UDYOG MANTHAN

A Marathon of Focused Webinars on Promoting Quality and Productivity in Indian Industry

4th January – 2nd March 2021
Dear Friends

To take forward Hon’ble PM’s vision of Aatmanirbhar Bharat, DPIIT organized a two-month long webinar series in association with QCI and NPC called ‘Udyog Manthan’ from 4th Jan 2021 to 2nd March 2021 to foster a mindset of Quality inspired productivity across Indian industry. This collaborative exercise was conducted with active support of DoC, BIS, TIC Council, CII, ASSOCHAM and other industry chambers and various sectorial Ministries. This inspiring exercise has culminated into some extremely useful insights and recommendations, which will soon be released by DPIIT.

46 focused brainstorming discussions were held, where over 400+ speakers, 3500+ participants and 20k+ audience on various media platforms participated, with an impressive social media outreach of about 1 crore. The series focused on the champion sectors and also included sectors from the sub-sectors identified by DPIIT (e.g. Furniture, Air Conditioners, Fisheries, Aluminum, Steel, Set Top Boxes, EV components and Integrated Circuits, Ethanol, Ceramics & Glass, Robotics, Drones, Televisions, Closed Circuit Cameras, Toys, Sporting Goods, Gym Equipment). The discussions revolved around quality, productivity and competitiveness of Indian industry.

QCI is also part of Hon’ble PM Narendra Modi’s Swachh Bharat Mission-Urban, as the implementing agency for Swachh Survekshan, an annual survey of cleanliness, hygiene and sanitation in 4360 urban cities and towns across India. The Survekshan has been conducted at the behest of the Ministry of Housing & Urban Affairs. From sanitation to waste segregation and treatment, the survey ensured continued participation of States and Urban Local Bodies (ULBs) in monitoring service level progress and their performance against targets. Total number of ULBs covered was 4,320.

To be able to reach out to the masses in every corner of the country, ensuring maximum citizen participation, the Citizen Feedback was put live across various media – Swachhata App, Swachh Survekshan website, MyGov portal. Other ways to participate in the process were the helpline number installed by the Ministry – 1969 and QCI’s Vote For Your City App, through which citizens also participated in the feedback process in huge numbers, making the spirit of a true ‘Jan Andolan’ come alive. The social media campaigns for Swachh Survekshan focused on the aspect through hashtags like #मेरा_शहर_मेरी_िजम्मेेदारी and #MyCityMyResponsibility. The data compiled will be shared with the Ministry and the results will be announced soon.

During this quarter, we hosted four Virtual Quality Conclaves (4th, 5th, 6th & 7th) on different themes namely, “Reconfiguration of School Education in the Light of National Education Policy (NEP) – 2020”, “Automobile Sector: Enhancing Quality”, “Pursuit of Excellence in Healthcare” and “Quality Breakthrough by Implementing Digital Transformation” jointly with PHD Chamber of Commerce and Industry. GIZ, SDMC and Horticulture Department supported the conclaves. All these conclaves drew together a range of perspectives and approaches in addressing the challenge of continuous quality improvement through the analysis and application of best practices.

Our efforts in making the Quality Movement a ‘Mass Movement’ has been quite encouraging and we believe that the impetus that has been created in the last few years has made and will continue to make strong imprint on the quality journey in our country.

Thanks!

Dr. Ravi P. Singh
Secretary General
Quality Council of India
A Marathon of Focused Sector-Specific Webinars

An initiative arising from the Hon’ble Prime Minister’s Vision for “Aatmanirbhar Bharat” and “Vocal for Local”

DEPARTMENT FOR PROMOTION OF INDUSTRY AND INTERNAL TRADE
MINISTRY OF COMMERCE & INDUSTRY 
GOVERNMENT OF INDIA

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Editorial Team: Sanjay Singh | Shagufta Parveen
Design: Nidhi Batra

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NABET
National Accreditation Board For Education And Training

NBQP
National Board For Quality Promotion

NABH
National Accreditation Board For Hospitals And Healthcare Providers

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National Accreditation Board For Certification Bodies

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UDYOG MANTHAN

A Marathon of Focused Sector-Specific Webinars

Udyog Manthan was a two-month long marathon series of focused, sector-specific webinars. The initiative was one of India’s largest and most diverse brainstorming exercises on increasing Quality and Productivity across various sectors in consumers goods, industrial goods and services. The two main pillars of any manufacturing driven economy are Quality and Productivity. Many countries have used this in the past (e.g. Japan) and even today are using this to attract world investors and Manufacturers (e.g. Bangladesh and Vietnam). India needs to build the same pillars for manufacturing excellence. The key for India is to create awareness among the manufacturers across the chain i.e. raw material, intermediate and finished products manufacturers. Hon’ble Prime Minister has also emphasized that ‘Made in India’ products should not only meet global demand but also get greater global acceptance by building credibility. A key step in this process of improving quality and productivity is to foster a quality driven mindset.

First step in this direction would be to understand the challenges and opportunities concerning productivity and quality across Indian Industry sectors and build a mass scale movement of awareness on quality and productivity. To take forward Hon’ble PM’s vision of Atmanirbhar Bharat, a two-month long webinar series, Udyog Manthan was organized from 4th Jan 2021 to 2nd March 2021 to foster a mindset of Quality inspired Productivity across Indian Industry. This collaborative exercise was an initiative of the Department for Promotion of Industry and Internal Trade (DPIIT), in association with Department of Commerce (DoC), Quality Council of India (QCI), National Productivity Council (NPC), Bureau of Indian Standards (BIS), TIC council, Confederation of Indian Industry (CII), Federation of Indian Chambers of Commerce and Industry (FICCI), The Associated Chambers of Commerce and Industry of India (ASSOCHAM) and other industry chambers. We at QCI feel delighted to be at the forefront of this one-of-a-kind industrial brainstorming exercise that will take PM’s vision of Atmanirbhar Bharat forward.

Over a period of two months, 46 focused brainstorming discussions were held, where over 400+ speakers, 5000+ participants and 20k+ audience on various media platforms participated, with an impressive social media outreach of about 1 crore. These webinars received an enthusiastic response, and many have recommended having further deeper engagements for implementation of the recommendations received during these sessions.

Presiding the inaugural session of the Udyog Manthan, Shri Piyush Goyal, Hon’ble Minister of Commerce and Industry, called upon the Indian industries to focus on improving Quality and Productivity undertake brainstorming sessions for India to get recognition as high quality, efficient manufacturer, trader and service-provider. Emphasizing the need for quality and productivity, Shri Goyal quoted Prime Minister who had said, “India does not want to merely fill global markets with its products. We want Indian products to win the hearts of people around the world”.

The participants were thrilled to hear his thoughts on the Indian Industry owing to his years of enriching experience at crucial positions with the Government. He remarked that the resilience and determination the Indian industry has shown over the last 9 months of COVID is very encouraging and has shown the world, capacity of India and Indian Industry. He complimented the team at DPIIT, Quality Council of India and all other partners associated for the tremendous efforts put in to organise the 2 months-long series of webinars. A one-minute promotion film on Udyog Manthan was launched in the inaugural session and circulated on all social media platforms in both Hindi and English. The series focused on the champion sectors (across manufacturing and services) and also included sectors from the sub-sectors identified by DPIIT which are not covered under the champion sectors (e.g. Furniture, Air Conditioners, Fisheries, Aluminum, Steel, Set Top Boxes, EV components and Integrated Circuits, Ethanol, Ceramics & Glass, Robotics, Drones, Televisions, Closed Circuit Cameras, Toys, Sporting Goods, Gym Equipment). The speakers for sessions included Regulators, Industry Associations, Public and Private Sector Leaders, Certification Bodies and Laboratories, and other eminent subject matter experts.

Many eminent dignitaries from Industry, Academia and Government like Hon’ble Minister of State, Shri Som Prakash, Shri Adil Zainulbhai (Chairman, QCI), Dr. Guruprasad Mohapatra (Secretary, DPIIT), Dr. Vandana Kumar (IS, DPIIT), Shri R Mukundan (MD and CEO Tata Chemicals), Shri Vikram Kirloskar (VC, Toyota Kirloskar Motor Ltd.), Dr. Jaideep Prabhu (Jawaharlal Nehru Professor of Indian Business and Enterprise, Cambridge University) spoke at the opening and closing ceremonies.
Each webinar was a moderated panel discussion that lasted for about 2 hours and delved deep into issues related to quality and productivity in the sector. The webinar was started by an official from the concerned ministry and he/she laid down the context for the discussion. The discussion was then led by a moderator and panelists deliberated on sector-specific issues and gave recommendations. The panels were diverse and included speakers from both small and large-scale industries, experts in the sector, senior government officials, independent consultants, academics etc. Many high-profile International speakers (list in appendix) graced the webinars of various sectors and gave valuable insights on global best practices in improving Quality and Productivity that can be transposed in the Indian Context.

The webinars garnered media praise and were covered by PIB, many leading national newspapers like The Hindu Business Line, ET, FT, Livemint, The Pioneer (Print) and regional dailies. Media houses like Network 18, ANI covered Udyog Manthan on their television prime time. Social media coverage has also been impressive with more than a crore impressions on social media. Posts on Udyog Manthan were regularly published by DPIIT and QCI on Facebook, LinkedIn, Twitter and re-shared by HCIM’s office and Udyog Manthan partners. Everyday different pre-webinar and post-webinar creatives were made by QCI’s media team to keep up the engagement on all platforms.

The Udyog Manthan webinars were hosted on webex for registered participants from the industry (https://udyogmanthan.qcin.org/) and also streamed live on YouTube channels of QCI and NPC. To make the discussion more engaging and informative, QCI team had prepared sector briefs as a pre-webinar read. These were then used by panelists to prepare their address. Many questions sent by the participants across various platforms were taken up during the course of the webinars. Speakers and participants both wrote to the Udyog Manthan team at QCI expressing their delight on being a part of this first-of-a-kind event. Members of the Indian Industry felt that such brainstorming sessions should happen at least once in every 6 months. Smaller players were especially happy that Industry stalwarts and representatives from Certification Councils and Industry Bodies answered their queries. Larger companies in various sectors like Furniture, Footwear etc have assured that they will guide the smaller players in replicating best practices in improving Quality and Productivity - which is a unique outcome of the series. The feedback forms sent received an aggregate rating of 4.3+/5 by participants.

The suggestions came up during the Manthan have been compiled sector-wise as a compendium of recommendations on quality and productivity for the government to consider in making policy changes and industry to act upon. The contents of the compendium are a reflection of the high-quality deliberations in each sector and show that a lot of ground was covered across a short span of 2 hours in each webinar. The compendium will serve as a guidebook for future policies by helping us understand specific issues related to quality, productivity, and their possible solutions across 45 diverse sectors. QCI will leave no stone unturned in assisting the government in implementing the suggestions that have been compiled in the compendium, and with the right initiatives taken by both government and industry, Indian products and services will soon become the most sought after.
Few High Profile Panelists

- Anil Goel, MD, Hettich India [Furniture]
- Rudra Chatterjee, Chair FICCI Furniture Committee and Chairman, Luxmi Group [Furniture]
- Manas Majumdar, Partner and National Leader – Oil and Gas, Chemicals, KPMG India [Chemicals and Petrochemicals]
- Rene Van Berkel, UNIDO [Chemicals and Petrochemicals]
- Zarir Langrana, Executive Director and President - Global Chemicals Business at Tata Chemicals [Chemicals and Petrochemicals]
- V.R. Sharma, Managing Director, Jindal Steel and Power Ltd. [Steel]
- Ramesh Agarwal, Chairman, Agarwal Movers and Packers [Transport and Logistics Services]
- Suresh Sethi, Managing Director and CEO designate - NSDL e-Governance Infrastructure Limited [Financial Services]
- Siva S Ramann, MD and CEO, National E-Governance Services Ltd [Financial Services]
- Ms. Nipa Sheth, Founder and Managing Director, Trust Group [Financial Services]
- Pramath Raj Sinha, Founder + Chairman, Harappa Education [Education Services]
- Dr. Vidya Yeravdekar, Principal Director of Symbiosis Society [Education Services]
- Sivanesan Ramachandran, President, Ashok Leyland [Automotive and Auto Components]
- Mrs. Arti Khosla, Founder and CEO, Centre of Assessments for Excellence [Education Services]
- V Sridhar, VP, Honda Motorcycles [Automotive and Auto Components]
- Capt Sandeep Mehta, President, Adani Ports and SEZ Ltd [Shipping]
- Mr. Rajinder Bhatia, President and CEO, Bharat Forge [Aerospace and Defence]
- Mr. Subrota Karmakar, President-Head, Robotics and Discrete Automation Business, India; ABB India Ltd. [Robotics]

International Speakers

- Mr. Kelvin Chan, Director and Principal Consultant, Teian Consulting International (Education Services)
- Mr. Hiroshi Tachikawa, Managing Director, Propharm Japan Co., Ltd. Country (Environmental Services)
- Mr. George Wong, MD and Principal Consultant, Hoclink Systems and Services (Transport and Logistics Services)
- Mr. Dialah Hokosuja Hutabalian, Organization Effectiveness Specialist (Pharma and Medical Devices)
- Mr. Dialah Hokosuja Hutabalian, Organization Effectiveness Specialist (Pharma and Medical Devices)
- Mr. Kazuteru Kuroda, Senior Consultant, Productivity Centre [Robotics]
**Media Coverage**


https://indiaeducationdiary.in/a-marathon-of-focused-webinars-for-boosting-quality-and-productivity-in-indian-industry-udyog-manthan-begins/


https://www.thehindubusinessline.com/economy/future-of-indian-industry-hinges-on-quality-productivity-goyal/article33512008.ece


https://in.news.yahoo.com/udyog-manthan-organized-jan-4-110249852.html

https://www.gktoday.in/question/what-is-the-name-of-the-webinar-serried-launched-b


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**UDYOG MANTHAN**

Join the movement of quality inspired production at #UdyogManthan

To be a part of the ongoing marathon series of sector-specific webinars for promoting Quality, Productivity & Best Practices in Indian Industry

Register At: bit.ly/um-form

4th January - 2nd March

#UdyogManthan is live!

Join us live today @ 4 PM and be a part of Industry-led expert panel discussions on ‘Construction & Related Engineering Services’ sector.

Watch Live ◀️ [youtube](https://bit.ly/2p6pNEu_v5s)

#AamatnirbharBharat

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**Media Coverage**


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https://www.gktoday.in/question/what-is-the-name-of-the-webinar-serried-launched-b


The webinar series was a large exercise in collaboration, which spanned across multiple boards, divisions and teams within QCI.

Contributed By
Kaveri Singh, PPID
T. Krishnaraj, PPID

An Online, Multi-Sectoral, Nationwide Brainstorming Exercise

Udyog Manthan was organised completely online and promoted across multiple social media channels, generating 3 million+ impressions across platforms.
When there is both inner and outer cleanliness, it approaches godliness

- Mahatma Gandhi

What is Swachh Survekshan?
Various surveys and polls are conducted for customer satisfaction, diet & exercise, consumer behaviour, social networking, department performance, etc., on a daily basis. But have you ever heard about a survey of cities being ranked as per their Swachhata Quotient?

Launched as a part of Hon’ble PM Narendra Modi’s Swachh Bharat Mission-Urban, the Swachh Survekshan is an annual survey of Cleanliness, Hygiene and Sanitation in urban cities and towns across India, the sixth edition of which is being conducted by Quality Council of India at the behest of the Ministry of Housing & Urban Affairs (MoHUA). From sanitation to waste segregation and treatment, the survey has been ensuring continued participation of States and Urban Local Bodies (ULBs) in monitoring service level progress and outperform the highest targets each time.

The Aim
It aims to encourage large-scale citizen participation, ensure sustainability of initiatives taken towards garbage-free and open defecation-free cities, provide credible outcomes validated by third-party certification, institutionalise existing systems through online processes and create awareness among all sections of society about the importance of creating and promoting more sustainable and habitable cities. It also aims to foster a spirit of healthy competition among towns and cities. QCI is actively conducting virtual interactions with States and ULBs to familiarise them with various facets of the survey such as assessment methodology, survey process and indicators and also, clarifying their doubts about the survey, in case any.

Citizen Feedback
“Cleaning up the country cannot be the sole responsibility of sanitation workers. Do citizens have no role in this? We have to change this mindset”

-Narendra Modi, PM

Well, the Swachh Survekshan 2021’s primary emphasis has been laid on the citizens’ duties towards Swachhata of their cities. The campaign invites the citizens of India to put on the suit of Swachthagrihi and be the superstars their cities need. To be able to reach out to the masses in every corner of the country, ensuring maximum citizen participation, the Citizen Feedback is live across various media – Swachhata App, Swachh Survekshan Website, MyGov Portal. Other ways to participate in the process are the helpline number installed by the Ministry – 1969 and QCI’s Vote For Your City App, through which citizens also participated in the feedback process in huge numbers, making the spirit of a true ‘Jan Andolan’ come alive.

The social media campaigns for Swachh Survekshan focus on the aspect through hashtags like #मेरा_स्वच्छ_मेरा_रिसोर्स and #MyCityMyResponsibility.

QCI Teams at Work
To keep the survey backed up with relevant information and constant updates from more than 4,000+ ULBs across India, QCI deployed teams with different beats to leave no stone unturned in reaching every corner of the country. Owing to COVID-19 safety norms, the feedback process has been made more citizen-friendly, contact-free and completely digitalised.

The following teams at QCI make the assessment possible:

• Documentation: Throughout the year, ULBs are expected to maintain the monthly progress documents at ULB level. Then they are required to upload the documents by a given time period, which are studied for verification by the documentation team. However, in case any more documents are required to support the assessment process, the team can ask for it during the quarterly assessment.

• Scoring: The final scoring and ranking of the ULBs is done in further 15 days after the Survekshan ends.

• Media: Given that citizen participation is a very crucial component of this survey, wide media coverage and other traditional media channels are strategically used at National, State and City levels in order to educate and incentivise the citizens about the survey and its objectives. The team also aims to reinforce mass participation in the Swachh Survekshan 2021 through various crowdsourcing and participation-friendly campaigns.

• The team is working tirelessly to ensure the project is delivered without any time overrun or the quality being compromised.

Assessment Process
It takes a great deal to assess a country with a population of around 1.38 billion people in terms of its Hygiene and Sanitation. However, through the Ministry’s clearly stated guidelines and parameters, the process has been made efficient and hassle-free.

The basic marking scheme is that the overall assessment has remained the same this time. Cities, hence, will be ranked out of a total of 6,000 marks, like in 2020, while each quarter’s assessment is worth 1,000 marks. However, the Ministry has revised the data collection criteria and its weightage in 2021 – giving significant importance to citizen voice (30 per cent or 1,800 marks), Service Level Progress (SLP) on waste, etc. through a process of direct observation and citizen feedback.

• Calling: The assessors, coming from various regions across India and fluent in their native languages other than Hindi and English, evaluate the information received through calls with the ULBs and examine whether the kind of questions asked to them fill in the criteria of assessment.

• Scoring: The final scoring and ranking after the assessment is done in further 15 days after the Survekshan ends.

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that includes sustainable sanitation, processing and disposal of waste and segregated waste collection (40 per cent or 2,400 marks) and certification (30 per cent or 1,800 marks).

What’s New?

Under Swachh Survekshan 2021, five new categories have been introduced to enhance the competition further – PRERAK DAUR SAMMAN. DAURUR stands as an abbreviation, differentiating the awards, for Divya (Platinum), Anupam (Gold), Ujjwal (Silver), Udit (Bronze) and aRohi (Copper). Under this ranking, cities and ULBs will be assessed on the following parameters:

- Segregation of waste (wet, dry & hazardous)
- Processing capacity against wet waste generated
- Processing of wet waste
- Processing/recycling dry waste
- Construction and demolition waste processing
- Percentage of waste going to the landfill
- Current sanitation status

A Brief History of Swachh Survekshan

The Swachh Survekshan, which now is claimed to be the world’s largest urban cleanliness survey, was initiated in 2016, wherein only 73 cities were assessed on the Swachhata Quotient. The assessment area rose to 534 cities, 4,203 towns and cities in 2017, 2018 and 2019 respectively. The survey in 2020 assessed around 4,041 ULBs and cities, 62 cantonment boards and 92 Ganga towns for their cleanliness. In terms of winners, Indore has been winning ‘India’s Cleanest City’ award for the last four consecutive years.

Key Social Media Campaigns

The social media campaigns aim to reiterate the key messages on Swachhata, thereby motivating citizens to take up greater ownership of the cleanliness of their cities and the country at large. This effort is further being reinforced by an extensive use of social media platforms like Twitter, Facebook and Instagram by QCI to launch and sustain three major online campaigns, among others, namely, #ThodaBohotHai, #BadaEasyHai, #BleedGreen, which collectively have garnered a reach of more than 95 lakh.

Through #ThodaBohotHai, we want to deliver the message that lesser consumption is quite sufficient for the planet to breathe better and easier. The campaign saw humongous traction from common citizens, doing their bit towards lessening consumption on an everyday basis, as well as various influencers and environment enthusiasts. Giving example of some anecdotes, they spoke about their respective initiatives taken towards a sustainable living. Few of the names are Education Reformist Sonam Wangchuk, Composting Enthusiast Vani Murthy, Cleanliness Activist Temsultu Umsong, Bollywood Actor Dia Mirza, Fashion Designer Rahul Mishra, Chess Grandmaster Vidit Gujrathi, Plogman of India Ripu Daman Bevli, Actress Ritika Anand, Mrs India Shweta Chaudhary, and Philanthropist Chintu Kwatra.

#BadaEasyHai emphasises on the aspect of how ‘easy’ it could be to clean our cities, to segregate waste or to vote for our cities if we collectively take the responsibility. Bollywood actors Shilpa Shetty Kundra and Anil Kapoor joined the campaign too through TV ads and social media.

Influence people for the right thing! Tell your story on how you are reducing waste in your life, using #ThodaBohotHai.

Vani Murthy, Cleanliness Activist
Temusultu Umsong, Bollywood Actor
Dia Mirza, Fashion Designer
Rahul Mishra, Chess Grandmaster
Vidit Gujrathi, Plogman of India
Ripu Daman Bevli, Actress
Ritika Anand, Mrs India
Shweta Chaudhary, and
Philanthropist Chintu Kwatra.
The Ministry of MSME is in the process of re-launching the Zero Defect Zero Effect (ZED) Scheme as “MSME Sustainable (ZED) Certification” Scheme, with QCI to continue as the Implementing Agency.

The basic rationale of the Government support to MSMEs for undertaking MSME Sustainable (ZED) Certification is to assist in enhancing their quality and at the same time emphasize that the goods being manufactured have minimal impact on the environment. This will not only have numerous social benefits in terms of training of labour, creation of knowledge, increased productivity, introduction of new production equipment/methods in manufacturing etc. but will also boost the confidence of foreign buyers and investors in goods and services produced in India.

MSMEs are the backbone of the economy and therefore ensuring their competitiveness is critical. As the MSMEs are amongst the strongest drivers of economic development, innovation and employment, it becomes imperative to strengthen their ecosystem. The ZED initiative is envisioned by the Government of India to enhance MSME competitiveness and transform them as National and International Champions thereby contributing towards the realization of the vision of an ‘Atmanirbhar Bharat’.

The new avatar of the ZED Scheme is expected to have bigger and better incentives & benefits and the ZED Standard has moved from a maturity assessment to a conformity assessment model where an MSME, after registering and taking the “ZED Pledge”, can apply for a specific Certification Level, Bronze or Silver or Gold. Once the MSME conforms to all the requirements of the Level applied for, they will be issued a Certification which will be valid for a period of 3 years with one Surveillance assessment in between. Achieving any ZED Certification will unlock many incentives and benefits for an MSME that includes (but not limited to) Subsidized handholding support, Financial Assistance in Testing/Quality/Product Certification amongst others, apart from the financial subsidy on the cost of ZED Certification.

The Scheme is proposed to be implemented in 2 Phases:

Phase 1
For Manufacturing MSMEs registered on UDYAM. This phase will focus largely on maximizing inclusion of manufacturing MSMEs and taking them through the journey of ZED.

Phase 2
Inclusion of Service Sector MSMEs. This phase will also strive to integrate those MSMEs (manufacturing and Service Sectors) who are registered under a State Government protocol/system but not on UDYAM. From this phase onwards, additional information regarding MSME operations/performance may be collected so as to create a National MSME Competitiveness Index. In this phase, it is also envisaged to assist the ZED Certified MSMEs to obtain international certifications, as necessary for international markets and making provisions to align the ZED Certification with the international certifications for its global acceptance.

The intent of this initiative remains the same, i.e. to encourage and enable MSMEs for manufacturing of quality products using latest technology, tools & to constantly upgrade their processes for achievement of high quality and high productivity with the least effect on the environment.

"MSME Sustainable (ZED) Certification" Scheme of Ministry of Micro, Small & Medium Enterprises (MSME)
Virtual Learning - Acquiring Knowledge in a State of Stagnation

Training and Capacity Building (TCB) cell is pleased to announce the launch of its newly developed website (https://tcb.qcin.org/) with an aim to reach out to people around the globe faster and with ease.

We have also developed new Learning Management System available at https://equest.co.in/ where the learners can register to the course of their choices through an easy registration process.

Virtual Trainings: A step forward towards continuous learning

- During the quarter, TCB conducted several virtual training programs on various Accreditation and Certification standards like ISO/IEC 17020, ISO/IEC 17021, ISO/IEC 17065, and ISO/IEC 17025, ISO 15189, ISO 13485 and more with an attendance of 600 participants. The programs included an exclusive training for Public Health Engineering Department, Himachal Pradesh; Hindustan Petroleum Corporation Limited (HPCL); Hindustan Aeronautic Limited (HAL), two sessions for Rural Drinking Water & Sanitation Department, Karnataka and a session for a Private Organization.

- In addition to this, TCB jointly with other Boards/Divisions of QCI, conducted various webinars/online trainings through the eQuest portal where around 300 participants were present.

- On the International Women’s Day, TCB conducted a webinar for the women employees on ‘Journey towards leadership- Women perspective’ focusing on workplace equality from the women point of view. This initiative was a step forward towards making the women more confident, aware and making the workplace more women friendly.

- For this summer, in addition to the training on Accreditation & Certification Standards we have launched various other trainings covering the general domain as well. The topics include:
  - The Effective Consultant
  - Value, Ethic, Governance and Personal Etiquette
  - Vendor Risk Management (From Due Diligence to Regular Monitoring)
  - Demand Driven MRP
  - Science and art of decision-making
  - Cyber Security
  - Measurement and Analysis – A necessary Infrastructure for MSMEs
• Digital Marketing
• Cost of Quality – A tool for developing Business Case for Quality Improvement Initiatives
• Fraud Risk Management
• TCB is organizing a 3-day virtual training on ‘Six Sigma Lean Green Belt’ with a view to help organizations and their people to set extremely challenging improvement goals and objectives.

TCB’s Engagement in imparting knowledge on Quality

• We have continued the streak of running the Continuous Quality Improvement (CQI) on SWAYAM (eLearning platform of Ministry of Education). CQI is running its third batch which commenced in the month of January manufacturers/artisans. The centre has been conducting training, technical seminars and workshops for technical upgradation for manufacturers and artisans of the local area and also promoting ODOP (One District One Product) and the session was delivered as a part of the same series.

E-Learning: Towards a new era of Skill and Capacity Building

• A new e-Learning program ‘Awareness of Biomedical Waste’ is developed and running smoothly on eQuest. This is in continuation of our earlier e-learning program on ‘Solid Waste Management’. The program touches upon the basic theoretical aspects, and emphasizes on the applied Bio-Medical waste areas.
• eQuest is pleased to share that currently 50 programs are available on the portal and are receiving staggering responses.

TCB Director delivered a session at Metal Handicraft Service Centre, Moradabad – an establishment by the Ministry of Textile, Government of India for providing Quality Services to Handicraft Exporters, Manufacturers and Artisans. Here, he focused on the topic ‘Quality Infrastructure (Metrology and Accreditation)’ during a one-day program where he addressed the local manufacturers/artisans. The centre has been conducting training, technical seminars and workshops for technical upgradation for manufacturers and artisans of the local area and also promoting ODOP (One District One Product) and the session was delivered as a part of the same series.

Our Reach across Borders

• Under the World Bank sponsored ‘National Quality Infrastructure Development Project’, a twinning arrangement was finalised with QCI for providing expansion of Accreditation Scope, Training & Capacity Building Programme of Ethiopian Accreditation Body Ethiopian National Accreditation Office (ENAO), Ethiopia, regarding which an online training on ISO/IEC 17021 (sub-scope - Quality Management System and Environmental Management System) was conducted during 10-12 March for 22 potential assessors of ENAO. The training was also followed by an online evaluation of the participants.

In addition to everything, TCB presented its activities including virtual training, eLearning modules and capacity building engagement to the member delegations (NABs / NAFPs) from the SAARC Member States in the last SAARC Expert Group on Accreditation (SEGA) meeting by The Physikalisch-Technische Bundesanstalt (PTB- Germany). SEGA pursue the work relating to Accreditation in the region in collaboration with PTB- Germany, under the SAARC-PTB MoU.
Voluntary Certification Schemes

Voluntary Certification Scheme for Medicinal Plant Produce (VCS-MPP)

- QCI, at the behest of National Medicinal Plant Board (NMPB), GoI has developed and designed a voluntary certification scheme for medicinal plant produce. The aim of the VCS-MPP is to introduce Good Agricultural Practices (GAP) and Good Field Collection Practices (GFCP) for medicinal plants to enhance confidence in the quality of India’s medicinal plant produce among the buyers and consumers.
- The National Medicinal Plant Board, Ministry of AYUSH granted QCI the Capacity Building & Scheme project for the marketing and promotion of the VCS-MPP Scheme. Till date we have compiled 45 Package of Practices, conducted 37 workshops and presented the Scheme to the SAARC for considering its acceptance.
- In order to test the feasibility of the Scheme, 32 projects have been assigned for the demo plots which have been in various phases of registration with the approved certification bodies.

AYUSH Mark Scheme

- At the behest of the Department of AYUSH, a voluntary product certification scheme for AYUSH products to enhance consumer confidence was designed by Quality Council of India. Under the Scheme, any manufacturing unit can obtain certification from a designated Certification Body (CB) and will be under regular surveillance of the certification body. The Scheme has two levels of certification: Standard and Premium.
- A total of 66 TCHPs certified under the Scheme till date out of which, 66 TCHPs certified within the reporting period.
- The Scheme is finding traction with the Ministry of Culture & Tribal Affairs.

India Good Agricultural Practices (IndGAP) Scheme

- QCI realizes that the best way to improve the prospects of agriculture in the country is to address food safety, workers’ health and safety, environment management, and quality of produce. For this, QCI came up with the IndGAP Scheme that not only assists the big farmers but also helps the small holders
• Project approved by the Spices Board for marketing and certification of projects under IndGAP. Project certification in IndGAP for spices would result in improvement in quality of produce, awareness regarding good agricultural practices and reduction in the transaction cost for exports.

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Projects

Hygiene Rating Scheme of FSSAI
• PADD developed a scheme for approval of Hygiene Rating Audit Agencies (HRAs) with an aim to help consumers make informed decisions regarding food outlets where they prefer to eat by encouraging businesses to improve hygiene and safety standards. The recognised agency will verify compliance with food hygiene and safety procedures laid down by the Food Safety and Standards Authority of India (FSSAI). QCI has observed a spurt of enquiries from the various entities to join the initiative by applying as a HRA.

Security sTar Agencies Rating Scheme (STAR)
• QCI has designed the QCI-CAPS (Security sTar Agencies Rating Scheme) - a voluntary certification and quality rating programme for Private Security Agencies. Under the STAR scheme, Private Security Agencies will be star rated on the basis of their capability levels to provide security services that meet customer and applicable statutory and regulatory requirements.

• Provisional approval granted to QACA and TQCert, making the tally as 2 CBS approved under the STAR Scheme.

the regulator for RPAS, on 17 September 2020 in presence of Shri Amber Dubey, JS, Ministry of Civil Aviation.

• 2 Certification Bodies (CBs) have been granted provisional approval - TQ Cert Services (01 October 2020) and U.L India (15 January 2021). QCI initiated the process of developing a NPNT test tool to validate compliance of the RPAS before they are certified.

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Certification Scheme for Remotely Piloted Aircraft Systems (RPAS)
• QCI has launched the Certification Scheme for Remotely Piloted Aircraft Systems (RPAS), duly approved by the Directorate General of Civil Aviation (DGCA), Ministry of Civil Aviation.

• PADD had submitted a Scheme document comprising 15 GI Products as a pilot to the Department for Promotion of Industry and Internal Trade, Ministry of Commerce and Industry for promoting the uptake of GI products that are either agri-commodities or manufactured items.

• In principle approval received from DPRI on the VCS-GIG scheme submitted to them.

SDG Mapping and Impact Study of Trinithea
• QCI has developed the concept of mapping of standards to SDGs, known as the ‘Sustainable Development Goals Mapping and Analysis Programme’ (SDG MAP). It aims at organisations - public and private, and standards (with special focus on voluntary/private sustainability standards).

• The mapping of the UN SDGs to the standard translates the SDGs and the relevant targets under those SDGs into specific business actions applicable for the company by providing justification of the SDGs mapped.

• SDG Mapping report of Trinithea has been approved by Indian Tea Association and Solidaridad and Impact Study report has been submitted to them.

NCPCR Project
• QCI was entrusted upon by NCPCR to empanel fact-finding-cum-audit agencies for protection of child rights, particularly against child labour in Indian Industry and Supply chain. The empanelled agencies in turn will be conducting independent fact-finding exercises and studies pertaining to sectors, industries, premises that are prone to child labour in order to establish facts and to mitigate any non-compliance found during the studies.

• Three agencies were such empanelled in the first phase of empanelment namely SK Mittal & Co., IRClass Systems & Solutions Pvt Ltd and IIEP Trust. NCPCR-QCI MoU was signed on 28th January, 2021. The second phase of empanelment is underway.

Third-party Evaluation of National Mission on Cultural Mapping and Roadmap - Ministry of Culture
• Desktop based evaluation done for the extension of the scheme on National Mission on Cultural Mapping, in conjunction with PRD. Report has been submitted to the Ministry of Culture.

NGCMA GLP Cell

• National Good Laboratory Practices Compliance Monitoring Authority (NGCMA) entered into an MoU with Quality Council of India on 31 Dec 2013 for the effective implementation of Good Laboratory Practices (GLP) certification programme. PADD assists the GLP program of the NGCMA.

• A total of 19 GLP inspections conducted in the reporting period. 1 GLP Scope Ext., 2 new applications and 5 re-certification applications received for GLP Certification. 1 ICC conducted during this reporting period.

New Initiatives

• United Nations Development Programme (UNDP): The UNDP approached QCI to help them with the design and development of Scheme for Access and Benefit Sharing as per the National Biodiversity Act 2002. UNDP has completed the internal administrative process to award the project to QCI.

Udyog Manthan (PADD’s Contribution)

• 7th week of Udyog Manthan organised by PADD. Webinars organised on 5 critical sectors: New and Renewable Energy, Air Conditioners, Fisheries, Aluminium and Set top Boxes. PADD also facilitated the Drone Webinar as it had a strong connection with the stakeholders while designing and developing the RPAS Scheme.
We conducted evaluation, data interpretation and analysis of progress reports of on-going IMPRINT I, II and UAY projects as submitted by corresponding Principal Investigators. The methodology for the evaluation of progress report of individual projects has been developed based on characteristics parameters followed during the analysis of an RDD Research Program.

It is discussed that the projects sanctioned under IMPRINT–I, II and UAY schemes to Principal Investigators of IISc, IITs, NITs and Central Universities are enhancing innovation quotient of India at large and is an excellent initiative that must be continued. The idea of involving Industry in the research activities of academic institutions is a welcome initiative for the technology transfer and utilization of institute/university talents for the welfare of the society. This very prestigious activity has been carried out jointly with NABET-QCI.

**TEQIP III Scheme**

RACB Division, jointly with PPID, executed two very important schemes of NPIU, MoE, on Technical Education Quality Improvement Program (TEQIP). However, during the reported period, detailed investigation has been carried out on employer satisfaction. Employer’s feedback has been tabulated to understand talent and innovative skill of graduate engineers passed out from TEQIP supported institutions. The analysis carries significant outcomes useful for exploiting teaching pedagogy for the benefit of skill and innovation centric efforts in technical institutions.

**Evaluation and Interpretation**

**IMPRINT and UAY Scheme of MoE and DST-SERB**

Impacting Research Innovation and Technology or IMPRINT was launched by the President, Prime Minister and Education Minister on November 5, 2015: 17 Institutions, 10 Domains with 1 Objective - Accelerating Innovation & Research were motivated by identifying 10 technology domain areas that could substantially impact Quality, Safety and Security of life both in urban and rural areas.
New Initiatives

Scheme for Translational and Advanced Research on Science (STARS)

The division has developed an independent proposal on evaluation of different research projects sanctioned to Scientists and Professors belonging to eminent institutions. This proposal is technically accepted which may be executed further jointly with NABET-QCI.

A2K+ Proposal on Technologies

This proposal is developed by the Division, which entirely implies to information related to patented technologies developed by the scientists in the country. It is a scientific R&D proposal submitted to Ministry of Science for the approval.

Evaluation of Quality Characteristics of Training Programs

RACB is heading this project in collaboration with NABET. Meetings and presentation with ITSM officials have been organized and documents have been collected. Questionnaire for evaluation of Quality Characteristics of Training Programs have been developed and sent to ISTM for their views. Physical discussion on the questionnaire conducted as well. The survey statistics is planned keeping in view the submission of report by May 10, 2021.

Scholarly Articles


Arvind Kumar, Vijayeta Pal and S. K. Mishra
1. Department of Applied Science, G.L.B.I.T.M, Greater Noida, India
2. School of Materials Science and Technology, IIT BHU, Varanasi, India
3. Quality Council of India, GOI, New Delhi, India


Rajbeer Sharma & S K Mishra

Contributed Subject Chapters

Development of innovative online course module on Biomedical Waste Management (BMW) which is extremely viable in the current period of COVID-19 pandemic.

Fullfills the Quest for Learning

Quality Council of India has launched an e-learning certification platform in line with the Government of India’s Digital India campaign to bridge the existing skill gap. eQuest is equipped with a unique model of blended learning with courses designed and prepared by industry recognised experts.
NABL Participated in SAARC Expert Group on Accreditation (SEGA) Meeting

NABL participated in the SAARC Expert Group on Accreditation (SEGA) meeting conducted in coordination with SAARC, SARSO and PTB, Germany on 19th – 20th January 2021.

The program witnessed participation from Accreditation Bodies in the SAARC economic region of Afghanistan, Bangladesh, Bhutan, India, Nepal, Sri Lanka and Pakistan.

One proficiency testing program in textile testing is to be conducted among the testing laboratories of all the economies to boost the acceptance of test results.
**NABL Awareness Program for Government Fertilizer Testing Laboratories on 21st Jan 2021**

NABL conducted awareness programs on ISO/IEC 17025: 2017 and NABL Accreditation for Fertilizer Testing Laboratories of Ministry of Chemicals and Fertilizers through online platform.

More than 30 participants belonging to the Government Fertilizer Testing Laboratories of various states benefitted from the awareness program.

**Approval Program on NABL Accreditation of Water Testing Laboratories**

NABL participated in the orientation workshop / awareness program on “NABL Accreditation of Water Testing Laboratories” on 22nd January 2021 in Bhopal in accordance with the Jal Jeevan Mission. Ministry of Jal Shakti aims to bring clean drinking water to all households, all government water testing laboratories are to gain NABL Accreditation.

More than 100 engineers and laboratory staff from all district HQs belonging to the Government Water Testing Labs of Madhya Pradesh participated and benefitted from the program.

**February 2021**

**APAC Evaluation of NABL**

APAC Evaluation of NABL in accordance with ISO/IEC 17011: 2017 was conducted from 22nd – 26th February 2021. The evaluation was completed successfully with no non-conformances and a positive recommendation.

**NABL - Supporting Partner in Diagnostic Leadership Summit**

NABL supported in the Diagnostic Leadership Summit on 19th-20th Feb 2021.

Mr. N Venkateswaran, CEO, NABL spoke about NABL Accreditation and the importance of Quality in diagnostic sector and how NABL has come forward in support of all laboratories throughout the pandemic.

NABL Signs MoU with Atomic Energy Regulatory Board (AERB)

NABL & AERB (Atomic Energy Regulatory Board) signed an agreement on February 16, 2021 for Accreditation of Diagnostic Radiology X-ray Equipment Quality Assurance Agencies by NABL in accordance with ISO/IEC 17025:2017 and thereafter approval/ recognition of Accredited Diagnostic Radiology X-Ray QA agencies by AERB for acceptance of test reports generated by these QA agencies in its e-LORA portal. The Accreditation by NABL in accordance with ISO/IEC 17025:2017 has also been mandated by AERB for testing facilities of manufacturers & suppliers of diagnostic radiology X-ray Equipment. The MoU is signed by Shri N Venkateswaran, CEO, NABL and Shri D K Shukla, Executive Director, AERB remotely on 16th February 2021. Shri Avijit Das, Director NABL & Shri Pankaj Johri, Joint Director, NABL, Dr P K Dashsharma, Head Radiological Safety Division & Dr Pankaj Tandon, AERB were present. On this occasion, Shri D K Shukla, ED, AERB emphasized the need of quality testing for quality assurance of diagnostic radiology X-Ray Equipment as ensuring consistent performance of the diagnostic X-ray equipment, during its useful life, plays an important role for the safety of the patients undergoing the procedures as well as the operators and the medical practitioners associated with their operation. Quality Assurance (QA) of the equipment therefore forms an important component of this widely used modality of diagnosis. AERB had therefore authorized the QA Agencies to facilitate the end-users for performing the QA of the diagnostic X-ray equipment. Appreciating NABL and its Accreditation process, ED, AERB opined that after Accreditation, QA agencies will be able to demonstrate systematic quality management practices and technical competence as expected by AERB. CEO, NABL thanked ED AERB for his continuous support to this Accreditation program of diagnostic radiology X ray equipment QA agencies as per ISO/IEC 17025:2017. He appreciated that the understanding has been strengthened in recent years between AERB & NABL regarding the requirement of Accreditation in Radiological Sector. He assured that Accreditation by NABL will facilitate the radiological sector to practice ISO compliant work practices and produce valid test results that are uniform & acceptable globally through ILAC-APAC, MRA of NABL. The MoU has paved way for Accreditation of Diagnostic Radiology X-ray equipment QA agencies & testing facilities of X ray manufacturers & suppliers to obtain Accreditation in accordance with ISO/IEC 17025:2017 and to get recognition from AERB.

March 2021

NABL Stakeholders Meeting

Testing Laboratories:
The Stakeholder Meet with testing laboratories was conducted on 22nd March 2021. Concerns of Testing laboratories w.r.t NABL Accreditation were discussed which include:

• Lab Forum
• Recent revision of NABL documents and transition time.

Calibration Laboratories:
The Stakeholder Meet with Calibration laboratories was conducted on 22nd March 2021.

Concerns of Calibration laboratories w.r.t NABL Accreditation were discussed which include:

• NABL 145 and implementation time for NABL 163.

Medical Testing Laboratories
The Stakeholder Meet with Medical Testing Laboratories was conducted on 23rd March 2021.

Concerns of Medical testing laboratories w.r.t NABL Accreditation were discussed which include:

• Lab Forum
• Declaration of SCFs.
• Recent revision of NABL documents and transition time.

PTPs / RMPs
The Stakeholder Meet with PTPs / RMPs was conducted on 23rd March 2021.

Concerns of PTPs / RMPs w.r.t NABL Accreditation were discussed which include:

• NABL 163
• Support for export of CRM globally
• Increased availability of PT programs

NABL M(EL)T Training for Nagaland State

• NABL conducted a training program on 26th March 2021 for aspirant laboratories of Nagaland state for NABL M(EL)T program.
National Accreditation Board for Hospitals and Healthcare Providers (NABH), since its inception in 2006, has played a pivotal role in effecting a remarkable & a significant positive change in the approach taken by the Healthcare providers towards the management & delivery of the healthcare services to the patients. It is one of the constituent boards of Quality Council of India (QCI) and is taking care of the functioning of Accreditation, certification & empanelment programmes for healthcare organizations. NABH has been established with the objective of enhancing health systems & promoting continuous quality improvement and patient safety. The board while being supported by all stakeholders, including Industry, Consumers and government, enjoys absolute functional autonomy in its operation. NABH standards focus on patient safety and quality of the delivery of services by the healthcare facilities in the changing healthcare environment. Through its various programs, it focuses on providing the best of healthcare across the masses.

NABH provides Accreditation/Certification to hospitals in an objective, non-discriminatory manner regardless of their ownership, size and degree of independence.

NABH, in its own turn, observes the standards ordained by International Society for Quality in Healthcare (ISQua). ISQua has Accredited NABH. The approval of ISQua authenticates that NABH standards are in consonance with the global benchmarks set by ISQua.
NABH Activities

NABH ACCREDITATION PROGRAMS
NABH offers Accreditation to Hospital, Blood Banks and Transfusion Services, Blood Storage Centre, Small Healthcare Organisations, Dental Care Facilities, AYUSH Hospitals, Medical Imaging Services (MIS), Primary Health Centres (PHCs), Allopathic Clinics, Oral Substitution Therapy (OST) Centres, Clinical Trial (Ethics Committees), Eye Care Organisations and Panchkarma Clinics.

NABH CERTIFICATION PROGRAMS
NABH offers certification under Medical Laboratory program, Nursing

NABH EMPANELMENT PROGRAMS
NABH conducts Assessor Training Courses, Programs on Implementation (POI), Education Interactive Workshops and Awareness Programs.

VIRTUAL ASSESSMENT CONDUCTED
NABH team has initiated Remote and Hybrid Assessments of HCOs by using virtual platforms. To start with, virtual assessments of HCOs were conducted on a pilot basis and the outcome was found to be favourable. It is expected that this will reduce the pendency in Accreditation or Certification cycle tremendously.

Total number of assessment 1573 conducted for Accreditation, Certification and Empanelment.

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 compliances with local regulatory requirements.

TRAINING & EDUCATION
NABH announces the enrichment of “NABH Quality Connect-Learning with NABH”, an initiative under which free monthly training classes, webinars and seminars will be conducted. The training topics will cover all aspects of Patient Safety, including Key Performance Indicators, Hospital Infection Control, Management of Medication, Document Control etc.

TRAINING PROGRAMS ON IMPLEMENTATION (POI) & EDUCATIONAL WORKSHOPS ON VIRTUAL PLATFORM:

- Programs on Implementation are conducted 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 POI is to provide guidance to Healthcare providers on Implementation of NABH standards. These programs are instrumental in developing Internal Capability within the hospitals to work towards Implementation of Quality and Patient Safety Standards, Achieving Accreditation and maintaining the same.

- 25 Educational Workshops were conducted on virtual mode wherein more than 1200 healthcare professionals participated.

Updates of NABH Activities (JAN-MARCH 2021)

ACHIEVEMENTS IN THE LAST THREE MONTHS:

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Quality Connect-Learning with NABH

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Webinar on NABH AYUSH Entry Level Certification (AELC) in Collaboration with Ministry of AYUSH and National Institute of Ayurveda on 24th February 2021

NABH Awareness Program on NABH AYUSH Entry Level Standards in Collaboration with Ministry of AYUSH and National Institute of Siddha on 18th March 2021

NABH promotes this low cost but highly effective campaign and encourages people’s participation to adopt COVID-19 appropriate behaviour.

Free Access to NABH Accreditation & Certification Standards Announced

NABH was established in year 2005 and has completed 15 years of its existence. As a mark of completion of 15 years and celebration of 74th Independence Day, on 15th of August 2020, NABH announced free access to all NABH standards, across all programs. The standards are available free of charge as downloadable documents in PDF format on the NABH website www.nabh.co. (The Printed copies of Standards and Guidebooks will continue to remain available for purchase at a nominal price).

All the NABH standards have been developed in consultation with various stakeholders in the Healthcare Industry and if implemented, will help the healthcare organizations in stepwise
progression to mature quality systems covering the entire spectrum of Patient Safety and Healthcare delivery.

The NABH Organization & the Hospital Accreditation Standards are internationally recognized and benchmarked. NABH is an Institutional as well as a Board member of the International Society for Quality in HealthCare (ISQua) and Asian Society for Quality in Health Care (ASQua).

Over the years, successive NABH standards have brought about not only paradigm shifts in the hospitals’ approach towards delivering the healthcare services to the patients but have equally sensitised the healthcare workers and patients towards their rights and responsibilities.

National Accreditation Board for Hospitals and Healthcare Providers (NABH) is a constituent board of Quality Council of India (QCI), set up to establish and operate accreditation programme for healthcare organizations.

NABH has been established with the objective of enhancing health system & promoting continuous quality improvement and 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.

NABH Accreditation Programs
- 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
- Panchkarma Clinics

NABH Certification Programs
- 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
5th Floor, IPPI Building, 4A, Ring Road, IP Estate, New Delhi-110002, India
Ph.: 011-42600600; Fax: 23323415; Email: helpdesk@nabh.co; Website: www.nabh.co
Formal Education Excellence Division (FEED Division)

The details of various activities and projects conducted by FEED-NABET:

VIRTUAL QUALITY CONCLAVE ON RECONFIGURATION OF SCHOOL EDUCATION IN THE LIGHT OF NEW EDUCATION POLICY (NEP) - 2020

4th Virtual Quality Conclave (VQC) was organized by NABET in collaboration with NBQP on “Reconfiguration of School Education in the light of National Education Policy 2020” on 29th January 2021.

The National Education Policy (NEP)-2020 has been notified by GoI recently and the policy has been designed to drive all stakeholders of education system in sync with principles of federal structure of country to prioritize their policies for collectively attaining targets set forth for School Education, Higher Education, Vocational & Professional Education as per specified deadline. This Quality Conclave was conceptualized to provide platform to key stakeholders of school education for collaboration and deliberation on core issues like Importance of Quality Improvement in School Education System, Creating Ecosystem of School Accreditation, Implementation of Competency-based Education (CBE), Reorientation of Teacher Education etc.

The program was designed for: Principals, Educationists, Management Committee Members, Education System Coordinators, Teachers, School Administrators, Curriculum Developers, Education Consultants and Education Department officials.

Inaugural Session

The Inaugural Address was given by the CEO NABET, Dr. Manish Jindal, wherein he welcomed the speakers and mentioned that the key to success of NEP 2020 is through time bound implementation of action plan.

Dr. R.P. Singh, Secretary General of QCI in his keynote address said, “NEP is a landmark policy. It must delve to reform the school education through “what to teach” “how to teach” and “whom to teach” for effective learning to happen. These three aspects will play a crucial role in making a plan for implementation.”

Speaking on the occasion, Session chair Prof. J.S. Rajput, Educationist & Former Director, NCERT said, “The vision of NEP can be realised by adapting the mantra ‘Adhyan, Mannan, Chintan and Upyog’ in classroom teaching”.

Chief Guest Shri Anil Swarup, Former Secretary, Government of India said “A good policy is important but equally important is its proper implementation.” He also elaborated on need of Accreditation Body as per new NEP 2020 and suggested that QCI can position themselves as a national
body for accreditation based on their expertise & experience.

Ms. Madhu Ahluwalia, Senior Advisor, QCI in her address stated, “NEP 2020 has brought a paradigm shift from Quantity to Quality in the School Education System”.

Technical Session 1

Ms. Madhu Ahluwalia, introduced session 1 i.e., “School Accreditation” to the participants stating that in NEP-2020, school accreditation has been accepted as an important vehicle for fostering quality culture in schools.

After setting the context, Ms. Madhu Ahluwalia welcomed session chair Prof. B.B. Dhar-Educationist, along with session speakers namely;

- Prof. Pranati Panda, Professor & Head, School Standards & Evaluation- NIEPA
- Ms. Kavita Anand, Founder Director- Adhyayan Foundation
- Ms. Shalini Jaiswal, Director- Academics, Maple Bear South Asia
- Dr. Sheela Raghavan, Principal (Former), Trainer & Assessor.

Major takeaways of the session are as follows:

- 80% schools are at development stage and sudden accreditation process would not bring the desired results
- Facilitative approach is required while conducting process of accreditation.
- Developmental framework is required through self-assessment mechanism which will eventually lead them to the journey of accreditation.
- First, school must be given awareness and later, make them accountable.
- Single source of data is essential for school functioning.

Technical Session 2

Ms. Madhu Ahluwalia, introduced session 2 i.e., “Competency Based Education” to the participants stating that NEP-2020 has advocated the adopting of Competency Based Education (CBE) for improving health of school education system. NEP-2020 has expressed concern towards alarming attainment level of school students over grade specific learning outcomes as reported in periodical NAS (National Achievement Survey) conducted by NCERT and ASER (Annual Status of Education Research) released periodically by PRATHAM. For qualitative improvement in learning outcome of students, NEP 2020 has proposed several measures for reconfiguration of school system for Competency-Based Education, reorientation of assessment system for enabling and assessing capability of students for applying acquired knowledge and skills in real life context, giving importance to pre-school education, focused approach for fundamental literacy and numeracy etc.

After setting the context, Ms. Madhu Ahluwalia welcomed session chair Mr. Aditya Natraj along with session speakers namely;

- Prof. K Ramachandran, Senior Advisor, Unit for International Cooperation, National Institute of Educational Planning and Administration (NIEPA)
- Ms. Neha Sharma, Principal, GD Goenka Ghaziabad & Ex Deputy Secretary, CBSE
- Dr. Rishi Goel, Director, SCERT, Haryana and Mr. U.N. Khaware, Senior Consultant, Navodaya Vidyalaya Samiti & Former Additional Commissioner, KVS

Major takeaways of the session are as follows:

- Major challenge is mindset of teachers & parents. The mindset is limiting constraint by the old system
- Learner have to take charge to make their learning long lasting which is known as Experiential learning
- Flexibility & support to be provided by teachers to learner
- Trainer wheel of the cycle needs to be removed so that limitation of learners can be removed
- Examination is the key limitation. If the exam is only going to measure your ability to imitate the textbook followed by passing of these exams, it will surely be going to limit the learning of child
- A package of interventions is required to train teachers
- Measurement tools to check performance of teachers through self-assessment must be promoted
- Measurement of any initiative is important for management, analysis and improvement
- Emphasis needs to be laid on foundational competence
- Practical experience for teacher educators plays an important role in preparing them for real classrooms

Digital Awareness Workshops

Digital Awareness workshops on Accreditation Standard for Quality School Governance.

FEED-NABET conducted Digital Awareness workshops on Accreditation Standard for Quality School Governance to spread awareness about the Standard.

The program was designed for: School Stakeholders

Speakers:

- Ms. Madhu Ahluwalia (Sr. Advisor NABET)
- Dr. Sheela Ragavan

Digital workshop on Preparing School for Competency-based Education

FEED-NABET conducted Digital workshops on components of Accreditation Standard for Quality School Governance by NABET. Various accredited and non-accredited schools participated in the workshops from India & Abroad.

The program was designed for: Management Committee Members, Education System Coordinators, Teachers / School Administrators (Core team members), Principals, Educationists / Curriculum Developers and Education Consultants who wish to implement Accreditation Standard for Quality School Governance in the schools.

Following were the takeaways of the programme:

- Understanding best practices: Benchmarking and innovation
- Facilitation to prepare a Road map for accreditation

Speakers:

- Ms. Madhu Ahluwalia (Sr. Advisor NABET)
- Dr. Sheela Ragavan
**January to March 2021, following activities have been undertaken in the scheme.**

### Status of Accreditation

<table>
<thead>
<tr>
<th>Accreditation Scheme for EIA Consultant Org.</th>
<th>New Org. Accredited</th>
<th>IA SA RA Assessments Conducted</th>
<th>Supplementary and Scope Exp. Assessment</th>
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<td>Accreditation Scheme for EIA Consultant Org.</td>
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### Accreditation Scheme for Ground Water Consultant Organization

Accreditation Scheme for Ground Water Consultant Organization was launched in March 2020 only. The QCI-NABET shall grant accreditation to Ground Water Consultant Organization for the preparation of Impact Assessment and Hydrogeological Reports for any part of India. Scheme has received very positive encouraging response from the market keeping in view the situation being aroused due to ongoing COVID-19 situation. For the period of January to March 2021, following activities have been undertaken in the scheme:

- ### Accreditation Scheme for Groundwater Consultants Organization

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### Seminars / Workshops

**Environment Division**

Currently Environment Division is handling following Schemes:

#### Accreditation Scheme for EIA Consultant Organization

**Environmental Impact Assessment (EIA)** is a process of evaluating the likely environmental impacts of a proposed project or development, taking into account inter-related socio-economic, cultural and human-health impacts, both beneficial and adverse. Scheme was started by NABET as a voluntary scheme in the year 2007. Ministry of Environment, Forest and Climate Change (MoEFCC) made the scheme mandatory through gazette notification in the year 2016. It is one of the flagship schemes of Environment Division and helping NABET to play its role in arena of Environment Division. As on date total NABET Accredited EIA Consultant Organization stand at 178 numbers, for the period of January to March 2021, following activities have been undertaken in the scheme.

### Accreditation Scheme for Ground Water Consultant Organization

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### Seminars / Workshops

**Environment Division**

Compliance and Monitoring of Post EC condition given in the Environmental Clearance (EC) condition is major challenge; therefore, robust mechanism for 3rd party compliance monitoring (certified environmental auditors) is needed in the country. Under the direction of MoECC, a consortium of organization (National Productivity Council, QCI, NEERL GIZ2) has been entrusted to develop a Scheme for 3rd Party Post EC condition compliance monitoring by agency / organization. MoECC envisaged the following functions for QCI i.e. to develop criteria/guidelines for empanelment of firms having CEAs on their payroll; to maintain database of empaneled firms and provide the information to the Ministry; to propose validity of empanelment of firms:

- **Meeting(s) held with MoECC on Post EC condition compliance monitoring & role of Industry Associations (IAs) in post EC compliance monitoring mechanism on 29th Dec 2020; IAs no. >09 - participants 35**
- **16th February 2021 - IAs no. >13 / participants no. - 50**
- **Various meetings (virtual) held with MoECC on Post EC condition compliance monitoring on 22 Jan 2021, 28 Jan 2021, 02 Feb 2021, 05 Feb 2021 etc.**

### Accreditation Scheme for APA-MPPA Consultant Organization

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SKILL TRAINING AND SERVICE DIVISION

- NABET has been entrusted with the task of carrying out Quality audit of training programs being conducted by ISTM for 10% of trainee population underwent training during the last 2 years i.e. 2018 -19 & 2019-20 under Cadre Training Plan of ISTM
- NABET – QCI has been empanelled by Sports Authority of India (SAI) for execution of work related to Geo – tagging of various sports facilities, field assessment, certification and similar other works for SAI on PAN India basis under FIT India Mission Project.

ACCREDITATION STANDARD FOR QUALITY SCHOOL GOVERNANCE

National Accreditation Board for Education & Training (NABET) is one of the statutory board of Quality Council of India mandated for accreditation in the field of Education, Training & Services. Four distinct verticals have been formulated to provide focused strategic direction to the activities of the Board. One of the verticals of NABET, Formal Education Excellence Division (FEED), fosters quality in school education through spreading awareness, conducting assessments and accreditation. FEED - NABET accredits schools on Accreditation Standard for Quality School Governance (ASQG) in the country with a view to provide framework for the effective management & delivery of holistic education program aimed at overall development of school. The standard has three interwoven domains.

BENEFITS OF ACCREDITATION

OVERALL
- Standardisation of schools practices in alignment with National & International Benchmarks
- Better collaboration between stakeholders leading to improved effectiveness
- A sound basis for school improvement, strategic planning, restructuring, and staff development.
- A way to manage change through regular assessment, planning, implementation, and reassessment

STUDENTS & PARENTS
- Improved quality of education
- Holistic education helping students for personality development
- Organized and transparent school system for better day to day experience for students and parents
- Feedback system to get student and parent’s issues addressed

SCHOOLS
- Capability development for delivering quality education
- Quality improvement in existing school system/ process
- System/ process driven activities
- International standards applied for local and national school needs

MANAGEMENT
- Benchmarking school against best in education field
- Establishing centre of excellence and continuous improvement
- Regular feedback on performance through internal and external assessments

FEED-NABET has accredited and assessed 5,500+ schools till now in India and abroad.
National Accreditation Board for Certification Bodies

Strives to be equally accessible to all the certification body applicants who wish to be accredited to the criteria of the Board within its scope and capability, within the geographical limitations decided by the Board. Upgrades criteria of accreditation in line with international improvements and fosters improvement in the quality of certification process with the support of certification bodies.

NABCB Launches New Accreditation Scheme for Asset Management Systems (AMS) as per ISO 55001 under ISO/IEC 17021-1

NABCB in its pursuit to broaden the accreditation programme for industry launched a new accreditation scheme for Asset Management Systems (AMS) on 26th February 2021. The scheme is based on ISO 55001:2014 Asset management — Management systems — Requirements Standard.

The purpose of scheme is to establish a structured, best practice approach to manage the lifecycle of assets. The implementation of AMS will facilitate the organizations to manage their assets and the risks associated with the assets. This will improve the operational activities and will help achieve the organizational performance objectives through continual improvement and value creation.


NABCB Hosted 7th Meeting of SAARC Expert Group on Accreditation (SEGA)

The two constituent boards of QCI, NABCB and NABL jointly hosted the 7th Meeting of SAARC Expert Group on Accreditation (SEGA) during 19-20 January 2021. The event was attended by Accreditation Bodies/National Accreditation Focal Points (NAFPs) for accreditation of SAARC member states. Seven SAARC member states except Maldives participated in the event.

The key dignitaries of the session included Mr. Chanchal Chand Sarkar, Director- Economic, Trade & Finance - SAARC Secretariat; Mr. Jayantha Sirikumara, SARSO Secretariat -Dhaka; Mr. Uwe Miesner, Head -International Cooperation Group, Asia Section & Mr. Ischi Hanspeter from PTB – Germany; Ms. Jyoti Yadav, Deputy Secretary from Dept. of Commerce-India and Dr. R.P. Singh, Secretary General –Quality Council of India. The meeting had participation of Mr. N. Venkateswaran, CEO-NABL and Mr. Rajesh Maheshwari, CEO-NABCB along with 32 other participants.

The vital objective of this meeting was the role of SEGA and its way forward. Based on the far-reaching discussion made on this topic from all the SEGA members including SAARC, SARSO secretariat and SEGA members (esp. NABCB/NABL India, PNAC-Pakistan, SLAB-Srilanka, NBSM-Nepal) recommended that SEGA be established as a body for cooperation.
in the area of accreditation (by the name of SEGA or any other name) under the SAARC Secretariat. Further, it was proposed to constitute a committee from SEGA members to explore areas where Proficiency Testing (PT) is required and to help organize/facilitate such PT programs for the benefit of SEGA members and/or CABs in the SAARC member states.

NABCB delivered talks on two topics “Experience of remote assessment amidst COVID-19 pandemic and “Government/Regulations relying on Accreditation”.

The deliberations in the meeting also concluded that SAARC region as a whole to work on important area of cooperation in quality infrastructure i.e. standards, conformity assessment, metrology & Accreditation to facilitate and improve trade to enhance mutual acceptance of accredited conformity assessment results amongst SAARC region.

Further, based on the recommendation from this meeting, a virtual session was organized by PNAC-Pakistan on ‘Experience sharing of Remote Assessment’ for SEGA members through PTB (by DAkkS Germany) on 16th March 2021. NABCB-India, PNAC-Pakistan, SLAB-Sri Lanka and DAkkS-Germany presented their experiences related to conducting remote assessment in their economies.

NABCB ORGANISED UK-INDIA WORKSHOP ON ‘BEST PRACTICES IN QUALITY INFRASTRUCTURE (QI)’


The workshop aimed to facilitate knowledge sharing among the Indian Regulatory Institutions in the area of Technical Regulations, Standards, Accreditation and Conformity Assessment and UK practices and procedures.

The key dignitaries in the session included Ms. Hannah Mayer, Head of Economics and Finance, UK Trade Economics Prosperity, British High Commission, New Delhi; Ms. Iyoti Yadav, Deputy Secretary, Dept. of Commerce, India; Dr. R.P. Singh, Secretary General, Quality Council of India and Mr. Rajesh Maheshwari, CEO, NABCB. This workshop was led by UK based expert of BSI Mr. Graham Talbot. The sessions included discussion on topics like Policy dimension, Regulatory Delivery, Market Surveillance in the UK, Regulatory Impact Assessment, Brexit and Overview of QI in India.

The final day saw an enriched Panel Discussion by participants involving regulatory bodies, government organisation like Food Safety and Standards Authority of India (FSSAI), Bureau of Energy Efficiency (BEE), Central Drugs Standard Control Organisation (CDSCO), Bureau of Indian Standards (BIS) and National Institute of Solar Energy (NISE).

The Virtual Workshop was attended by 100+ participants from Government Ministries/Departments, Regulators, and Industry Bodies/Associations of Conformity Assessment Bodies.

NABCB ALONG WITH NBQP ORGANISED VIRTUAL QUALITY CONCLAVE ON AUTOMOBILE SECTOR: ENHANCING QUALITY

Two constituent boards of QCI, NABCB and NBQP jointly organized the 5th Virtual Quality Conclave (VQC) with the theme “Automobile Sector: Enhancing Quality” on 25th Feb 2021. The primary objective of the Conclave was to provide a platform to key stakeholders of the industry to deliberate on enhancing quality, sustainable mobility technologies, role of accreditation & importance of competent workforce in automobile industry and provide a way forward. The inaugural session had Mr Deep Kapuria, Chairman NABCB and a prominent figure in automobile sector as Chief Guest.

He stressed that the digitization is the need of the hour including the supply chain network. He informed about the Five Mega Trends responsible for major transformation of the automobile sector. Mr. Kapuria also recommend few takeaways i.e., to setup a task force to carefully look into working of supply chain of OEMs wherein QCI/NABCB can intervene to improve it. The special address was delivered by Dr R P Singh, SG QCI. Speaking on the occasion, Dr. Singh stated five-point vision from Quality Council of India for the Industry to be considered in future. He stated that every OEM & Tier-I/II vendor to be digitally connected; rope in Occupational Safety to improve the Road Safety, recommended to improve product design & design capabilities and suggested QMS implementation at MSME level.

The Inaugural session was followed by three technical sessions. The first session focused on Technology for Sustainable Mobility Future and was Chaired by Mr. Deep Kapuria, Chairman NABCB. The Second Technical Session was chaired by Mr. Akshat Kundra, Spectro & Regional Assurance (South Asia & Middle East), Eurofins and deliberations were made on enhancing quality in automobile sector. The last session was a panel discussion focused on competency of the skilled workforce. The session was chaired by Mr. Reji Mathai, Director, Automotive Research Association of India (ARAI).

The way forward recommended by the stakeholders were to rely on accredited independent inspection bodies (as per ISO/IEC 17020) for automobile suppliers during the manufacturing stage, utilizing accredited certification bodies for implementation of different standards like ISO 9001, ISO 14001 for OEMs. It was also endorsed that Training and Certification requirements to be developed by NABCB along with other stakeholders for the continuous competence development of the human resource of the automobile sector. The Conclave received a positive response wherein in approx. 360+ participants attended the session.
National Board for Quality Promotion

Strives to promote application of quality management standards and statistical quality tools with an objective of enabling industry, to improve their competitiveness, with specific focus on SME sectors. Focuses on empowering the consumers to demand quality and consequently creating a back-pressure on suppliers to ensure quality of their products and services.

Online Training Program

POKA-YOKE: IMPROVING PROCESSES THROUGH ERROR PREVENTION

Objective
Pokayoke is a Japanese term that means "Mistake-Proofing" or "Inadvertent Error Prevention". Poka-yoke is a mechanism in any process that helps an equipment operator avoid (yokeru) mistakes (poka). Its purpose is to eliminate product defects by preventing, correcting, or drawing attention to human errors as they occur. The concept was formalized, and the term adopted, by Shigeo Shingo as part of the Toyota Production System.

Objective & Key Takeaways
• Why do mistakes happen
• Background and Origin of Poka-yoke
• Classifications of Poka-yoke
• Various examples
• Importance and benefits
• Hierarchy of Poka-yoke
• Rules and tips for practical implementation
• Validation and record of Poka-yoke
• Poka-yoke and machine interlocking

About the Topic
Program gives an overview and insight on FMEA methodology as regards of new standard. This can be used by the companies to upgrade existing FMEAs and develop new FMEAs. The new FMEA gives more strength to prevention of problems.

Key Takeaways
• Understand difference between traditional & new version of FMEA methodology
• Practical guidance for immediate implementation

FMEA VI: THE NEW FMEA AS PER AIAG-VDA GUIDELINES BATCH 1

Objective
By the end of the program, the participants will have an insight of changes proposed in AIAG-VDA modified version of FMEA and will be able to practice it.

About the Topic
Program gives an overview and insight on FMEA methodology as regards of new standard. This can be used by the companies to upgrade existing FMEAs and develop new FMEAs. The new FMEA gives more strength to prevention of problems.
FMEA V1: THE NEW FMEA AS PER AIAG- VDA GUIDELINES

BATCH 2

Objective
By the end of the program, the participants will have an insight of changes proposed in AIAG- VDA modified version of FMEA and will be able to practice it.

About the Topic
Program gives an overview and insight on FMEA methodology as regards new standard. This can be used by the companies to upgrade existing FMEAs and develop new FMEAs. The new FMEA gives more strength to prevention of problems.

Key Takeaways
- Understand difference between traditional & new version of FMEA methodology
- Practical guidance for immediate implementation

FMEA V1: THE NEW FMEA AS PER AIAG- VDA GUIDELINES

BATCH 3

Objective
By the end of the program, the participants will have an insight of changes proposed in AIAG- VDA modified version of FMEA and will be able to practice it.

About the Topic
Program gives an overview and insight on FMEA methodology as regards new standard. The companies to upgrade existing FMEAs and develop new FMEAs can use this. The new FMEA gives more strength to prevention of problems.

Key Takeaways
- Understand difference between traditional & new version of FMEA methodology
- Practical guidance for immediate implementation

HACCP-IMPORTANCE OF REVIEWING RISK ASSESSMENT DURING PANDEMIC

Objective
To understand the significance of HACCP and risk assessment in light of the pandemic.

About the Topic
HACCP requires identification of hazards, assessing the risk & establishing the control measures. Any changes in the process, people, ingredient or any pandemic outbreak requires review of the risk assessment & include the new risks evolved due to outbreaks & include the control measures. These new normal processes/controls for prevention of spread of pandemic need to be incorporated in the pre-requisite programs. The risk associated with the practices, people & materials needs to be assessed & incorporated to integrate the control measures.

Key Takeaways
- What are the aspects of risk assessment?
- What is the impact of pandemic on risk assessment methods, Incorporation of new normal processes as control measures
- Review & update the food safety risk assessment & comply to legal requirements

ROBOTICS FOR INDUSTRIES AND MSMEs

Objective
Objective of this session is to share importance of Robotics in our businesses and low-cost Robotics Solutions and Innovations in various forms.

About the Topic
Industries and MSMEs have crucial requirements of competitive cost structure, customer service, product quality, and flexibility. In order to meet these requirements, businesses need to have to depict more efficiency in business. A Robotics solution could help manufacturers,
suppliers or service providers of MSMEs to increase productivity and achieve desired results from the automation and reliable processes. Technology advancement has made Robotics (including Industrial Robots, SCARA and CoBots) affordable and user friendly.

Objective & Key Takeaways

- Understanding about Robotics
- Understanding about Industrial Robots, CoBots & SCARA Robots
- Challenges and Opportunities with Robotics
- How Industries and MSMEs are getting benefited with Robotics
- Selection of Right Robot for your application and budget
- Improving Quality and Productivity with Robots
- Cost Reduction with Robots and for Robots
- Identification of Wastes and Implementing Kaizens
- Best Practices in Robots Programming and Maintenance

Key Takeaways:

- Learn & Understand the Quality 4.0 Tools like AI, Big Data, Analytics, Virtual Reality, Mixed Reality, Emerging Technologies like Sensors, Actuators, Cabot’s, 3DP etc.
- Quality 4.0 Resources
- Sharing Best Practices and Case Studies.
- Understand the concept Quality 4.0

About the Topic

The purpose of this training program is to understand the genesis of the Pandemics, Global Learnings, the Threat Scenarios, the Phased Response Strategies, Business Continuity Plans, Sustainable Development Principles, and Business Excellence Models and how organizations could proactively ensure organizational resilience.

Objective & Key Takeaways

- Risk Assessment with a specific reference in the times of Corona
- Understanding the genesis of the pandemic and the stages of COVID 19 transmission.
- Reaching beyond Leading vs. Lagging Health Indicators - Transformation from Compliance to Preventive: Reaching beyond Compliance -> Lagging -> Leading -> Predictive -> Preventive QHSSE culture
- Supporting workplace procedure development and Reviews
- Health and Well-being Guidance (including Ergonomic Assessments and Mental Health factors).

QUALITY 4.0: FUTURE OF QUALITY AND PERFORMANCE EXCELLENCE (QUALITY IN THE AGE OF INDUSTRY 4.0)"

Objective

To bring awareness amongst participants, brainstorm, identify and plan to implement proven strategies and best practices in the area of Quality 4.0. This workshop is focussing on Quality 4.0 Principles, Quality 4.0 Tools and Best Practices.

About the Topic

Covid-19 and Industry 4.0 has given us a unique opportunity to look into the future of Quality of our product, process and services. These future needs can be met with relevant Quality 4.0 Strategies and tools (within the context of Industry 4.0). These Tools are playing an unprecedented and vital role in reshaping the future of Quality and Excellence. These tools are also helpful in digitisation and able to meet challenges emerged with disruptive and exponential technologies.

WORKSHOP ON HACCP - VALIDATION AND VERIFICATION

About the Topic

In food industries, HACCP team members have their own difficulty on making the specific documents on CCP Validation and Verification in their HACCP plan. This workshop helps attain clarity on CCP validation and verification process & its effective implementation and helps improve the food safety of products.

Objective & Key Takeaways

- To create awareness on HACCP Plan and implementation for Swachta Pakhwa
- To create awareness about HACCP in Food Safety
- To create awareness about HACCP Implementation and its effectiveness
- Take away


About the Topic

ISO has developed risk management standards, which will help organizations implement risk management processes for mitigating risks while advancing their goals and opportunities in the face of business threats. Organizations are now required to implement risk management processes to be compliant to regulations and able to become competitive by using risk management tools.

This training will explore the latest ISO 31000 general risk management standard, the process model it recommends and how organizations may use the standard and its companion risk assessment tools document ISO 31010:2019. It will review the terms, concepts and requirements so that we can better understand the proper implementation of risk management processes.

DRIVING SUSTAINABLE BUSINESS EXCELLENCE ORGANIZATIONAL RESILIENCE THROUGH PANDEMIC RESPONSE PREPAREDNESS
Objective

- The principles, framework and process model of ISO 31000:2018
- The requirements of ISO 31000:2018
- Monitoring risk and continuous process improvement
- Application of ISO 31000:2018
- The risk management tools recommended in ISO 31010:2019
- Use of risk assessment tools in ISO 31000 process
- Quiz and test of understanding

Virtual Quality Conclave

4th Virtual Quality Conclave

RECONFIGURATION OF SCHOOL EDUCATION IN THE LIGHT OF NATIONAL EDUCATION POLICY (NEP) - 2020

Partner: National Accreditation Board for Education & Training (NABET)

Supported by: GIZ, South Delhi Municipal Corporation (SDMC) and Horticulture Department

Description: Quality Council of India (QCI) organised the Virtual Quality Conclave (VQC) on “Reconfiguration of School Education in the Light of National Education Policy (NEP) - 2020” on 29 January 2021. The primary objective of the conclave was to bring awareness and share insights on the Developed broad template for guiding concerned Government(s) to create Ecosystem of School Accreditation, define Tentative Quality Framework for school Accreditation, evolve action plan to implement Competency-Based Education in schools and identify core areas to reconfigure teacher preparation programmes for Competency-Based Education.

5th Virtual Quality Conclave

AUTOMOBILE SECTOR: ENHANCING QUALITY

Partner: NABCB

Supported by: South Delhi Municipal Corporation (SDMC) and Horticulture Department

Description: Quality Council of India (QCI) organised 5th Virtual Quality Conclave (VQC) on Automobile Sector: A way to Quality on 25 February 2021. The primary objective of the conclave was to discuss about how Automobile Sector in India plays a crucial role in achieving the vision of self-reliant India by understanding the current operations of the ecosystem, and pool in the necessary resources available to deliver the quality products in the market. The Conclave was conceptualized to discuss to provide platform to key stakeholders of Automobile Industry to deliberate on the importance of Quality, Sustainable Mobility and Role of Accreditation in the Automobile Sector and desirability of skilled labour in the sector.

6th Virtual Quality Conclave

PURSUIT OF EXCELLENCE IN HEALTHCARE

Partner: National Accreditation Board for Hospitals and Healthcare Providers (NABH)

Supported by: South Delhi Municipal Corporation (SDMC) and Horticulture Department

Description: NABH and NBQP, under the aegis of Quality Council of India (QCI), jointly organised the 6th Virtual Quality Conclave (VQC) with the theme “Pursuit of Excellence in Healthcare” on 23 March 2021. The tireless pursuit of excellence demonstrated by the health professionals from all disciplines, across the world, never ceases to amaze us. This determination to ensure that the quality of healthcare is of the highest possible standard, despite the challenges and exigencies that plague its delivery, is truly a testimony to the strength and professionalism of those involved. This VQC drew together a range of perspectives and approaches in addressing the challenge of continuous quality improvement through the analysis and application of best practices in healthcare industry.
Our Social Media Presence

@QualityCouncilIndia
@QualityCouncil
@qualitycouncilofindia
Quality Council of India (QCI)

The application will enable U.S. field functions to conduct the economic profiling activity even without any internet connection as well. QCI, the implementing partner for this program, partnered with Mitin&Co to develop this mobile application.

Water is the Hub of Life. Water is life matter and micro-nutrients. There is no life without water. #WorldWaterDay #WorldWaterDay2021
Why India?

India has suddenly become a hotspot for Foreign Direct Investment and has led to some unrealistic expectation. According to World Investment Report, India has jumped from 12th spot in 2018 to 9th spot in 2019 on the list of Global top 20 recipients of FDI. FDI is one of the important factors in the economic development of the country. Apart from supplementing domestic investment, it brings with it internationally available technologies, managerial skills and practices, and new employment opportunities.

As per the quarterly Fact Sheet on FDI released on November 27, 2020 by the Department for Promotion of Industry and Internal Trade (DPIIT), Government of India, FDI into India totalled US$ 30 billion during the first half (April to September) of the current fiscal year (2020-21) as compared to US$ 26 billion for the same period last year (2019-20), recording an increase of 15%.

Several good reasons for investing in India are:

- **LARGE AND EXPANDING SIZE OF MARKET**

  1. **Economy**
     - India is the fifth largest economy in the world (after US, China, Japan and Germany) and remain one of the fastest growing economies in the world
     - The IMF recently projected an impressive 11.5 per cent growth rate for India in 2021, making the country the only major economy of the world to register a double-digit growth this year amidst the Coronavirus pandemic (Source: IMF)
     - India is going to become the third largest consumer economy by 2025
  2. **Population**
     - Largest Youth Population with 3rd largest group of scientists and technicians in the world (Source: United nation population fund)
     - The country will also have the world's largest working-age population of 57.8 Cr (578 million) by 2100

- **Production cost and cheap labour factor** Since production cost remains the same, commodity investment is noticing marginal rise in India, which makes investing in India quite promising

- **ACCESSIBILITY**
  - Our country is strategically located with easy access to market of Bangladesh, Nepal, Sri Lanka, Pakistan and Myanmar. Connectivity to Central Asia and Europe via the International North-South Transport Corridor (INSTC)

- **EASE OF DOING BUSINESS**
  - India climbed 14 rungs in the World Bank’s Ease of Doing Business 2020 survey to stand at 63, among 190 countries, making it one of the world’s top 10 most improved countries for the third consecutive time
  - A jump of 79 spots over the period from 2015 to 2020 (41st in 2015 to 130 in 2017, to 100 in 2018, to 77 in 2019 and to 63 in 2020). Resolutely, global investors are viewing India as the economic powerhouse of the future

**Investments planned across the key government initiatives in various sectors:**
- Highways (Bharatmala & NHDP) - $ 106.5 bn
- Railways - $ 151.7 bn
- Ports - $ 61.5 bn (Port development) + $ 123 bn (Port-led Industrialisation)
- Airports - $ 58 bn
- Industrial Corridors - $ 100 bn (DMIC - phase I)
- Smart Cities - $ 14.6 bn (Source: Government of India)

**INDIA AS AN ALTERNATIVE TO CHINA**

Post-Covid, the world is hostile towards China, the epicentre of coronavirus. The pandemic has led several companies to de-couple their supply chains from China to mitigate risks arising out of natural and geopolitical disturbances.

In the recent past, many companies have withdrawn from China and relocated themselves in Taiwan, Thailand, Vietnam, and India. For example, the German shoe brand, Von Wellx, recently (October 2020) shifted its manufacturing units from China to Agra in Uttar Pradesh (UP)
Investment in Metals and Mining Industry

Despite being the 2nd largest producer of coal and the 4th largest producer of Iron Ore, Metal and Mining Industry contribute only ~1.7% of GDP. There is a need for economy entrepreneurship technology to extract the ores. Indian Metal and Mining Industry is mostly Underexplored, Underexploited, and Underperforming.

1. Demand Growth:
   - Rise in infrastructure development
   - Power and cement industries also aiding growth in the metals and mining sector.
   - National mineral policy has been launched for transparency, better regulation
   - Provision of longer mining leases (20-30 years) and greater sector and exploration of metal and non-metal ores

2. Opportunities:
   - Housing for all by 2022 scheme - 20 Mn affordable houses to be built by March 31, 2022
   - The Ministry of Steel aims to increase the steel production capacity to 300 MT by 2030-31 from 134.6 MT in 2017-18
   - Expanding railway networks, developing shipbuilding industry
   - SBI planning to introduce a policy to lend loan to coal miners before the landmark auction
   - Government plans to set aside 2.68 Mn hectares of land across 8 states, which will offer readymade land parcels for steel plants, looking to invest or boost capacities in India

3. Policy Support
   - 100% FDI allowed in mining
   - National mineral policy has been launched for transparency, better regulation
   - Provision of longer mining leases (20-30 years) and greater transparency in mine allocation
   - India benefits from its strategic location that enables convenient export to developed as well as fast-developing Asian Markets

4. Competitive Advantage:
   - 100% FDI allowed in mining
   - National mineral policy has been launched for transparency, better regulation
   - Provision of longer mining leases (20-30 years) and greater transparency in mine allocation
   - India benefits from its strategic location that enables convenient export to developed as well as fast-developing Asian Markets

Coal is the most important primary fossil fuel playing a pivotal role in the generation of energy worldwide, be it electricity, heat energy or being used for local household purpose. But the majority of the coal produced is used for power generation and coal-fired power plants which currently produce 41% of global electricity, helping the developing economies to rank highly among the world’s major economies.

Talking about India, with a consistent increase in the amount of production of coal over the years; we are the second largest coal producer and consumer in the world. Though coal being a non-renewable resource, has aided in massive energy production and the recent addition of commercial mining has led to the increased participation of new entrants into the mining resulting in increased coal production, decrease in the import of coal, thereby increased employment opportunities and a consistent economic growth.

There are many great contributions of coal; however, there is one major backdrop that during the combustion of coal for energy, a huge amount of carbon dioxide, carbon monoxide, sulfur dioxide etc are released which contributes to environmental hazards like pollution and global warming. But, given the measures undertaken by the government to reduce the impacts of coal on the environment, it’s certain that in every aspect, coal is a key to the sustainable development of our nation.

Coal India Limited (CIL) – the largest coal producing company in the world, responsible for over 80% of coal production in India – and its subsidiaries have provided numerous job opportunities, home and water facilities to many. The government being a majority stakeholder in CIL, a significant part of its tax revenue is also contributed by coal which is further deployed in the growth of our nation.

Each year, billions of tons of coal is traded in regional and international market to be used in the generation of electricity, steel and cement manufacturing, and many other purposes. Coal being highly heterogeneous in nature contains various organic matter and inorganic (mineral) matter. The price of coal is decided based upon its quality, which itself specifies the importance of quality over many of its other properties.

Over the years of its service, CIL noticed the increase in imports of coal by consumers for obtaining a specific grade, i.e., specifically required quality India’s reliability on coal for power generation, transportation, trade, steel & cement manufacturing etc. despite of its growing inclination towards renewable energy predicts that even in 2030, coal will be the source for generating half of our nation’s electricity.

Therefore, the coal dichotomy has been clear: coal is necessary to fuel economic growth and the increasing need for energy that comes with that growth.

Coal India Limited (CIL) – the largest coal producing company in the world, responsible for over 80% of coal production in India – and its subsidiaries have provided numerous job opportunities, home and water facilities to many. The government being a majority stakeholder in CIL, a significant part of its tax revenue is also contributed by coal which is further deployed in the growth of our nation.
of coal; despite the consistent increase in production and the rising disagreement between its stakeholders and consumers regarding the same. It was striving to bring in transparency & accountability in the entire production and sale process for all and as a solution to this, “Third Party Sampling: testing & analysis of Coal” was introduced in 2016. The process of Third party sampling (TPS) provides a transparent mechanism to scrutinize the quality of coal dispatched to customers and to curb any disputes arising over the same. TPS was a major reason for QCI setting its foot into the coal sampling operations. Quality Council of India (QCI) stepped into Third Party Sampling on 9th August 2017, with these objectives;

• Transparency in coal testing process
• Process excellence and delivery of accurate results
• Prompt & efficient dissemination of results
• Empowerment with technology
• Cost-effective

with an aim to provide a holistic quality determination and monitoring system for coal supplies to consumers. Initially, QCI started with facilitating independent sampling services to a part of the Power and Non-Power consumers. By the end of previous year, we attained the access to provide TPS to all the Power and Non-Power consumers present in the coal ecosystem.

During the last three years in this field with a skilled manpower of more than 1200, we have achieved significant milestones which includes; providing TPS service across all the 7 subsidiaries of Coal India Limited along with Northern Coalfields Limited, having signed contracts of volume worth more than 150 MM of coal with more than 200 Power & Non-power consumers for conducting TPS.

The major contributor to the success we have achieved up till now are; our efficient manpower who are deployed throughout the nation contributing their best towards the uninterrupted flow of the process, Vendors accredited by NABCB helping us in closely monitoring the entire process including sample collection and preparation to omit out any chances of hindrance in the process and more than 150 NABL accredited coal testing laboratories that carry out the efficient testing & analysis of coal.

Over the course of time, we have given our optimum efforts to provide timely, accurate and efficient assessment on the quality of coal. The same can be highlighted by the following: 94% of the analysis results being declared within 15 days of the sampling, 84% of analysis results accepted by the consumers without any dispute and in case of the disputed/referee results 85% of the final analysis being aligned with the results provided by us after the sampling process.

Understanding the importance in determining the quality of coal QCI has been performing the Third-Party Sampling with utmost transparency, by following the standard protocols & procedures, providing the accurate testing and analysis of quality to both the seller and the purchaser in terms of Coal dispatch, helping them with obtaining their expected grade of coal which they intend to use for specific purpose such as Steel manufacturing, Cement manufacturing, Power generation etc.

Coal might not be our forever source as a resource, but it’s contribution to the development of livelihoods of people, economic growth etc. is undeniable and QCI strive hard towards aiding this development by improving the underlying processes in ensuring the quality in coal ecosystem and to contribute in the growth of our nation by delivering accurate results to these prominent industries who are the major bearers of this growth.

Every year lives of approximately 1.35 million people are cut short as a result of road traffic crashes. Between 20 and 50 million more people suffer non-fatal injuries, with many incurring a disability as a result of their injury. Road traffic injuries are the leading cause of death for children and young adults aged 5-29 years. Road traffic crashes cost most countries 3% of their gross domestic product. More than half of all road traffic deaths are among vulnerable road users: pedestrians, cyclists, and motorists.

These road traffic injuries can be prevented. Governments need to take action to address road safety in a holistic manner. This requires involvement from multiple sectors such as transport, police, health, education, and actions that address the safety of roads, vehicles, and road users.

Organizations of all sizes and types, regardless to whether they are involved directly or indirectly in a road traffic system or simply generating road traffic, should engage in a comprehensive, systematic, preventive, protective, preparatory, and mitigation process. Organizations must take adaptive and proactive measures to reduce the probability of such an event.

ISO 39001: 2012 - Road Traffic Safety (RTS) Management Systems — Requirements with guidance for use, is the template for best practice road traffic safety management in an organizational context. RTSMS in accordance with ISO 39001 can enable organizations interacting with the road traffic system improve safety and reduce overall incidents as well as the risk of serious injury or death due to road traffic accidents. ISO 39001: 2012 - Road Traffic Safety (RTS) Management Systems — Requirements with guidance for use, is the world’s first international standard for Road Traffic Safety Management (RTSM), has been developed to help organizations improve the safety of road users and minimize the risks of disruptions. This standard contributes to three Sustainable Development Goals (SDGs) i.e. 3, 11 and 12.

ISO 39001 assists organizations in integrating road safety as a core objective into their management systems. As one of a family of ISO management system standards, it is based on the latest common management standard framework developed by ISO and a Plan, Do, Check and Act process.

The road safety management system can be integrated with the general management system of an organization and with several parallel disciplines of management system standards, e.g. ISO 9001 (Quality) and ISO 14001 (Environment). Organizations that already hold certification to these will find it easier to establish a road traffic safety specific component to their existing
The benefits of adopting ISO 39001:

- Preventing avoidable death and serious injury in the road traffic system, including the workplace and while commuting
- Contributing to better planning, design, operation and use of the road traffic system
- Cutting organizational road crash and incident costs, reducing the number of workdays lost to injury and reducing insurance premiums and repair costs
- Demonstrating social responsibility, improving organization profile and increasing business
- Contributing to national and global efforts to prevent death and serious injury in road crashes

NABCB accreditation to RTSMS scheme provides formal recognition of the integrity and competence of Certification Conformity Assessment Bodies (CABs). The certification of products, systems, services, or personnel will provide confidence / assurance to all interested parties like consumers, governmental authorities, regulators whose products, systems, services, or personnel are certified, that they comply with specified requirements in standards and other normative documents.

NABCB grants accreditation to the certification bodies seeking accreditation for Road Traffic Safety Management System (RTSMS) for providing certification for RTSMS based on ISO 39001 : 2012.

NABCB has published the accreditation criteria based on ISO/IEC 17021-1 : 2015 and is available on NABCB website. The criterion is based on the International standard to facilitate harmonization of certification process in India and signing of Mutual/ Multilateral Agreements with other countries, regional and International forums.


Shivani Mishra
Accreditation Officer, NABCB

NABCB Accreditation Scheme for Anti-Bribery Management Systems (ABMS)

Bribery is widely known as one of the greatest challenges to the international development across globe. Bribery often results in the loss of customers’ confidence, reduces quality, poses a significant risk etc on organizations.

Governments of the respective countries have taken several necessary steps to address bribery through international agreements and through their national laws. However, it is not merely sufficient to have good laws and prosecution. Good management within individual organizations is also equally important if bribery has to be mitigated.

The increasing awareness of the damage caused by bribery has resulted in need for effective action to be taken to prevent bribery. The ISO 37001:2016 Anti-bribery Management Systems — Requirements with guidance for use (ABMS) Standard provides measures that help organisations prevent, detect and address bribery. This standard is applicable to small, medium and large organisations in the public and private sectors. It is a flexible tool, which can be adopted according to the size and nature of the organization and the bribery risk it faces.

It is therefore in the interests of an organization that all its employees take reasonable and proportionate steps to prevent bribery. ABMS helps the organisation improve performance by orienting the organisational culture towards transparency and demolition of bribery. Implementing ABMS can help organizations provide assurance to the stakeholders that it has implemented best practice anti-bribery controls. This will eventually result in the increases of visibility and reputation among customers in market.

ABMS can also act as an effective tool for private and government owned organizations for strengthening the existing anti-corruption compliance processes and management systems.

NABCB Accreditation Scheme on ABMS for Certification bodies was launched on 6th October 2020. Accreditation by NABCB signifies that the certification body is competent to offer ABMS certification as per ISO 37001. The accreditation to Certification Bodies shall be based on requirements of ISO/IEC 17021-1:2015 and ISO/IEC/TS 17021-9:2016 Standard requirements.

NABCB accreditation strengthens the assurance of impartiality, credibility and competency of certification bodies for delivering ABMS certification. It also enhances the public confidence on the services offered by the accredited certification bodies.
SIPOC MODEL
A SIX-SIGMA TOOL

To begin with.... first things first! Let us decode SIPOC into what it stands for...

The SIPOC is an excellent Six Sigma tool. It aims to threadbare and breakdown all relevant elements of a proposed project before the team begins to implement. This methodology is extensively used in areas especially in Project Management, Six Sigma projects and for Process Improvements.

It is very helpful for the starters and uninitiated ones to get a ringside view of the interactive dynamics. Based on a structured approach, SIPOC helps the Project implementors/ initiators to understand the project’s scope, identify its boundaries, develop a layout, obtain consensus and build teamwork. The SIPOC tool assists to define a complex project in case that may not have been well scoped. Historically it was seen projects which start in a hurry and in haphazard manner without doing the necessary drill and tried to shortcut the entire rigor, from mapping associated risks and their impact, have often failed to meet project’s deadline and eventually could not take off.

Being a high level process map, the SIPOC model makes it essential for the management and also the project team to first have a clear understanding of the project’s scope, both in-scope and out-of-scope aspects. It offers a template to define a process, making it easier for subsequent linked activities, to map, measure, and drive or improve the project.

The in-scope include all relevant activities, resources, timelines, deliverables and project’s boundaries. Whereas in out-of-scope, they are tasks not part of or included in the original project plan as they do not contribute to project’s objective nor it affects the desired performance of an outcome. An example of an out-of-scope could be, a customer wants an add-on or change to be made in a product’s feature say, to reconfigure the seating layout in a vehicle. Whilst out-of-scope tasks may not affect product’s performance but they are also an important part of the project management team.

WHAT IS GOAL
It is a Plan whose Performance is Predictable!

To start a Six Sigma project, it is important to know the project’s goal, which is given in its scope. It is here; the SIPOC tool comes in handy as it allows the team to list down the details of “every spoke in the wheel” i.e. the involved players in a project, its scope and goals. Once this task is complete, it confirms that all concerned are on a similar plane of understanding with
UNDERSTANDING THE PROJECT'S SCOPE

**FOLLOWING STEPS WILL BE NEEDED TO PREPARE A PROJECT'S SCOPE STATEMENT:**

- To know on why the project is necessary/ important
- Define project's key objectives
- Outline the project's statement of work
- Identify major deliverables
- Set up key milestones
- List down major constraints
- Obtain management buy-in & sign-off
- Items of exclusions not in scope's purview

**TERMS DECIPHERED**

It is common to see jargon like terms so frequently used interchangeably. Understanding and using them correctly makes a difference. It is relevant to explain few of them so that it can make sense in the end, when SIPOC diagram is prepared.

**WHAT IS KPI?**

It stands for "Key Performance Indicator" and used to denote important milestones or landmarks in meeting organization's goals or business objectives. KPI may seem like a Metric, but there is a distinction between the two.

**WHAT ARE METRICS?**

They are quantifiable measures used to track progress of a project or performance of a business objective.

**METRICS VS KPIS**

In simple way, all Metrics are KPIs, but not all KPIs are Metrics. Say, Metrics are like 'squares' and KPIs as 'rectangles' where all squares can be rectangles, but all rectangles cannot be squares.

**WHAT METRICS SHOULD THEN BE THE KPIS?**

It depends on the business. Not every Metric we measure can be "key". It is up to us to identify and select those metrics, which are most closely aligned to business objectives, hence ‘critical’ to keep the business alive and well. This group of metrics are KPIs.

In short, KPIs are measurable values that show how effective management is able to achieve its business objectives. Metrics are trackers, as they track the status of a specific business process. KPIs track whether organization has achieved its business objectives/targets, whilst Metrics track business processes.

Having explained Metrics and KPIs, now it is necessary to have SMART KPIs.

**WHAT IS A SMART KPI?**

It is abbreviated for Specific, Measurable, Achievable, Realistic and Timebound. In essence, a KPI must be Specific (not vague and ambiguous), Measurable (not infinite and unmeasurable), Achievable (not unobtainable and unrealistic). Realistic (not impractical and fictional) and finally must be Timebound (not timeless but within schedule). This ruling must be kept in mind at the very beginning to identify and select right set of appropriate ‘SMART’ KPIs for a project before it is set in motion.

**CUSTOMERS' NEEDS**

Stated needs are express and explicit requirements, which the customer specifically asks for.

Unstated needs are implied ones, which a customer expects implicitly with the goods or services. Unexpected ones are those which are neither expected nor required, but would delight the customer.

**WHAT ARE LEAD AND LAG INDICATORS?**

A Lead indicator is a predictive measurement whilst a Lag indicator is an output measurement. Both Lead and Lag indicators are used in the development of a project schedule.

Lead as “Input Metric” and Lag as “Output Metric” are the indicators that help enterprise leaders understand business conditions and trends. Both the metrics inform the managers that whether they are on track to meet their enterprise goals and objectives.

A Lead indicator is dynamic and difficult to measure but predicts future trends and likely conditions that may occur, to enable companies achieve accurate projections. While a Lag indicator is static but easy to measure but hard to change, which assess business’s current state of performance/output achieved.

The Lead and Lag are two dots on the opposite ends of a spectrum. Leading indicator looks forward at future outcomes and events. A Lagging Indicator looks back at whether the intended result was achieved.

**WHAT METRICS ARE LEAD AND LAG INDICATORS?**

Healthcare

Diagnostic Errors, Medication Errors, Adverse Events, Acquired Infection, Incident Reporting, Patient feedback, Mortality.

Automobile

Vehicles Produced, Product Quality, Services Delivered, Defects, Customer Satisfaction

Other Industries

Expenses incurred, Revenues earned, P&L and Balance Sheet, Corporate profits

Likewise, one could pick up lot many similar Leads and Lags from each layer of industry and society too.

**TO BE BACK IN BUSINESS IS GOOD…. BUT STAYING IN BUSINESS IS BETTER**

**WHAT ARE CTQS?**

Critical to Quality (CTQ) are key measurable characteristics of a product, process or service whose performance standards or specification limits must be met to satisfy the customers. One need to always remember, a dissatisfied customer is an
unfortunate event and can cripple an enterprise fortune. CTQs help translate broad customer needs into specific, actionable, measurable performance requirements. These requirements can then be used to deliver high quality products and services (as outputs) to customers, either internal or external.

CTQs were originally developed as part of the Six Sigma methodology. Now it can be seen why it was felt necessary to spend some space on aspects like, Metrics, KPIs, SMART KPIs, Lags, Leads and CTQs. All this will have a bearing when preparing a SIPOC Diagram.

PREPARE A SIPOC DIAGRAM

A SIPOC is easier to prepare by starting from the right end (i.e. Customers) and complete it by working towards the left end (i.e. Suppliers).

At each of the 5-stage SIPOC’s value chain, every level brings out important KPIs along with other Metrics as well. An extremely useful and nice model particularly for Six Sigma Projects viz. Improvement Projects, Process Mapping, Project Management, SIPOC helps to map the entire process that occur on this value chain from start to finish.

PRACTICAL CASES & THE SIPOC:

By now, one could be able to visualize well how a SIPOC framework works and the interacting players on that 5-stage Value chain, the Metrics, KPIs, SMART KPIs and CTQs for projects like:

1. To build a new Airport
2. To convert a Hospital into a COVID Care Center
3. E-commerce companies engaged in online shopping and delivery
4. A higher center of learning to open a new branch at a new location

Just think about the SIPOC and the likely factors that could come in for each of the above four projects, you would get a feel of comfort. Once you have touched that comfort level, then half the battle is won.

STEPS TO COMPLETE A SIPOC DIAGRAM

1. Sketch an outline of the business operation (Process)
2. Identify the products/services (Outputs) that come out of this process
3. Identify the recipients of these outcomes (Customers) to whom it will be served
4. Identify the resources (Inputs) that are required to convert them into outputs
5. Identify the sources (Suppliers) from whom the materials will be sourced
6. Identify what Customers require and their specific needs (CTQs)

Once all the above elements and information are available, start plotting them on the diagram and complete the cycle... from Right (Customers end) going towards Left (Suppliers end).

Now the SIPOC chart is ready which will provide a clearer and bigger picture.

This is what a higher management always expects from their Quality Improvement Drivers on Proposed Projects to build-up consensus and buy-in, before giving the project a go ahead.

ROMANCING WITH RISK

PRELUDE

Literally, romance is a relationship. It includes actions and feelings of two individuals, who are affectionate and caring to each other. I have chosen this unusual title mainly because I have passion to think of risks in all activities in an organization. I desire a certain amount of comprehensiveness in the bohemian interaction with risk so that risk remains in a happy mood now and ever and does not inflict a negative or undesirable effect on the organization and its activities.

Organizations of all types and sizes confront internal and external factors and influences that make risks surfacing and obstructing or stopping of the desired goal being achieved. The questions of whether and when the targeted objectives or goals will be achieved plague the mind. As it is said, doubt is more painful than guilt; we need to address uncertainty factors, so that certainties are established for achieving the set goals or objectives.

Before proceeding further, let us crystallize our concepts in the context of “risk” as follow:

WHAT IS RISK?

It is the effect of uncertainty on objectives.

WHAT IS AN EFFECT?

It is a potential deviation from the expected occurring in an event; which may be (1) partial or complete or (2) positive or negative (favorable or unfavorable).

Note: Negative effect of actuation of a risk is a FAILURE, meaning, “not meeting the intent”. The professionals in production sector with statistical brains, primarily in automobile manufacturing, conduct Failure Mode and Effect Analysis (FMEA), where an attempt is made to control failure with the principles of statistics.

WHAT ARE THE CAUSES OF POTENTIAL DEVIATIONS?

They are mainly due to deficiency of information.

WHAT IS INFORMATION?

It is the knowledge of consequence or effect of an action.

WHAT IS AN EVENT?

It is a certain occurrence or manifestation in which risk (1) may be partial or complete or (2) may have positive or negative effect.

WHAT IS OBJECTIVE?

It is the result to be achieved.
What are the types of objective?
Objective may be relating to:
• Financial advantage or stability
• Preservation of health, safety, environment
• Promotion of education, training and competence
• Achievements in professional
• Attainments in intellectual, artistic and spiritual
• Explorative, etc.

What are the levels of objective?

They can be:
• Strategic (at top management level)
• Project wise, product wise and process wise (at department or unit level)
• Local or organization wide, individual or group (at industrial sector level)
• International, national or regional (at geographical level)

WHAT ARE THE VARIOUS FACETS OF RISK?

They may be:
• Residual risk – remaining risk after risk treatment to an extent as currently possible
• Risk management audit – estimation of adequacy or effectiveness of a risk management framework
• Risk aggregation – a combination of a number of risks
• Risk analysis – process to comprehend a risk
• Risk appetite – amount of risk the organization is willing to accept or retain

• Risk assessment – identification, analysis and evaluation of risk
• Risk attitude – tolerance, aversion, attitude, avoidance, sharing, acceptance
• Risk aversion – attitude to turn away from risk that is not giving due cognizance to a possible risk
• Risk acceptance – informed decision to take a particular risk
• Risk evaluation – determining if the risk is acceptable or tolerable
• Risk exposure – risk vulnerability
• Risk financing – provision of funds in risk management
• Risk identification – finding, recognizing and describing risk
• Risk likelihood/probability – an estimation on the possible occurrence and actuation of a risk
• Risk management – coordinated activities in an organization with regard to risks
• Risk management framework – components of organizational arrangements for managing risks
• Risk management policy – a statement issued by the authorities on the intentions and direction on risk management
• Risk management process – a systematic application of policies, procedure/practices on risks, to restrict their occurrence
• Risk monitoring – continual checking, supervising and determining the status of residual risk
• Risk monitoring and review
• Risk profile - dimensions of a risk or description of a set of risks
• Risk quantum – estimation of the effect of a risk
• Risk register – a record of information about identified risks. It is also record keeping of risk related events
• Risk reporting – a communication describing the status of risk at a particular point of time
• Risk resilience – adaptive capacity in changes in risk with time
• Risk resistance – arrangements for avoidance of risk
• Risk retention – an informed decision to retain a risk
• Risk review – determining of status of risk periodically
• Risk source – elements singly or in combination raising potential to a risk
• Risk tolerance – readiness to bear the risk after treatment
• Risk treatment – identification, analysis, estimation, and control of a risk
• Risk treatment – process to modify risk
• Risk vulnerability – a situation that allows a risk to cause an adverse effect

RISK MANAGEMENT (RM)
RM is an integral part of overall planning and management processes, which cannot be, stand alone in an organization. It involves everybody – chairperson to door attendant. This also includes all interested parties like:

• Citizen
• Customer
• Distributors
• Shareholders
• Investors
• Owners
• Insurers
• Government & regulators
• All service providers
• Competitors
• Media
• Commentators
• Trade groups
• Emergency service providers
• Other response agencies
• Transport service providers

• Dependents of workers
• Accountability of above interested parties appropriately.

Methodology of Risk Evaluation (RE) in qualitative terms include estimation of:
• Reproducibility of RE on time scale
• Exploitability of skills of different categories of workers
• Periodic changes in damage potential of a risk
• Detectability of risk

Limitation of RM – Risk cannot always be eliminated, but can be reduced or transferred. Thus, residual risks linger on in spite of all controls (no complacency). However, if source of risk is replaced with equipment having better capacity or performance parameters and personnel with higher skills, the situation will improve, but new risks will still emerge.

Financial or Business Risks – include elements like:
• Insurance
• Bad debts
• Bankruptcy of certain interested parties (suppliers, customers, or even the organization itself)
• Inappropriate business strategies
• Erratic cash flow
• Client attrition

ADVANTAGES OF A GOOD RISK MANAGEMENT
The salient ones are:
•Increase the likelihood of achieving objectives by taking care of the risks as perceived
•Encourage proactive management
•Be aware of the need to identify and treat risk throughout the organization
•Improves the identification of opportunities and threats
•Help comply with relevant legal requirements and international norms
•Improve mandatory and voluntary reporting
•Improve governance
•Improve stakeholder confidence and trust
•Establish a reliable basis for decision making and planning
•Improve controls
•Effectively allocate and use resources for risk treatment
•Improve operational effectiveness and efficiency
•Enhance health and safety performance as well as environmental protection
•Improve loss prevention and incident management
•Minimize losses
•Improve organizational learning
•Improve organizational resilience.

INTERNATIONAL GUIDANCE
• All ISO management system standards (on Quality, Environment, Occupational Health and Safety, Energy, Food safety, Road Traffic Safety, Information Security, etc.) have now mandated identification and management of risks and opportunities. A few other internationally accepted documents are:

ISO 31010:2019, Risk Management – Risk Assessment Techniques, provides:
• Guidelines on selection and application of risk assessment techniques in a wide range of situations
• Guidelines in making decisions where there are uncertainty factors

ISO Guide 73-2009, Risk management vocabulary, eliminates the risk of double meanings of terms in RM.

CONCLUSION
Risk is eternal not only in personal life of individuals but also during the lifetime of an organization. It is never-ending and therefore, Risk Management needs to be pursued perpetually, and be improved continually. In tune with the title of this article, it can be concluded that Risk Management is an eternal love between an organization and its activities.
RESILIENCE IS A SUPERPOWER

Sustaining the reputation of consistently meeting the expectations is probably the toughest goal to achieve. We all have heard, read, seen, and experienced the importance of maintaining high standards in everything we do. Seldom do we hear about what goes into achieving it.

Whether at strategic or at tactical level, at organization or individual level, there are a million roadblocks that could bog us down. It could be the pandemic affecting our modus operandi or a comparatively simpler situation of unavailable resources. Interestingly there also are these less-spoken-about-yet-critical roadblocks in achieving our maximum potential like difficulty in differentiating task clarity from goal clarity, complacence, priority differences, mediocrity, belligerence, abstraction, and under-appreciation to name a few.

Irrespective of the gravity of situation or severity of its causes, a superpower that enables us to overcome these roadblocks is resilience. Resilience is to bounce back, to bounce back in style and with a new-found-rigor, every single time. In addition, what makes being resilient easier is to get clarity on the bigger picture, believe in solution-oriented approach and focus on building confidence in our own competency by practicing conscious-sharpening-the-saw philosophy.

Resilience is the difference between “quenching the thirst like the crow by raising water levels using the pebbles” and “calling the grapes sour and staying hungry like the fox.”

So, let us ask ourselves, “Am I the crow or the fox? What is my superpower?”

Time to think... time to explore.

Meeta Asthana
Business Improvement Consultant, NBQP, QCI

QUALITY RISK MANAGEMENT: THE FOUNDATION OF RISK-BASED THINKING (RBT) IN ISO 9001:2015

Since ISO 9001:2015, there has been a lot of discussion over the approaches to inculcate Risk-Based Thinking in an organization. In other ISO standards such as ISO 31000 details about risk governance and risk framework, while not prescriptive, are explicitly stated. 9001, on the other hand appears to have taken a gentle evolutionary step in 2015 from implicit risk in ‘prevention’ to explicit ‘Risk-Based Thinking.’

First issue is the definition of the word ‘risk’ itself. World renowned, trusted and famous Oxford Dictionary defines it as:

“A situation involving exposure to danger”

This is a situational definition. It does not imply probability or severity, but, focusses on situational ‘uncertainty’. Do we expose ourselves to danger? Almost every day. Going to get groceries in the pandemic is a risk. Air travel is a risk. In the same vein, organizational decisions are rife with exposure to danger. However, we do expose ourselves, don’t we? To capitalize on an opportunity. Within uncertainty, lie both, danger leading to loss and opportunity leading to profit.

In some sectors, like medical devices or food processing, negative definition of risk, as one leading to harm only, is accepted. That does not mean it is wrong. For that sector, negative risk is the one which needs risk management, more than the positive risk. Of late, the focus is on ‘benefit-risk’, which is an assessment of product performance as weighed against opportunity for customer benefit vs. negative risk inherent in the product.

The word risk itself is defined by ISO 31000:2018 as:

“The effect of uncertainty on objectives”.

So, what can the definition of “quality risks” be? It’s quite simple:

“The effect of uncertainty on quality objectives.”

Considering this, there are two definitions of QRM. The first one was given by World Health Organization (WHO) in 2012:

QRM was defined as the overall and continuing process of appropriately managing risks to product quality throughout the product’s life-cycle in order to optimize its benefit-risk balance.

Jayet Moon
Certified Risk Management Professional, Project Management Institute

QUALITY INDIA
The second focus is on holistic risks, drawn from ISO 31000 and includes the first definition within it: “ORM is the management of effect of uncertainty on quality objectives.”

It boils down to the risks to quality objectives you want to manage using your Risk Management Framework. Risk management affects decision making towards realization of goals and objectives which is a central part of organizational success. So, in implementing ISO 9001, pay close attention to the scope of quality risks you want to manage using your risk management system depending on the scope of quality objectives.

The definition of risk from ISO 31000 looks at the upside and downside of risks – its positive and negative aspects. To some readers, this may be a new concept. One tailed version of risk (based on reduction and avoidance of negative risk only) will lead to one dimensional risk management which at best, will result in zero losses. No company becomes successful by aiming for zero losses, it becomes successful by aiming for large profits and gains. That said, zero loss becomes successful by aiming for large profit and avoidance of negative risk only (which at best, will result in zero losses). No company becomes successful by aiming for large profit and avoidance of negative risk only (which at best, will result in zero losses).

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**Figure 1: Relation of Strategic Quality Management to companywide quality management (Leftmost pyramid adapted from Juran on Leadership for Quality, 1989)**

MANAGING QUALITY IN SOFTWARE

The history of managing quality in manufacturing has truly become a key driver of the market. The reasonable success of WFH (work from home) or remote working that organizations have been compelled to use in the Work War II scenario we are currently witnessing due to the coronavirus-induced global pandemic is a testimony to how far the world has progressed on the industrial and technology front since World War II. Software, embedded or otherwise, has truly become a key driver of the technology-enabled world we live in. Hence it is a business imperative to ensure flawless creation and delivery of software/IT services to customers.

At this point, it is quite important to understand the major differences and similarities between software and hardware development and manufacturing work. Here are some of the major differences:

- **Software creation happens primarily and largely in the mind and not on a machine**
- **Software can never be tested to the point where it becomes zero defect**
- **Software can be delivered quickly “over the air”**
- **Software creation happens primarily and largely in the mind and not on a machine**
- **Software can never be tested to the point where it becomes zero defect**
- **Software can be delivered quickly “over the air”**
- **Software is relatively easier to change than hardware**

**Members Write**

Hemanta Chandra Bhatt
Head of Quality and MR at Hughes Systique, a Hughes Group Company

**Figure 1: Relation of Strategic Quality Management to companywide quality management (Leftmost pyramid adapted from Juran on Leadership for Quality, 1989)**
At the same time, there are some major similarities also as given below:

- Work in both software and manufacturing requires the use of appropriate technical and engineering activities
- Work in both cases also requires the effective management of the technical and engineering activities
- Certainty, of delivery of outcomes is a crucial need in both the cases
- Assurance of quality and consistency of outcomes delivered, is a key ask in both the cases

Though there are certain differences, the similarities in software work as compared to manufacturing work has significant commercial importance and hence necessitates the case for managing quality in software in a way that is like the way it is done in manufacturing.

While designing and establishing the system for managing quality in software, an organization providing software/IT services should factor in the following key considerations:

- Type of work performed
- Development methodology
- Project execution model
- Revenue generation model

Organizations providing software/IT services are generally involved in performing one or more of the following types of work:

- Develop new software from the scratch and then hand it over to the customer
- Work on existing software, and change it in the following manner:
  - Major feature additions or enhancements
  - Minor enhancements and bug fixes
  - Refactoring and performance tuning
  - Migration to another, generally newer & technology platform
  - Provide support to business users if they need any help or face any issue while using the software
  - Production support – provide fix or work-around if software malfunctions or doesn’t work as intended
  - User support – resolve query or provide special assistance to users as requested or required
  - Operations support – ensure back-end support like back-ups and scheduled jobs; processing for smooth operations and enjoyable user experience

**For software/IT services organizations involved in developing new software or working on major feature additions or enhancements, both major and minor, following types of methodologies are commonly used:**

- Plan-Driven or Waterfall-Type – this is generally suitable for developing software for complex situations or mission-critical applications. The quality system for this scenario needs to provide strong project and scope management processes and controls
- Change-Driven or Agile-Type – this is generally suitable for prototyping and for developing software in a rapid or adaptive manner. The quality system for this scenario needs to provide strong risk and change management processes and controls
- Combined Methodology – this is the methodology that is used most commonly, and work is performed by appropriately combining and leveraging the relevant aspects from both plan-driven as well as change-driven approaches

**PROJECT EXECUTION IN SOFTWARE/ IT SERVICES IS PRIMARILY DONE USING TWO MODELS:**

**Customer Managed – in this case, the customer engages the software/IT services partner from resource augmentation point of view and manages and controls the entire delivery supply chain. This aspect requires that the quality system provides processes and controls that can ensure resources with required competencies and skills are developed and deployed with the customer for performing the assigned work though high-level oversight is maintained on their performance to identify surprises and address them before they can turn into escalations**

**Partner Outsourced – in this case, the customer “outsources” the work or a part of it to the software/IT services partner and the software/IT services partner is expected to own the delivery of the outcome for the assigned outsourced work. This aspect requires that the quality system provides processes and controls, that can ensure the software/IT services partner can plan and successfully execute and manage the entire delivery supply chain for the assigned outsourced work**

**REVENUE IN SOFTWARE/IT SERVICES IS PRIMARILY GENERATED USING TWO MODELS:**

**Time and Material – in this case, revenue is generated by billing the customer at a defined frequency and invoicing is based on the “hours consumed” at an “agreed person-hour rate”. This aspect requires that the quality system provides process and controls that can ensure that the work assigned is understood with exactness and the performance and progress of work is regularly communicated to the customer**

**Fixed Price – in this case, revenue is generated by billing the customer at the defined milestones and the invoicing is based on and subject to the achievement of the “specified outcomes”. This aspect requires that the quality system provides process and controls that can ensure the work to be performed is determined and estimated correctly, and its execution against the estimates gets tracked and controlled precisely to ensure completion on time and within the effort and cost estimates**

The system for managing quality in the software/IT services context needs to be designed not only keeping in mind the above key considerations but also ensuring full alignment with the organization’s business objectives, execution strategy and core competencies. Along with the profile analysis of the existing and prospective market segments and customers as also the study of the competitive and regulatory landscape within which the organization needs to operate.

The best bet for establishing a strong quality system in software/IT services context is to leverage the available industry standards, frameworks, methods and tools.

The ISO 9001 standard can serve as the fundamental foundational block of the quality system in a software/IT services organization. It helps in establishing the basic hygiene factors like:

- Organization’s repository for sharing the standard processes, SOPs, guidelines and templates with all employees
- Roles, responsibilities and staffing of roles for taking care of operations as well as process of improvement activities in the organization
- Practices like management reviews, internal audits, customer satisfaction surveys, etc. for obtaining a holistic view of the organization’s performance

Thereafter, the two standards ISO 27001 (related to information security) and ISO 27701 (which is an extension to ISO 27001 and is related to data privacy) should be integrated into the organizational process fabric in a combined manner.

- In the current scenario, where data is the new oil, securing and protecting information and data is crucial for an organization to create and maintain its competitive edge

In the outsourcing model, especially where the customer’s data get transferred to the software/IT services provider, sometimes it may be in a different geography, it is quite important that these aspects are managed in a comprehensive manner.

- These standards provide the necessary controls and compensating controls to ensure and also that information is kept secure and in case there is any personal information, the same is kept private

The next thing should be to look at the CMMI (Capability Maturity Model Integration) frameworks.

- Though CMMI can be applied to any organizational context, it has found lot of acceptance in the software/IT services organizations.
DESIGN THINKING FOR HIGHER EDUCATION IN INDIA

INTRODUCTION

Higher education in India has been traditionally defined by set assumptions about geography, time and quality.1 But profound transitions in technology are persuading a move to new models that cater to larger masses and are agnostic to geographies and time.

We can gauge the rising impact of technology on higher education through the following pointers:

1. By one popular estimate, 65% of children entering primary school today will ultimately end up working in completely new job types that don’t yet exist.2
2. Ease of access through technology will change the demography of students. Quality education will no longer remain the preserve of the rich and the young.

In the COVID inspired upheaval, design thinking can influence the new models in the objective and direction of the disruptive changes that have been forced upon us.

NEED FOR DESIGN THINKING

Roger Martin, dean of the Rotman School of Management, distinguishes design thinking from design. Design thinking is the way designers think. Today’s educationalists don’t need to understand designers better; they need to become designers. A Design Thinking approach to higher education works backwards from the first job, not forward from high school. The educationalist designer needs to empathise with the end-user who is increasingly becoming technology savvy and highly ‘Socially Mobile’, with an exponentially expanding middle class. The hour’s need is ‘New Material’ for ‘New Type of Students’ at ‘New Colossal India’.3

The National Education Policy 2020 (NEP) has ushered in deep penetration of technology and equitability between the rich and the poor. A Design-Driven Approach for modernising core offerings of legacy institutions can be as under:

1. Academic institutions can adopt a hybrid dissemination model, wherein concept modules are taught online through animated videos and interactive sessions on digital platforms. The application modules are taught in-person by faculty, and students obtain a much-valued campus experience. The student’s physical time on campus is of premium, requiring them to conceptually well prepared before coming on campus. The principle to replace the academic calendar of summer and winter terms. The students can begin their year with any term with a provision of attending any two of the three.

2. The above model can enable more students to pass through the institution in a year, thus bringing down tuition costs, allowing more low-income students to achieve higher education.

MODELS FOR NEW-AGE INSTITUTIONS

New-Age Institutions like to have well-defined business models that can leverage technology to disrupt the education offerings. By definition, disruptive innovation disrupts the bigger-and-better cycle by bringing to market a product or service that is not as good as the best traditional offerings but is more affordable and easier to use.4 In the foreseeable future, in-person classes at legacy institutions will continue to rate above online ones, but the latter will be more inclusive and poor-friendly. Disruptive classes adopt a student-centric approach to education, responding to students’ unique learning styles and preferences. It is like a low-cost airline that sacrifices all frills to fly a passenger from A to B. My recommendations for design thinking for such institutions are:

1. The National Education Policy focuses on revamping vocational education to make it inclusive and aspirational. New-Age institutions can offer non-traditional learners diplomas and certificates in competency-based tracks by employing AI, AR and VR (Artificial Intelligence, Augmented Reality, Virtual Reality) to create virtual practical projects and field trips. Students can upgrade their learning through applied projects rather than traditional coursework. Such a model can attract mid-career working students who need to achieve work-life balance while studying for higher education.

2. Massive Online Distant Learning Programs (MOOCS): Companies like Coursera and Udemy provide certifications for completing a...
course, but not degrees. India needs national level institutions that have tie-ups with multiple accredited universities to provide credits that, on aggregation, lead to recognised degrees. Such offerings can have flexible time limits for applicants to achieve qualifications in periods and locations by convenience.

3. The New-Age institutions can facilitate modern learning through ‘Faculty Development Programmes’. To teach new subjects we need teachers, who in turn require periodic refreshers and upgrades. Short, technology rich workshops like the ones being conducted by Department of Science and Technology on subjects like Digital Transformation, Design Thinking, Industry 4.0 among others, can be facilitated through platforms created by such institutions.

CONCLUSION

Legacy institutions are under tremendous pressure to redesign offerings that decrease the price premium and increase their contribution to society. They will face resistance and scepticism as they attempt to modify strategies. The only way forward is to think like a designer, empathise with the students and strategise by understanding their needs in a dynamic world.

The New-Age Institutions have the benefit of starting disruptive business models in areas underserved by legacy institutions.

An immense transformation in education is underway and we are part of it. It is all about new products for new demographics at new scales! If we can think differently, sky is the limit.
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