will bring a revolution in how assessments happen in India and can put an end to Inspector Raj in the country through properly executed technological innovation.

Our focus on healthcare has increased enormously. Project Planning and Implementation Division (PPID) is helping various government bodies to improve healthcare ecosystem in India through projects such as Ayushman Bharat, HOPE, Niti Aayog's district hospital data validation, and Kayakalp. With these initiatives, QCI aims to make quality healthcare affordable and accessible in the country. National Health Authority (NHA) has joined hands with QCI to start a quality certification process to enhance patient satisfaction and improve quality standards across AB-PMJAY empanelled hospitals. The aim is to build a network of healthcare providers that strive to provide quality services while following the healthcare protocols. There are thousands of hospitals empanelled so far, which will be able to obtain the benefits associated with certification package which will include rates over and above decided under AB PM-JAY.

QCI has established a Project Management Unit (PMU) at Department of Investment and Public Asset Management (DIPAM) which works as an internal think tank for it, providing research and analytical support on wide-ranging issues of "Disinvestment of Government's stake in CPSEs" and "Monetization of assets of CPSEs." The scope of work also includes Project Monitoring and due diligence. QCI has been engaged by the DIPAM to assist in the evaluation and execution of different proposals for "Disinvestment of Central Government's Equity Stake in Central Public Sector Undertakings (CPSEs)" and "Monetization of non-core assets of CPSEs."

Another new sector that we have ventured into is safeguarding quality of food in India. Testing of fish in Goa to eliminate usage of Formaldehyde has been a gargantuan activity. The initiative not only has challenges on the forefront of Technical Aspects of fish testing but also to rebuild trust between the state government and citizens of Goa.

We are always making efforts to work closely with the Government for creating an Eco-system of Quality in India which can impact the Quality of life of our 125 crore citizens and we appreciate our stakeholders' cooperation in this on-going journey. Thanks!

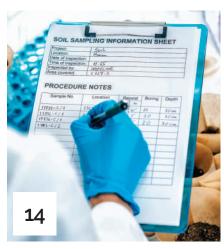
Dr. Ravi P. Singh Secretary GeneralQuality Council of India

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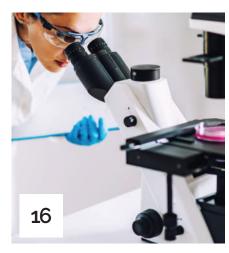


Quality for Manufacturing Healthcare Organizations' Competitiveness

26th June 2019



Platform For Entry-Level **Certification (HOPE)**



Ayushman Bharat PMJAY Quality Certifications





- 38 NATIONAL ACCREDITATION BOARD FOR TESTING AND CALIBRATION **LABORATORIES (NABL)**
- **46 NATIONAL ACCREDITATION BOARD** FOR HOSPITALS AND HEALTHCARE **PROVIDERS (NABH)**
- **50 NATIONAL ACCREDITATION BOARD** FOR EDUCATION AND TRAINING (NABET)
- **64 NATIONAL ACCREDITATION BOARD** FOR CERTIFICATION BODIES (NABCB)
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ZED: Daily Work Management: A ZED Parameter



PPID: Ayushman Bharat PM-JAY Quality Certification, National Health Authority





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4th Regional Quality Conclave (RQC) on

Quality for Manufacturing Competitiveness

26th June 2019, Guwahati

Quality Council of India (QCI), in collaboration with The Federation of Indian Chambers of Commerce and Industry (FICCI), organized the 4th Regional Quality Conclave (RQC) on Quality for Manufacturing Competitiveness on 26th June 2019 at NEDFi Convention Centre, Guwahati. The primary objective of the Conclave was to discuss ways that could lead to improved competitiveness and quality in Manufacturing Sector.

The Conclave had four sessions on: 'Zero Defect Zero Effect (ZED)' chaired by Mr. C K Biswas, CEO, National Board for Quality Promotion (NBQP), 'Reducing Cost of Poor Quality' chaired by Mr. C. K. Biswas, 'New Technologies for Smart and Sustainable Manufacturing' chaired by Mr. K. C. Jha, Additional Chief Executive Officer, Government eMarketplace (GeM), Government of India and 'Policy Measures for Enhancing Quality and Competitiveness' chaired by Mr. Shyam Bang, Chairman, National Accreditation Board for Certification Bodies (NABCB), QCI and FICCI Task Force on Manufacturing Excellence.

The Conclave witnessed participation of over 160 delegates from various segments of manufacturing such as tea, textiles & apparels, bamboo based, mineral based, handicrafts, FMCG, members of regional chambers and associations

(NABCB), QCI and FICCI Task Force on Manufacturing Excellence.

4th Regional Quality Conclave (RQC)

Inaugural Session

The Conclave was inaugurated by Mr. Ravi Capoor, Additional Chief Secretary, Industries & Commerce, Act East Policy Affairs, Public Enterprises and Environment & Forest Departments, Government of Assam in the august presence of Mr. Shyam Bang, Mr. C. K. Biswas, and Ms. Raginee Goyal, Chairman, FICCI Assam State Council, Sub Committee for Policy and Taxation.

Mr. C. K. Biswas briefed the audience about QCI and its various bodies. He also mentioned about the North East Industrial Policy (NEIP), 1997 which was introduced to further boost industrialization in the North Eastern Region. NEIP was revised and a new policy, namely North East Industrial & Investment Promotion Policy (NEIIPP) 2007 has been launched and has also been extended for the first time to select Service Sector units, Bio-technology units and Power Generating units (up to 10 MW), besides industries in the Manufacturing Sector.



From Left to Right: Mr. Shyam Bang, Chairman, FICCI Task Force on Manufacturing Excellence and NABCB welcoming Mr. Ravi Capoor, Additional Chief Secretary, Industries & Commerce, Act East Policy Affairs, Public Enterprises and Environment & Forest Departments, Government of Assam during the Inaugural Session



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Mr. Shyam Bang delivered the Special Address and emphasised on the need of manufacturing quality products in India. Mr. Bang mentioned that manufacturing is a crucial sector for our economy as it provides employment to both skilled and unskilled labour force and therefore the theme chosen for the Conclave has a great relevance. According to a latest report by world bank, the growth rate in India is largely supported by domestic consumption.



Mr. Shyam Bang addressing the delegates during the conclave

He stated that manufacturing industry must be supported by strong quality systems. According to Mr Bang, the only way we can control our trade deficit is by increasing exports and for providing a push to exports it is essential to manufacture quality products. Mr Bang's presentation threw light on the increased share of Manufacturing in Gross Value Added (GVA) from almost 11% in 1950-51 to 17% in 2014-15 and the target to take it to 25% by 2022. He also stated that improving performance of a production process yields much greater returns than improving quality control systems.

Speaking on the occasion, *Mr Ravi Capoor* stated that no country in the world has grown exponentially unless it is an export led country. The precondition for being export led super power is qualitative products since nobody wants to purchase substandard products. He also highlighted that quality should be instilled in the production process itself. He cited the examples of Germany

and Japan, stating that although 98% of the production units in Germany are MSMEs, quality is being built into their production processes. Talking about the sustainability of the quality processes, there is a cost component attached to it on which we need to work to bring out an effective quality process so that a small MSME owner does not go out of business. He also emphasised on the low-end engineering exports of the country. He requested QCI and FICCI to work with his government to come up with a programme on quality promotion, standards formulation and developing a mark for the tea industry in Assam.

Ms Raginee Goyal proposed the Vote of Thanks and stated that she is hopeful that such engagements in the region will help in improving quality systems in place and would also spread the information about different schemes. She also mentioned that although the region has successfully managed to secure a position in the growth map of the country, it is not up to the mark & demands introspection on its sustainability in the long run. She was also hopeful that the suggestions put forward would be duly considered for necessary implementations.

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Session 1

Zero Defect Zero Effect (ZED)

Session 2

Reducing Cost of Poor Quality

Session 3

New Technologies for Smart and Sustainable Manufacturing

Session 4

Panel Discussion on Policy Measures for Enhancing Quality and Competitiveness

Zero Defect Zero Effect (ZED)

The session was chaired by Mr. C. K. Biswas. The key speakers of the session were Mr. A.K. Jain, Principal Advisor, ZED; Mr. K.C. Jha and Mr. Chittaranjan Maitra, ZED Consultant, Neogi Technologies and Research Pvt. Ltd., Kolkata

Some of the key discussion areas of the Session were:

- a. ZED is a unique & holistic Maturity Assessment Model for Micro, Small and Medium Enterprises (MSMEs) under which manufactured products should have zero defect and manufacturing should be done with zero effect. It includes 50 well defined parameters of production, design, quality, safety, environment, etc.
- b. ZED maturity assessment model will evaluate an MSME's manufacturing unit on process-based and performance-based outcome parameters at the operational level
- c. With the ZED scheme, MSMEs have improved quality, reduced costs and rejections, enhanced their revenues and increased environmental consciousness and social benefits. It also benefitted international investors seeking investment in India
- ZED certification to NTR Pvt. Ltd. benefitted in considerably boosting its sales every year. In addition, it also enabled NTR to improve quality, cut costs & reduce environmental impact simultaneously
- e. Another platform that was discussed for promoting quality products in the country was Government eMarketplace (GeM) which offers quality experience to its buyers and sellers and has two broad

- dimensions of health of the online platform and quality of the product/ service procured
- f. For assuring quality in GeM products and services, technical parameters of products are designed with all the stakeholders and product approval team ensures that only quality products with correct information are added on portal along with genuine sellers
- g. GeM provides price reasonability since it is a dynamic marketplace with varied products and services which enhances competition and reduces prices
- h. High quality customer service is available to resolve user queries in an effective manner and capacity building in ensuring training conducted across the nation to assist buyers and sellers to adopt online based procurement
- In GeM platform, proper management system, inspection and quality check of service providers are carried out to eliminate ingenuine and deceptive service providers and transactions



From Left to Right: Mr. Chittaranjan Maitra; Mr. A.K. Jain, Mr. C. K. Biswas and Mr. K.C. Jha

Reducing Cost of Poor Quality

The session was chaired by **Mr C K Biswas** and the key speakers of the Session were Mr. Narayanan Narasimhan, Senior General Manager, Quality Assurance, Dalmia Cement; Mr. Sunil Kr Singh, Head of Operations (Foods), ITC ltd and Mr Manoj Kumar Verma, Deputy Director, National Productivity Council (NPC).

The key discussion areas during the Session were:

- Cost of Quality (CoQ) is a measure
 of the cost that an organization
 faces due to the production of
 substandard products and services.
 These are costs that would disappear
 if systems, processes, and products
 work perfect
- b. Effective training for employees and suppliers, Seamless Change Management Process, Systematic Preventive Maintenance Procedures, and Periodic Internal Quality Audit can minimize the cost of poor quality. Other strategies can be Clear Product and Process Traceability, Closed-Loop Nonconformance and Corrective Action Program
- Prevention Costs and Appraisal costs are regarded as Costs of Good Quality whereas Internal and External Failure Costs come under Cost of Poor Quality
- d. Iceberg model of visible and invisible CoPQ characterizes rework, inspection, scrap, defects as visible CoPQ and time lost due to accidents, product and equipment failure, excess inventory, lack of parts etc. as less visible CoPQ
- e. Various initiatives taken at Dalmia Cement to reduce CoPQ include

- online quality monitoring of mines, robotic control labs, cross belt analyser, training programs, remote monitoring of production, timely delivery of products etc.
- Froductivity is defined as rate of output per unit of input in assessing the effective use of labour, materials etc. An increase in productivity means greater efficiency in providing goods and services from inputs
- g. There are some common misconceptions about productivity such as it is possible to judge performance just by output and believing that cost cutting always increases productivity
- Digitization refers to the transformations triggered by the adoption of digital technologies that generate, process, share and transfer information

- There have been three waves of digitization which led to growth of household income, enhanced demand for labour, information processing and quality of decision making which resulted in task automation
- To address workforce disruptions in emerging economies there is a need to tackle international competitiveness challenge and reduce costs
- k. There is a need that a good productivity strategy should explain importance of organizational improvement, develop models of excellence and policies and plans. It should also evaluate current operating status



From left to Right: Mr Nitin Agrawal, Mr. C. K. Biswas, Mr. Arindom Paul, Mr. K C Jha, Mr Alok Gupta and Mr. Sudhir Dembi during the Session

New Technologies for Smart and Sustainable Manufacturing

The Session was chaired by **Mr. K. C. Jha.** Other distinguished speakers in the discussion were Mr. Nitin Agrawal, Head - Customer Services, Signify Innovations India Ltd.; Mr. Sudhir Dembi, Head Marketing, Schneider Electric India; Mr. Arindom Paul, Works Head, Marico Ltd.; Mr. Alok Gupta, Unit Head, Dabur. Mr. Rene Van Berkel, UNIDO also shared his perspective on new technologies shaping the Indian manufacturing through a video recorded message.

Some of the key recommendations/ discussion areas were as follows:

- In coming years smart
 manufacturing enterprises will excel
 in three areas asset performance,
 augmented operators and smart
 enterprise control
- b. DMAIC (D-define, M-measure, A-analyse, I-Improve, C-control)
 Approach was suggested during the Session for waste elimination
- Sustainable manufacturing can be enhanced by reducing the waste produced, Re-using material, Recycling material to make new products and Recovering energy from waste (4Rs)
- d. The concept of Industry 4.0 is going to shape the future of manufacturing in the country and include components such as predictive maintenance, cloud computing, cyber security, analytics, robotics, etc.
- e. Government should provide adequate support to the designs

- developed for manufacturing new products from recycled waste
- f. There is a need to educate young engineers of the country about the circular economy concept
- g. The industries are shifting from traditional Linear Manufacturing models to Circular Economy model which involves making, using and returning products
- h. Sustainable manufacturing brings with it various key components such as Clean Technology, Clean Manufacturing and Green Products. Clean Technology includes a broad range of technology related to recycling, renewable energy, information technology, green transportation, waste

water treatment and solid waste management. Clean Manufacturing is a systematic approach of minimizing waste and emissions by optimum use and prudent selection of resources and technologies, thereby lessening the impact on the environment and a Green Product is any product that is designed to reduce its environmental impact



From left to Right: Mr. Nitin Agrawal, Mr. Arindom Paul, Mr. K. C. Jha, Mr. Alok Gupta and Mr. Sudhir Dembi during the Session

Panel Discussion on Policy Measures for Enhancing Quality and Competitiveness

The Session was chaired by **Mr. Shyam Bang.** Other distinguished speakers in the discussion were Mr. Amrit Deorah, Director, Aasray Concept Foods; Mr. Ronn Pakrashi, Director, Salai Holdings and Mr. Dipanjan Konwar, Principal Consultant & Trainer, D. Konwar Associates.

Some of the key recommendations/ discussion areas are as follows:

- Hardly 3% MSMEs in Assam have adequate quality systems installed in their factories. Hence, there is a need to make small businessmen aware of the dire need of quality manufacturing
- b. In addition to laying stress on quality of products we must also talk about quality of our human resources. Educating and skilling them and putting them into the system is crucial for the growth of

- our manufacturing processes. As manufacturers, it is the responsibility of the industry to improve the quality of people working with us
- There should be an incentive from the government specifically for those MSMEs who want to improve the quality of their human resources
- d. Quality certification should be made mandatory in tenders. Ultimately, quality promotion should be a sustainable model
- Quality has no fixed definition. The feedback of the customer plays a key role in benchmarking the quality of the product
- There is an urgent requirement of testing facilities in the North East region. There is no NABL accredited lab in the entire North East region



From Left to Right: Mr. Amrit Deorah, Mr. Shyam Bang, Mr Ronn Pakrashi and Mr. Dipanjan Konwar



QCI Team and FICCI Team Members

4th Regional Quality Conclave (RQC)



























Healthcare Organizations' Platform For Entry-Level (HOPE) Certification

Technology makes it expedient to monitor and garner quality across a plethora of applications in this complex network of healthcare. With the advent of HOPE, the applications that were once retained manually have now been digitized. HOPE is a revision to NABH's former entrylevel certification process for both Small & Large Healthcare Organizations (SHCOs / HCOs). It provides a stepping stone towards quality while pushing healthcare organizations, a step closer to acquire complete NABH accreditation.



Amardeep Singh Bharaj

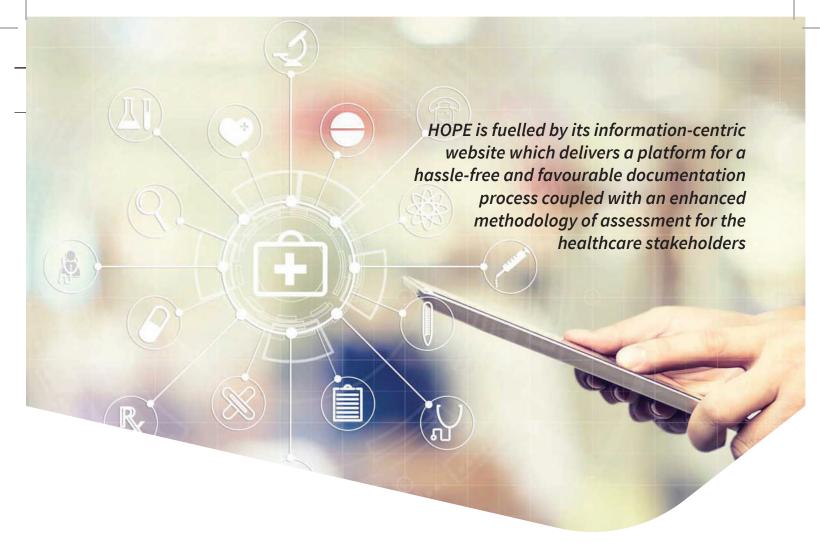
Analyst

The website incorporates a guidebook focusing on information required to fill the certification questionnaire. In addition, multiple videos presenting testimonials and tutorials for the whole process are highlighted in the website. HOPE is distinguished by the feature, Knowledge Bank which inculcates technical presentations outlining the modus operandi of the web portal. FAQs regarding registration, assessment and general queries have resulted in obtaining certification with minimum assistance from external agencies. Furthermore, intensifying the outreach of HOPE has always been a discerning venture for the team in light of which

multiple awareness workshops throughout the nation are planned and executed with firm determination to bring about positive change.

HOPE further provides a mobile application for its users which has been equipped with actionable information which ingrains various data capturing tools. This mobile application is an indispensable resource for HOPE, ensuring the ease to abridge this evidence-based process. With over a 1000 downloads in a short span of 6 months, the next step involves push notifications for the status of every individual registration.

The overall certification process has been categorized in two major components:



Desktop Assessment (DA) and the On-site Assessment (on-site). The DA involves verification of all the documentation required after the applicant's payment has been processed. The assessor deputed for the DA then reviews this application and raises non-compliances, if any. This is a two-stage process (35 days) and in the final stage; the application gets approved or rejected based on clarification of the non-compliances. All of this is executed on HOPE's web portal. Subsequent to the approval of the application, the on-site inspection gets assigned to the applicant within 15 days. With a similar two-cycle approach pertaining to the DA, the assessor for the on-site inspection then handles the non-compliances for the applicant whose inspection had been carried out by him/her. HOPE presently has over 600 DAs and 400 on-sites that are in the process for recommendation. The current consensus of HOPE contains 35 applications that have been advanced for receiving the entry-level certification.

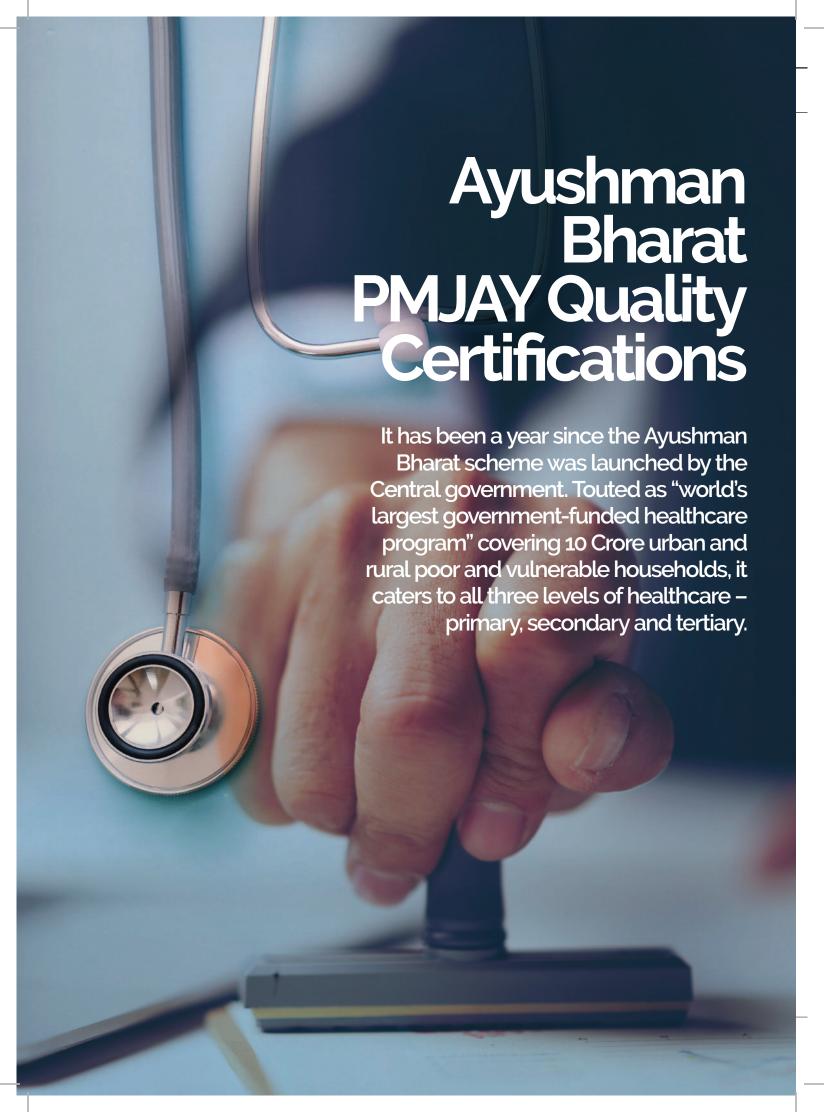
A separate Certification Committee has been set up, which governs more than 80 applications monthly, to be recommended in the future for receiving the final certification.

What makes HOPE even more successful is the round-the-clock call centre team, which came into action on 4thFebruary 2019. The team comprises of experts specifically trained by QCI, to assist the applicants with queries, remind them about the merits of HOPE and how certification could be achieved rapidly. The call centre receives more than 13 times the call volumes it did, as compared to the first month since its formation. The overall certification cycle can now be completed within a period of 90 days, subject to the availability and credibility of the documents. The former certification process, in comparison, takes a minimum of 180 days to complete the cycle; the introduction of HOPE has slashed the time required for certification by 50%. This way

HOPE is able to surmount a multitude of healthcare organizations in the least amount of time possible.

Moreover, applicants now have an option to engage consultants directly from the HOPE website from an array of NABH and NABL certified individual consultants.

From what has been to what is now, HOPE can be attested from the surge in applications, number of calls and queries since its inception. With around 400 applications in February 2019 to 4100 applications till date, the journey has been a 10-fold one and is expected to transform the operations of the Indian Healthcare system. QCI being the connoisseur of HOPE is and will be ready to handle any surge in volume to yield a continual and seamless user experience. With HOPE, certification is now only a few clicks away.





Ridhima Madaan ProjectManager

Twinkle Khanna Management Trainee



Shashi Kiran Vangala

Junior Associate

This initiative has two sub-programmes¹. The establishment of Health and Wellness Centers is the first sub-programme that caters to the primary level of healthcare where comprehensive primary healthcare is provided along with free medicines. The other sub-programme that covers the secondary and tertiary levels under this programme is the National Health Protection Scheme, now renamed to be the Pradhan Mantri Jan Arogya Yojana (PMJAY). It is a health insurance scheme where the eligible persons avail health insurance cover up to 5 Lakh per year per household. The eligible persons can avail health services in all government and empanelled private hospitals. The National Health Authority (NHA), an attached office in the Ministry of Health and Family Welfare that is overseeing the implementation of the programme, has fixed the package rates of 1393 treatments to be offered as part of this scheme.

One of the biggest healthcare policy concerns in India today is the 'Quality' of health services offered. In the latest Global Burden of Disease study (2016) published in the journal Lancet in 2018, India ranked 145 out of 195 countries for "Healthcare Access and Quality" (HAQ) index; ranking lower than neighboring Bangladesh and even sub-Saharan Sudan and Equatorial Guinea. This present state of healthcare services is due to the inefficiency and lack of quality of services

provided by healthcare providers at various levels. Hence, creating formidable challenges and gaps in ensuring the quality of health service, which is a 'prime target' of Ayushman Bharat PMJAY.

In this context, the NHA has tied up with the Quality Council of India (QCI) to develop a Quality Assessment system under the scheme. An agreement was signed on June 12, 2019, to give effect to this collaboration. As part of the agreement, QCI will develop standards to assess healthcare quality in hospitals and a technology platform where the empaneled hospitals can apply and submit information. While the technology platform primarily functions as a data collection tool, it shall also serve the purpose of data analysis in later stages of the project.

Certification System

The Certification system consists of three levels of certificates – Gold, Silver, and Bronze. As the name suggests, the Gold Quality Certification is the highest level of certification. Those hospitals with Joint Commission International (JCI) Gold Standard Certification or the National Accreditation Board for Hospitals and Healthcare Providers (NABH) Full Certification, can apply for

Gold Certification. The Silver Quality Certification is the second level of certification where those hospitals with National Quality Assurance Standards (NQAS) and NABH Entry-Level certification can directly apply. Those hospitals that qualify for Silver Quality Certificate can upgrade to the Gold Quality level after six months after undergoing another round of assessment. The final level of Certification is the Bronze level of Certification which the hospitals with no prior certification can choose. Similar to the above level, hospitals that achieve Bronze Quality Certificate are eligible to apply for Silver Certificate after six months with an additional round of testing.

The certification programme is a threetier system to ensure step-by-step upgradation of empaneled hospitals to improve their quality of services.

This certification programme will not only cater the government hospitals empaneled under the Ayushman Bharat Scheme but will also focus on motivating the smallest of empaneled healthcare providers with no certification to come for the Bronze Quality Certification, which is specially designed keeping in mind these healthcare providers.

To incentivize hospitals to achieve certification, the government has decided to pay the hospitals financial benefits

¹ https://pib.gov.in/newsite/PrintRelease.aspx?relid=176049

² https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(18)30994-2/fulltext

QUALITY INDIA

over and above the 'Hospital Benefit Plans' for every service after the hospital is certified. This is applicable to hospitals that successfully achieve the Silver or the Gold Quality Certification.

Quality Assessment Standards

Quality, in present-day, is understood more as a management concept than a technical one. As the management principles evolve, quality as a concept in healthcare also evolves. Any Quality





Assessment standards developed must incorporate the latest understanding of the quality in healthcare. In addition to that, India has a gigantic diversity of healthcare providers – from the world's best institutions like All India Institute of Medical Science (AIIMS), Narayana Netralaya, Aravind Eye Hospital, etc., to some of the most under-equipped hospitals in the hinterland. Any system of quality assessment standards must factor in this range of diversity.

Realizing these challenges, QCI, after consultations with renowned healthcare experts has come up with AB PMJAY Bronze Quality Standards. These standards follow the Donabedian Model of examining health services and evaluating the quality of healthcare. The standards are so classified to derive information from three categories -- Structure, Process, and Outcome. Structure describes the context in which care is delivered, including hospital buildings, staff, financing, and equipment.

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Process denotes the transactions between patients and providers throughout the delivery of healthcare. Finally, outcomes refer to the effects of healthcare on the health status of patients and populations. In developing countries like India, the structural components get overemphasized over processes and outcomes owing to the structural inadequacies in the healthcare system. Impetus was given in the preparation of the standards to see that all the three categories were represented in a balanced way.

Technology Platform

The whole process of Quality Assessment will be carried out on a Technology Platform consisting of a Web Portal and an Assessor Mobile App.

All the standards developed will be objectively presented as questions for hospitals to answer. The assessment will be done in two phases – (i) Desktop Assessment, where hospitals' self-attested documents will be verified online and upon successfully completing it, (ii) an Onsite Assessment will take place.

Ayushman Bharat PMJAY Quality Certifications

Here, the Assessor visits the hospital and collects the required information through a mobile app developed for this purpose.

The technology platform will reduce the time taken in the assessment process. Moreover, the certification process is a time-bound process, which makes this whole process transparent, accountable and simple. Care has been taken to

Future Prospects

Ayushman Bharat is one of the flagship programmes of the present Central government. It is a visionary step towards advancing the agenda of Universal Health Coverage (UHC) alongside enhancing the standards of quality in the hospitals of the country for complete patient safety.

This programme can benefit government to acquire a national perspective on the quality of healthcare in India. It will help in improving its quality assessments on the whole. Apart from this, the data collected on the technology portal can be harnessed to derive insights that can be used to monitor public health and help the policymakers at national level who manage the health system performance. India has made great strides in improving healthcare quantitatively. Yet, qualitatively we lack many facilities making quality in healthcare expensive and elitist. QCI takes great pride to be a part of this AB PMJAY quality certification that can help in making quality in healthcare accountable, accessible and affordable; ultimately creating an ecosystem of quality and a healthier nation.



ensure that the language used is simple to understand even for the hospital general administration.

Those hospitals that successfully complete the assessment process are presented with a Digital Certificate while those hospitals that fail are presented with a report with suggestions and recommendations for future assessments.



³ https://jamanetwork.com/journals/jama/article-abstract/374139

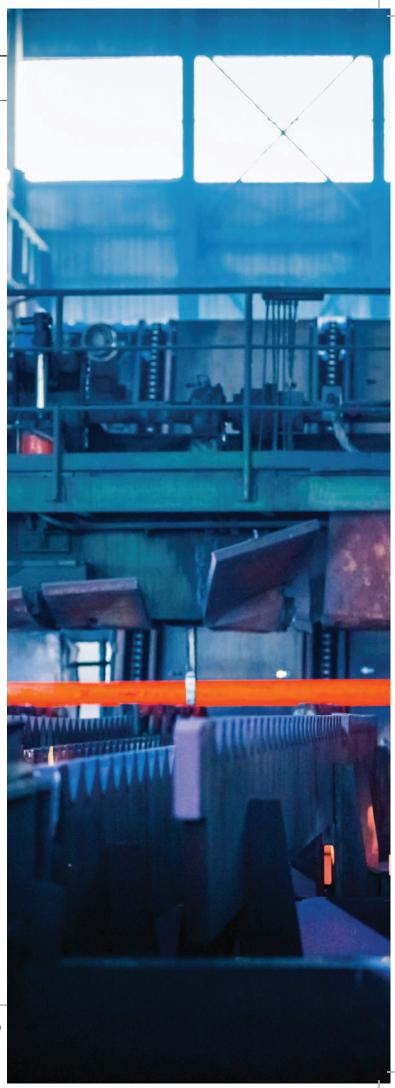


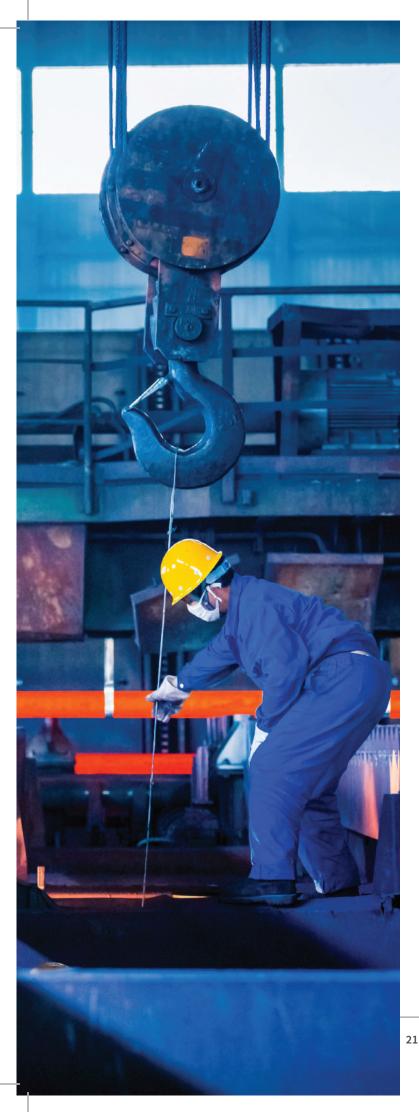












Daily Work Management: AZED Parameter

Most of the industries and organizations try to execute their planned strategy by transferring the responsibilities onto the different areas and levels of the company. This limits their responsibility area to monitoring the actions they are expected to carry out. This approach, in most cases, ensure that results are below expectations.

However, why are results often not achieved?
Organizations need to implement a new way
of monitoring the actions planned and the
results achieved, one that ensures an adequate
implementation of the strategy and allows for a
faster and more effective response to deviation.
What organizations need is what we call daily
management.

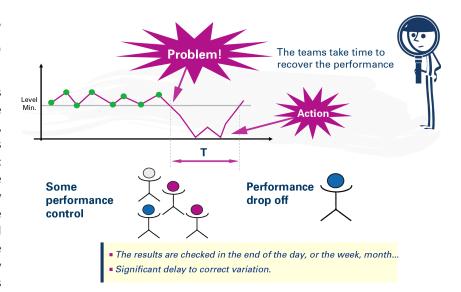
Daily Work Ma AZED Parame

What is Daily Management?

Daily Management (or DM) is a continuous process that ensures the work is done in the right way and at the right time, in order to achieve business success according to the company's strategic objectives. It entails the routine monitoring of actions, as defined by the strategy deployment, to verify if the expected results are being achieved and – if they are not – come up with corrective measures in a timely manner. Daily Management allows people at all levels of the organization to clearly visualize whether the performance is good or bad on any given day.

It helps to easily identify any deviation from target, which makes everybody involved in the process equally responsible for taking the necessary actions to quickly correct the problem and restore the expected level of performance.

Daily Management system without daily management, in which a problem affecting performance is not fixed immediately



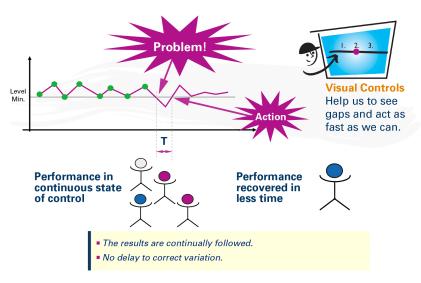


Illustration of a Daily Management System

APRIL-JUNE 2019 22



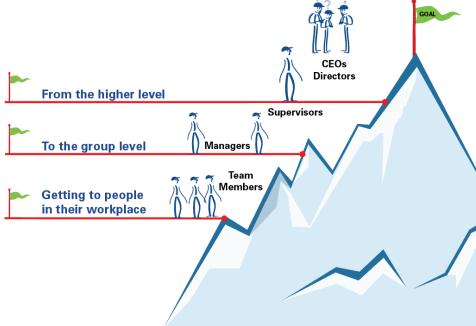
inagement: ter

Deploying strategy to all levels

Daily Management starts with a solid process for shaping and then deploying strategy, which has its foundation in the definition and communication of the organization's "mission statement." This explicitly expresses the company's priorities for the near future.

This is then translated into specific indicators at macro level, which then cascade down to the functional levels until they reach the work cells and ultimately each employee. Everyone has to be aware of the priorities and challenges of the company and how they relate to their job. That is why it is so important to define the True North in adequate terms: so that people are more likely to be proactive in helping the company to achieve success.

The transformation of the indicators defined at the macro level into individual goals for each employee and job is a necessary step towards the turnaround of an industry. With everyone involved in the decision-making process and given his or her own responsibility, the probability of achieving success increases manifold.



The next step is for all areas of the organization (production, administration, commercial, and support functions) to set up charts and visual management boards in extremely visible and accessible places, near the point of work, to ensure the most is made of the meetings that will take place daily (or with any other necessary frequency).

How Daily Management works?

To operationalize Daily Management one must clearly translate the performance metrics defined at strategic level into metrics specific to each department or work cell. At this point, a team should be formed and a standard for the follow-up meetings established. To fully capture the benefits and the learnings of a Daily Management system, a new set of leadership attitudes, values and behaviours must also become commonplace. Last but not the least, a "help chain," a structure that supports problem solving across the business, must be put in place.

Aligning everyone's individual job to the strategy

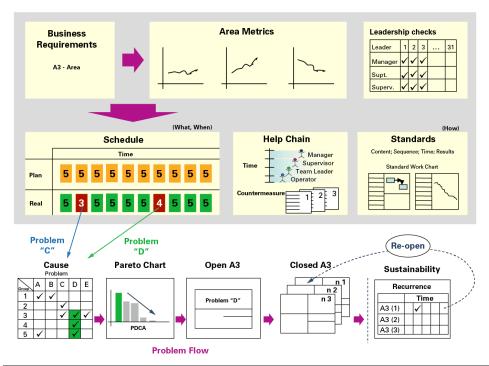
Daily Management enables the connection of everyone's specific job with the strategic goals of an organization. Most importantly, it connects the dots between all essential company needs at any point in time. Everyone should be able to tell how their work is contributing (or not contributing) to the achievement of the company's objectives as defined by the strategy, at all times. This provides a sense of purpose and belonging among the workforce, as everyone is given the opportunity (often for the first time) to realize how their individual job influences the success of the organization.

Indicators deployment and visual management

Performance indicators defined at strategic level by senior management should be deployed, specified and visually displayed at all levels of the business, using charts like the one shown below. These charts should be filled out according to the updated figures gathered each day.

Visualization must be simple in order to ensure clarity and focus, and to allow everybody to understand. The marks utilized should be as simple as possible: "on target" = green, "off target" = red (to indicate what is going according to plan and what isn't).

Daily Management + Problem Solving



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How to eliminate chronic problems

Recurring issues are addressed in a special way.

As soon as a chronic problem is identified on the board, a group of five people becomes responsible for addressing it in a structured way, using the scientific method – A3 thinking.

Dedicated Kaizen is performed next, to understand the root causes of the problem before any countermeasures are implemented. Then, the A3 and its related issues are monitored in the daily management board for three months. If the problem reoccurs, the A3 is "reopened" to carry out further analysis, formulate new hypotheses as to why the countermeasures didn't work as expected, and to come up with an appropriate response.

The daily meeting and teamwork

For each department, area or cell, a team should be put together and asked to get together with regular cadence, even daily if needed, and always at the same time, to discuss the numbers achieved compared to the numbers the organization hoped for. Setting a standard for the meetings is critical to their success.

Just having the numbers exposed is not enough: daily management encourages (and, really, calls for) teamwork and cooperation. The team should always engage in frank discussions to understand the situation, do some analysis on the spot, and decide what actions are needed in the event of a gap between current and expected performance.

During the meetings, with everyone facing the daily management chart, it is important to ask the right questions, such as: "Did I do the right thing, in the right quantity and at the right time?" "How are the current results compared to the expected ones?" "What is the problem?" "Why did we deviate from the plan?" "What was the root cause of the deviation?" "What kind of improvements is necessary?" "How can you contribute?" "What kind of help will you need in order to contribute?"

The meeting should be led by the area leaders (the supervisor and his/her leaders in a production area, for instance, or the director and his/her managers in a commercial department).

These get-togethers must be quick and efficient – a stand-up meeting is normally the best way to keep things short – with everybody focused and concentrated on giving their contribution to solving the problems flagged up by the charts.

The role of leadership: attitudes and behaviours

Just having the stand-up meetings is not sufficient. Leadership, which should be heavily involved at every step of the way, must be capable of keeping the meetings focused and involving all team members adequately.

They must know what to ask and how to ask it, and be available to help clarify the situation by means of "explanatory questions," until they feel that the group has developed a good understanding of what is going on and is ready to explore the root causes of the identified problem. The role of leadership is critical in that too: it is by repeatedly asking "Why?" that root causes are unearthed.

During the meeting, no participant should provide an answer that is superficial or given without having carried out a good analysis of the root causes and potential countermeasures to a problem.

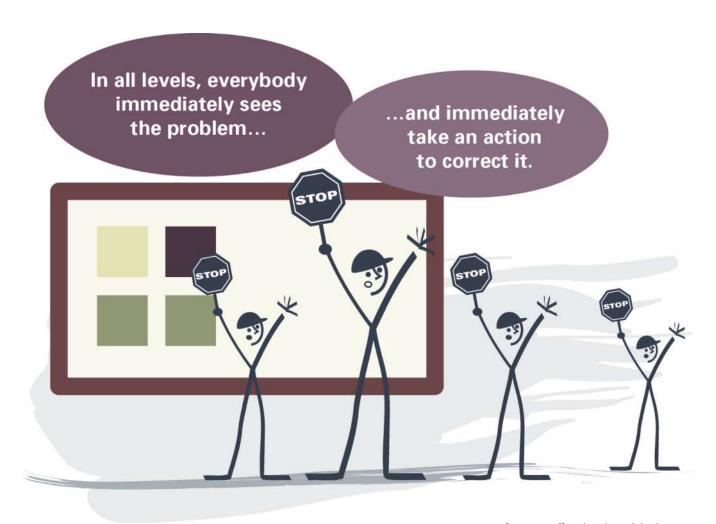
Leaders themselves should avoid giving answers or even suggesting them, even when they feel they have a good idea of what could be tried to tackle a specific situation. The reason for this is that standup meetings (if managed properly) are, more than anything else, great opportunities to develop the employees' capabilities and change the way people tackle problems and work in teams.

Discussions should concentrate on the "red dots" – the things that are going wrong – and on the search for effective countermeasures. Rather than looking for someone to blame, people should embrace the idea that it is okay to have problems.

Problems should be exposed and solved

It's necessary to create an environment in which hiding problems is neither acceptable nor possible. The right way to work, which lean thinking advocates for, is exposing problems, effectively solving them, and asking for help and getting it whenever necessary.

Problems occur constantly and the more time is required to understand and solve them, the bigger their consequences.



Zero Defect Zero Effect (ZED) model takes up daily work management as a critical measure for a company's progress and sustainability. It instils among the entrepreneurs a sense of discipline with respect to allotment and monitoring of work on a daily, weekly or monthly basis. ZED aims at helping MSMEs establish a comprehensive system of daily work management, through which all employees will be able to perform, monitor and rectify their work in quicker and more efficient manner. The change every industry needs to undergo is to start visualising the common vision for an industry and then start planning accordingly. ZED- The Change Begins!

- TEAM ZED

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patient safety. The board while being supported by all stakeholders, including industry, consumers, government, has full functional autonomy in its operation.

NABH provides accreditation to hospitals in a non-discriminatory manner regardless of their ownership, size and degree of independence.

International Society for Quality in Healthcare (ISQua) has accredited NABH. The approval of ISQua authenticates that NABH standards are in consonance with the global benchmarks set by ISQua.

Vision

To be apex national healthcare accreditation and quality improvement body, functioning at par with global benchmarks



Mission

To operate accreditation and allied programs in collaboration with stakeholders focusing on patient safety and quality of healthcare based upon national/international standards, through process of self and external evaluation

NABH Activities

NABH Accreditation Programs

NABH offers accreditation to Hospitals, Blood Banks, Eye Care, SHCOs/ Nursing Homes, OST Centers, CHCs/PHCs, AYUSH Hospitals, Wellness Centers, Medical Imaging Services, Dental Centers, Allopathic Clinics, Ethics Committees and Panchkarma Clinics

NABH Certification Programs

NABH offers certification to Medical Laboratories, Nursing Excellence, Emergency Departments, Medical Value Travel Facilitator (MVTF), Pre-Accreditation Entry Level for Hospitals, Pre-Accreditation Entry Level for SHCOs

NABH International

NABH has started its operations overseas under NABH International (NABH I). It offers all accreditation programs as being offered in India. The program is unique as in addition to the accreditation standards it requires compliance with local regulatory requirements

Training & Education

NABH conducts
Education/Interactive
Workshops,
Awareness
Programmes and
Programmes on
Implementation (POI)





For further details please contact:

National Accreditation Board of Hospital and Healthcare Providers Quality Council of India

5[™] Floor, ITPI Building, 4A, Ring Road, IP Estate, New Delhi-110002, India **Ph.:** 011-42600600; **Fax:** 23323415; **Email:** helpdesk@nabh.co; **Website:** www.nabh.co





Project Planning and Implementation Division (PPID)





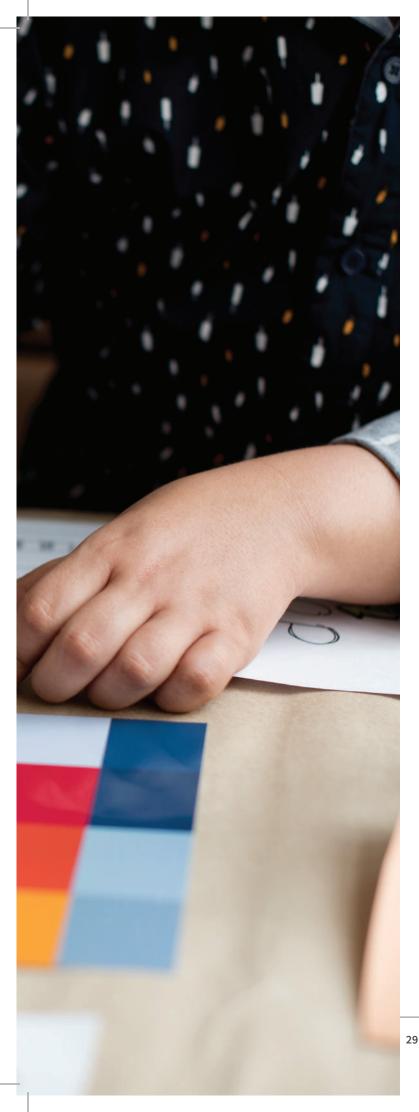


qualitycouncilofindia



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PROJECT BRIEFS

Ayushman Bharat PM-JAY Quality Certification, National Health Authority





National Health Authority (NHA) has joined hands with QCI to start a quality certification process to enhance patient satisfaction and improve quality standards across AB-PMJAY empanelled hospitals. The MoU was signed by Dr. Arun Gupta, Executive Director, National Health Authority and Dr. Ravi P. Singh, Secretary General, QCI in presence of Dr. Indu Bhushan, CEO, NHA and Mr. Adil Zainulbhai, Chairman, QCI.

QUALITY INDIA

The aim is to build a network of healthcare providers that strive to provide quality services while following the healthcare protocols. As of May 23, 2019, there were 15,291 empanelled hospitals, which will be able to obtain the benefits associated with certification over and above the packages decided under AB PM-JAY.

NHA and QCI have mutually started to develop a simple and swift mechanism for the certification of empanelled hospitals. NHA has decided to collaborate with QCI and use its well-established systems, skills and credibility for hospital certification. Since the treatment rates are fixed and healthcare providers have been identified, high-quality treatment becomes a prime concern of the scheme. The certification of hospitals will enable them to comply with quality protocols, improve patient safety and the overall healthcare facility of the organizations. The partnership aims to create a process to facilitate certification of at least 7,000 empanelled hospitals by December 2021 to build a network of quality healthcare providers.

There will be three levels of AB-PMJAY quality certifications -- Bronze, Silver and Gold with Gold being the highestlevel certification under this initiative. The process will be carried out through an objective-based questionnaire to be filled by the hospitals for the Desktop Assessment (DA) on a technology platform. It will be followed by an onsite assessment done using a mobile application by qualified assessors. Apart from the upgradation of the quality standards of the hospital, they will also receive a financial incentive of 5%, 10% and 15% respectively on the package rates for bronze, silver and gold quality certification. Hospitals which are already certified by nationally or internationally recognized accreditation body like NABH can also avail the benefits of the scheme by directly applying for silver or gold certification.

Patient safety and standardized healthcare is the goal for which quality certification has been launched along with motivating the healthcare industry to work towards achieving it collectively.

Department of Investment & Public Asset Management (DIPAM), Ministry of Finance



QCI has established a PMU at DIPAM which works as an internal think tank for it, providing research and analytical support on wide-ranging issues of "Disinvestment of Government's stake in CPSEs" and "Monetization of assets of CPSEs." The scope of work also includes Project Monitoring and Due Diligence.

QCI has been engaged by the DIPAM to assist in the evaluation and execution of different proposals for "Disinvestment of Central Government's Equity Stake in Central Public Sector Undertakings (CPSEs)" and "Monetization of non-core assets of CPSEs." QCI also assists DIPAM in the decision-making process in broad realms of strategy and economic policy. QCI team monitors various disinvestment transactions being carried out by DIPAM to meet the Finance Ministry's annual budgeted target. This involves tracking progress, debottlenecking

and stakeholder follow-ups. QCI team provides research support, performs analysis on the feasibility of various ideas from a strategic-financial perspective and produces ready reports for senior officials' decision making, as and when required by DIPAM.

Public Perception Survey of Delhi Police



With the most advance administrative system in India and over 6 ranges, 14 districts and 184 police stations at present, the Delhi Police is perhaps the largest metropolitan police in the world with the sanctioned strength of 83,762.

QCI, along with the Delhi Police is performing 1st ever Public Perception Survey of Delhi Police.

The main objective is to understand the number of crimes not reported and to take a stock of the actions taken by the police on reported crimes. The project will also envisage the satisfaction levels of the general public against the action taken. We are currently in its Pilot Stage where 5 Police Districts selected by the Delhi Police, namely Central, South, Shahdara, Outer and North West are being surveyed on the following basis:

 Household Surveys are being conducted of cases registered in Police Stations (FIRs/Complaints) along with surveys in random households to have a comprehensive perspective.

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Project Planning and Implementation Division (PPID)

Calls are being made via Call Centre to the Citizens of Delhi randomly and to the citizens who registered a complain on their Helpline Numbers to observe the response trend by the Police and satisfaction level of victims and their overall experience with the Delhi Police.

QCI shall analyse the collected data and share its detailed findings to the Delhi Police which would include satisfaction level of victims with police, actions taken vis-à-vis calls reported on helpline and the number of crimes that are not reported till date.

Government e-Marketplace (GeM) -**PMU**









Government e-Marketplace (GeM) under the Ministry of Commerce and Industry provides an end-to-end online Marketplace for Central and State Government Ministries / Departments, Central & State Public Undertakings (CPSUs & SPSUs), Autonomous institutions and Local bodies, for procurement of common use goods & services in a transparent and efficient

manner. Over 36,000 government organizations from Centre, State, and Public Sector Units are registered with GeM, till date for procurement of goods and services.

QCI signed an MoU with Government e-Marketplace on 29th December 2017 and established a Project Management Unit (PMU) at GeM Headquarters from January 2018 onwards. Subsequent to the MOU, QCI/ GeM PMU received a formal work order for a period of 16 months, starting April 2018 to July 2019 (Jan'18-Mar'18 was on pro-bono as per the MOU). The PMU will be extended for another 17 months with an Addendum to the MoU with additional resources.

PMU is mandated to perform the following activities as a Knowledge and Quality Partner to GeM to assure quality in the

> procurement of goods and services on the National Portal:

- Conduct research on global best practices in the relevant domain and assist in its adaptation by GeM
- Conduct research on mandatory compliances/

certification/licenses required for new products & services on the GeM portal

Type Test Report Scrutiny/Validation Service: GeM sometimes requires an intervention/third-party view on the disputes/incidents raised by buyers or sellers. QCI provides facts, objective view along with suggestive

- solutions to GeM on such cases. QCI has resolved 15 such cases in 15 months till May 2019
- Product Category: Coordinated and executed online/ offline collaboration with Accredited Certification Bodies/ Regulatory bodies namely BIS (offline), FSSAI, and NABL (offline), to name a few, to ensure quality in procurement
- Service Category:
 - Identified and drafted Service Level Agreements (SLAs) for various services, available on the GeM Portal
 - Quality check of service providers: Quality check of vendors by validation of the certification(s) and project experience uploaded by the service providers to eliminate ingenuine and deceptive sellers/ transactions in "Services" on the portal. After an intensive quality check on certifications and project experience of service providers, 18,698 service providers have been validated by QCI (till May 2019) amongst which 5,919 were rejected on the basis of wrong/ expired/incomplete compliance certificates and/or public project experience

Vendor Assessment by QCI

Effective from June 1, 2019, QCI has been mandated to carry out the Vendor Assessment for registered OEMs as per the GeM's new Vendor Validation Policy

> QCI has designed a robust and holistic framework to validate vendors consisting of parameters like production capacity, physical location, and financial stability

QUALITY INDIA

- b. QCI developed an innovative Web & Mobile-based platform for Vendor Validation. Assessment will be carried out in 2 stages, wherein the first stage of Desktop Assessment will include authentication of a vendor profile, business experience, financial capacity and production capacity and, the second stage of Video Assessment will be conducted by an expert sitting at a remote location using a mobile-based application through video calling
- c. Entire video assessment will be recorded and geo-tagged and the automatic report will be submitted in 2 weeks turnaround time after receiving the application of a vendor
- The digital certificate will be issued to the vendor (who will be validated as OEM) with a validity of 2 years

Start-up Village Entrepreneurship Programme (SVEP), Ministry of Rural Development



The Start-up Village Entrepreneurship Programme (SVEP) was introduced in 2015 as a sub-scheme under the National Rural Livelihoods Mission (NRLM). It focuses on providing sustainable livelihoods & self-employment opportunities with financial assistance and training in business management of soft skills by creating a self-sustaining ecosystem at the block level. The programme is expected to promote 1.8 lakh enterprises in 125 blocks in 24 states in four years and create employment for 3.78 lakh rural poor in four years from 2015. As on 30th November 2018, a total of 30,352 enterprises have been formed across 20 states where the scheme is being implemented.

QCI has been entrusted with the responsibility of conducting a three-layer evaluation of the Start-Up Village Entrepreneurship Programme:

- i. Mid-Term Evaluation
- ii. Process Evaluation
- iii. Identification and Documentation of 20 Best Practices, under the supervision of MoRD from April 2019

A detailed and step-wise process has been formulated to comply with the strict timelines for various deliverables. Questionnaires for conducting the data collection have been finalized in consultation with MoRD. The aim of these questionnaires is to bring forward the on-ground realities after assessment of quantitative and qualitative KPIs.

To test the questionnaires, a pilot project has been conducted at Tauru Block in Haryana wherein Focused Group Discussions were also conducted where beneficiaries and facilitating agencies were brought together to get the real picture. Changes have been made in the questionnaires on the basis of responses received and experience of our competent team members who conducted the assessment. All the redundant and

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irrelevant questions were therefore removed and a more comprehensive questionnaire has been finalised.

Current Status: The on-ground assessment started on July 19, 2019 and is on-going.

Department of Administrative Reforms & Public Grievances (DARPG)



QCI is currently working on two projects of key importance with DARPG, namely, Streamlining CPGRAMS and Monitoring the progress on reforms via a digital dashboard, undertaken by Central Ministries/ Departments.

Under Streamlining CPGRAMS project, QCI is helping DARPG in reducing the time taken in forwarding the grievance upto multiple levels till the last mile concerned officer, responsible for disposal. Instead of that we are intended to send the grievance directly to the last mile concerned office/ officer by marking all the above offices for the monitoring purposes.

The second project has been extended for another six months for proper monitoring of the progress of the reforms.

Project Planning and Implementation Division (PPID)

National Smart Grid Mission

QCI has been commissioned by Ministry of Power for impact assessment of ongoing/completed smart grid pilot projects.
The assessment will be carried out at 12 locations in India which are under National Smart Grid Mission Pilot project to showcase the benefits accrued to the utilities and consumers through primary and secondary data analysis and feedback surveys.

The assessment focuses on the following aspects:

- implementation and comparative analysis: Verification of the infrastructure such as Smart meters installation and commissioning including the sustainability and performance of communication centre, DCU's enabled system etc.

 Also, a comparison of the completed Smart Grid Project with respect to the deployment of smart grid applications will be carried out
- Impact assessment on Utility: This includes the benefit accrued to Utility in terms of billing automation and increased billing efficiency, loss reduction, reduction of manpower and efficiency in manpower.
- Impact assessment on consumer:
 This includes the citizen survey to gain insights on the satisfaction levels of end-users with respect to the works executed under the mission.
- A team of QCI visited CESCOM Mysore to conduct a pilot assessment of smart grid in order to evaluate the various aspects of the framework and modifications were made based

on the learnings before the full-scale assessment. The assessment has been completed and the final report has been submitted to the Ministry.

Quality Assessment of Coal

- Third-party Quality Assessment provides transparent mechanism to scrutinise the coal quality of the coal dispatched to customers and to curb disputes among its all stakeholders. Also, coal grade assessment provides an important criterion for revisiting mine grades.
- Assessment of coal supplied through special forward e-auction for power consumer/s and linkage auction for non-power consumer/s. Further, the scope of work has been extended to spot e-auction/ special spot e-auction/ Shakti Scheme.
 - QCI has commenced third-party quality assessment across all 8 subsidiaries of Coal India Limited (CIL). Tripartite agreements of volume of 117 million metric tonne have been signed for conducting the third-party quality assessment. A total volume of 92.73 MMT of coal is already being sampled from the date of commencement. QCI has already sampled 65.95 Million Metric Tonne in F/Y 2018-19. In order to ensure double blinding of Coal Sample, QCI has developed QR Code based application to capture collection, preparation across all loading points of Coal India Limited (CIL). The same has been already implemented across all subsidiaries. Also, QCI has extended its coal sampling assessment and carried

out "Quantitative and Qualitative Assessment of Coal" for "Sembcorp Energy India Limited (SEIL)."

Swachh Bharat Mission: Open Defecation Free Programme

Under the larger objective of the Swachh Bharat Mission, the Ministry of Housing and Urban Affairs (MoHUA) commissioned QCI to verify 4376 cities of the country as Open Defecation Free. The objective of the project is to ensure accessibility of clean and functional toilets to all its citizens and to eradicate open defecation from the entire country. The cities are certified and verified every 6 months to ensure continuous monitoring.

Current Status

The National ODF percentage is 84% with 3682 number of cities declared as one-time ODF out of 4173 self-declared cities

Impact

The program has been accepted widely and witnessed the following impacts:

- Overall increase in access to cleaner toilets, especially for women
- Reduction in diseases and improvement of public health
- Increase in enthusiasm and proactiveness by the states

Gujarat Tourism



Tourism Corporation of Gujarat Limited (TCGL) engaged QCI as a Third-party Inspection (TPI) agency for conducting assessment and evaluation of the cleanliness work being undertaken at 47 identified tourist locations in Gujarat.

Four cleaning agencies have been engaged by TCGL to carry out 24x7 cleanliness work on various locations consisting of different area type including temple surrounding area, market area, parking area, beach area, ghat area, etc. TCGL has also involved two local monitoring agencies to supervise the work being done by these cleaning agencies at all locations on a daily basis.

In addition to monthly reports, an impact report was also formulated documenting the cleanliness achievements across different categories to provide a better perspective of the overall work done in the past year by the cleaning agencies which also contained the best practices of each agency.

Contented with the complete picture of the on-field work in form of reports by QCI, TCGL has extended the contract of the project for another 6 months. With the project stepping into the 1st quarter (2019-20), assessment and data analysis of all locations have been done, and report making is under process.

Gujarat Yatradham

Gujarat Pavitra Yatradham Vikas Board (GPYVB) engaged QCI in October 2017 to conduct monthly cleanliness assessments of their famous eight yatradhams that attract the highest tourist footfall in Gujarat.

GPYVB has engaged four cleaning agencies (with two locations allotted to each) to maintain 24x7 cleanliness in and around temple areas, approach roads from railway station and bus stand roads connecting temple, Ghats areas etc. at the following eight locations - Ambaji, Shamlaji, Somnath, Dwarka, Palitana, Girnar-Junagadh, Dakor and Pavagadh. GPYVB has also engaged a local monitoring agency to supervise the work being done by these cleaning agencies at all locations on a daily basis.

Each location is assessed once a month and a monthly report consisting of the performance scorecards, cleanliness indexes, analysis, comparison with previous months etc. is developed by the team to keep GPYVB informed of the work being done at the locations.

Statue of Unity

On the basis of the work being done in Gujarat Yatradham project by QCI, TCGL awarded the contract for conducting High-end cleanliness assessments in and around the world's tallest statue -- Statue of Unity.

Some key performance indicators (e.g. Knowledge of scope of work, staff presentation and uniform, manpower deployment, garbage collection and disposal, overall cleanliness efficacy, IEC activities on Swachhta etc.) were developed and performancemonitoring scorecards have been prepared respectively to grade the work being done at the location by both the cleaning agency and TPI.

QCI is conducting assessments at the location twice a month, and furnishing a monthly report to TCGL portraying a true picture in terms of scores and percentages by gauging the work in respect to the cleanliness standards of a national level monument. Till now, 10 reports have been submitted to the client.



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Project Planning and Implementation Division (PPID)



Google Toilet Locator



Ministry of Housing and Urban Affairs (MoUHA) has partnered with Google Maps to list all publicly accessible toilets across the country. The advantage of the listing on Google Maps is that the users can search nearby toilet and provide a rating and additional feedback of the facility. It can benefit the MoUHA as well as local city administration by making general upkeep easier and complaint resolution faster.

863 Urban Local Bodies are covered and the data of **862** ULBs is already live on Google Maps. **Over 38 thousand** toilets have been mapped in these cities and are now being searched by users under the keyword, **"SBM Toilet"**.

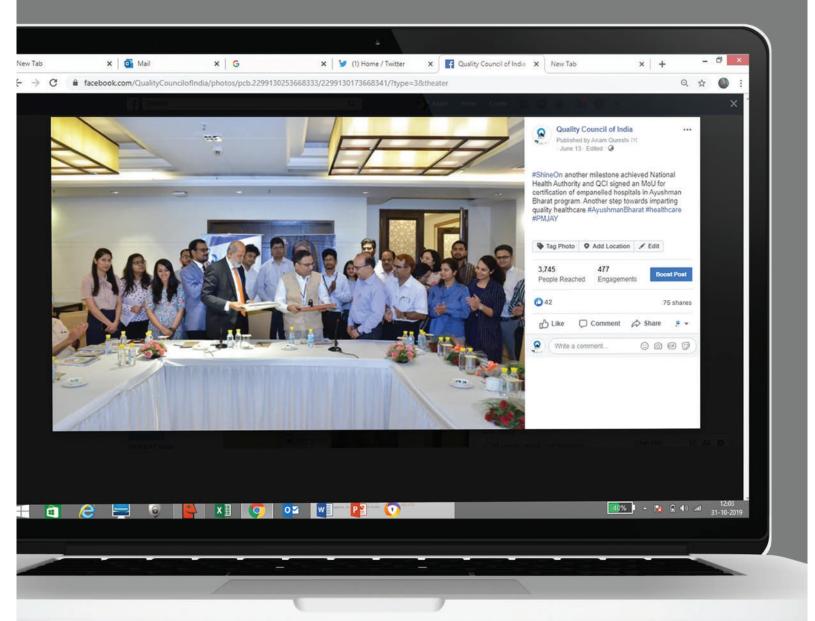
Alongside, the expansion in the number of cities, we have technologically gone a step higher by using the Google My Business tool for individual listings. This has helped facilitate additional information about a toilet in its respective description, which are imperative for a user to know before he/she actually decides to visit that toilet. Google Toilet Locator is now featured in the media, gathering major traction and limelight, given its purpose and the objective it aims to serve.







Our Social Media Presence







QCI @@QualityCountil · 13/06/19 #ShineOn another milestone achieved nNHA and @QualityCoun signed an MoU for certification of empanelled hospitals in Ayushman Bharat program. Another step towards imparting quality healthcare @MoHUA India



Ravi P Singh and @QCI_NABH

119 O18 1 QCI O @QualityCouncil - 11/06/19

NABH Entry-Level Certification Awareness Workshop was conducted successfully at Pune by Indian Medical Association on 1st June 2019. NA... See more





Day 2: Visit NBQP - National Board for Quality Promotion stall no. A40 at #WorldEnvironment 2019, Pragati Maidan. #WorldEnvironmentDay2

1 Comment 2 shares 🐠 🕶



1 share 🐠 =

QCI © @QualityCouncil · 13/06/19 #ShineOn another milestone achieved @AyushmanNHA and @QualityCouncil signed an MoU for certification of empanelled hospitals in Ayushman Bharat program. Another step towards imparting quality healthcare @MoHUA India



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QCI @ @QualityCouncil - 10/06/19 QCI celebrates World Accreditation Day #WAD2019 at New Delhi, Mumbai, Guwahati and Chennai. #QualityMatters @NABL QCI @Director NABH QCI_NABET @NABCB_QCI



QCI @QualityCouncil - 19/06/19 Learn about the enormous benefits offered by QCI's new web portal, offered by QCTs new web portal, Healthcare Organizations Platform for Entry-Level Certification #HOPE For more information please log onto: hope qcin.org #Healthcare @Director_NABH

youtube.com/channel/UCrYNu



QCI @ @QualityCouncil - 19/06/1 A 4-Day workshop on Capacity Building

QCI @QualityCouncil - 10/06/19 QCI celebrates World Accreditation Day VAD2019 at New Delhi, Mumbai, Guwahati and Chennai. #QualityMatters @AdilZairulbhai @RaviPSingh @aniljauh @NABL_QCI @Director_NABH @QCI_NABET @NABCB_QCI @QCI_NBQP



QCI @ @QualityCouncil - 10/06/1

QCI @ @QualityCouncil - 28/05/19 eOn @QClelearning In order to enhance employability, QCI & SRMUNIVERSITY1 Sikkim ink an MoU, SRM University recognises QCI for capacity building interventions in the form of blended learning activities using earning as a platform.



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QCI @ @QualityCouncil - 26/06/19 Mr. A K Jain. Principal Advisor. ©ZED_QCI explaining the gathering about Zero Defect Zero Effect #ZED Model and its benefits at RegionalQualityConclave @QCI_NBQP @ficci_india @DIPPGOI @DoC_GoI



Quality Council of India 20 June - 🕼

Many congratulations to NABCB - National Accreditation Board for Certification Bodies for receiving MRA certificate from Kwei Fern... See n



QCI @ @QualityCouncil - 27/06/19 We are delighted to share that the 3rd batch of @QClelearning 4-credit course on Manufacturing Competitiveness will be available on (WAYAMMHRD platform from 15th July onwards. For more details visit swayam.gov.in/ nd2_imb19_mg21....... Hurry and grab the opportunity!

EQUEST/QCI

0 1210 O13 A QCI @ @QualityCouncil - 26/06/19 Panel Discussion on Policy Measure

QCI @ @QualityCouncil - 20/06/19 Many congratulations to @NABCB_QCI for receiving MRA certificate from Kwei Fern Chang and Jennifer Evans, co chairs of APAC in Singapore today. #ShineOn @aniljauhri @AdilZainulbhai @RaviPSir



Anil Jauhri @aniliauhri - 20/06/19 Happy to announce that NABCB has been approved by the Asia Palfic Accreditation Cooperation to sign MRA for its accreditation scheme petsonnel certifications as per ISO 17024

A 4-Day workshop on Capacity Building of EIA Consultants "Quality Improvement in EIA Report" is being organised by NABET in New Delhi.





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The strength of the team is each member. The strength of each member is the team. #QCITalent at its best!





The Swachh Bharat Mission-Urban Team of PPID delivered a workshop in Assam to the state government officials working in the sanitat... See it

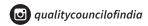




Neelima Malik and 50 others 4 comments **







National Accreditation Board for Testing and Calibration Laboratories

Launch of New
Scheme "Accreditation
of Medical ImagingConformity
Assessment Body
(Mi-Cab) Based on ISO
15189:2012"

A new scheme i.e. "Accreditation Program for Medical Imaging – Conformity
Assessment Bodies (MI-CAB) based on ISO 15189:2012: Medical Laboratories
– Requirements for Quality and
Competence" is launched by NABL during the conclave held in Mumbai on 9th May'2019.

This new scheme intends to facilitate diagnosis and treatment of patients and it is expected that in order to bring overall quality in healthcare sector, Medical Imaging field cannot be discounted and implementation of international standards in this field can significantly contribute towards patient care.



International Participations & Updates

Joint IAF-ILAC Midterm Meetings, Mexico

NABL actively participated in 2019 International Accreditation Forum (IAF)-International Laboratory Accreditation Cooperation (ILAC) Joint Mid-Term Meetings held from 4th to 11th April, 2019 at Mexico.

The event observed a series of meetings wherein deliberations on strategizing ILAC operations was the main highlight. Premeditated issues related to review of documents, bye-laws, articles, ILAC Committee & Secretariat structure; member voting participation data and various other on-going tasks were discussed.

The meetings provided a valuable platform for interaction and communication among accreditation bodies, regional accreditation cooperation, stakeholders etc.

Training on ISO 17025:2017, Doha



During the 6th World Association of Anti-Doping Scientists meet on 30th April 2019 at Doha, NABL provided training on the requirements of ISO 17025:2017 to the participants from Dope Testing Laboratories. The training served as a great platform for the members of the association to discuss importance and relevance of the new introduced changes of the standard and its effect on antidoping programs.

APAC Lead Evaluator Training Course, Taipei

Taiwan Accreditation Foundation (TAF) hosted a three-day training course for APAC Lead Evaluators from 30th April to 2nd May 2019 in Taipei, Taiwan which was attended by NABL officials. The training covered the APAC MRA procedures, role and responsibilities of Lead Evaluators, interpretation & evaluation of ISO/IEC 17011:2017 requirements and updated IAF/ILAC requirements.



2019 observed formation of the largest regional accreditation cooperation in the Asia Pacific- 'APAC.'

The Inaugural APAC Annual Meetings were held from 15th to 22nd June 2019 wherein NABL officials attended the meetings of various working groups. The event served as a platform for various accreditation bodies to exchange best practices, forge stronger partnerships and drive growth in the Asia-Pacific region. The meetings emphasized on strengthening growth and advancement of APAC objectives. It also focussed on fortifying newly amalgamated rules, processes and system procedures of APAC.

The event marked plan for ensuring a progressive and dynamic cooperation to create value for the members and the community, including regulators and stakeholders as a way forward.





APAC Workshop/ Training on Accreditation in the Medical Sector using ISO 15189, Hong Kong

NABL attended an introductory workshop/training on ISO 15189, "Medical Laboratories-Requirements for Quality and Competence" held from 15th to 16th May, 2019 at Hong Kong, China. The workshop/training was hosted by Hong Kong Accreditation Services (HKAS).

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The participants were familiarized with the integrated requirements of ISO 15189 & relevant ILAC documents. They were also apprised with the application of the standard in day-to-day accreditation activities of a medical testing laboratory. The training-cum-workshop emphasized on the use of ISO 15189 standard in areas outside pathology testing like medical imaging, respiratory testing services, diagnostic testing in audiology etc. Additionally, risk-based assessment, compliance-based assessment and flexi scope were discussed.

ISO/TC212WG

Director NABL represented India at the international meeting of ISO/TC-212/WG1 'Quality and Competence in the Medical Laboratories' for the revision of international standard ISO 15189. The meeting was organized by British Standard Institution (BSI) from 28th-30th May 2019 at London.

APRIL-JUNE 2019

NATIONAL SEMINARS/ CONFERENCES

World Accreditation Day 2019

Global Initiative of celebrating World
Accreditation Day on 9th June every year
was jointly started by the International
Accreditation Forum (IAF) and the
International Laboratory Accreditation
Cooperation (ILAC) to raise awareness
on importance of accreditation. Theme
designated for the year was 'Accreditation
-- Adding Value to Supply Chains.'

Keeping pace with the last year's celebrations of WAD across India, this year also NABL along with other boards of QCI viz NABCB and NABET organized WAD 2019 on 10th June, 2019 in various cities: Delhi, Mumbai, and Guwahati & Chennai. The sessions focussed on how a strong sustainable supply chain influences the quality of products and services delivered in the market and the role of accreditation therein.

Deliberations and discussions on the role of regulations in assuring Quality in Supply Chain and importance of Supply Chain Management, Conformity Assessment in procurement, and accreditation in supply chain were made. Supply chains being pivotal in delivering quality products and services to consumers in a timely and cost-efficient manner, the session also dwelled upon how accreditation along with other quality infrastructure tools such as standards, metrology and conformity assessment adds value to the supply chains. It was appreciated that these tools assure trust that enables confidence in both final services and products placed in the market.



Assessors' Conclave-2019

With an objective to harmonize the entire assessment process by minimizing the perceptional differences within assessors' fraternity, one day assessors' conclave was conducted in following cities:

- Kolkata on 27.04.2019
- Bangalore on 04.05.2019
- Delhi on 8.05.2019
- Mumbai on 11.05.2019

More than 1700 assessors/experts in Testing, Calibration, Medical, PTP & RMP fields attended the conclaves which served as a significant platform for them to share their experiences gathered during the assessments. This, in turn, aimed to improve the consistency of overall assessment process.

During the event, approximately 100 case studies were discussed over harmonization of assessment process.

Awarding of Certificate of Compliance

"Quality Assurance Scheme for Basic Composite Medical Laboratories (Entry Level)" was launched by NABL early this year and has been accepted well amongst the stakeholders. In this regard certificates of compliance were handed over to the first three laboratories during the conclave held in Bengaluru on 4th May, 2019.

QUALITY INDIA



National Accreditation Board for Testing and Calibration Laboratories

The first-ever World Food Safety Day, adopted by the United Nations General Assembly in December 2018, was celebrated on 7th June 2019 under the theme

"Food Safety, everyone's business"

In India the day was celebrated by FSSAI wherein NABL also extended its support in spreading the awareness on significance of practicing safe food habits.

The event deliberated upon the key aspects of how compliance to global food standards, establishment of effective regulatory food control systems, good agriculture practices strengthen food safety management systems and ensure availability of safe food.

Posters and Banners on the subject matter were publicized on NABL website and social media for awareness of safe food.



In line with above, second program was concluded on 24th April'19 at Chennai wherein 45 participants from state food testing laboratories of Tamil Naidu, Karnataka, Puducherry, Andhra Pradesh and Maharashtra participated

AWARENESS PROGRAM

NABL-FSSAI Awareness Program on NABL accreditation as per ISO/IEC 17025:2017

To sensitize all state food testing laboratories with NABL accreditation as per the requirements of ISO/IEC 17025:2017, NABL in association with Food Safety and Standards Authority in India (FSSAI) conducted one-day awareness programs across the country.

The awareness programs aimed to help improve the quality system of the laboratories by gaining NABL accreditation. The program familiarized the laboratories with NABL policies and procedures thereby providing accredited testing services and access to quality food to the citizens.

To begin with, the first awareness program held at Delhi on 12th March'19 covered various states of northern region viz Jammu & Kashmir, Rajasthan, Uttar Pradesh, Punjab and Delhi. The program was attended by 35 participants.



Third Awareness program reached out to various food testing laboratories in Western India. It was conducted on 7th May'19 in Mumbai at Thane. 29 participants from Goa, Maharashtra, Gujarat and Telangana attended the program



Last program was held at Kolkata wherein about 35 participants from Assam, Sikkim, Odisha, West Bengal, Nagaland, Chhattisgarh, Meghalaya, Manipur, Tripura, Jharkhand, Bihar and Himachal Pradesh participated. It was conducted on 22nd May'19 at Kolkata

TRAININGS

Training as per ISO/IEC 17011:2017

In view of revision of ISO/IEC 17011 and release of new version of the standard in November 2017, a comprehensive training on ISO/IEC 17011:2017 was conducted for all NABL officials from 16th - 21st April 2019. We had the privilege of having Mr. Peter Unger (Ex-President A2LA and Ex ILAC Chair) as the faculty for the training. Mr. Unger highlighted the change introduced in the new version and also provided an insight into the global perspective in compliance to the standard.

The training course helped NABL officials to better understand the requirements ISO/IEC 17011:2017 and also facilitated review & implementation of NABL documents in line with ISO/IEC 17011:2017.

This initiative was also planned to prepare well for the upcoming APAC evaluation scheduled during May 2020.

Following Training Courses Were organized by NABL Five-day Assessors' training courses as per ISO/ IEC 17025:2017 'General Requirements for the Competence of Testing and Calibration Laboratories'





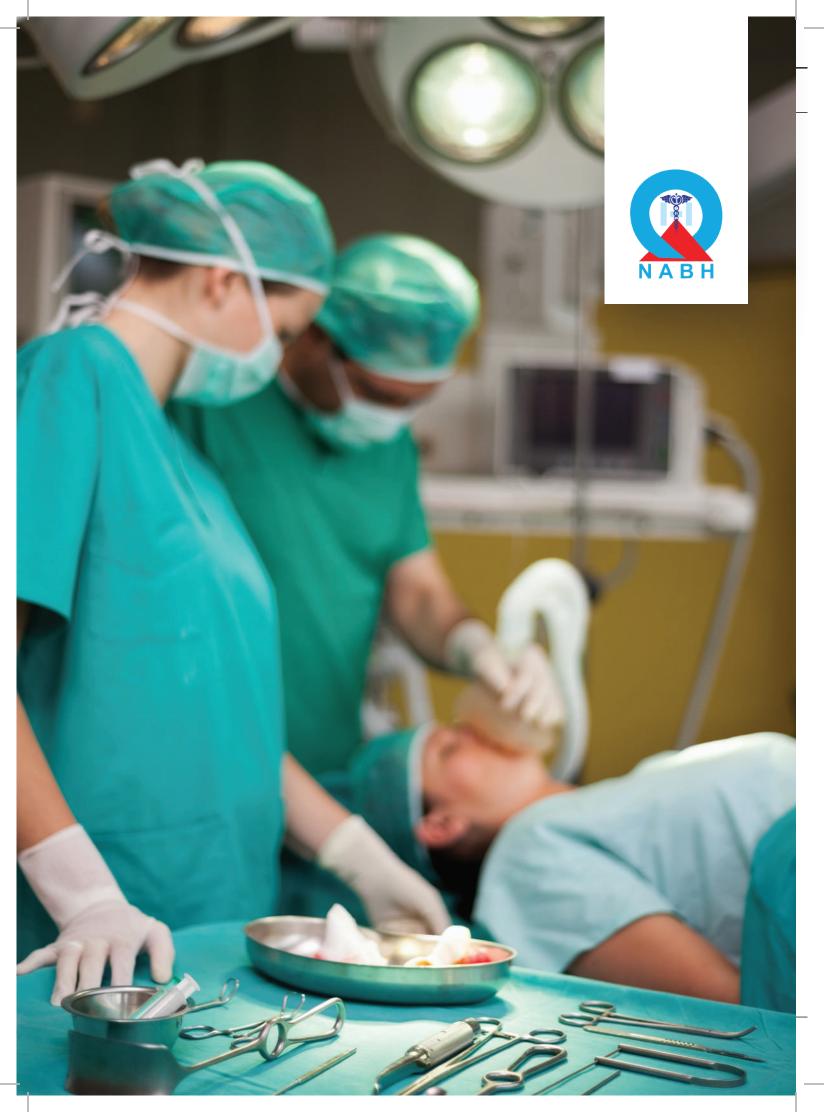


Five-day Assessors' training course as per ISO 15189: 2012 'Medical Laboratories -- Requirements for Quality and Competence'









National Accreditation Board for Hospitals and Healthcare Providers

NABH Programs and Trainings

Achievement in last three months (April 2019 to June 2019):

S.No.	Program	Accreditation/Certification Granted
1.	Accreditation Program	102
2.	Certification Program	283
3.	Empanelment Program	71
	Total	456

Assessment Conducted:

Total number of assessment 927 conducted for Accreditation, Certification and Empanelment during April 2019 to June 2019

NABH Training Programs on Implementation (POI) & Education Workshops:

- Program on implementation training conducted in the various cities on NABH Accreditation Standards of Hospitals, AYUSH, Blood Bank and Nursing Excellence, Pre-Entry-Level Hospital & SHCO Certification Standards, Clinical Audit Workshop and Continual Quality: Tools and Techniques Workshop
- The objective of this programme is to provide guidance to healthcare provider on implementation of NABH standards
- This programme is very useful to develop Internal Capability within the hospitals to work towards implementation of quality and patient safety standards, achieving accreditation and maintaining the same
- In all, 15 Programs were conducted during April 2019 to June 2019 wherein more than 600 healthcare professionals participated

Limpses of Training Programs

NABH Assessor Training Courses conducted in various cities for accreditation and certification programs:

City of Course	Date of Course					
Hospital & SHCO Full Accreditation Program						
Bengaluru	12 th to 16 th June 2019					
Pre-Entry-Level Certification Program						
Kolkata	4 th to 6 th April 2019					
New Delhi	12 th to 14 th April 2019					
Chandigarh	3 rd to 5 th May 2019					
Lucknow	10 th to 12 th May 2019					
Nagpur	24 th to 26 th May 2019					
Guwahati	29 th to 31 st May 2019					
Ahmedabad	14 th to 16 th June 2019					
Managalore	21 st to 23 rd June 2019					
Raipur	28 th to 30 th June 2019					
	Hospital & SHCO Full Accree Bengaluru Pre-Entry-Level Certifica Kolkata New Delhi Chandigarh Lucknow Nagpur Guwahati Ahmedabad Managalore					











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As we all are aware that Insurance Regulatory and Development Authority of India (IRDA) has notified that "All such providers offering cashless services for allopathic treatment shall meet with the pre-accreditation entry-level standards laid down by National Accreditation Board for Hospitals and Healthcare Providers (NABH) or such other standards or requirements as may be specified by the Authority from time to time --- Ref.

Notification: IRDA/HLT/REG/CIR/146/07/2016 dated 29.07.2016."

Many more Hospitals & Healthcare Organisations are planning for NABH accreditation/certifications. A need is felt for the accredited Consultant Organisations(COs) to help the healthcare organisations in understanding the accreditation process, documentation, implementation and application development etc.

For detail you may please visit the link for the Accreditation scheme for Hospital and Healthcare Consultant Organisations:

http://nabet.qci.org.in/skill-training-services-division/accreditation-criteria/consultant-organisation

For any further information or clarification, please feel free to contact us. We will be happy to serve you.

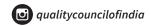
Dr. Hari Prakash (Director, NABET, Quality Council of India)

ITPI Building, 6th Floor, 4-A, I P Estate, Ring Road, New Delhi - 110002, India Work: +91-11-2332-3416 – 20, Extension No. 129 | Fax: +91-11-2332-3415 | www.qcin.org









National Accreditation Board for Education and Training

During April – June 2019, different verticals of NABET carried out following activities –

Formal Education Excellence Division (FEED)

3-Day Assessors Training Program on Accreditation Standard for Quality School Governance



3-Day workshop for training school assessors on NABET Accreditation Standard for Quality School Governance held in Delhi from 22nd to 24th April 2019

3-Day Awareness Program on Accreditation Standard for Quality School Governance

7th – 9th May 2019 | Birla Balika Vidyapeeth, Pilani, Rajasthan 30th May – 1st June 2019 | Chennai 13th – 15th June 2019 | New Delhi



3-Day Awareness Workshop on NABET Accreditation Standard for Quality School Governance held at Birla Balika Vidyapeeth, Pilani, Rajasthan from 7th to 9th May 2019



3-Day Awareness Workshop on NABET Accreditation Standard for Quality School Governance held in Chennai from 30th May to 1st June, 2019



3-Day Awareness Workshop on NABET Accreditation Standard for Quality School Governance held at NABET Board Room from 13th June to 15th June, 2019

Assessors' Harmonization Workshop



Harmonization workshop for Assessors held in Delhi from 20th -21st May 2019



Harmonization workshop for Assessors held in Mumbai from 21st -22nd June 2019

Above-mentioned programs have been conducted with the objective of generating awareness amongst schools on Accreditation Standard for Quality School at the same time carrying out capacity building exercise

NDMC Project

Meeting held under the chairmanship of Mr. Naresh Kumar, IAS, Chairperson, NDMC to review the findings of assessments of students and teachers for the academic year 2018-19



Meeting held with the Chairperson, Secretary, Director and All Heads of the Schools of NDMC on 16th April 2018 on Quality Interventions in Teaching-Learning Process

1. Accreditation Division

a. Workshops/Trainings

 The World Accreditation Day celebrations were conducted on 10th June at four locations: Chennai, Delhi, Guwahati and Mumbai based on this year theme "Accreditation: Adding value to Supply Chain."





National Accreditation Board for Education and Training





- NABET organized a 2-Day training program on ISO/ IEC 17024:2012 Standard in IIT Madras Research Park, Chennai from 11th-12th June 2019
- Meeting was held on 12.06.2019 in Goa with Department of Education of Goa regarding implementation of ISO 21001:2018 by NABET accredited certification bodies on pilot project basis
- Mrs. Vanita Yadav and Mr. C S Sharma from NABET participated in IAF-ILAC Joint Mid-Term Meetings, which was held from 4th – 11th April at Mexico
- NABET Team also attended a 3-Day training workshop organized by ANSI on ISO/IEC 17065 standard on Product Certification held from 9th-10th April 2019 in Washington DC

b. NABET Accreditations

 During the quarter April – June 2019, NABET granted new accreditation to COAE International Pvt. Ltd. for ISO/IEC 17021:2015 Standard for operating ISO 21001:2018 EOMS standard

2. Environment Division: Accreditation of EIA Consultant Organization

 Environment Division organised a workshop on capacity building of EIA Consultants 'Quality Improvement in EIA Report'. The workshop was held from 19th– 22nd June 2019 at Delhi. It was attended by approx. 60 participants representing more than 30 Accredited Consultant Organizations





Case Study

Lean journey in Sunil Industries, Kolhapur

You can have your car in any colour you want, as long as it's black

--Ford & Crowther

This was the famous quote of Henry Ford for its world famous 'Model T' automobile. What if today OEM says like this to consumer? Likewise, what if vendor says, "I will give you a product in particular size & shape which is feasible for me irrespective of what you require," it will be a laughable state for the customer and the vendor will be kicked out of business in no time. The whole scenario has changed now. Many companies are fighting to survive in today's highly competitive global economy. Especially, MSMEs have difficult time competing in the global market place.

To survive in this cut-throat world of competition, we have to emphasize on the bottom side of balance sheet (Cost) as the top side is entirely dependent on the market condition (Sale). Every penny that you save is added directly to our profit. Companies that implement Lean typically make significant cost savings that have a very realistic impact on the company's

profitability. Lean manufacturing offers them a proven method to reduce costs, eliminate waste, increase productivity, maintain high levels of quality and still make a profit.

We already knew this theory, learnt in colleges, seminars but we didn't know how to extract these 'precisely' on ground level in real-life industry. In this bewildered condition, Mahindra & Mahindra suggested us about the QCI Cluster, Delhi's project & we met the magician, our lean journey mentor Mr. Sunil Dhatingan sir. Thus, our journey begins. At the end of the journey we feel very proud that within a span of 2 years we achieved an unbelievable milestone in the lean journey. We not only accomplished targets which we had set at DSLR phase but we successfully deployed it horizontally.

We nearly succeeded in every project but we proliferated in some of the mentioned areas which we would proudly like to share as follows:

Empowerment

How many companies have stuck or fumbled with their Lean transformation, TPM, TQM and many more big things. They seem to have done everything right by the book. Many of these companies have done extensive Lean training, worked with lean consultants and gone through 5-S clean ups and still don't see any real impact on processes and profitability as promised by Lean. We got answer on this toughest question in our lean journey. That is Employee Involvement / Empowerment. Quality is produced at the shop floor by operator & we implement all this tools and techniques, big words, on white collar level that is why many a times it fails. This is the dilemma of our Indian micro, small, medium enterprises. Lean is not a plug and play tool to realize benefits immediately. It requires commitment and the involvement of everyone within the organization.

Employee Empowerment is not easy, which is why many companies tend to bypass this piece of the Lean puzzle. Our mentor had conducted many of one-to-one shop floor training on 5S, TPM, SMED, 3M & 7 wastes. Apart from this we have gone through add-on session on goods habits of highly effective people.

Operators were interacting with auditor and guests on their own to show Kaizens, Poka Yoke they have made. It is witnessed by all QCI auditors. Illiterate Operators, especially women, have started talking in terms of Muda, Muri & Mura, Kaizens, Poka yoke. It is the national empowerment,

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isn't it? The IMF estimates that equal participation of women in the workforce will increase India's GDP by 27%.(2) QCI is surely stepping a stone towards it.



Fig1.-Training impartation at shop floor



Fig2.-Fearless interaction with auditor

The awareness among the blue collard persons empowerment besides top management support resulted in our PPM & machine breakdown hours reduced drastically, & witnessed increase in the OEE. We have been saving around 10 to 15 minutes for each setting in a "Batch type Production Industry" via SMED tool. We successfully imbibed everyone that everyone is responsible for providing quality material to their customer.

深入 Value Stream 曲曲 Mapping

As mentioned earlier, we must look for ways to do things more efficiently with less waste. We must make sure that everything we do adds value to our products or services. Value Stream Mapping (VSM) is an indispensable tool in the Lean toolbox that can bring a new level of clarity to your processes. It allows you to create a solid implementation plan that will maximize your available resources. For a lean manufacturing journey, VSM can serve as the launch pad to begin identifying and improving your processes.

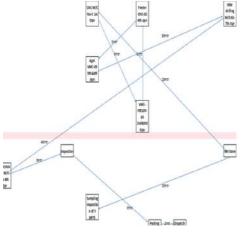
Let us take a deep dive in our industrial case-study. We implemented VSM for the part 1500442 Brake housing of customer Oerlikon Fairfield. Before, the material movement line had zig-zag flow which leads to transportation, waiting, motion loss resulting we could not meet the customer requirement for their high demand. In VSM project, we decided to work on it. We prepared string diagram by taking actual measurement. Considering all these, we prepared drawing in CAD & checked its feasibility. It almost took around 1 and half months to finalise the layout. Then we took most difficult ice-breaking decision of actual shifting of machine.

The tangible benefits from VSM is that, from new plant layout we have freed around 200 Sq. meter floor space area whose cost is ₹10,000 per sq. meter as per current market rate. As a result we have saved around ₹20,00,000.

The intangible benefits is from VSM is that, travelled distance is reduced by 67.5 meter for the 1500442 part family & lead time saved by 2.43 hrs. In MBR 4 stage, we have SMED project completed resulting in setting time reduction by 146 minutes.

We have horizontal deployed for the 3500650 part family.

It is decided that we will treat VSM tool as part of PPAP document which is for our internal analysis purpose only. Moreover, we have used this tool in Mahindra's upcoming project for layout finalization.





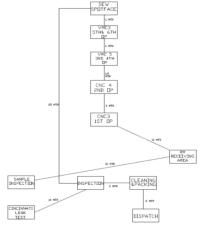


Fig.-4 After VSM

VSM	Before	After	SMED Impact
Lead Time (Min)	2249.92	1061.02	915.02
Total Travel Distance (Mtr)	132	69.5	69.5
Value Added Ratio	1.96	3.76	4.36

Table 1: VSM at a glance

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TPM

For decades production workers have been indoctrinated to call in the "experts" when they have a problem. In this trouble shooting mode there is little, (if any,) time for process improvement; or no time to determine the cause of a quality problem, so the defective part goes to scrap or rework.

In 1st step of JH activity, we created a team through which we chose one machine that had more breakdowns.

Team of 4 people cleaned machine thoroughly & observed carefully for abnormality & probable, potential part cause of machine breakdown in near future. We list it down in the abnormality chart & removed it attentively and overhauled the machine. It was horizontally deployed for all machines including conventional setups.

After successful completion of 1st stage we dared to go for 2nd stage that is "Hard to CLIT." We realized that some of the parts were very difficult for Cleaning, Lubricating, Inspection & Tightening [CLIT]. We find out such parts, units & looked for its alternative. For inspecting SP survo motor blower we need to disassemble whole machine guard and to check the oil level & top up in VMC tool clamp-declamp cylinder, we need to disassemble whole machine guard which takes around minimum half an hour or more.

We identified all such units & found out the solutions. We cut the machine MS guard by grinder & replaced it with acrylic sheet door eventually saving our valuable time for disassemble & assemble time & ease for monitoring oil level on a daily basis.



Fig 5:- Before 2nd stage



Fig 6:- After 2nd stage

In above stages, we did accomplish every activity meticulously. As a result, we

removed all the possible abnormality and restored machine condition. Now we had to work for keeping machine in such condition forever. That's why we went with 3rd stage that is 'Standardization'. We bifurcated the parts which were needed for cleaning, lubricating, inspecting and tightening on regular time interval and accordingly prepared a JH sheet. The glimpses of sheet are shown here.

We inculcated this activity in operators' mind & are successfully following till today on a daily basis between 3PM to 3.15PM.

Now, we are on the threshold of completing the 4th JH activity, which is Autonomous maintenance, & have already started the 5th stage.

As a result, from last 6 month our average breakdown time is 10.24 hrs.





C.S. Sharma
Deputy Director, NABET



Abhinav Bajaj Accreditation Officer, NABET

Risk-based Thinking in Public Policy and Implementation

What is Risk-based Thinking?

We are all familiar with uncertainty in our day-to-day life. Whether it is related to our health, career or finances, we have often faced scenarios which were unforeseeable or at the very least different from what we have been used to. Risk-based thinking emerges from this everyday fact of life. Thus, the intellectual process of identifying, evaluating and mitigating the possible risks we might face during the course of carrying out an action is called Risk-based thinking. It is how we deal with the challenge that uncertainties bring (owing to the variables in any given process) and how we anticipate and guard against them. A Risk-based approach to any triggered change serves as our insurance against future challenges and mishaps due to deviations from our expected process flow and outcome.

Emergence of Riskbased Thinking in Policymaking in the world

Risk has become an important issue in parlance to Governance and Policymaking. The word 'risk' itself has numerous connotations; Risk-based decision making in International trade issues has become equivalent to having a scientific approach to trade deals while in Investment Banks Risk has as much to do with reward (such as risk-based pricing) as it is to do with precautionary measures. At its simplest, risk-based policy-making is the practice of targeting policy in proportion to potential threats to society, considering both their likelihood and consequences. In managing risks to society (Societal Risks), Govt. must also tackle an associated set of threats to itself and to the legitimacy of its policy

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interventions that emerge from the inevitable complexities, conflicts and constraints of governing. These are known as Institutional risks. Together, these societal and Institutional Risks make up 'Policy Risks' and it is this category of risk that is a critical target of risk-based Policymaking.

Governments around the world are beginning to recognize the benefits of proactively managing the risks they face. Enterprise risk management has been adopted by the Commonwealth of Australia; the states of New South Wales, Western Australia, and Queensland; and the provinces of Nova Scotia, British Columbia and New Brunswick in Canada. Enterprise risk management is a mandate for local governments in South Africa and the United Kingdom. In 2015, the United States Office of Management and Budget issued Circular A-123, which requires federal agencies to adopt enterprise risk management. The U.S. Congress

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has mandated that state departments of transportation develop a risk-based asset management plan by 2019. The United Kingdom has also been taking concrete steps to integrate risk-based approach in its Policy-making. A concrete example is the UK document published by the House of Lords, citing Openness and Transparency, Involvement, Proportionality & Consistency, Evidence and Responsibility as components of Risk management.

At the local government level, an analysis of websites indicates the following:

- Canada: Out of 79 government websites examined, 17% have an enterprise risk management policy.
- New Zealand: Out of 15 websites examined, 33% have an enterprise risk management policy.
- **3. Australia:** Out of 77 websites examined, 32 % have an enterprise risk management policy.
- United States: Out of 242 websites examined, 3% have some aspect of enterprise risk management.

The data shows that although enterprise risk management is well entrenched in government at all levels, its deployment across all governmental activities, enterprise risk management adoption still has a way to go before it can be considered a government norm.

India, Jamaica, and the Philippines are also taking measures towards mandating risk management. India particularly has envisaged an Internal Control and Risk Management (ICRM) framework. The framework entails integration of an Internal Control mechanism and a continuous risk identification, control, monitoring and reassessment exercise. It also provides Risk management framework customized for GoI operations

and 2 illustrative examples for the same for the National Rural Employment Guarantee Scheme & Mid-day Meal Scheme.

What Makes Risks in the Public Sector Different from Private Organization?

Public Sector comprises of governmental entities and their agencies. The risk profile of these significantly differs from that of the private sector profit-seeking business firms. This is because the business scenario that is applicable to a typical Governmental organization most likely isn't applicable to a private firm. These differences include:

Essential Government Functions

Public entities do not have the option of discontinuing their essential services owing to the risks involved.eg: law enforcement, fire protection, public sanitation etc.

Scope of Exposures

The exposures to accidental and to business losses that a public entity faces are different from a private organization in because of their activities, legal environment and organizational objectives.

Special Legal Requirements

Public Administration, being governed by a separate set of legal requirements, such as State Constitutional Statutes etc. creates limitations on their range of choices and provides certain powers that private organizations do not have.

Public Interest/Non-Profit Objectives

Public Entities are typically non-profit seeking but instead strive to achieve certain governmental objectives for public interest under budgetary constraints.

Power to Tax

Public Entities can generate revenue through taxation and charging for goods and services they produce; private organizations can only charge for the goods and services they provide to the market.

Political Scrutiny

General Management procedures of Public organizations are subject to more partisan political scrutiny, public accountability and are frequently seen to have shorter-term planning and budgeting.

Special Tax Status

Public Entities are generally exempt from Income Tax and Sales Tax, thus these do not figure into their managerial decisions.

Differing Accounting and Budgetary Procedures

Public budgetary practices include accounting for constraints on spending, investment funding and tax considerations that their private sector counterparts do not face.

Contents of a Typical Public-sector Risk Management Framework

Risk Identification

This involves understanding and listing

CASESTUDY

the potential threats that may affect the objectives set-forth for the scheme and effectiveness of the delivery of the scheme.

Risk Prioritization

The purpose of Prioritization is to focus on those risks that are imperative to the successful implementation of the scheme.

Risk Treatment

A comprehensive Risk Treatment Plan can be prepared to ensure effective action against the Risks identified in congruence with their criticality to the scheme.

Risk Monitoring

Risk Monitoring is an on-going assessment of the effectiveness with which key risks are being addressed.

Risk Assurance

Risk Assurance is an independent thirdparty review/audit mechanism to ensure impartial evaluation of the effectiveness of the control measures undertaken.

Risk re-assessment

Risk re-assessment or continual risk assessment is the periodic risk assessment mechanism carried out in its entirety as a systemic component of the scheme.

Benefits of Risk Assessment in Public Sector

Apart from the obvious benefits of carrying out risk assessment for any scheme, there are certain specific benefits that can be accrued when risk assessment is carried out for a government policy or scheme:

Withstand Public and Political Scrutiny

A robust Risk Assessment ensures the policy or scheme successfully withstands public and political examinations and investigations, including those pertaining to: geopolitics, internal conflict, law, regulations, policies, corruption, social activism, terrorism, cyber-threats, economic confrontation, destruction of natural ecosystems, job loss due to technology and civil unrest/labour strikes.

Easier to Spot Schemes in Trouble

Dovetailing perfectly with any existing Project Implementation processes already in place, good risk management can give the context for understanding the performance of a scheme and contributes to any health checks, peer reviews or audits.

Better Quality Data for Design and Decision Making

Risk Assessment for purposes of design identify better options to improve understanding of complex systems whereas continual risk assessment as part of the process for a scheme can help in better decision making during the course of the implementation.

Escalations are Clearer and Easier

When a project team can't deal with a risk themselves, they need to escalate it to senior officials with the appropriate authority for advice and action. A defined process ensures that important risks are seen and assessed by the right people at the right time.

Budgets Rely Less on Guesswork

Risk assessment means that contingency budgets can be more accurately estimated and rely less on the professional guesstimates of the project team.

Future of Risk Management in Government

The private sector and the business academic community recognize that risk management is a necessity. India, with its implementation of ISO 9001 standard in Govt. bodies and several instances of acknowledging risk assessment in its public policies also recognizes this reality. While India has been seen to be slower than Australia, Canada, New Zealand, South Africa, and the United Kingdom in risk management implementation, a push by the central govt. in this regard will likely increase the adoption of risk management in its policy design and development process.

The growing recognition of the need to manage organizational risks and their costs means risk management will become a government standard. In fact, it will likely end up in a minimum competency requirement for government professionals. However, it is critical to understand what the approach to risk management in government will be within the existing framework of ISO 9001 and the option of ISO 31000 for the future.

Given that the ISO 31000 is the model used by most governments around the world, and because it provides a more comprehensive and systematic approach for the development of a risk management strategy, it will likely become the dominant model in India in the time to come and the stewards of policy level decisions would do well to integrate it in our Policy-making structure.



Dr. Indrajit Bhattacharya Director NABET

Harnessing the power from Artificial Intelligence (AI)

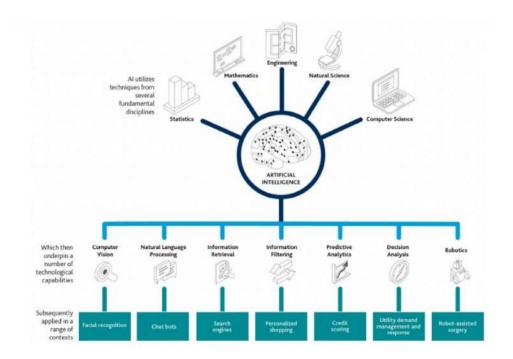
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The most buzzed-about disruptive technologies that are changing business landscapes today are Machine Learning (ML) and Artificial Intelligence (AI). AI technology is poised to become vital to the government, as new mission requirements come more quickly and become more complex. Moving beyond a back-end tool, AI is now taking on more sophisticated roles that can truly amplify human capabilities

- Artificial Intelligence is impossible to disregard it is set to transform society, the economy, and politics
- Development of sovereignty in AI by beefing up the talent, data, and hardware it draws on; and as a "regulatory superpower," country can set standards the rest of the world will follow

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Introduction

Artificial intelligence (AI) is changing the economy: it is impacting on the way we shop, on the way we communicate, on the way we do research. AI is, in short, set to be nothing less than "vital to everything". Indeed, it is difficult to think of areas that AI cannot speed up, improve, or otherwise change. AI: "is a needle-moving technology for the global economy, impacting every corporation, industry, and segment of the economy in time", as per Goldman Sachs. AI is an enabler that it is impossible to disregard.

What Is Al?

Al generally refers to efforts to build computers able to perform actions that would otherwise require human intelligence, such as reasoning and decision-making. It denotes a fundamental shift, from humans telling computers how to act to computers

learning how to act. Al does this largely through machine learning, including 'deep learning' techniques.

Why Al Matters?

As manufacturers around the world embrace Fourth Industrial Revolution technologies such as advanced robotics, the Industrial Internet of Things (IIoT), 3D printing and artificial intelligence (AI), the local industry needs to look at how it will remain relevant and competitive. One of the major opportunities lies in smart automation solutions like robots, robotic process automation and AI. IFS predicts that more than half of the world's manufacturing companies will use some form of AI by the end of 2021. AI is poised to change how the supply chain works, giving the leading organisations a significant competitive edge. Al's potential can appear almost limitless. Al applications already have significant economic and social benefits. In the

health sector, AI is used to read scans and improve the accuracy of diagnoses. In agriculture, AI can help improve crop yields. Factories, server farms, and other energy-hungry businesses use AI to become more efficient in their energy consumption.

According to Goldman Sachs, there is "potential for AI and machine learning to reshuffle the competitive order across every industry". However, the bank also warns that: "Management teams that fail to invest in and leverage these technologies risk being passed by competitors that benefit from the strategic intelligence, productivity gains, and capital efficiencies they create." AI helps to improve their operations' speed, stealth, precision, and efficiency; lessen the need for manpower (thereby also limiting human error); and, potentially, reduce costs.



Three elements, or key inputs, are crucial for AI: access to talent; access to significant amounts of data; and access to hardware and software, including infrastructure and computing power.

Talent

The rapid development of AI and the resulting demand for researchers has led to a scarcity of AI talent around the world. As per Ian Hogarth "There are perhaps 700 people in the world who can contribute to the leading edge of AI research, perhaps 70,000 who can understand their work and participate actively in commercialising it and 7 billion people who will be impacted by it." These numbers help to give a sense of the challenge, though it is difficult to say exactly how many AI researchers there are globally – or how many are needed.

Al is trained by using large amounts of data – hence the related term "big data." For instance, an Al system may be shown hundreds of thousands of pictures for it to learn to identify specific objects. However, Al can be trained without big data, using methods such as reinforcement learning, which generates its own data and trains by playing against itself. Several Al researchers argue that the future of Al lies in small data. But for now, most of the time: without a lot of data, there is no Al.

Data that can be used for machine learning can be created by almost any means and in virtually any context.

This includes, for instance, census data, weather data, and health records. And data brokers have become shadow power brokers; these firms collect and combine data from different sources, and then sell them for profit – creating major privacy concerns in the process.

Hardware

With the complexity of AI models growing fast, the standard central processing unit - the hardware in a computer that carries out the instructions of the software - has proved to be insufficiently powerful. This is leading to increasing interest in and development of Graphical Processing Units (GPUs), which are a more specialised electronic circuit fast emerging as the pillar of AI. Cloud companies (such as Google, Microsoft, Tencent, and others, which are primarily American and Chinese) are investing in such hardware. The value of the AI-related hardware market (computing, memory, storage) is predicted to reach over \$100bn by 2025, with US and Chinese first-movers capturing most of it.



Education of the population and policymakers

In a world potentially dominated by AI, it is important to adequately train the general population in AI. An educated and informed population may also be more resistant to handing over too much of its data firms and insist on better privacy laws.

Conclusion

Al is set to influence the world in many ways. Al could also provide a chance to showcase one of its most important strengths: that of the power to set standards, to cooperate, and to benefit from a single market. For country to become truly sovereign in Al, it will need to strengthen its access to talent, data, and hardware – the three key elements of successful Al. We also need to add a fourth key element: regulation. Indeed, it is in this element that a country has a

chance to go beyond mere sovereignty to become a norm-setter, embedding its ethics and values into AI governance and development, and serving as an example to fight back against AI nationalism. In doing so, it will need to take significant steps itself, such as rapidly educating its own citizens and policymakers, as well as substantially increasing investment in AI and carefully choosing which subfields of AI to fund.



National Accreditation Board for Certification Bodies

NABCB SECURES International Equivalence for Personnel Certification

NABCB, India's national accreditation body, has secured international equivalence for its accreditation programme for personnel certification bodies in the annual meetings of the Asia Pacific Accreditation Cooperation in Singapore. NABCB signed the Mutual Recognition Arrangement (MRA) of the Asia Pacific Accreditation Cooperation (APAC) for its accreditation programme based on international standard, ISO/ IEC 17024. ISO/IEC 17024: Conformity assessment - General requirements for bodies operating certification of persons which specifies criteria for the operation of a Personnel Certification Bodies (also known as a certification body for persons). The standard includes requirements for the development and maintenance of the certification schemes for persons upon which the certification is based.

NABCB has currently accredited one certification body for Personnel Certification and has 4 applicants. This programme will help professionals to get certified based on their competence in any required field. NABCB is already supporting Ministry of AYUSH and has accredited a certification body for certification for Yoga professionals. This would promote Yoga certification scheme internationally.

Personnel Certification would support many professionals in India especially where we do not have formal education or certificate programme. Any person carrying ISO/IEC 17024 certificate with NABCB logo may be recognized internationally. It can also be used by regulators for establishing confidence in certified personnel for different activities.

With the above recognition, NABCB hopes to facilitate export of Indian services and skills into the world market by attesting that persons are certified following international standards by the certifying bodies.





FROM THE NATIONAL ARENA

NABCB celebrates World Accreditation Day 2019

The World Accreditation Day is celebrated on 9th June each year as it is a global initiative, jointly established by the international bodies, International Accreditation Forum (IAF) and the International Laboratory **Accreditation Cooperation** (ILAC), to raise awareness of the importance of accreditation among stakeholders. Each year a theme is finalized and the theme this year was "Accreditation: Adding Value to Supply Chains". NABCB celebrated the event jointly with other accreditation bodies of Quality Council of India: National Accreditation **Board for Education and Training** (NABET), National Accreditation Board for Testing and Calibration Laboratories (NABL). The celebrations involved organisation of events at four locations at Delhi, Mumbai, Guwahati, Chennai.

The event was inaugurated by Lt Gen Sanjay Chauhan, Director General, Directorate General of Quality Assurance (DGQA) at Delhi and he stressed the need for using accredited conformity assessment practices in supply chain. The programme was inaugurated by Mr. Adil Zainulbhai, Chairman, QCI in Mumbai. In his inaugural address he informed that QCI is gaining momentum in its vision to improve quality of life of Indian

citizens through supply chain and requested stakeholders to join the momentum. Dr. USN Murty, Director, National Institute of Pharmaceutical Education and Research (NIPER) was the chief guest at the celebration of the World Accreditation Day in Guwahati. He said that quality is important from product to process to market to consumer throughout the supply chain.

Programme at all locations had participation of speakers from government organisations, regulators, industry, consumer organisations and consultants.











National Accreditation Board for Certification Bodies

AMTZ in collaboration with NABCB, AiMeD forms IBSC to strengthen biomedical engineering skill sector

Andhra Pradesh Med Tech Zone (AMTZ), in collaboration with NABCB and Association of Indian Manufacturers of Medical Devices (AiMeD), has formed the Indian Biomedical Skill Consortium (IBSC) to strengthen biomedical engineering skill sector. This is a significant step as there is a huge demand for certified and skilled biomedical engineers to serve medical technology industry. When Indian manufacturers export their products like Computed Tomography (CT) scanner or capital equipment for installation, calibration and servicing, it is mandatory to have a certification which is valid internationally. Till date 125 biomedical engineers have been certified. IBSC conducts skill assessment for biomedical professionals at more than 50 test centres pan India twice in a month. IBSC has also signed an MoU with the Association for the Advancement of Medical Instrumentation (AAMI), USA, wherein IBSC certified candidates will have equal opportunities to practice biomedical profession globally.

IBSC is a pioneer initiative of AMTZ done in collaboration with NABCB - QCI and AiMeD to establish an institutional mechanism for certification and skill development. IBSC proposes to develop an equivalence system of value-based assessment covering educational training, work experience and competency possessed by practitioners of biomedical engineering skills.

NABCB Conducts training on different conformity assessment standards to train assessors

NABCB has conducted training courses for assessor for different standards which include ISO/IEC 17065, ISO/IEC 17021 and ISO/IEC 17020.

A 5-day training on ISO/IEC 17065 and auditing Skills for officials from Legal Metrology Division, Dept. of Consumer Affairs (DoCA) and NABCB Assessors was conducted from 12-16 Apr 2019. Ms. Shobha Hegde and Ms. Rajalakshmi Subrahmanyam, both Lead Assessors of NABCB, were faculty for the training programme. The programme was highly appreciated and attended by 7 persons from DoCA and 6 NABCB assessors.



NABCB conducted ISO/IEC 17021:2015 training for assessors between 22-24 April 2019 at Hotel Sarovar Portico, Nehru Place. The training was being attended by 10 participants. The faculty for the programme was Ms. Shobha Hegde, Lead Assessor, NABCB and Dr. S Ravi Shankar, Lead Assessor, NABCB. NABCB conducted



ISO/IEC 17020:2012 training for assessors from 13-15 May 2019 at Hotel Sarovar Portico, Nehru Place. The training was attended by 8 participants and faculty for programme was Ms. Shobha Hegde & Ms. Rajalakshmi Subrahmanyam.



NABCB Assessors' Conclave

NABCB conducts assessors' conclave to harmonise the assessors twice each year. The first set of conclave for NABCB assessors was held at Udaipur on 26-27 April 2019. The conclave was attended by 54 assessors. The first day of discussions focussed on harmonisation of issues related to certification bodies. The second day of assessors' conclave i.e. 27th April 2019 at Udaipur had discussions related to inspection bodies to harmonise the process of assessment. The assessors were provided with updates on ILAC and IAF meetings as well formation of APAC in the region.



Workshop on CORSIA requirements for validation and verification bodies

Directorate General of Civil Aviation (DGCA) organized a workshop on Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) under International Civil Aviation Organization (ICAO) Scheme requirements for Validation and Verification Bodies (VVBs) on 12th April 2019. Four NABCB assessors and one person from NABCB staff participated in the programme to learn more about the CORSIA scheme. NABCB is set to provide accredited VVBs to DGCA for CORSIA as 2 applications for the scheme is under progress.

NABCB participates in Food Processing and Technology Summit at Kolkata



Ms Sashi Rekha, Director, NABCB participated in the inaugural session of Food Processing and Technology Summit at Kolkata on 12th April 2019. In her inaugural addressed she stressed on the need to have world class regulations in food sector. She also informed the participants that in the absence of the regulations option to depend on voluntary certification schemes such as India GHP, India HACCP which are world class would be the route.

NABCB holds Technical Committee for Oil and Gas sector

7th Meeting of NABCB's Technical
Committee for Oil & Gas Sector was held
on 12th June 2019 at Quality Conference
Hall, IEI Building, New Delhi. PNGRB had
notified two new regulations, namely
T4S for LPG Storage, Handling and
Bottling Facilities Regulations, 2019
and T4S for LNG Facilities Regulations,
2018. Accordingly, NABCB had prepared
two draft guidelines for identifying the
Competence criteria, team member
strength and Sub-sector categorisation
applicable for each regulation. Same were
put up before the TC members by NABCB.

FROM THE INTERNATIONAL ARENA

NABCB participates in PEFC Global Accreditation body training

Ms. Vani Bhambri Arora, Deputy Director, NABCB participated in "PEFC GLOBAL ACCREDITATION BODY TRAINING" held on 23-23 June 2019 in Seoul.

PEFC is a Global Alliance and is an NGO, initially founded in Paris by 11 European countries and later many countries joined hands. Till date PEFC has endorsed 451 national forest certification system.

The training was attended by 35 participants from 12 economies including APEC participated in this training programme.

NABCB has already approved a certification body GICIA India Pvt. Ltd. under "Network for Certification and Conservation for Forest " scheme of Forest management. They are also applicant with NABCB for ISO 17065 accreditation under this scheme.

NABCB Staff elected in APAC Committees

Ms. Sashi Rekha, Director, NABCB and Dr. Aparna Dhawan, Joint Director, NABCB have been elected as APAC MRAMC Member and APAC Communications and Promotion Committee Chair respectively. The election of the NABCB staff is a feather in the cap of NABCB and NABCB continues to hold leadership positions in APAC.

NABCB delegation participates in APAC meetings

Mr. Anil Jauhri, CEO, NABCB and Dr. Aparna Dhawan, Joint Director, NABCB participated in first Asia Pacific Accreditation Cooperation (APAC) meetings held between 15 June to 21 June 2019 in Singapore. These were the first set of meetings since the formation of APAC regional body early this year. Mr. Anil Jauhri was the Guest of Honour during the inaugural session of APAC meetings and he updated the participants about developments in the accreditation & conformity assessment landscape in India. Mr. Anil Jauhri also attended the Executive Committee meeting as he represents NABCB in Executive committee. The APAC meetings had discussions related to technical issues, review of few reports of evaluation and also involved signing of mutual recognition.

Ms. Sashi Rekha, Director NABCB attended the meeting of FSSC for ABs on 3rd April 2019 at the offices of EMA - the Mexican Accreditation Body, in Mexico City. The draft version 5 of the AB requirements was discussed and finalised during this meeting.

NABCB accreditation at a glance

New Applications

During the quarter Apr-Jun 2019, NABCB received applications for NABCB accreditation in Management Systems (7), Product Certification (2) and Inspection (4) as follows:

Quest Certification Pvt. Ltd.

for EMS as per ISO/IEC 17021-1

Quest Certification Pvt. Ltd.

for OHSMS as per ISO/IEC 17021-1

Cotecna Inspection India Pvt. Ltd.

for QMS as per ISO/IEC 17021-1

Cotecna Inspection India Pvt Ltd

for EMS as per ISO/IEC 17021-1

Cotecna Inspection India Pvt Ltd

for OHSMS as per ISO/IEC 17021-1

International Certification Services Pvt. Ltd.

for OHSMS as per ISO/IEC 17021-1

Lex Nimble Solution Ltd.

for ISMS as per ISO/IEC 17021-1

UL India Pvt. Ltd.

for Product Certification as per ISO/IEC 17065

Halal Shariat Islamic Law Board

for Product Certification as per ISO/IEC 17065

BlueSky Sustianable Business

for Inspection as per ISO/IEC 17020

TRIGO Quality Production Services Pvt. Ltd.

for Inspection as per ISO/IEC 17020

Basmati Export Development Foundation

for Inspection as per ISO/IEC 17020

International Inspection Services Pvt. Ltd.

for Inspection as per ISO/IEC 17020

NABCB Accreditations (as on 30 June 2019)

Scheme	Accreditations	Applications
Quality Management Systems (QMS)	37	14
Environmental Management Systems (EMS)	10	05
Inspection Bodies (IB)	52	23
Food Safety Management Systems (FSMS)	17	07
Occupational Health and Safety Management Systems (OHSMS)	07	04
Product Certification (PCB)	12	09
Information Security Management Systems (ISMS)	05	01
Energy Management Systems (EnMS)	05	-
Information Technology Service Management Systems (ITSMS)	01	-
Personnel Certification (PrCB)	01	04
Road Traffic Safety Management Systems (RTSMS)	-	-
Trustworthy Digital Repositories Management Systems (TDRMS)	01	-
Greenhouse Gases	-	02
Medical Devices QMS (MDQMS)	09	08

Media Coverage for NABCB and its activities

NABCB appeared in the various media coverage for its different activities. The media clippings are available on the NABCB website at the web link: http:// nabcb.qci.org.in/media-coverage.php



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National Board for Quality Promotion

2-Day In-house Awareness Program on Food Safety Management Systems per ISO 22000:2018

Date:

- 22nd -23rd Apr, 2019 (Batch 1)
- 24th 25th Apr, 2019 (Batch 2)
- 29th 30th Apr, 2019 (Batch 3)

Venue:

National Institute of Food Technology Entrepreneurship and Management, Kundli, Sonepat, Haryana

About the program:

The objective of this program was to familiarize the students with the standard, especially focusing on clauses pertaining to the revisions compared to its previous version. It focussed on clauses of High-level structure such as Scope, Normative references, Terms and definitions, Planning & Operation and also on control measures identified by hazard analysis w.r.t Food and Feed Industry. The program was concluded with a case study presentation wherein the students were asked to put forward their views on the various clauses of **FSMS in the same as** a group exercise.

It was conducted by NBQP in three batches for the students pursuing M. Tech and PhD in Food Technology.

Seminar on Industry 4.0 -- A road to Smart Engineering

Date:

17th June, 2019

Venue:

Pragati Maidan, New Delhi

About the program:

It was a joint collaboration by NBQP-QCI with EEPC INDIA in Machine Tools Show 2019 at Pragati Maidan, New Delhi. The seminar witnessed participants mainly as the exhibitors from the events, who were briefed about the evolution from 12.0 to 3.0 and eventually to 14.0. It also showcased implementation of 14.0 in the manufacturing sector and its cost implications.

Webinaron Collaborative Robots

Date:

19th June, 2019

About the program:

NBQP, in association with MixORG, hosted a webinar on COBOTS (acronym for collaborative robots). The attendees were provided key insights about how a COBOT functions across domains. They were also told about the advantages of using a COBOT which focussed on reducing

manpower and increasing productivity in the manufacturing industry. The webinar was wrapped up by opening the floor for questions in the O&A session.

Awareness Program on Importance of Implementing Energy Management Systems ISO 50001:2018

Date:

- 21st May, 2019 (Raipur)
- 30th May, 2019 (Ahmedabad)
- 13th Jun, 2019 (Vijayawada)
- 26th Jun, 2019 (Jaipur)

Venue:

Raipur, Ahmedabad, Vijayawada, Jaipur

About the program:

The program was conducted by QCI as a part of the Regional PAT Workshops organised by Bureau of Energy Efficiency (BEE). The objective of this program was to familiarize the existing & new Designated Consumers of Bureau of Energy Efficiency (BEE) on Energy Management Systems ISO 50001:2018, its requirements & its importance. The Designated Consumers (DCs) were explained the entire process on how BEE/QCI are implementing Energy Management Systems in 10 Designated Consumers of various sectors and the advantages of implementing the same.

2-Day In-house program on Environment (ISO 14001) and Occupational Health & Safety (ISO 45001) Management Systems

Date:

16th-17th May, 2019

Venue:

Narora Atomic Power Station, Narora, UP

About the program:

The program was conducted by QCI as per the request received from Narora Atomic Power Station (NAPS). The program was focussed on Environment, Health & Safety requirements. Participants were made aware about all the clauses of the Environment Management Systems ISO 14001:2015 and Occupational Health & Safety Management Systems ISO 45001:2018 standard, their need & their importance. Important discussion on Hazard Identification & Risk Assessment was also done.

2-Day In-house program on Quality (ISO 9001), Environment (ISO 14001) and Occupational Health & Safety (ISO 45001) Management Systems

Date:

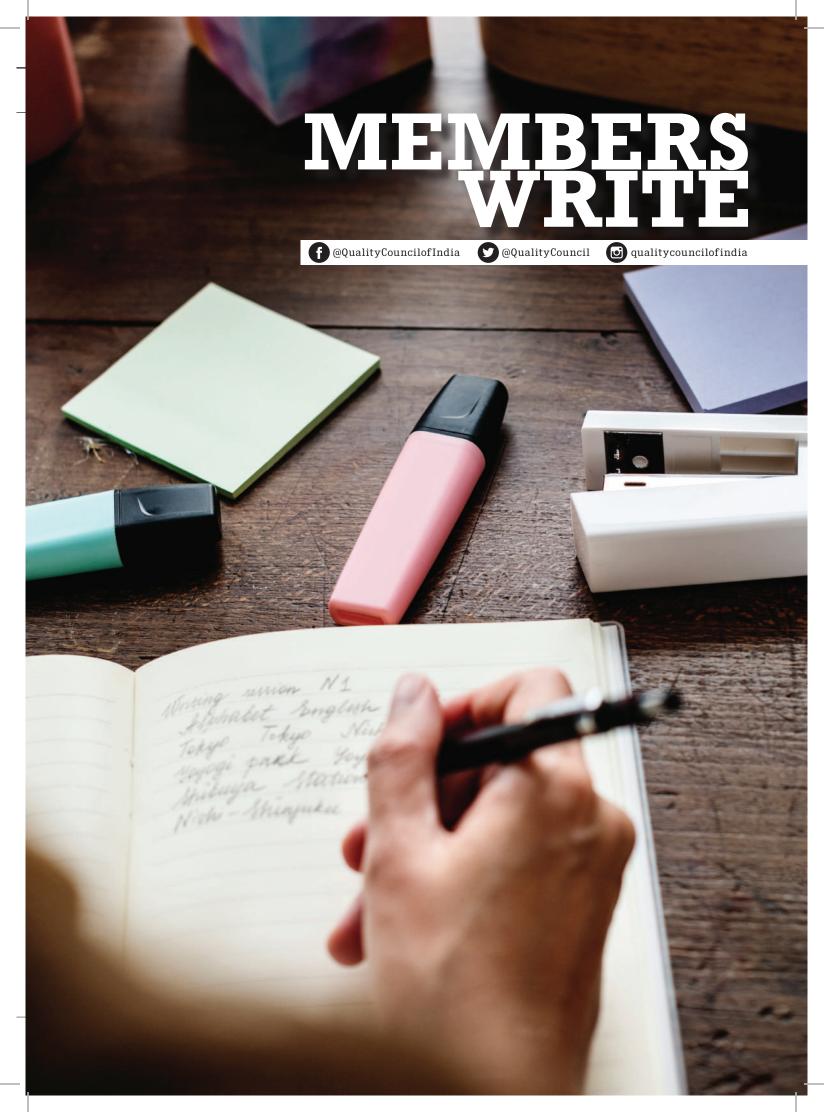
13th-14th June, 2019

Venue:

Haryana State Warehousing Corporation, Panchkula, Haryana

About the program:

The program was conducted by QCI as per the request received from Haryana State Warehousing Corporation. The program was focussed on Quality, Environment, Health & Safety requirements. Participants were made aware about all the clauses of the Quality Management Systems ISO 9001:2015, Environment Management Systems ISO 14001:2015 and Occupational Health & Safety Management Systems ISO 45001:2018 standard, their need & their importance. Risk Identification & Assessment, being the important area introduced in the latest version of the standard was also discussed.





Service Companies – Why They Lag Behind

Prashant Hoskote

Managing Partner & CEO, Q3EDG Consulting Pvt. Ltd. (Former Sr. Director, Max Group)

Most of the Service companies have yet to adequately address the competitive edge of quality. Despite significant, and in some cases exceptional, progress in managing for quality by manufacturing companies in the past few decades, service companies have lagged behind.

So, while there have been some service companies that have demonstrated leadership and remarkable results, many have found quality management and business excellence to be difficult and even non-rewarding. Some of the reasons for these observed difficulties shall be examined and concrete suggestions for implementing quality management in service companies suggested.

Being Customer Driven

Although almost everyone realizes the necessity of focusing on customer needs, wants and expectations, this is an area where many service companies are still struggling. They have not defined quality clearly for their key service operations, have few or no measurements in place, on critical service parameters and are basically operating blindly.

This point was dramatically illustrated in a recent situation in a hotel. The question posed was quite simple: "What makes

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a good – high quality – coffee break"?

The answers varied greatly depending on whether the respondents were hotel managers or actual guests. For hotel managers a good quality coffee break included: timely availability of coffee, extras (buns, fruit, etc), attractive display, clean china and clean table setting. This sounds reasonable enough. Who could possibly have a different idea?

The guests did. The guests' response to the same question was quite different. They wanted: hot coffee or equivalent, fast line (especially for a refill), close and high capacity washroom, a smoking room, plenty of room to chat and network with other attendees.

So, the first and often fatal failing in many service companies is a lack of a clear understanding of what customers want in the first place.

A second failing is the lack of an adequate measurement

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system. Many service companies just do not know how they are doing. Many have amateurish 'customer satisfaction surveys' that are only loosely, if at all, related to the customers true satisfaction, willingness to remain a customer, or more importantly willingness to become a bigger customer. This lack of connect between customer satisfaction measurement and sales, repeat sales, increased sales and cost of sales means that the company is just guessing at what quality and process changes will actually help improve the company's performance.

The importance to going beyond the goal of satisfied customers, to loyal customers was demonstrated by a study by a bank recently. Banking as we know is a very competitive business but somehow this bank has been doing well. In fact, it is the second most profitable bank. There are important lessons to be learned in their approach to the customer.

The bank developed several statistical models to understand customer behavior as a function of customer satisfaction.

have found that a 'delighted' customer, one much more than merely 'satisfied', is five times more likely to buy other financial products, as is the customer who is just satisfied. Moreover, these delighted customers are also four times less likely to leave the bank than others who are just satisfied.

In fact, this bank was surprised to discover that there is very little difference between customers who are 'satisfied' and those who are 'neutral' or even 'dissatisfied'. These customers are continuously shopping around. On the other hand, the 'very satisfied' or the 'delighted', are the real revenue providers, the loyal ones, the ones that approach the bank first when they need a product they might have.

The third failing in this critically important area of customer focus is not understanding that all measures are relative. Many service companies are so internally focused that they forget the obvious that customers do not make their

purchase decisions, solely on how well they are doing, but how well they are doing with respect to competitors.

Many companies have been surprised to see that their market shares falling even though their service quality indices are improving. They fail to compare their measures with similar measures on their competitors. If competition is improving even faster, companies may continue to fall further and further behind.

Product Quality - in a Service Company

The primary driving force behind customer satisfaction is the quality of the 'service product' offered. Here service quality is no different than manufactured products. Too many service companies have fallen victim to the 'Smile School' of

service quality management. An airline that greets all passengers by name and with a big smile and provides wonderfully personal friendly service throughout the flight, may still find its sales declining. The customers also care and care deeply about the airline's product quality: safety, on-time arrivals, handling of baggage, maintenance of aircraft interiors, ease of ticketing, seat assignments and so on.

Fortunately, these things can be measured. Their importance to customers can be estimated. These aspects of service quality can be imagined, perhaps even easier than the less tangible human contact side of quality.

It is essential to continuously update knowledge about the customer, competition and the industry. Definitions of customer satisfaction and product quality must be continuously improved.

Process Management

Unfortunately, all the work implied above on customer focus and product quality is not enough. Costs should also be managed. It is not enough to have the best product or provide the best service. If someone else can provide equal (or even better) product and service quality at a lower cost, then it is a losing battle. Application of all known methods of quality management to continuously improve the efficiency of processes must be done.

Examples of how far one can still go in many service companies abound: An insurance company recently found that it took an average of 22 days to turn around a customer's life insurance claim, yet the average amount of time spent internally on attending to the claim (of any kind), consumed 17 minutes. This rather typical organization – with its policies, sign-offs,

meetings, reports, and other internal bureaucracies – manages to complete the task in 17 minutes but turns it around in 22 days.

Many service companies have taken old fashioned manual processes and automated them. Now they have old fashioned automated processes. Looking at how technology can be used to dramatically improve processes, one finds that most of the opportunities are still waiting to be grasped.

Other companies have radically changed their processes through new technology – Digitial Transformation, as they call it. Perhaps the most visible change the use of chatbots, Artificial Intelligence, Machine Learning and so on. Banks, for instance, have realized that customers are really not interested in friendly, smiling tellers when they can have 24 x 7 service with effectively no waiting through the extensive use of ATMs and Service Centres.

Another insurance company recently demonstrated how to combine improved process design and new technology. By changing the policy issuance process and taking advantage of other technology solutions they are now able to issue a new life insurance policy in less than 60 minutes - while the agent is still in the customer's home. The needed information is stored in their laptops and the agent enters the relevant details and customer needs while questioning the customer. The agent then prints a copy of the policy for the customer's approval, transmits the file by modem to the home office and it becomes effective before the agent leaves the customers home.

In Summary

A few service companies have made remarkable progress in Service Quality management in the past few years. But a vast majority has just about started.

Most of these failings are tied to three areas discussed above -- lack of clear knowledge about what drives customers' buying decisions, an unclear knowledge of the quality of the service product being offered and a failure to improve the processes sufficiently to see real cost reductions.

In the final analysis, Quality Does Make Money!



Types of Documented Information in Quality Management System

Deepak Bandyopadhyay

Technical Expert, NABCB

The standard, ISO 9000:2015 Quality management systems
- Fundamentals and vocabulary, defines "documented information" as - "information required to be controlled and maintained by an organization and the medium on which it is contained"

Documented information is a tool for both sustenance and improvement in a Quality Management System (QMS) as per the standard, ISO 9001:2015 Quality management systems – Requirements. The following will illuminate this thought:

a. For sustenance -

Documented information like manuals, procedures, work instructions, terminologies, specifications, manner of collection of data, formats and media, etc are all needed to be maintained, keeping in mind the current and future requirements. These are needed by the organization to operate in an orderly manner moving towards success in achieving its goals. These documents are amenable for modification with time. These are to be controlled to ensure appropriate use and reference. The phrase 'control of a document' means the ideation, development, authorization, issuance, implementation and periodic modification or withdrawal as and when

necessary so that the right and latest version of the document is available to the right person, for use.

b. For improvement -

Retained information like work log sheets, observations on machine performance, down-time and capacity utilization of equipment at shop floor, ambient conditions, extent of competence and accomplishment of workers on job allotted, either on shift-to-shift or day-to-day basis, laboratory findings and observations, calibration details, etc, are all needed to be documented. These have historic connotation and relevance for reference to chalk out future actions. These are also needed by the management of the organization to assess achievements and failures in its performance within a given time period (i.e. results achieved, the extent of success in meeting the set objectives or provide evidence of activities actually performed). Traceability is important in case investigation on

aberrance or excellence. These are non-editable and are not amenable for amendment or modification. These are to be preserved for a period as decided by the organization and then disposed off in an appropriate manner so that information on technical, administrative and commercial interests of the organization is not jeopardized by any adversary.

The above needs are relevant in all industrial, commercial and administrative activities in any organization which strives

to maintain an efficient and vibrant QMS. In the above perspective, the documented information for QMS can be of the varieties as shown in the Table below. The initiation of preparation of this Table took place recently during a meeting of minds of co-professionals. It may be used with advantage to develop and maintain a QMS worth its name. It is, however, submitted that though due care has been exercised in preparing this Table, it is not inviolable or sacrosanct and further refinement of the thought process is possible as

now enshrined in this if, intelligent, experienced and knowledgeable QMS professionals scrutinize, contemplate and speculate with newer ideas, weighing the different aspects of quality risks in the respective work areas. The article "Quality Risk Assessment (QRA) to Cover ISO 9001:2015" published in the July-September 2018 issue of "QUALITY India" also be referred for considering the different aspects of quality risks.

			NEODMATION		
DOCUMENTED INFORMATION					
IAINTAINED RETAINED					
For efficient initiation of QMS	For effectiveness of QMS	For continuity of QMS as a management tool	For efficient initiation of QMS	For effectiveness of QMS	For continuity of QMS as a management tool
ISO 9001:2015					
Clause number	Clause number	Clause number	Clause number	Clause number	Clause number
6.1.1	4.4.2 (a)	4.3	5.2.2 (b)	4.4.2 (b)	7.1.5.1
	8.1 (e)	5.2.2 (a)	7.1.6	7.5.3	7.5.2 (a)
		6.2.1	7.3		7.2.(d)
		8.5.1 (a)	8.2.4		8.2.3.2
			8.3.2		8.3.3
			8.5.1 (f)		8.3.4 (five)
			9.1.2		8.3.5
			9.1.3 (seven)		8.3.6
					8.5.2
					8.5.3
					8.5.6
					8.6
					8.7.2 (four)
					9.1.1
					9.2.2 (f)
					9.3.3 (two)
					10.2.2
Total	Total	Total	Total	Total	Total
1 plus Manuals, Pro- cedures, Work Instruc- tions, Formats, etc.	2	4	8	2	17

Note: The above Table can also be used during auditing a QMS as per ISO 9001:2015.

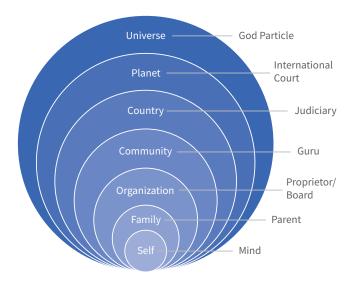


Revamping Judicial System - Key to World Transformation (Enhancing the Quality of Life)

Vishal Gupta

Industrial Services, Manager (Projects), SGS India Pvt. Ltd.

JUSTICE is the key aspect of GOVERNANCE.
No entity is isolated from it. It starts at self-level and ends at the universe level.
Success of Governance depends upon the judicial system. Entity dis-satisfaction is there at any instant but the important aspect is of effective handling mechanism for it.



Judicial system initiates from self wherein the mind itself does the justice day-in day-out based on its knowledge and experience. However, results and circumstances do go according to it, which can only be explained in terms of the KARMAS. Karmas is nothing but sum-total of the actions carried out. Similarly, it is for other different levels.



The key points for the judicial system is the laws, rules, codes and regulations based on which the judicial system adjudicates. Interpretation varies from person to person based on its educational background, values, preferences and composite wisdom. With technology being upgraded at the very fast level and is approaching to a common man, it is challenging the judicial system at all levels which had failed miserably leading to mis-governance, terrorism and environmental disbalance.

Judicial system is the part and parcel of governance as governance is incomplete without appropriate judicial system. Various stakeholders to the Judicial system at the country level are:

Judicial system includes Advocates, Bar

are made according to the requirements to have appropriate governance and not for benefit of individual entity.

Talking specifically about country like India, where crores of cases are pending, who is responsible?? What are the problems associated with the system and who is responsible for identifying it and to mend them? What should be the timeframe for closure of cases?

Overall, what should be the QUALITY parameters for the judicial system and the governance? Who should list down the parameters, monitor and control them?

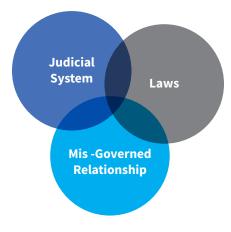
Key problems faced by common men are:

- No knowledge of laws, rules, codes and regulations
- 2. No timeframe for closure of cases
- 3. Lack of transparency
- Rampant inherent corruption in the system
- No appropriate mediation facilities for resolving matter
- 6. Improper guidance by advocates
- 7. Harassment on the part of the advocates, working in lobbies

- No significant role of BAR COUNCIL to ensure justice reaches to common man
- 9. Over-loaded Judges
- No appropriate interaction between judiciary & government to reduce the cases coming to courts
- 11. Up-dation of laws at filthy pace
- 12. Superiority concern between judiciary and government, both using each other for their gains

The various solutions that can be implemented are as under:

- Filling of judicial posts in a timebound manner
- Usage of expatriate judges where case is between two organizations wherein no government entity is involved
- Identification of key performance indicators for Judges, advocates and consolidation of their legal cases data
- Dispersal of fees of legal counsel from court depending upon their performance or stage completed
- 5. Live streaming of cases
- Limitation of number of cases that can be handled by advocates or law firms
 - Involvement of advocates in arbitration and for providing mediation facilities
 - 8. Making it mandatory for attaching one facilitator for completion of deal, which are prominent sources from where cases arise



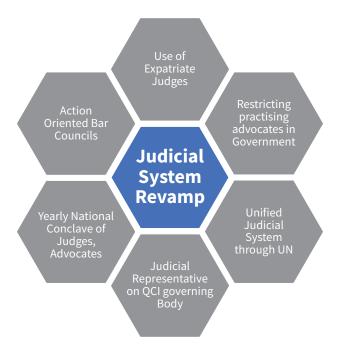
Council, different courts and Law Ministry. Laws have been framed by the Parliament or highest authority of the country. Laws





- Research and Innovation Wing to be developed by judiciary to advise government for creation or making changes in laws
- Restricting advocates from doing their practice while being a part of the government or after leaving government or being a part of any political party
- 11. Advocates to submit their financial return with the judiciary
- 12. Penalty to be imposed over advocates for delaying adjudication of the cases and cases to be disposed of in a time-bound manner
- 13. Gradation of advocates to be based on their field of expertise and experience
- Bar Council to be made responsible for ensuring justice reaches to a common man. It should have key performance indicators
- Every year National / State level Judicial Conclave must be held to discuss problems and finding solution to them.
- Re-work over formatting of legal documents, making them more effective
- 17. Transferring high-profile organization cases to other countries

- 18. Attacking the sources of cases to make system appropriate at that point
- 19. Limitation to assignments to be given to judges post retirement
- 20. Judiciary must review of its own and object to laws which are unconstitutional. Government should change it without conflicting it
- 21. Integration of judicial system of one country



- with the other through prominent role to be played by United Nations
- 22. One representative of Law Ministry / Judiciary should be on the Governing Body of Quality Council of India

This is the start of the transformation of the Governance system through Judicial system revamp throughout at planet Earth without which it is not possible to complete the transformation. It would bring a revolt in the lawns of judiciary; however, it is important for appropriate governance at planet Earth. Judicial system transformation is not going to stop any more till the Quality of Life has not been imparted to the common person.



Mahesh Hegde Counselor, TQM



M K Somanathan Head, QMS, Ashok Leyland

Proactive Approach to Achieve Defect-Free Product

Need for Proactive Approach

It is easy to say "DO RIGHT FIRST TIME," but to practice it is a hard nut to crack if you do not know what tools and methods to follow.

Tools and Methods to Achieve Defect-Free Product

This article is focused on effective usage of few techniques like Human Error Prevention, Process FMEA, SOPs, Proactive usage of DOE. Table-1 shows how to arrive at process controls.

Philos	ophy	Tools and Method
Step-1	Understand the Process Macro to micro-level sequence of activities within each process, expected outcomes, sources of variations, etc.	Process Flow Diagram Dividing operation into elements Linkage of product characteristics with process characteristics and incoming source of variations.
Step-2	Identify Failure Modes & Causes What can go wrong? Why it can go wrong (cause)? What is the risk involved?	Process FMEA Error Identification checklist (16 Errors), Master Ishikawa Diagram, Cause Analysis Table, Past Trouble Data Base (PTDB), Why-Why Analysis, 13 Error Prevention Principles
Step-3	Define How to Control What to control? When to control? How to control? How much to control? Who has to control?	Control Plan (QCPC) Product & process parameters to be controlled, specifications, measurement techniques & frequency, control methods & reaction plan.
Step-4	Achieve Defect-Free Product Control the process to achieve defect-free product.	Apply Control Methods Error proofing, SOP, operator training and skill evaluation, control charts, first piece approval, fixture design,

Table 1. Defect Prevention Philosophy and Proactive Tools

functional testing, etc.

Why Operator Errors?

Many 'why-why' analysis end with operator error which is difficult to tackle because of some beliefs like – error is human. There is a need to go deeper into why does an operator make error, what would be an appropriate solution?

- I don't Know, so I do mistakes. 20% of human errors attributed to lack of knowledge
- I know, but I don't have Skill, so I do mistakes. 15% errors are attributed to skill
- I have Skill, but I cannot follow SOP. 25% errors are attributed to motivation

I cannot follow SOP because it is difficult.

If SOPs are difficult to follow, look for simplification of methods without compromising its effectiveness. Provide some tools, fixtures to simplify

I cannot follow SOP because I don't want to follow. Motivate them to follow SOP

Result = Skill X Will

I have Skill & Will to follow SOP, but I forgot. Forgetting, Misrecognition, Wrong perception can be attributed to remaining 40% errors. We need to apply "Poka-Yoke"

Method to determine possible Human Errors Proactively and to find solutions

Step1: Write operation (steps /elements) and identify all possible human errors using 16 error checklist developed by Dr. Nakajo as shown in Table 2.

Step 2: Include all errors in FMEA, analyze risk and prioritize where control is needed.

Step 3: Generate Multiple solutions using 5 main principles (13 sub principles) of Human error prevention method of Dr. Nakajo. (Not part of this article)

Step 4: Prioritize solutions and implement

Human Error Identification: Note only 4 are shown out of 16 errors in table 2.

	Activities within Operation						
16 Error Checklist	1.Pick up the plas- tic part	2.Mount part on the fixture	3.Pick up the foam & remove adhesive tape sticker	4. Paste foam on part. Repeat step 3 and 4 to paste more foams	5. Pick up the roller and move roller on the foam with pressure	6. Re- move part from the fixture	7. Self check & keep in the bin
(1) Omission		- Forgot to mount on fixture - Forgot to clamp	Forgot to pick up the foam		Forgot to apply roller		Forgot to check
(2) Excessive/ Insuffi- cient Rep- etition			٠	Adding less number of foams	Excessive or insufficient application of roller		
(3) Wrong Order			Wrong foam picking sequence	Wrong pasting se- quence			
(4) Early/Late Execution				Late pasting after sticker removal			

Effective process FMEAs

The Quality of FMEA is determined by "depth of identification of causes" and "extent of new controls identified through FMEA". This can be ensured by using drawings (for what is expected and what is not expected), Past Trouble Data Base, Technical Knowledge, Master Ishikawa Diagrams or Tree Diagrams for each failure mode. Separately looking for controls on failure mode and each cause, Usage of

	Detection of Failure mode	Detection of Cause	Prevention of Cause
Purpose	Protect Customer (Does not stop generation)	Give early feedback to process. Take action before defect occurs	Reduces possibility occurrence of cause. Hence occurrence of defects.
Examples	"Cracked tube automatically falls into rejection bin". Customer protected.	Example: Checking coolant Concentration(cause) at defined frequency reduces occurrence of variation in finish (Failure mode)	Example: For less strength "wrong roller selection" is cause. Sub-cause is operator could not distinguish rollers. Control identified is colour coding

Cause Analysis Table to identify need for SOPs or other standards and adherence to standard, Why-Why analysis to identify control at sub-cause level, 13 principles for human errors.

Setting process parameters at optimum level using Design of Experiments

Today we have better methods to set process at optimum level. Taking the input from technical knowledge and set the process at optimum level input through DOE.

Making a best-in-class SOP

SOP is the "current best way" or "best known way".

Failure can lead to success, if we learn from it

We keep doing same mistakes and keep solving them. Each problem presents an opportunity for lessons to learn. Success lays in learning from these failures and preventing them in future. It requires a strong system to capture all

past troubles from different sources like design, testing, process development, internal defects, customer complaints, warranty, abnormalities in production, breakdown etc. Some of the companies have implemented excellent system of capturing "Past Trouble Data Base" which contains all trouble history, why it happened, lessons learnt. People who solve these problems keep updating PTDB which is referred for upcoming process development. All troubles (100%) of the company troubles should go to PTDB and feedback to new process should be 100%. It should provide input to Process FMEA. This will ensure that we will not do the same mistake again.

Conclusion

This paper was aimed at drawing attention towards importance of proactive approach.

References

Prof. Takeshi Nakajo and Prof. Hitoshi Kume, "The principles of fool proofing and these application in manufacturing" Controls on Failure Mode and Causes are shown in Table 3.



Relevance of ISO-9004:2018

Virendra Kumar Gupta

Assessor

ISO-9004 has been revised by the International Organization for Standardization during mid- 2018. Recently, it has also been published by Bureau of Indian Standards. So, it is available as IS/ISO: 9004-2018

This is an excellent text for learning:

- Detailed explanations of ISO-9001 clauses -- excellent tutorials
- Other possible improvements in the quality system as well as in general management
- Self assessment tool leading to maturity of processes

Very little is known to the professionals about this member of the ISO-9000 family of standards.

Introduction

During my various interactions with the quality practitioners and professionals, I find that though the knowledge of ISO-9001 is there, awareness about ISO-9004 is mostly absent.

The practitioners are just aware about the existence of ISO-9004 in the ISO-9000 Family, but no application/usage of this is seen in the business world.

A brief review of the ISO-9004:2018 (the latest version) is being given below. This can be of use to you to judge the utility of ISO-9004 for you/your organization.

What is it?

ISO-9004 is a member of the ISO-9000 Family of standards.

It is titled "QUALITY

MANAGEMENT -- QUALITY OF AN

ORGANIZATION -- GUIDANCE TO

ACHIEVE SUSTAINED SUCCESS".

So it is related to:

- Quality management
- Quality of an organization and
- Guidance to achieve sustained success

The reader can notice the absence of the words 'requirements' or 'standard'. Therefore, this is NOT a standard; it is one of the many guidance documents issued by the International Organization for Standardization. There are no 'shalls' in the entire text; there are only 'shoulds".

Your organization **CANNOT BE CERTIFIED** for ISO-9004 but there is lot to learn and apply.

utilizing any/many of them. Some are repetitions from ISO-9001, perhaps to reenforce the importance.

Beginning

It starts with a definition of *Quality of an organization* which is just like the ISO-9000 definition of quality of a product/service. You can try to identify the inherent characteristics and the assigned ones (if any) of your organization. It will surely be interesting and may not be easy.

Sustained success of the organization

You have to develop your own understanding of the word 'sustained'. How long does it mean? Shall this be with growth?

Were Kodak and Nokia sustained successes?

Are Raymonds, Bajaj, Micromax sustained successes?

Etc.

To achieve sustained success, ISO-9004 says, sorry *guides* that the organization should:

services (most probably the inherent characteristics) and should FOCUS on anticipating and meeting the needs/ expectations and enhancing the satisfaction of its interested parties.

In para 4.2, it lists various suggestions for the above objective. Surely, anyone can say, these are not the only routes/ requirements for sustained success. But it shall be good (may be an eye opener) to review whether and how far you are

Elaboration and description of each clause of ISO-9001

From para 5 onwards, each clause of ISO-9001 has been explained in depth through various 'shoulds'. (The organization has to decide what is relevant to it). A few salient ones are given below:

Para 5- Context of the organization

The explanation includes determination of:

- Relevant interested parties
- External issues and
- Internal issues

The focus is advised to be on such of these as may result in risks to enhancement of sustained success.

There is an emphasis on relevance (to be decided by the organization) and to its strategic direction.

Para 6-Identity of an organization

This is about mission, vision, values and culture –though not covered directly in ISO-9001. The emphasis is on alignment and keeping these consistent with any changes in the context.

In the context of QMS, the smaller companies can (perhaps) skip it.

Para 7-leadership

 As written above, there are quite a few 'shoulds' for the organization/ leader to review for adoption

- The section includes a brief write up on policy and strategy
- Table 1 lists excellent (generic) examples of actions to address competitive factors

All other paras similarly elaborate the other clauses. Each one can be truly called a tutorial on the respective clause. Two paras relating to Process management and People are highlighted:

Para 8-Process management

- Determination of processes
- Managing processes -- quite a detailed description of the various aspects of managing processes including risk assessment

Para 9.2-People

- Engagement of people
- Empowerment & motivation of people and of course
- Competency Etc.

Additional topics covered

- Technology (as a component of organizational knowledge)
- Natural resources (as a part of resources)
- Performance indicators (as a part of analysis & evaluation of performance)
- Learning (as a part of improvement)
- Innovation (as a part of improvement)
- Self assessment

Etc.

SELF ASSESSMENT-10.6

Looking at the importance and utility of the self-assessment, let us discuss a bit more of this topic.

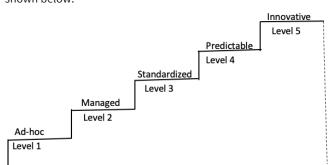
Self-assessment can be defined as "a systematic, and regular review of an organization's activities and results (we, here are focusing on processes) against a model of business excellence culminating in planned improvement actions".

The guidance provides in Annex A; a description of the self-assessment tool which is an acknowledged tool for raising the level of the organization's performance towards the best in class. The Annex introduces the reader to the Maturity models and describes a maturity model with five levels. (Most of the maturity models including the CMMI model use five levels).

The Annex at A.4 explains step-by-step methodology for conducting self-assessment.

It then proceeds to provide details of the 5 levels (against which assessment is made) for many elements of the QMS (31 in all). Of course, the organization is free to modify these levels to suit itself.

An example of the summary of 5 levels is shown below:



Alternatively, Crosby's matrix uses the terms uncertainty, awakening, enlightenment, wisdom and certainty.

When to study ISO-9004?

Please do not rush to read/study ISO-9004 right away. First read and understand ISO-9001. Implement ISO-9001 and run it for one year. Now ask each of your process owners to start studying ISO-9004. The organization can start looking for further action points through ISO-9004.

Conclusion

The language is not so reader friendly but it is, almost, *impossible* to get so many details about so many aspects of management at one place as in this 'guidance'. Every ambitious professional aiming to move up the management hierarchy must read, rather study, this guidance.







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For any membership related queries, you may connect:

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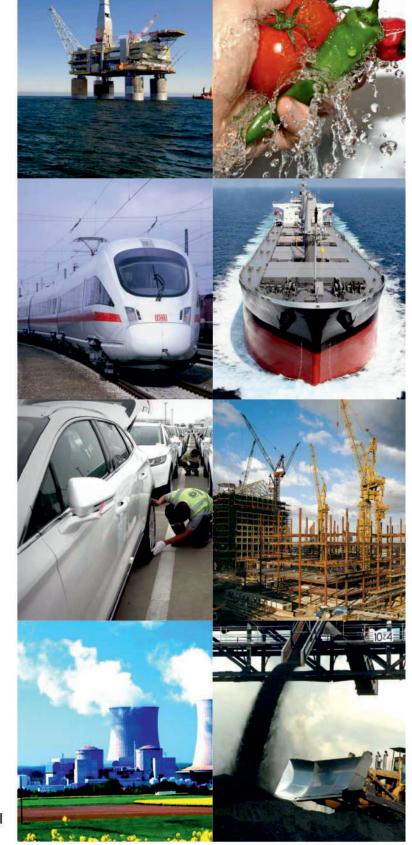
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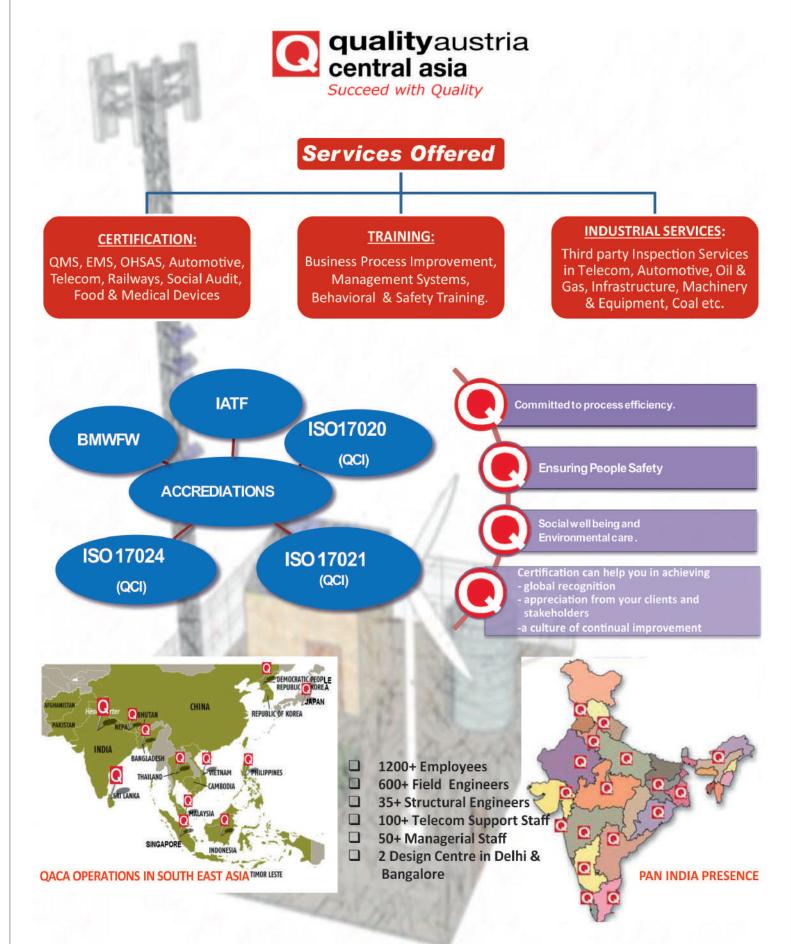
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