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Quality in India : Success Stories

In our first quarter's news letter we provided certain highlights on "Make in India" initiative launched by Prime Minister Shri Narendra Modi in late 2014.

Padma Bhusan Dr. M. B. Athreya delivered 2015 Shri D. L. Shah memorial lecture on "Make in India- Vision 2020". His sincere advice to the audience was to keep updated with its developments over the months and participate in as many of them as possible. For the benefit of our readers, let me track its developments in second half of 2015.

On 1st July'15 PM Shri Narendra Modi launched digitalization in India. Its purpose is to ensure that Govt. services are made available to citizens electronically by improving on line infrastructure and by increasing internet connectivity. The initiative includes plan to connect rural areas with high speed internet networks. Digital India has three core components as (a) creation of digital infrastructure (b) delivering service digitally and (c) digital literacy.

Having received assurance of fair business practices in India from our Prime Minister, during August-December'15, numbers of International companies have agreed to invest large sums of money with simultaneous creation of employment, at various parts of India. Some of the major ones are listed below:

On 8th August'15 Foxconn announced that it would invest US \$ 35 Billion over next five years to set up R & D and high tech semiconductors' manufacturing facility to be set up in Maharashtra. Less than a week earlier General Motors announced that it would invest US \$1 Billion to begin manufacturing automobiles in the state.

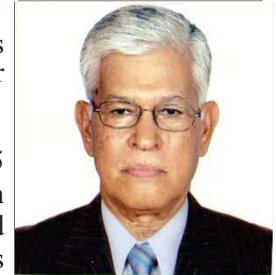
On 18th August'15 Lenovo announced that it had already begun manufacturing Motorola smart phones at a plant in Sriperumbudur, near Chennai run by Singapore contract manufacturer- Flextronics' International Ltd. The plant has separate manufacturing lines for Lenovo and Motorola as well as Quality Assurance & Product Testing.

On 16th October'15, Boeing Chairman James McNerney said that the company could assemble fighter planes and either the Apache or Chinook defiance helicopter in India. The company is also willing to manufacture F/A 18 Super Hornet in India if the IAF (Indian air force) were to purchase it.

In November'15 Taiwan's Wistron Corporation which makes devices for companies like Blackberry, HTC and Motorola announced that it would begin manufacturing the devices at a new factory at Noida, UP.

On 30th November'15 the ministry of Railways signed a formal agreement worth Rs 40,000 Crores, with Alstom and GE transport to set up locomotive manufacturing facility in Madhapura & Marthaura in Bihar

President's Page



B. Banerjee

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Green Revolution: Gone are the days when Indian stood in queues for basic food necessities. These are available now in any shop. Introduction of high yielding crops along with irrigation network has ensured availability of grains even in extreme draughts.

Space & Defence: Indians produce most of their needs. As technology improves they are forced to import till internally they are able to produce. The recent government decision to open the defence sector to FDI participation is in the right direction. India could send rocket to Mars speak for the technology available now in India. We are also able to launch satellites for other countries. India has the second largest army in the world.

Diamond and Jewel industry: India has one of the largest diamond cutting industries. Surat is very well known world wide. As technology and tastes change Indians too innovate.

IT Sector: India is a leading manpower provider for the global industry for programming or BPO. Indian software specialist are available in all nooks and corners of the world.

Manufacturing: Prime ministers **Make in India** is expected to take the country much ahead. Motivating young entrepreneurs is another feather in the cap. Indians are learning the need for quality and costs besides customer satisfaction.

Almost all auto majors are either having a plant in India or sourcing from India.

Dairy business: Indians are second largest milk producers. Amul in Gujarat was one of the best cooperative success stories.

Cooperatives: Lijjat papat is one major initiative which has boosted collective cooperative working. This initiative has been successfully copied in many other sectors including village farming, infrastructural development, check dam and irrigation, solar technology usage, Wind mill usage etc.

Education: Education is available in all sectors and across the country. With more opening out here we will see this becoming a leading export sector.

Medical & Pharmacy: Today Indian industry is praised for its technology, costs and has a foreign exchange earner.

Tourism: Indian tourism though is in the ascent stage is expected to grow rapidly especially since India has a rich diversity and you can see all conditions and cultures. Hospitality industry is growing and recent government initiatives will help this grow in a long way.

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In December'15 Qualcomm announced that it will be starting "Design in India" program to help mentor up to 10 Indian hardware companies with the potential to come up with innovative solutions and help them reach the scale. Qualcomm chairman promised PM Modi that they would do so during the latter's visit to Silicon Valley in September'15. As part of the program the company will set up an innovative Lab at Bangalore to provide technical & engineering support to the selected companies. In the same month Micromax announced that it would set up three manufacturing units in Rajasthan, Telangana and Andhra Pradesh at a cost of Rs. 300 Crores. The plants will begin functioning in 2016 and each will employ 3000 to 3500 people.

Following Japanese Prime Minister Shinzo Abe's visit in December'15 it was announced that Japan would set up a US\$ 12 Billion fund for "Make in India" related projects called the "Japan – India Make in India special Finance facility"

In late Dec'15 Vivo mobile India began manufacturing smart phones at a plant in greater Noida. The project will create employment for 2200 people.

The Ministry of Defense is auctioning a US \$ 9.0 Billion contract to design and build a fighting infantry combat vehicle (FICV) in India. The contract will be awarded in 2016.

Towards sustenance of all the above ventures, partnering organizations must adopt "Zero Defect- Zero Effect" philosophy suggested by our PM.

This signifies development of production mechanisms wherein products have no defects and the process through which product is made has zero adverse environmental & ecological effects. This initiative is aimed to prevent products developed or manufactured in India from being rejected by the Global Market.

Thus the government's "Make in India" campaign coupled with the country's growing consumption pattern makes an excellent case for the Indian manufacturing sector to emerge as a global manufacturing hub across all vital sectors. This will actually demonstrate real success story of Indian Quality

Wishing all the readers a happy & prosperous new year

B. Banerjee



Journey from 'Make in India' to 'Made in India'

by Mr. Navin S. Dedhia, Chairman of NCQM's International Committee & Fellow ASQ, USA

Abstract

Any new initiative requires strategic government leadership and infrastructure, business planning, management support, investing for future, workforce involvement, creativity, innovative approaches and quality tools. Quality must be at center of all activities and tasks. Focus on 'Make In India' culture and related technology will lead to the attainable goals. India has high potential to realize 'Make In India' campaign and ultimately leading to 'Made In India' branding. India has vast human resources available to develop technology and tools to achieve objectives. 'Make In India' aims to invite investment, foster innovation, enhance skill development, protect intellectual property and help India build a 'best in class' manufacturing infrastructure.

Introduction

Prime Minister Narendra Modi launched the 'Make in India' program on September 25, 2014 encouraging multinational, as well as domestic, companies to manufacture their products in India. The objective behind the 'Make in India' initiative is to focus on job creation and skill enhancement. It also aims at improving quality standards and minimizing the impact on the environment.

Mr. M. K. Gandhi, India's freedom fighter, leader and father of the nation, once said, "Be the change that you wish to see in the world". Gandhi changed the way to fight the mighty empire and proved walk the talk principle. Organizations are living, breathing entities that need a healthy dose of change now and then to thrive. Change is required to better serve customers. While change and uncertainty have always been a part of life, quantum and suddenness of change are always shocking.

India has excelled in the past in creating history with grand monuments, tall structures, top notch education system and rich literature. India can take this challenge in the manufacturing sector to reach 'Made In India' as brand name.

Businesses can't be passive and must develop understanding of business, technical and managerial skills to meet changing business environment. Business challenges includes:

- Customer-sensitive and market-driven products
- Advent of internet and emergence of third world
- Reduction in product development cycle time
- Available global opportunities
- Responding with sense of urgency
- Making agile, flexible, adaptable businesses in delivering products and services
- Diversity in thinking and approaches
- Exhibiting public mindedness, ethical, socially responsible and good corporate citizenship
- Emphasis on designing and controlling Processes

Good enough is not good enough in the current environment. Businesses have to demonstrate excellence in all its operations. Japan did it starting in 1951, If Japan can do, why India can't? Businesses should take challenge to exhibit marked superiority in a chosen field and be advocate for a cause. Management have to display leadership qualities to advance product and service quality. The key success factors for manufacturing industries are increased efficiency and productivity.

Champions are needed in each economic sectors like manufacturing, education, healthcare, government, insurance, banking and others. Champions are forward looking, innovative, prevention oriented, committed and responsive in nature. People look at them as role model. Champions use SWOT (Strength, Weakness, Opportunities & Threats) analysis technique in problem solving situation. Champions will have interests and skills in strategic thinking and planning to lead a change and establish a vision. Champions think radical process innovation instead of incremental process improvement. The starting point taken by champions is clean state rather than taking from the existing process. Top down participation is preferred instead of bottoms-up participation. Scope of the project include broad and cross-functional with a high risk. Anticipated change may be both cultural and structural. A champion is an expert in the chosen specialty field and can guide others. Other qualities include communicator, mentor, motivator, persuader, promoter, ideal, inspirational and innovator. Champions raise the sights, standards, quality of products and services and thereby raise nation's economies. Coaching rather than learning, teaching rather than studying, being ahead of the game rather than playing catch-up are required to soar to new heights.

IBM stood on its three basic beliefs laid out by the first Chairman of IBM, Tom Watson, Sr., and these are:

- 1) Respect for the individual - Equal treatment for everyone,
- 2) Service to the customer - The best customer service,
- 3) Excellence is a way of life - Superior accomplishments of all tasks, Pursuit of excellence.

These principles included team spirit, execution and winning.

George Bernard Shaw stated: 'Progress is impossible without change, and those who cannot change their minds cannot change anything.' Industries have to change their mindsets and be forward looking and thinking with new and innovative approaches.

Government Leadership and Infrastructure

Government should make it easy to 'Make In India' a successful initiative. Bureaucracy, extensive paperwork, delayed response, and controls hamper the progress. Government should adopt four R's - Remove (bureaucracy), Revise (Rules), Relax (Controls) and Release (approval to go ahead with the project).

The public is:

- Less tolerant and more distrustful of government
- Seeking more efficiency from government
- Demanding more flexible, efficient, convenient, and higher-quality services
- Questioning the credibility of government and the fairness of public sector processes
- Impatient with government performance on core issues that make a real difference in their lives and communities

Sometimes the most important thing government can do is find better ways to communicate and deliver information citizens need in the form they want and just when they need it. Engagement or partnering efforts with businesses and citizens should be increased to receive enthusiasm and commitments. Additionally, government should pay attention to the required infrastructure such as land availability, utilities, transportation system, communication system, information system and finance structure.

An army commander was once asked: Wouldn't it be better for the commander J

Business Planning

Management system is defined as an organized approach to managing the Elements of a business in a way that fosters continual improvement. Quality is defined as a systematic approach to the search of excellence, fitness for use or purpose, conformance to requirements or meeting customer requirements or delighting the customer.

The organization needs following to be successful:

Vision	What do we want to be or become?
Mission	Who is our customer and what product or service do we provide?
Values	What do we believe is important?
Goals	How do we live up to our vision, and support our mission and values? What do we want to achieve in short range?
Objectives	What do we want to achieve in long range?
Strategy	How do we tie all these things together to make our organization work?
Corporate Culture	A basic pattern of shared beliefs, behaviors, assumptions, attitudes and practices

To make the life dreams and vision a reality, Christopher Columbus's life teaches us the following:

- 1) Never give up – Never get disappointed with failures. Failure is an opportunity to succeed. Columbus's

- persistence helped him to make his life long dream a reality.
- 2) Be a life long learner – Learn new subjects. Columbus spent time in learning natural science, weather, navigation and other subjects
- 3) Enlist others in your cause – Keep networking with others to seek help, guidance and advice. Talk and listen to your parents, guardians and others.
- 4) Do your homework - Plan ahead and thoroughly for success. Preplanning is essential.
- 5) Believe in your destiny – Have a faith in your dreams and goals. Be confident in your planning and work.

It is necessary to have a dream, vision, mission and goals in the life to chart out actions and achieve them. If a business advances confidently in the direction of dreams and endeavors to lead a imagined path, that business will meet success in a chosen path. Whatever business can believe and conceive, can be achieved.

Management Support

Organizations succeed with sustainable transformation initiatives when they are led from the top. There is a direct link between the success of project and leadership capabilities.

Essential attributes for a successful management are:

- Demonstrating vision, courage and conviction
- Possessing ability to take risks both at a personal and a business level
- Having ability to demonstrate commitment to project, not simply demanding it of others
- Establishing a culture of teamwork, commitment to excellence in product and service, delighting customer and empowerment

There are many different definitions of corporate culture. Culture is defined as 'the way we do things around here.' The way employees actually behave, think and believe determines the culture. Culture is the personality of the organization. Culture is what employees do when no one is watching. It is a 'walk the talk'. Consistent talking and actions matters much. Culture is the basic pattern of shared beliefs, behaviors, and assumptions acquired over time by members of an organization. It reflects attitudes and practices related to quality systems application. A culture is considered robust if it insensitive to uncontrollable outside forces. These behaviors and habits include everything from the formal policies and procedures to the informal habits and tactics employees use to function effectively within the company. Formal policies, procedures, behaviors and habits operate as the ground rules and guidelines.

Organization will emphasize quality first and foremost when goal setting and executing. Management will support quality principles such as 'Do it right first time and every time, market driven quality, etc.'

Successful quality initiatives

- Can deliver huge improvements in the quality of product/service; greatly reduce costs and help to deliver better, faster and cheaper product/service
- Enable management to have a greater visibility into the processes, so that there are fewer surprises, e.g. likelihood of late delivery, cost over-runs, unstable processes
- Offer better options of making informed choices when business priorities change Improvement strategy encompasses all forms of improvements such as:
 - Elimination of defects, errors, mistakes
 - Improvements that incrementally add value
 - Larger scale, long term innovations, strategic in nature that dramatically redefine systems, processes and outputs.

Effectiveness and efficiency will be applied at all levels in operations. Effectiveness means:

- Results of the process confirm the achievement of the desired outcomes/results
- Extent to which planned activities or planned results have been realized or accomplished
- Comparing the results with the stated objectives
- Achievement showing a level of process compliance, product conformity and customer satisfaction
- Outputs are meeting requirements
- Doing the right things

Efficiency means

- Relationship between the results achieved and the resources used
- Resources used per unit in terms of time and money
- Doing things right

Investing for Future

Investing for future growth and new opportunity is very important in this competitive and global business environment. The investment may be in the form of new process, new tool, better training method, adequate resources or better environment. One of the important things manufacturing companies can do is to invest in methodologies or tools such as lean manufacturing, six sigma, total quality management, etc., to improve their manufacturing processes and achieve world-class quality. Investing in automation and new technology will reduce dependency on human resources in order to reduce human caused errors.

Foreign Direct Investment (FDI) should be welcomed to bring newer technology and tools to India.

Workforce Involvement

People are the greatest assets for an organization. People possess intellectual and knowledge power, which cannot be compared with the fixed assets owned by an organization. Intellectual and knowledge power help the organization to grow and compete effectively. To harness the capabilities and

abilities of people to its full strength, people involvement is essential in all operations everywhere. Similarly, people are key resource in providing inputs to industry, government and public sectors for the smooth operations.

Today's employees have less time, more work, and growing need for information. Maintaining a balance between work, family life, social life and leisure time is not easy task. Skill and priority settings play key role.

The challenges being faced by employees include:

- Keeping up with technology, tools, processes and new materials
- Short product cycle time
- System automation
- Working outside of specialty
- Working with new customers and suppliers
- Outsourcing
- Organizational and management changes
- Integrating systems and processes to achieve balanced objectives of product or service
- Ability to stay energized and motivated
- Understanding the entire system and its effect on the output
- Coming to a technically correct decision conclusion
- Differentiating between organizational, product and process problems

Inspection is not an answer to weed out defects. It is a well-known fact that 85 % problems are management and system related, while 15 % problems are contributed by the worker. Maker of the product should be made responsible for quality of the product. That statement is true for a design and development person responsible to design and develop a product. Employees feel responsible when they consider 'Quality journey starts me'. Employees need to understand the organization's mission, objectives, goals and customers in relation to their position and task in order to contribute towards the fulfillment of goals.

Technological changes and sustainable innovative environment require effective training programs to develop employees. On the Job Training (OJT) may not be enough to make employee productive in a short time. Personalized attention is required to create employee loyalty. Key factors in Keeping employee motivated and continuing to drive excellence require:

- Members should have a learning experience when transacting with an organization.
- Every event should be an exciting one.
- Branding should be as important for the organization as to IBM or Coca Cola.
- Re-educating members, providing continuing education and opportunities for information exchange should be a priority.
- Efforts should be spent to retain and recruit talented and highly imaginative members.

- Organization should be two years ahead of the anticipation.
- Attempt to provide shockingly sophisticated, integrated services to members.
- Be tough-minded. Be a major and provocative force in pushing organization toward radical change.
- Play offensive role and not defensive. Spend majority of time in preparing for future and not in the routine work.
- Make a high aim to miss, not low aim to easily reach.
- Learning is a life long experience, process and activity.

Importance of education in the 21st century is immeasurable. Universal learning model includes four elements, which are:

- 1) Awareness - Technological advancements and newly developed tools require to acquire new skills and knowledge all the time. Learning need must be created for new technology, tools and techniques to move ahead.
- 2) Attitude change – A person has to take keen interest in learning new tools and skills in order to avoid becoming obsolete. In this period of rapid technological changes, some skills and knowledge become diluted or even obsolete. Winston Churchill said appropriately: 'Never, never, never quit (learning)'. A decade back, typing was the job of secretaries or typists. But, nowadays everyone has to learn typing in order to communicate using e-mail services. Initiatives to learn have to come from within. Education is a self-initiated process where a person desires to learn and satisfy curiosity. Regardless of position or age, learning should be a lifelong process.
- 3) Mastering the tools and methods – A person should acquire sufficient knowledge for advancing technology for the good of the society. Mastery is achieved after the education and training have been put into practice. Remember that practice makes perfect.
- 4) Applying the knowledge – A person should be capable of applying the acquired knowledge to good use and should enjoy in implementing for the mankind's benefit. Education or University degree does not add any value if it is not applied appropriately. Just knowing a subject is not enough, one must apply the knowledge. Wishing is not enough, one must perform. Data, information and knowledge all three are interrelated. Data is accumulated from the surveys, testing, inspection, etc. Information is gathered from the data and the gathered information becomes knowledge when used intelligently and decisively.

Education and training are vital in the current environment of high technology driven products and services. Education and training require practice, patience and a desire to learn or achieve. Education provides understanding 'Why' and training provides knowing 'How To'.

Numbers give very interesting & meaningful message for everyone.

If: A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
is represented as:

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26
Then: H-A-R-D-W-O-R-K sums up to
 $8+1+18+4+23+15+18+11 = 98\%$
 K-N-O-W-L-E-D-G-E sums up to
 $11+14+15+23+12+5+4+7+5 = 96\%$
 L-U-C-K sums up to $12+21+3+11 = 47\%$
 M-O-N-E-Y sums up to $13+15+14+5+25 = 72\%$
 and L-E-A-D-E-R-S-H-I-P sums up to
 $12+5+1+4+5+18+19+8+9+16 = 97\%$

None of them makes 100%. Then what makes 100%?

Every problem has a solution, only if we perhaps change our "ATTITUDE"...

But, A-T-T-I-T-U-D-E sums up to
 $1+20+20+9+20+21+4+5 = 100\%$

It is therefore our attitude towards Life and Work that makes our life 100% Successful.

Attitude is key thing in the life and in particularly professional life. Worker attitude towards their tasks and activities sets the standard of product and services. Quality of product and service gets affected when worker attitude changes.

Remember an old adage: Tell me and I may forget; Show me and I may remember, But, involve me and I will remember. Knowledge is a foundation - a foundation for human potential, for freedom, for opportunity. Everyone should have access to knowledge—for free, without restriction, without limitation to move forward.

“Anyone who stops learning is old, whether at twenty or eighty. Anyone who keeps learning is young. The greatest thing in life is to keep your mind young.” - Henry Ford

Creativity, Innovative Approaches and Quality Tools

1. Dynamic organizations are the ones, who are always seeking new ways of doing the business by continually improving their business operations and activity to create a growth in the market here and increase the profitability. The field of quality evolved gradually from error detection by performing 100 % test and inspection to error prevention using zero defect concepts to customer focus by applying management system approach to performance excellence using continual improvement strategy. Innovation and not imitation is an answer to compete in the world. Organizations should encourage out of box thinking approaches and coming out of tunnel vision thinking.

Continual improvement encompasses all forms of improvement in the form of elimination of defects, incremental improvements and value added activities. Larger scale, long term innovations, strategic in nature and dramatically redefining systems, processes and outputs will move organization forward. Steps required for the continual

improvement are measure, monitor, manage and maximize. Measurements need to be defined and managed actively.

1. Measure: Do, perform regular and effective measurements
2. Monitor: Check/Study, perform awareness analysis and timely decision on data
3. Manage: Act, based on measurements and monitoring activity, take appropriate corrective and preventive actions
4. Maximize: Plan, reevaluate the plan for improvements and breakthrough

Angelique Arnauld stated, “perfection consists not in doing extraordinary things, but in doing ordinary things extraordinarily well. Big things will eventually occur when improving a little each day. Perfection requires a dramatic transformation.”

Matthew E. May in his book on 'The Elegant Solution: Toyota's Formula for Mastering Innovation' describes, stated “...Toyota's success is hard to replicate. Their system drives a universal focus on ground-level innovation to the point that the pursuit of perfection is part of who they are not just what they do.”

New Economy way is digital economy, known as e-commerce and knowledge economy is- leveraging knowledge and intellectual property for new business. Common human errors can be avoided by applying Poka-Yoke, error proofing, fail proofing or mistake proofing techniques.

Creative quality culture involves:

- Pursuit of solving unidentified problems
- Surprising and delighting customers
- Goal of customer loyalty instead of satisfaction only
- Changes with stability and control
- Process focus

Dr. W. Edwards Deming's cycle known as PDCA (Plan, Do, Check, Act) or PDSA (Plan, Do, Study, Act) cycle is an useful tool for continual improvement activities. PDCA is a best known tool for the improvement activities.

The elements of PDCA are:

- a) Plan – Say what you will do (Define the improvement, outline and establish the plan and solution and document it)
- b) Do - Do what you say (Implement the plan and solution, maintain it)
- c) Check – Check results vs. expectations/objectives (Monitor the results by measuring and analyzing the data, perform management reviews, conduct internal audits)
- d) Act – Improve deficiencies (Revise/update the plan and solution, Take appropriate corrective/preventive actions to improve it)

Continue the cycle to optimize the output and results.

The Seven M's of quality tools can be used effectively to manage organization:

- Man - (Select the best people and provide appropriate and adequate training, skill level of workers, organization structure and culture, management commitment and dedication)
- Machine - (The latest and adequate equipment, automation, age of equipment, maintenance)
- Method - (Use proven processes, technology and techniques)
- Material - (ingredients, purity level, right type of material)
- Media - (suitable environment – temperature, humidity, cleanliness; time of the day,)
- Motivation - (attitude, willingness, create an action-oriented quality culture)
- Money - (invest in automation and new technology and tools, capital)

ISO system can be used as guide and benchmarking for learning to improve operations.

Quality gurus taught us a mantra to improve products and services:

- 1) Fredrick W. Taylor
(Application of science to complex human behavior)
- 2) Dr. Walter A. Shewhar
(Work sampling & control charts)
- 3) Dr. W. Edwards Deming
(System of work; Control of variation)
- 4) Dr. Joseph M. Juran
(Trilogy of Planning, control & improvement)
- 5) Dr. Armond V. (Val) Feigenbaum (Total quality control)
- 6) Prof. (Dr.) Kaoru Ishikawa (Company-wide quality control; Quality circles)
- 5) Philip B. Crosby (Zero defects, Cost of Conformance)
- 6) Dr. Genichi Taguchi (Process design; Quality loss function)

In the future approach, deployment and results will become important for 'Make In India' initiative.

Approach – In all kinds of activities the approach should include prevention oriented, sustainable continuous improvement, able to measure the extent of the problem, goals/benchmarking aim and using innovative and uniqueness.

Deployment – The message should be conveyed to customers, suppliers, cross-functional teams, employees, stakeholders and managers at all levels.

Results – It should benefit customers, suppliers, aiming towards improvements, sustained gains and benchmarking.

Tools and techniques to achieve continual improvement strategy include:

- 1) Brainstorming:- An effective group technique to generate new ideas and possible solutions.
- 2) Benchmarking:-It is the continuous process of measuring/comparing products, services, and processes against those of the toughest competitors or those companies recognized as industry leaders. It is a positive practice to improve the structure of operations to achieve superior performance.
- 3) Cause-effect diagram (Ishikawa diagram, Fishbone diagram): - It shows the relationships between effect and possible influencing causes.
- 4) Check Sheet:- It is a mechanism for identifying variables and counting their frequency of occurrence.
- 5) Control Chart:- A run chart with statistical upper and lower control limits of the process.
- 6) Flow Diagram:- Pictorial presentation showing all process steps and activities in sequence.
- 7) Histogram:- A plot of measurement revealing variation in the form of a bell shape curve.
- 8) Management systems deploying ISO 9001 and other such standards system:- ISO 9001 QMS system concentrates on fixing quality management system defects and product/service nonconformities. It also helps to document "What the organization is doing". It is an organized approach to managing elements of a business in such a way that fosters continual improvement and customer satisfaction.
- 9) National/local quality award schemes:- Awards focus on performance excellence and identify and track important organizational results. It helps to determine "Where the organization is".
- 10) Pareto Analysis:- A bar graph showing defects from highest to lowest order that helps to set problem priority.
- 11) Process Control:- Detects changes in a process and monitors the performance of the process over time. It involves systematic evaluation of the performance of a process and the corrective actions taken for the improvement
- 12) Run Chart:- it is a chart showing a graphical presentation over a time to monitor the process and check the trend
- 13) Six Sigma Methodology:- Six Sigma is a set of statistical and management tools that can make leaps in improvement. Six Sigma process has a failure rate of 3.4 PPM (parts per million) or 99.99966 % defect-free product. It uses a complicated approach to problem solving called MAIC (Define, Measure, Analyze, Improve and Control).
- 14) Self-assessment techniques:- SWOT (Strength, Weaknesses, Opportunity, Threat) technique is an internal assessment of the organization to create an awareness, increase understanding and identify areas for improvement. Essentially, self-assessment or self-appraisal involves the regular and systematic review of an organization's activities and results. The process allows

an organization to clearly discern its strengths and areas for improvement.

- 15) Scatter Diagram:- It shows the possible relationship between one variable and another.

Total Quality Management (TQM):- It is a cost effective system for integrating the continuous quality improvement efforts of people at all levels in an organization to deliver products, services and solutions which ensure customer satisfaction.

Tracking and controlling Economics of Quality or Cost of Quality can be very useful method to identify waste and increase profit margin. Cost of quality includes:

- a) Prevention Costs (Costs associated with planning, training, coaching, mentoring, etc.)
- b) Appraisal Costs (Costs associated with inspection, test, audits, etc.)
- b) Appraisal Costs (Costs associated with inspection, test, audit, etc.)
- c) Internal Failure Costs (Costs associated with rework, scrap, sort, etc.)
- d) External Failure Costs
 - Direct Failure (Costs associated with warranty, repair, customer return, replacement, etc...)
 - Indirect Failure (Costs associated with Loss of goodwill, loss of customer business, Impact on the business, etc.)

Summary

Overriding commitment to quality, total customer satisfaction and drive towards continual improvement must be an integral part of the 'Make In India' initiative. Success is not given, it is earned with drive, hard work and enthusiasm. A journey from 'Make in India to 'Made In India' will need:

- Committed, leading, involved, focused and responsive government and Business leader to tackle any kind of activities
- Organized, responsible, authorized, empowered, trained and knowledgeable employees to accelerate improvement activities
- Manufacturing processes, which are Visible, traceable, consistent, repeatable, measurable and documentable
- Appropriate, relevant, simple, understandable and consistent documents, procedures and records

Success to realize a dream is dependent on:

- Teamwork, cooperation and active support from everyone involved
- Enthusiasm of everyone involved
- Leadership, commitment and ownership
- Management vision
- Clear cut understanding of requirements
- Open communication

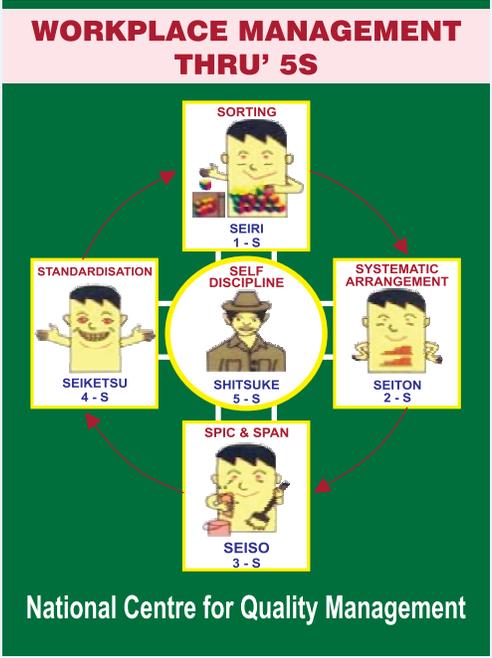
- Decisiveness
- Quick decision making process
- Integrity and unbiased fair views

Organizations may have extensive quality control measures in place, but, not everyone lives and breathes them. Under the competitive pressures, companies cannot afford to have anything but the very best quality. An action oriented quality culture, attitude and willingness must be developed within the organization not only to survive, but, to thrive. Partnership, cooperation and a joint programs with government, educational institutions, universities and other industries need to be pursued.

It should be remembered” Good, better, best; Never let it rest; Make the good better; and make the better the best. Past cannot be recaptured, but the future can be made. And the time to start is now. Past was perfected but creating a future is not sure. Quality is one of the core goals of Pathways to the future. India has a vast potential to be economically superpower by integrating basic quality principles in each and every activity by adopting quality minded attitude and behavior in all interactions while keeping high ethics and high morals.

Quality distinguishes great from good and success can be achieved by Emulating the best and using the TLC approach, which is Total customer satisfaction, Leadership and Continual improvement.

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Preamble:

The Blind Foundation for India (BFI) was founded in April 1989 to address the acute issue of blindness in India. India is a home to over 15 million blind people accounting to 1/3rd of the world's blind population.

Project Impetus:

- There are 15 million blind people in India
- 2.3 million people develop Cataract every year
- 2 million blind children - only 5% receive any education

Major Causes of Blindness in India:

1. Lack of Vitamin A (Youngster ages 4-6):

Lack of awareness, ignorance, malnutrition, and poverty

2. Measles Occurrence:

With Measles outbreak, liable to lose eyesight

3. Age-related Cataracts (Older population):

- 60 years and over population get Cataract in their eyes
- If Cataract is not removed, they are needlessly blind

4. Diabetic Retinopathy:

Diabetic condition is a severe issue impacting a large segment of Indian population

Organization Structure (Lean Management):

USA - Six members on the Board of Directors, 60 members on the Advisory Board, and 300 key volunteers in USA

India - One Overseas Coordinator, one Field Officer, and one Administrative Helper

Project Methodology:

USA:

- Created a database of potential donors
- Sent out annual appeals to 5,000 prospective donors around Diwali time
- Manage donor relations - timely receipt, eye camp reports, van utilization reports

India:

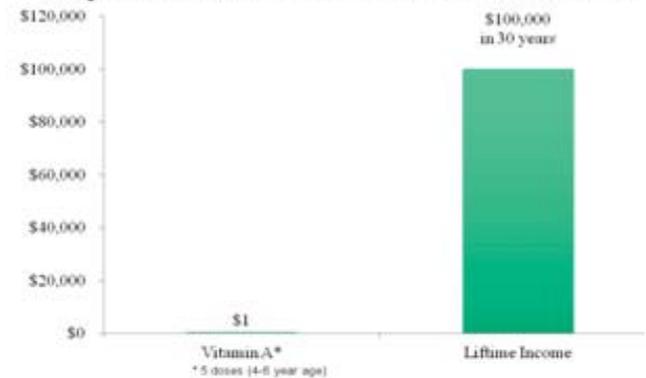
- Screen potential medical partners with the help of BFI Overseas Coordinator
- Determine selected medical partners' needs and supply necessary funds
- Teach proper reporting structure to medical partners

Blindness Prevention:

- There is an exponential power of prevention as follows:
 - If a young child (4-6 year) is given 5 high doses of Vitamin A orally, it will prevent blindness
 - Cost for five doses of Vitamin A is \$1.00
 - That child not going blind and receiving proper

education, he/she has a potential to earn \$100,000 in equivalent Indian Rupees in 30 years - a true exponential power of prevention!

Exponential Power of Prevention



Eyesight Checkup- Sihor, Gujarat



Blindness Cure:

- There is an exponential power of cure as follows:
 - Our medical partners conduct screening eye camps and identify patients with Cataracts
 - Patient are scheduled to come to hospital for Cataract surgery
 - A simple 10 minutes Cataract removal operation is performed at a hospital
 - Patient stay overnight at the hospital, get post-operative checkup next morning
 - They are transported back to their village on BFI van donated to medical partners
 - It costs only \$20 in India versus \$4,000 in USA for a

BFI Post- Cataract Surgery



BFI Van, Eye Camp - Vrindaban



BFI Van Donations:

- Mobile vans are donated to medical partners in 18 States of India
- The vans are used to transport eye doctors, nurses, and staff to organize screening eye camps
- Medical partners use vans to transport patients needing Cataract operations

BFI Van from 4-13-14 Program



Bawri Shiv Mandir School Visit (6-1-13 Van)



Quality Tools Used at BFI:

The following US Baldrige Performance Excellence Framework tools are being used at BFI:

1. **Leadership** – 360 Degree Feedback, Leadership Development
2. **Strategic Planning** – SWOT Analysis, Balanced Scorecard, Hoshin Planning

3. **Customer Focus** – Listening Post, VOC Model, Check List
4. **Information & Knowledge Management** – Benchmarking, Knowledge Portal
5. **Workforce Focus** – Volunteer Opinion Survey
6. **Operations Focus** – Cost of Quality, Brainstorming, Affinity Diagram, Pareto Principle, Ishikawa Diagram, SIPOC, Lean, Six Sigma
7. **Results** - Gantt Chart, Critical Path Method, Risk Matrix

Results:

BFI Impact so far

- **Raised over \$4 Million for various projects**
- **Performed 150,000 free Cataract operations**
- Examined over **One Million** people for eye sight
- Examined over **750,000 children for eyesight checkup, provided glasses, vaccinated against Measles, and provided Vitamin A** as needed
- Provided **10,000 Braille Kits** to blind children
- **Donated 115 Mobile Vans in 18 States of India**
- Completed **15 major projects** with Rotary Matching (1 to 3 match → \$500,000)
- Work underway with Lions

Success Story:

A girl with squint eye gets corrective surgery. Her outlook on life changes after corrective surgery.

BFI Results (Before and After)



BFI Recognition:

- Daily Point of Light Award, 06-01-2004 by Daily Points of Light Foundation, Washington, DC, USA:
[BFI DPOL Award 6-1-04.doc](#)
- WBEZ 91.5 Podcast on Blind Foundation for India, 06-04-2015:
<https://soundcloud.com/wbez-worldview/global-activism-blind>

- How a Charity is Using Baldrige to Serve the Blind, 07-30-2015 (Blogrige: The official US Baldrige Blog, NIST, U. S. Department of Commerce):
<http://nistbaldrige.blogs.govdelivery.com/2015/07/30/how-a-charity-is-using-baldrige-to-serve-the-blind/>
- Blind Foundation for India - Healthcare Best Practice, Center for Innovations in public Systems, (CIPS) 12-15-2015:
<https://www.youtube.com/watch?v=6QSKK8mpUaY>
- CIPS Database of Innovative Practices - Blind Foundation for India (BFI), USA (Free Chakshu Daan) 1989-Present (Health, Practice #13):
<http://www.cips.org.in/database-of-innovative-practices?category=Health&state=All&submit=Submit>

- Share BFI YouTube (July 27, 2015):
<https://www.youtube.com/watch?v=YRIF52CAmFI>

Inspiration for BFI:

Mahatma Gandhi

"You must be the change you wish to see in the world."



Etienne de Grellet

"I shall pass through this world but once. Any good thing therefore that I can do, or any kindness that I can show to any human being, let me do it now.

Let me not defer it or neglect it, for I shall not pass this way again."



Swami Vivekananda

"This life is short, the vanities of the world are transient, but they alone live who live for others, the rest are more dead than alive."



Tamaso Ma Jyotirgamaya!

"God Kindly Lead Us From Darkness to Light!"

Letter from President Clinton

THE WHITE HOUSE
WASHINGTON

27 July 1998

Dear Mr. Vora:

Thank you for sharing your thoughtful letter and attached information with me. The Blind foundation for India (BFI) is to be commended for all the services perform throughout India. Vice President Gore and I are committed to making our world a cleaner, safer, and healthier place for everyone. We cannot make these changes by ourselves. I know you are doing your part by helping your community and making a big difference for the people in India. You are setting an example in your community for others to follow.

I have forwarded your material to appropriate government and private agencies for further assistance. They will contact you with relevant information, which may prove to be useful for your project.

Bill Clinton

Ways to Help BFI:

- When you shop at AmazonSmile, Amazon will donate 0.5% to BFI.
<http://smile.amazon.com/ch/36-3663471>
- Share the plight of Blinds in India by sharing BFI website <http://www.blindfoundation.org>
- View TEDxIIT Chicago Talk **"Exponential Power of the Gift of Giving"** (April 13, 2013):
<http://www.youtube.com/watch?v=Z-fmkivYcVg&feature=share>

About The Author: Dr Manu K Vora is mentor ASQ and a recognized Quality Guru. He is involved with various forums including Blind foundation for India. He is easily approachable and contributes to various quality articles and Business excellence consultancy.



Quality and India - A Perspective

by Prof. Dr. Parag Amin, SIEMCOMS, Nerul

In today's context, the word “Quality” sounds very common and is heard very frequently in the context of not only products and services, but also in terms of people, places, activities and several other aspects of our day to day life. Infact, it has now become a part of our routine vocabulary. However, it took several years for the concept of “Quality” to reach its present status of acceptability in India. Moreover, in the last few decades, the changing business and economic environment as well as customer preferences created several “compelling” factors that catapulted quality to assume an important position.

For instance, the market scenario in the pre-reforms period (before 1991) and the post reform period (after 1991) is significantly different. In the pre-reform era, there was considerably lesser competition in the market and by and large, in most businesses, either monopoly or at best oligopoly existed. As a result, the consumers / customers had few choices and thereby had less demand in terms of other factors and attributes like quality, service, price, variants, etc. In other words, due to the market scenario that prevailed then, there were not many “compelling” factors for “quality” to become a critical part of the entire value chain. As a result, the businesses did not find it necessary to adopt quality in as stringent a manner as they do in today's market environment.

On the other hand, the economic reforms in the post 1991 period saw the economy opening up resulting into a drastic change in the market scenario. In most cases, monopoly gave way to oligopoly or monopoly and oligopoly gave way to an open and competitive market. Customers / Consumers had choices and by virtue of technology, they were much better informed. As a result, businesses started looking for various ways in which they could differentiate their offerings to attract customers and earn profits. There was almost a race among competing businesses with each one devising ways and means to project their offering as a “Value for money” proposition. The entire “Value for money” proposition revolved around the “quality” of the product as well as the various attributes/features it offered. Suddenly “Quality” found itself at the centre of the entire “Value Chain”, with every business upgrading itself to offer “quality” products and services. Indian businesses also realized that if they had to compete in the market within and outside India, they had to adopt “Quality” and make it their central feature. Thus, enough “Compelling factor” was created for businesses to invest in “Quality”. Several of them, to establish their credentials as providers of “quality” offerings, adopted one or the other quality certifications. There was, thus a sudden rush of those

who were seeking quality certifications like ISO, SEI CMM , Six Sigma, etc. With the passing years and rapid developments in technology as well as changing customer/consumer demographics, “Quality” became a “must have” attribute across all verticals and all businesses and an important factor in the entire value proposition. As a result, quality pervaded not only in manufacturing sector but also in service oriented sectors like education and entertainment.

Success Stories

Quality is about standardization. It is about identifying key business processes, benchmarking them with the best in the business and bettering them so as to obtain consistent and better results each time the process is repeated. Standardization and benchmarking helps in reducing errors (resulting into losses) as well as improve productivity and efficiency. This, in turn, helps in cutting costs and consequently increasing the margins while ensuring good and consistent performance. Documentation is an important aspect of the entire quality process. Quality is a continuous endeavor. As a result, most organizations that are on the quality path have adopted various tools and techniques, largely under the broad concept of Total Quality Management (TQM). Let us look at following critical industry sectors from the perspective of influence and impact of quality-

- **Service Sector-** This is one of the fastest growing sectors and has adopted quality to provide “standard” experience of its services to its customers. For instance, the call center executives are trained to talk to their clients in a particular manner (tone, content, pitch, etc) or the airlines train their inflight staff and the ground staff to interact with the customers in a particular way. What is important to note is that these executives are expected to interact in specific manner at all times during their duty and not only in specific scenarios. Moreover, their consistency is one of the key parameters of their performance. As a result, it is more likely for a customer to get a “standard response” as the service companies strive to provide a “standard experience” to its customers.

There are several service providers who guarantee a particular response time to its customers. For instance, a leading Pizza chain promises to deliver a Pizza within 30 mts failing which, customer gets the pizza free. In this case, time becomes an important dimension of quality as the customer not only expects the delivery within promised time, but also that the product be a quality product. In order to ensure this, the Pizza chain has standardized its backend operations, which helps them in achieving their objectives.

Airlines are an important mode of travel today. It is not only convenient and comfortable, but more importantly, it saves time. However, quality in every aspect of its operation is crucial as any laxity may be potentially dangerous and may lead to heavy financial losses or loss of human life. Similarly, non-compliance may make an airline incur higher costs and therefore lose competitiveness.

Another example is that of courier services. In today's context, thanks to competition and quality consciousness, the courier companies too, have become sensitive to customer's needs and have adopted standard processes to provide a quality experience to their customers. The best among these companies provide upto-date information to the customer about the status of goods shipped. Moreover, they strive to deliver the goods on time. Breakages or misplacement of goods are minimized. All this leads to high standard of service as well as an increase in productivity, efficiency and a reduction in costs besides earning customer loyalty.

- **Manufacturing Sector-** The Indian Manufacturing sector is at present, on a growth track and is set to contribute 25% to our GDP by 2025, as targeted by the National Manufacturing Competitiveness Council (NMCC). India is very fast evolving as a global manufacturing hub and several global manufacturing majors have either set up their bases in India or are in the process of doing so. Keeping costs low, improving the efficiency of operations and enhancing the productivity have been some of the major challenges of this sector. Apart from this, in context of present day market conditions, Innovation is one of the key requirements. This sector has undergone a major change in the past few decades, particularly in terms of adoption of technology and quality. Most companies in this sector have embarked on the quality path and are employing various tools and techniques for the same. Since this is a continuous endeavor, almost all such companies have a separate Quality Department that drives all quality initiatives. Quality, in fact, has become a part of the day to day operations. Quality encompasses almost all functional areas within an organization.

Technology, too, has played a key role in not only improving the efficiency of operations, increasing the productivity and reducing costs, but also in terms of complementing the quality initiatives. With technology, it is now much simpler to monitor and analyze key performance parameters and extract critical intelligence that assists in faster decision making. One of the perennial problems that this sector, particularly the smaller manufacturing firms is struggling with, is that of achieving economies of scale as smaller firms find it difficult to achieve by virtue of their smaller operations.

Adoption and adherence to quality norms have provided several benefits to this sector. One of the major benefits is that today, most of the companies in this sector, boast of best business practices that they have adopted in their operations. This has ensured that the manufacturing process as well as the output is comparable and competitive with global practices. As a result, Indian manufacturing companies have been able to enter foreign markets and compete successfully with global companies.

However, within India, few teething problems like complex labor regulations, taxation, power outages, transport infrastructure, etc. continue to pose a major challenge to this sector.

- **Pharmaceutical Sector-** As per some data available, India is well on its way to be a world leader in generic pharmaceuticals production and supplies almost 20% of the global market for generic medicines. In terms of global production, this sector in India accounts for 8% and is known to export to over 200 countries across the world. This sector has been playing a key role in supplying quality and affordable pharma products to various nations. The Indian pharma sector has evolved tremendously in the last few decades and has made significant progress in terms of Technology, Infrastructure, Innovation and Quality. The sector is estimated to grow at a CAGR of 20% over the next five years.

Indian pharma sector is one of the key contributors to the World Health organization (WHO) Prequalification programs (PQP), which ensures safety and efficacy of medicines by setting standards for generic medicines. As a matter of fact, over 65-70% of medicines in the WHO Prequalified list of Medicinal products belong to Indian manufacturers in segments such as HIV-AIDS, TB, Malaria, etc. This is a reflection as well as an acknowledgement of the quality norms adopted by the sector.

It may also be pertinent to note that the quality in Indian Pharma will have to be assured particularly in view of rapid health transition that is being experienced in India. For instance, off late, there has been a noticeable rise in non-communicable diseases like Cardiovascular diseases, diabetes, asthma, cancer, etc. As a result, high quality medicines for these diseases will have to be made available at affordable costs. It may be noted that efficient production and technology adoption are essential for producing high quality medicines.

As may be seen from the brief description of 3 critical sectors, Quality is one of the vital attributes in the entire value chain for

these sectors. It may not be wrong to state that quality is actually the backbone along with technology for any successful organization.

About the Author-

Prof.Parag Amin is the Dean-New Initiatives and Associate Professor in Marketing at SIES College of Management Studies (SIESCOMS). He is also the Champion of the Accreditation Council for Business Schools and Programs (ACBSP) at SIESCOMS.

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Obituary

**Mr. Atul Bhagwati - Past President, NCQM
1932 - 2015**



Mr. Atul Bhagwati, promoter shareholder and Chairman Emeritus of the A.T.E. group, passed away on December 19, 2015.

He is respected for his dedicated efforts to bring the latest technology in textile engineering from around the world to India, thus helping to transform the Indian textile industry to one that is competitive in the world textile arena.

Mr. Atul Bhagwati with his keen business foresight and good business ethics emerged as an industry leader and an inspiration to other entrepreneurs. Soft-spoken, humble, resolute, visionary – these are the words that people who knew Mr. Atul Bhagwati use to describe him. He headed many industry associations like the Indian Merchant Chamber, the Indo-German Chamber of Commerce, the Textile Machinery Manufacturer's Association, etc. He has also been honored with many awards for his contributions in different fields.

Mr. Atul Bhagwati was the President of National Centre for Quality Management (NCQM) during (1999-2001). We deeply mourn sad demise of Mr. Atul Bhagwati. May his soul rest in peace.



Quality & India - Then & Now

by Dr. R.H.G.Rau, Chairman, Advisory Board Nance India Solutions
And
Trustee and Past President - NCQM

While we are in 2015, it's a pleasure to recall how beautifully the Indian Steel producers, operating electric arc furnaces (EAF's), have learnt the imperative of being quality and cost conscious, and matured to stand among global competition.

Fifty years back, the author melted mild steel in a 5 tonne EAF. It used to take 5 hours to melt that quantity. About a decade later, his experiences related to carbon, alloy and special steels in 25 tonne EAF's. Today we have in our country a massive furnace with a capacity of 250 tonne with most modern features, capable of melting the entire quantity in about an hour, feeding the downstream casting and rolling facilities. It provides me immense satisfaction.

I wish to recall here the early days of the Indian EAF steel industry (also called mini-steel industry) of 1960's. During this initial period, small size cast mild steel ingots, typically of 3" x 4" size, or gas-cut squares to required sizes from scrapped mild steel plates were rolled into steel bars and rods, meant for reinforcement and basic engineering uses.

For hot rolling these square sections into rod coils, only manual looping was employed. Its technology was considered so special that some of the re-rolling mills used to employ experienced Europeans to run their mills. Though later years saw the introduction of mechanical looping, there was no conspicuous quality focus or any structured quality management. Product quality certification got due attention only with the advent of cold-twisted steel re-bars, and later with the development of hot-rolled re-bars.

At that time, those who took this mini-steel route with re-rolling mills had a great time. They produced and marketed small lots, which were in great demand primarily from the local construction industry. Everything rolled was getting sold and customers were prepared to pay a premium. Established large construction industry went to TISCO, now Tata Steel, recognized even then as a high quality major steel plant. The SAIL entry was much later, in 1980's, to meet the growing needs of the Indian industry.

The products from the EAF route were neither being sold nor marketed. They were mostly distributed to the hungry users. Even then, some of these producers had the luxury of creating a Marketing Silo with a Marketing Head, supported by a marketing manager, sales manager, with three sales engineers; truly a high cost marketing set-up in today's standards. The beauty is most of these units still made huge profits!!

Developments of early 1970's on designs of EAF's of larger capacities, typically of 25 tonnes, coupled with continuous steel casting for billets and blooms was a breakthrough in

technology, and encouraged development of high carbon, alloy, special and stainless steel products.

However, till the end of 1980's, it was a regime of controlled industry in India. Steel bars, rods and other shapes were in short supply. The entire steel production, sales and their prices were controlled by a Steel Controller, sitting in Delhi. The story of the Controlled Raj was fascinating. It is indeed laughable. The steel units had to give explanation if they produced beyond the licensed capacity. High productivity was pounced upon. The high cost Indian industry was protected through high import tariffs, even up to 350 percent for certain steel grades.

Then came 1991, when the country's economy was opened up to global competition. The high import tariffs, which used to protect domestic industry against imported steel, started coming down drastically, though in phases. The steel industry had no option but to face stiff global competition. Japan successfully extended its mastery in managing Total Quality, implemented in 1970's primarily in electronics and automobile industry, to its steel industry. Consequently, by 1991, Japanese high quality steel products were sold in the Indian market, with delightful certification as an added-on feature, at a price equivalent to the manufacturing cost of similar products in India.

1990's were a great challenge to the Indian industry as a whole, the steel industry in particular. The challenge was to survive by continuously bringing down costs and improving product quality. Quality improvement and technology up-gradation were simultaneously addressed. The mantra was: "Improve your process quality. The costs and product quality will take care of themselves".

CII lost no time. The industry body took the initiative of arranging training programmes for Indian Top Management in Japan, by Union of Japanese Scientists and Engineers (JUSE) from the year 1991. A select few were taught how Japanese manufactured high quality steel products at low cost. I had the pleasure of attending the JUSE programme of 1992, and it was an eye-opener. We learnt the first lessons on TQM, and they made a lasting impact. The entire programme was so intense and powerful, we returned charged with total quality reformation.

Most of us started applying the lessons learned the moment we landed back into India. We could start managing the differentiation between the product quality (q) and total quality (Q). This was supplemented by effective implementation of ISO 9000:1989 standards. Almost by then, Qimpro Consultants brought into the country Juran Trilogy, with special emphasis on Juran on Quality Improvement (JQI)



We are said to be living in a *postmodern* world, meaning there is no single defining source for truth and reality beyond individual preference. Yet we use the words Quality and Success, which imply a defined parameter against which to compare and decide about the performance. But there is no irony in it; how? Let's explore.

So, here we are not going to relish Indian success stories; rather, we would try to bring clarity about the performance factors that yield the success. This we'll do with a few anecdotes from India and abroad.

Anecdote 1: Indian Railways – Story from not a very distant past

Mumbai C.S.T. is one of the major terminuses of the Indian Railways. It's a destination for many trains coming into Mumbai from across the country. It's also the biggest terminus for the local trains that ply in the city.

The local terminus houses eight tracks. Until a few years back, these tracks had single platforms for the people to transact. Due to the ever increasing population and rush in Mumbai, the authorities decided to provide two platforms, one on either side of each track, to ease the transaction. Apparently an ordinary task but the only condition was, 'the traffic cannot be interrupted'. This meant that every day the hundreds of thousands of people will continue to pour into the terminus and amidst it all the eight platforms were to be made into sixteen!

The target duration for the task was set at 21 days and the job was completed, without stopping the daily traffic, in 20 days; a day in advance!!

Anecdote 2: A German Taxi-driver of the late 70's or early 80's

An Indian, a first time visitor in Germany, took a taxi at the airport to reach his hotel. The taxi driver saw that the passenger was new to Germany and assured him of the best service.

However, he stopped the taxi mid-way, turned to the passenger and said that he missed the last diversion that he was supposed to take and consequently they were required take a detour of a few kilometers. He also said that he was stopping the taxi meter which he would restart when they come back on the right track. He did exactly what he had said. This was totally unexpected for the passenger!

When they reached the hotel, the meter ticked 90DM (The prevailing currency in Germany then was Deutsch Mark and not Euro). Though the passenger was impressed, he cross checked with his host later about the usual expected taxi-fare from the airport to the hotel. The reply was 90DM!

Anecdote 3: A Japanese young lady of early 70's

Around forty years back a young Indian met with his other young Indian friend in Tokyo. With leisurely time at hand they were loitering one morning which was otherwise busy one for the locals. This friend habitually coughed a bit and spitted on the pavement which made the folks around freeze for a moment. Not showing any care, this duo moved on but couldn't help turn back to see the reaction of the folks further.

To their astonishment, a young Japanese lady was lifting that spittle with a tissue. She threw that tissue in the dustbin and started walking away! Not a single word uttered to these men!!

With a sense of remorse (and the fact that the lady was young & beautiful) this duo made self introduction to the lady and expressed their feelings of regret and surprise. To that the lady responded by saying, 'as foreigners, you are guest in my country. I should not be teaching you how to behave; but, this is my home country and it's my duty to work towards its betterment!

By the way that lady was a very senior official involved in a space research program of Japan.

Anecdote 4: India's Current Space Program – Expertise in cost effective Launching

It's no secret, nay, it's well known the world over that India has developed and is in possession of the knowhow for one of the most cost effective satellite launching programs. The fact that already is becoming a business opportunity and a strategic niche for India!

The Story behind the History

Anecdotes could be innumerable. Stories are important and interesting too. They make us look for something that we feel while reading them. However, unless we capture the value proposition within, it doesn't go beyond just tantalizing the conscious. What is required is grooming the conscious and take it to sobriety, what we call, as being in control.

Incidentally, or perhaps not so incidentally, 'Control' is the last phase of the five phases of a process improvement methodology – Six Sigma – that is famous & popular among the organizations across the globe whether it's a 'for profit' venture or 'not for profit' one. The four phases before this Control phase starting with the first are 'Define', 'Measure', 'Analyze' and 'Improve' and thus it's called DMAIC methodology of process improvement.

Here let's get reminded that this is not an article explaining DMAIC or for that matter Six Sigma. We are exploring something else; the performance factors that yield the success! In many of the real life situations wherein we succeed or fail, we do not have either time or information or knowledge

enough to formally apply a systematic methodology like the DMAIC; but if we delve upon the outcomes, it'd show that in most of the activities we have followed DMAIC intuitively and a focus on a particular phase or the lack there of, has created the success or the failure as the case might be.

Search for the Success Factor (SF)

Let's dive little deeper in the German taxi-driver's case to possibly fathom that alluring SF Pearl!

When a naïve passenger approached him, his business case doesn't seem to be immediate profit maximization; rather, he assured the passenger of the shortest route and walked that talk. Both parts may kindly be noted; one, he assured what the customer would want and two, he walked the talk.

Many a times we do the first part but miss completely or partially on the second part. Completely missing could be deliberate as in a case where in an auto/taxi driver takes naïve passenger on a joy ride, or it could be partial for the lack full knowledge as may happen if the driver himself is new.

Next we see that the clear business case (the Customer Satisfaction) and avoidance of common error of selecting a wrong metric (the profit maximization) saw him walk the talk when the situation demanded.

The passenger did not know about missing the diversion. The clear definition and corresponding metric immediately prompted correct analysis that the detour of a few kilometers should not be on account of the passenger and the corresponding action followed. The analysis and improvement in this case did not take time because the driver was already in control which otherwise specifically needs to be planned for in the usual process improvement exercises done in the organizations.

In a Nutshell

The above case and even the Japanese lady's case show the personal integrity of the individuals reflecting in the nick of the moment. The periods are 70's and 80's, just around three decades after the war which had devastated both those nations in more ways than just economic. And today, Germany and Japan are leading international Diaspora in many ways. The Indian anecdotes in contrast depict grand successes of much planned efforts and meticulous execution thereof in the current times.

These are not the only examples. The first metro-rail project execution in Delhi at the start of the new millennium or the Kokan Railway projects in Maharashtra were praiseworthy and the success of the Indian IT sector is no more a news. These examples contradict the general impression about performance of Indians in public sphere which is far from being satisfactory let alone being a spectacular one. So where is the gap?

It seems to be like this. When the task is well defined and executed by the professionals with relevant metrics, it yields. The few individuals involved in the above examples whether of Railways or those of the Space program seem to execute meticulously in the span – narrow or wide, that they operate in and always! This practice needs to be nurtured and should reflect in our day to day behavior in practice. We need to be in Control, always; and to achieve that and sustain that result we need to develop and nurture a culture of improvement. It's just that, so simple; isn't it?

About the Author:

Manoj Tamboli has experience of over 25 years majorly in Industrial Engineering interspersed that with Marketing. Having strong Consultancy exposure, his multifaceted assignments included Methods Improvement (O&M), Productivity Improvement, Training, Project Appraisal, Layout, Production Norm Fixation, Job Evaluation and Manpower Assessment. The assignments spanned cross-section of industries including Manufacturing, Process, Assembly and Fabrication covering Steel, Healthcare, Packaging, Ship-building, Gems & Jewellery, Tyre and Garments. Being an Industrial Engineer & a Certified Six Sigma Black Belt (ASQ).

Contd.. from Pg No. 16

Quality & India - Then & Now

methodology. It led to significant benefits to the industry by addressing what is popularly known as Cost of Poor Quality (COPQ).

With industry not protected any more, with markets getting global, with product prices being dictated by competition, with the realization that price is nothing but cost plus profit and only decreasing costs can improve profits, all progressive units in the EAF industry started bringing down poor quality costs and improving product quality by paying attention to newer technologies and better quality.

While in 1960, India's annual steel production was a mere 2 million tonnes, it went up to 86 million tonnes in 2014, the fourth largest in the world. While the EAF share was just 7 percent In the year 1960, it went up to 38% in the year 2014. This phenomenal growth and success story is essentially due to the willingness of the Indian EAF steel industry to move ahead with times, with quality and technology as the most crucial factors.



Proceedings of NCQM's BEQET Workshop held on December 28, 2015

by Mr. B. Banerjee, President, NCQM

BEQET (best educational quality enhancement team) –President Award was instituted in 2006 by NCQM Trustee Shri Mahesh Gandhi in memory of his late father Shri Vadilal Gandhi. This year being its 10th cycle, NCQM wanted to do something innovative. Scrutiny of past nine years' entries showed that quality of project studies has not significantly improved. Application of statistical & analytical tools was found to be limited to Brain Storming, Ishikawa diagram and Pareto analysis. Actions were based on intuition, judgment, feel and experiences without use of any root cause analysis techniques. In addition number of participating teams was found to be stagnant over the years.

To have breakthrough improvement in participation such as doubling the number as also enhance quality of project studies through use of analytical tools, a full day preparatory workshop was held on Monday 28th December'15 at NCQM Learning centre, Vikhroli. Response was quite encouraging. As many as 35 participants from 17 colleges & institutes participated.

The workshop started with exposure to basics of SPC (statistical process control) and TQM (total quality management). Then simple statistical tools like Histogram, Brain Storming coupled with Ishikawa diagram and Pareto analysis was covered in the first session. In the next session couple of relentless root cause analysis (RRCA) techniques were covered. First of them was Nominal Group Technique (NGT) after highlighting over half a dozen drawbacks of Brain Storming such as lack of quantification of various ideas, not ensuring 100% participation, lack of knowledge of some participant on the problem being discussed etc. Then extension of Why-Why analysis to Why-Verify-Why analysis which brings out real root cause was covered with practical illustrative examples. At the end highlights were also provided to other slightly more sophisticated techniques like Kepner-Tregoe or Differential Diagnosis technique and Phenomenon Mechanism analysis.

In the afternoon, Dr. Deepa Sharma, Principal, M. D. Shah Mahila College and three times winner of the trophy, highlighted the criteria for selection of a good project and methodology to be adopted for getting long term benefit to the organization.

Her session was followed by sharing of experiences by Dr.S.Kumadhavalli, Principal, Smt. S.P.N.Doshi college and four times winner of the trophy.

There were lot of learning from the above two presentations. A dozen “Generic” ones for sustaining success of any project study are captured below:

1. Participation of Principal/Director at all stages of the study is a must.
2. Two cardinal principles for selection of a project will be (a) involvement of all key stakeholders and (b) scope of its horizontal replication.

3. Select project with one or more of the following ten themes: productivity, quality, cost, delivery, service, safety, health & environment (SHE), morale or motivation, good manufacturing practices, innovation and profit abbreviated as PQCDSSMGIP.
4. Create a learning culture: Train large number of people initially on 5S, SHE, 7QC tools, Kaizen & Quality Circles and later on Bench Marking and Lean Six Sigma.
5. Use statistical and analytical tools to analyze data and draw logical and actionable conclusions.
6. Carry out proper root cause analysis before taking any action based on intuition. Dr.Kumudhavally cited number of examples where real root cause was totally different from those derived from experience alone.
7. Use Deming's PDCA (plan, do, check and act) cycle and rotate it if needed.
8. Dr.Sharma advised participants to Inculcate Japanese culture in the organization. For this, first thing to do will be Listen, Listen, Listen... to other people particularly your customers with humility.
9. As a manager bringing out innovative and cost effective solutions on a continuing basis should be in your DNA.
10. Your task should be to get extraordinary work from ordinary people.
11. Always quantify tangible (measurable preferably financial) and intangible benefits such as enhancement of team spirit, self development of people etc.
12. Become a real “Change Agent” in the organization.

Feed backs were excellent. In fact most of them suggested that this workshop should be an annual feature and if possible to be conducted at their respective institute, This may not be feasible but can be thought over for a cluster of colleges subject to the availability of guest faculties.



Mr. Banerjee delivering lecture



Audience



L-R Dr. Deepa Sharma and Dr. S. Kumudhavalli receiving recognitions certificate as a core Faculty from Mr. B. Banerjee



Gift of Knowledge Transfer Leveraging Technology

by Dr. Manu K. Vora, ASQ India.

Preamble:

The Leadership Excellence Series (LES) consisting of life-long transferable soft skills and quality management knowledge was initiated in December 2013 to help professionals from ASQ Local Member Communities (LMCs) and students/ faculty/ staff/ administrators.

Project Impetus:

- Generally, engineering students/ graduates are **very proficient in technical knowledge**.
- However, they generally focus only on technical aspects and **overlook soft skills**, which are very crucial for individual and organization's success.
- Additionally, in global economy, **professionals need to be proficient in quality management principles/ practices to understand systems thinking**.
- **"An Open Letter to India's Graduating Classes."** , New York Times, May 23, 2012 at: <http://india.blogs.nytimes.com/2012/05/23/an-open-letter-to-indias-graduating-classes/>
- **"State of Higher Ed in India: Time to Act is Now."** , LinkedIn Post, June 12, 2014 at: <https://www.linkedin.com/today/post/article/20140612211610-1800896-state-of-higher-ed-in-india-time-to-act-is-now?trk=mp-reader-card>

Few Quotes on Education and Its Importance:

- Education is a progressive discovery of our own ignorance - Will Durant
- Education cost money, but then so does ignorance - Claus Moser
- Education is the Only Profession which Creates Additional Professions - Unknown
- When you Share the Knowledge, it multiplies; when you Hoard the Knowledge, it Dies - Unknown
- Education is the Most Powerful Weapon which You can use to Change the World. - Nelson Mandela

Project Vision, Mission, and Benefits:

- Vision: To provide gift of knowledge transfer globally leveraging technology.
- Mission: To educate students/ professionals in life-long transferrable soft skills and quality management principles/ practices (Systems Focus) for Nation Building using Google Hangout On Air or Webinar platforms.
- Benefits:
 - ❖ Students: Use of skills during studies, for placement

search, and on-the-job application

- ❖ Professionals: Use of skills on-the-job

Project Approach (12 topics LES - 1-5 soft skills, 6-12 quality management):

1. Leadership excellence
2. Effective teamwork
3. Effective time management
4. Effective meeting management
5. Effective decision making
6. Effective project management
7. Effective risk management
8. Effective talent management
9. Voice of the customer management
10. Operational excellence
11. Sustainable change management
12. Effective supply chain management

Google Hangout Technology Requirements:

- **Stable Internet connection**
- Laptop
- LCD projector
- Screen
- Microphone for Q&A
- Conference room
- **Gmail account for originator and recipients of Google Hangout On Air**

LES Resources (Recording of completed sessions at IIT (BHU)):

- IIT (BHU) Leadership Excellence YouTube (08-29-2014): <https://www.youtube.com/watch?v=pTNpSYtYVjQ>
- IIT (BHU) Effective Teamwork YouTube (9-19-2014): <https://www.youtube.com/watch?v=G0vwuq7ZwUU>
- IIT (BHU) Effective Time Management YouTube (11-05-2014): <https://www.youtube.com/watch?v=RjxGTllj-xw>
- IIT (BHU) Effective Meeting Management (01-05-2015): <https://www.youtube.com/watch?v=sFsNVnd1vxA>
- IIT (BHU) Effective Decision Making YouTube (09-18-2015): https://www.youtube.com/watch?v=6T_sqMMzDvM
- IIT (BHU) Effective Project Management YouTube (10-05-2015): https://www.youtube.com/watch?v=7SR9Yue7_l8
- IIT (BHU) Effective Risk Management YouTube (11-06-2015): <https://www.youtube.com/watch?v=Z3djvT3Yr8w>

List of Institutes Participating in ASQ India LES:

1. Alliance School of Business, Bengaluru, KA, India
2. Arihant School of Pharmacy & Bio-Research Institute, Adalaj, Gandhinagar, GJ, India
3. Arunachal University of Studies, Namsai, AR, India
4. Aruna Manharlal Shah Institute of Management & Research, Ghatkopar, Mumbai, MH, India
5. ASQ Ahmedabad Local Member Community, Ahmedabad, GJ, India - Webinar & GH
6. ASQ India Local Member Community (LMC) members, New Delhi, NCR, India - Webinars
7. C. U. Shah University, Surendranagar, GJ, India
8. Chandigarh Group of Colleges, Mohali, PB, India
9. Chandigarh University, (Management & Engineering), Mohali, PB, India
10. Faculty of Management Studies - Baroda, M. S. University of Baroda, Vadodara, GJ, India
11. FORE School of Management, New Delhi, NCR, India - Google Hangout
12. Illinois Institute of Technology, Chicago, IL, USA
13. Indian Institute of Technology (BHU), Varanasi, UP, India
14. Indian Institute of Technology Hyderabad, Kandi, TG, India
15. Indian Institute of Technology, Roorkee, Roorkee, UK, India
16. Industry Interface Center and Faculty of Skill Development, Ganpat University, Ahmedabad, GJ, India
17. Jaipur Engineering College & Research Centre, Jaipur, RJ, India
18. Ministry of Rural Development, Government of India, New Delhi, India
19. Motilal Nehru National Institute of Technology, Allahabad, UP, India
20. MVGR College of Engineering, Vizianagaram, AP, India
21. National Institute of Technology, Kurukshetra, Kurukshetra, HR, India
22. PSG College of Technology, Coimbatore, TN, India
23. Pandit DeenDayal Petroleum University, Gandhinagar, GJ, India
24. Patuck Gala College Of Commerce And Management, Santa Cruz (east), Mumbai, MH, India
25. Pillai Institute of Technology, New Panvel, Mumbai, MH, India
26. Punjab Technical University, Mohali, PB, India
27. RKDF University, Bhopal, MP, India
28. Ramakrishna Mission Home of Service, Varanasi, UP, India
29. Ramakrishna Mission Vivekananda Memorial, Vadodara, GJ, India
30. Shankersinh Vaghela Bapu Institute of Technology, Gandhinagar, GJ, India
31. Shrimad Rajchandra Gurukul, Dharampur, GJ, India
32. SIES Arts, Science & Commerce College, Sion (East), Mumbai, MH, India
33. SIES Arts, Science & Commerce College, Sion (West), Mumbai, MH, India
34. SIES College of Commerce and Economics, Sion, Mumbai, MH, India
35. SIES College of Management Studies, Nerul, Navi Mumbai, MH, India
36. SIES Graduate School of Technology, Nerul, Navi Mumbai, MH, India
37. SIES High School, Matunga, Mumbai, MH, India
38. SIES Institute for Comprehensive Education, Sion (West), Mumbai, MH, India
39. SIES (Nerul) College of Arts, Science & Commerce, Nerul, Navi Mumbai, MH, India
40. SIES School of Packaging, Nerul, Navi Mumbai, MH, India
41. SSN School of Management, Chennai, TN, India
42. SVER's College of Engineering, Pandharpur, MH, India
43. Tata Network Forum (Global Executive Forum), Pune, MH, India - Webinars
44. U. V. Patel College of Engineering, University of Mehsana, Mehsana, GJ, india
45. Venus College of Engineering and Physiology, Kalol, GJ, India
46. Vellore Institute of Technology (VIT) Business School, Vellore, TN, India

Applications - Non-Profit Sector:

1. ASQ India Local Member Community (LMC) Leaders and Members, India (12/2013 – Present) – 12 topics completed; **Over 250 professionals** benefitted (Webinar platform)
2. Indian Institute of Technology (BHU), Varanasi, UP, India Campus (8/2014 – Present) - 7 topics completed; **shared with 6,500 people** on campus (Google Hangout platform)
3. ASQ Ahmedabad LMC (11/2014, 11/2015) – 2 topics completed; **600 attendees** benefitted (Webinar platform)
4. Nine Arts, Science, Commerce, Technology Colleges, ASQ Mumbai LMC (6/2015 – Present) – 6 topics completed – **over 3,000 attendees, sharing with 18,500** (Google Hangout platform)
5. Nine Engineering and Management University Consortium 1, ASQ India (7/2015 – Present) – 5 topics completed – **over 1,500 attendees, sharing with 22,100** (Google Hangout platform)
6. Illinois Institute of Technology, Chicago, Illinois, USA (8/2015 - Present) – 2 topics completed - **sharing with**

- 7,900 on campus (Google Hangout platform)
7. Nine Engineering and Management University Consortium 2, ASQ India (9/2015 – Present) – 3 topic completed – **over 600 attendees, sharing with 39,400** (Google Hangout platform)
 8. Ministry of Rural Development, Government of India (8-2015 – Present) – 4 topics completed – **over 140 attendees, sharing with 60** (Google Hangout platform)
 9. Nine Engineering and Management University Consortium 3, ASQ India (10/2015 – Present) – 2 topics completed – **over 1,000 attendees, sharing with 30,000** (Google Hangout platform)
 10. Nine Engineering and Management University Consortium 4, ASQ India (1/2016 – Present) – **Sharing with 45,000** (Google Hangout platform)
 11. FORE School of Management, New Delhi, NCR (11/2015) - 1 topic completed – **75 attendees** (Google Hangout Platform)
 12. Proposal pending with the Ministry of Railways, Government of India – **Potential 15,000 officers** (Google Hangout platform)

Applications - For-Profit Sector:

1. Tata Network Forum, Global Audience (1/2015 – 7/2015) – 6 topics complete – shared with 60-150 locations and over **800 – 1,000 attended per session – Reach out to 5,000 plus executives.** (Webinar platform)
2. Vinmar India Pvt. Ltd., Mumbai, India (1/2014 - Present) – 6 topics completed – **shared with 60 members**; more via Google Hangouts to cover 9 regional locations – **Overall 80 people got benefit.** (Google Hangout platform)

LES Session Glimpses:

ASQ Mumbai - SIESASCS, Sion (W), (6-25-15)



ASQ India – PIIT, New Panvel, MH (7-15-15)



ASQ India – SVBIT, Gandhinagar, GJ (7-15-15)



ASQ India – C. U. Shah Univ., GJ (7-15-15)



LES Project Accolades:

- “Dr. Vora is extremely passionate about his work, has a vast repertoire of knowledge and is ever so generous in sharing it. The humility with which he shares his wisdom is remarkable.”, Vinod G. Kumar, Senior Consultant, Tata Quality Management Services, Pune, MH
- “Excellent presentation highlighting key concepts, best practices, and practical tools to enhance leadership.”, Dr. R. C. Prasad, Professor, Mechanical Engineering, Pillai Institute of Information Technology, New Panvel, Mumbai, MH

- *“The session was Par Excellence.”*, Dr. Parul Agarwal, Dean, School of Management and Director, FMS School of Management, Jaipur Engineering College and Research Centre, Jaipur, RJ
- *“This is the best talk on leadership skills I have ever attended in my life.”*, Prof. S. K. Bhatnagar, Faculty of Engineering & Technology, Manav Rachna International University, Faridabad, HR
- *“On behalf of all my staff and students let me congratulate and thank you for an excellent and lucid session on Leadership qualities.”*, Dr. Rita Basu, Principal, SIES College of Arts, Science and Commerce, Nerul, Mumbai, MH
- *“We are very much thankful to you for such a invaluable leadership talk. The session was Excellent, Inspiring, and Informative.”*, Dr. Nimit Shah, Head, Trn. & Placement Office, C. U. Shah University, Surendranagar, GJ
- *“Thanks for sharing second session on Effective Teamwork. The virtual lecture was very inspiring and informative. The videos, the stories, and the real life examples were wisely chosen. It helped us to change our mindset regarding Teamwork.”*, Prof. Anita Agrawal, HOD and Coordinator –BMS, SIES College of Arts, Science and Commerce, Sion (W), Mumbai, MH
- *“A truly rewarding series of video conferences, it provides access to invaluable knowledge and experience at the touch of a button to eager learners.”*, Venkatavaradan Sunderarajan, Integrated Dual Degree Student, School of Materials Science & Technology, IIT (BHU), Varanasi, UP

LES Press and Recognition:

- ASQ TV Interview, Manu Vora Discusses Government Quality in India, 09-17-2014:
<https://www.youtube.com/watch?v=YnII-BSt45Y&feature=youtu.be>
- Letter to Hon. Smriti Irani, HRD Minister, 02-16-2015:
<..\Letter to Hon. Smriti Irani MHRD 16 February 2015.pdf>
- IIT (BHU) Chronicle Interview on Google Hangouts (05-2015):
<http://www.itbhuglobal.org/chronicle/archives/2015/05/index-interviews.php#007302>
- "Gift of Knowledge Transfer Leveraging Technology" (ASQ Quality for Life Video) (07-21-2015):
<https://youtu.be/Fqxc9XY-ofI>
- ASQ View from the Q Guest Blog – The Gift of Knowledge Transfer through Technology (07-09-2015):
<http://asq.org/blog/2015/07/the-gift-of-knowledge-transfer-through-technology/>
- Gift of Knowledge Transfer Leveraging Technology, 10th

- National Quality Conclave, QCI, New Delhi (8-07-2015):
<https://www.youtube.com/watch?v=Keq4M5lViLo>
- Keynote Presentation at the 2nd International Youth Conference, Vadodara, GJ (08-11-2015):
<https://www.youtube.com/watch?v=CLmvJSwIKqM>
- WBEZ 91.5 Chicago Public Media Worldview Program, Global Activism Interview by Jerome McDonnell, (11-12-2015):
<https://soundcloud.com/wbez-worldview/global-activism-delivering-technology>
- Letter to Hon. Pranab Mukherjee, President, (11-16-2015):
<..\Letter to Hon. President Pranab Mukherjee 16 November, 2015.pdf>
- Gift of Knowledge Transfer Leveraging Technology - Education Best Practice, Center for Innovations in public Systems, (CIPS) (12-15-2015):
<https://www.youtube.com/watch?v=OSqsfQSp3c>
- CIPS Database of Innovative Practices - Gift of Knowledge Transfer Leveraging Technology (Free Gian Daan) 2013-Present (Education, Practice #39):
<http://www.cips.org.in/database-of-innovative-practices?category=Education&state=All&submit=Submit>

LES Recommendations:

1. All India Council for Technical Education (AICTE), Government of India should integrate Soft Skills and Quality Management Knowledge as a part of the curriculum for all Higher Education in India (*Business, Engineering, Dentistry, Medicine, Pharmaceuticals, Arts, Science, Commerce, etc.*)
2. Engage global alumni from IITs, NITs, IIMs, AIIMSs to give back their talent & time using technology for nation building.
3. For All Disciplines, Create a Portfolio of Six Key Areas to Address Unemployment (need 80% score for graduation):
 - Leadership
 - Communication
 - Entrepreneurship
 - Quality Management
 - Community Service (Social Responsibility)
 - Soft Skills

Summary:

- In the 21st century, knowledge can be transferred globally leveraging technology.
- Google Hangouts, as well as other technology platforms, provide great benefits to manage scarce budget resources for learning, training, and development.

- With this initiative we have reached over 175,000 students/faculty/professionals in over 45 Institutes in 14 States and NCR by 1-2016.

Inspiration for LES Project:

President John F. Kennedy

**“For of those to whom
much is given,
much is required.”**



Mahamana Malaviyaji

**“I have no desire for Kingdom, no desire for
Heaven, no desire for Moksha.**

**The only desire I have is to mitigate the sorrow of
the living beings who are ridden with sorrow.
I want to shine light into the darkness before
people’s eyes.”**



***“Let Us Light a Lamp of Knowledge
to Eliminate Darkness of Ignorance.”***

NCQM NEWS

NCQM Forthcoming Programs

- Internal Quality Audit ISO 9001:2015 Standard - Jan 2016
- Being Cost Effective through 6S & 8W - Jan 9
- Root Cause Analysis & Use of QC Tools - Jan 18
- Supply Chain Management - Feb 22
- How to Manage for Sustained Success of an Organization?
"A Quality Management Approach" - Feb 26-27
- Performance Management System - Mar 5
- Supervisory Skill Development - Mar 12
- Value Engineering - An Effective Management Tool for
Competitive Edge - Apr 2

Our Other Forthcoming Programs are:-

- Safety Induction and Accident Reduction in Industries
- How to fight Low Price Competition?
- Benchmarking HR Initiative for HR Practice
- Six – Sigma Yellow Belt
- Six – Sigma Green Belt
- Total Productive Maintenance (TPM)
- Delegation to develop the Team
- Energy Management System Based on
ISO 50001:2011
- Statistical Process Control