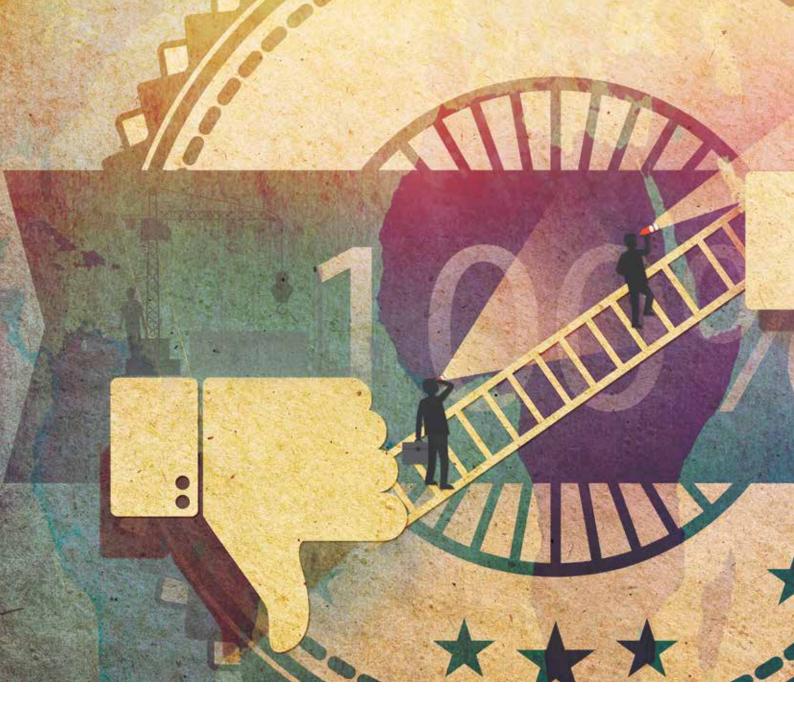
A SPENTA MULTIMEDIA PUBLICATION

◆ EFFICIENCY: THE DRIVING FORCE ◆ QUALITY: THE DIFFERENCE MAKER **♦ EDUCATION: THE BUILDING BLOCK**





A choice with no options

Quality may just be the secret ingredient that drives India's rise at the global level.

◆ SURESH LULLA, QIMPRO CONSULTANTS PVT LTD





colonies, added value, and sold them back to the colonies. Japan believed it had a strategic advantage in terms of low labour costs. So, they chose to compete with Great Britain in the colonies with simple products such as basic fabrics, toys, notebooks, etc. Unfortunately, 'Made in Japan' proved to become synonymous with 'the standard for bad quality'.

Low labour costs cannot be the basis for a sustainable strategy. The Emperor once again called upon his industry leaders to discuss the failed strategy, and to define a winning one. Among the invited was quality guru Dr Joseph M Juran, to teach industry leaders his unique idea of 'quality improvement for cost reduction.' In spite of language barriers, Dr Juran worked tirelessly to teach the Japanese. He taught them to unearth chronic problems in their organisations and to solve them, thereby saving them from the dreaded 'cost of poor quality' (COPQ).

Dr Juran was a firm believer that at least one-third of total costs in an organisation should be dedicated to COPQ. Since COPQ has no alarm system, it gets budgeted for.

Japanese industrialists worked hard to improve quality, reduce COPQ, and increase profit margins. By the mid-1960s, unknown brands surfaced in the field of entertainment electronics to take on the world heavyweights—RCA, Grundig, Bush, Phillips, and Zenith. The Japanese brands were Sony and Panasonic. They could sell their products at prices that were lower than the cost of production in the US and Europe, and still make a profit in spite of higher logistics costs. How? They had mastered quality improvement for cost reduction. 'Made in Japan' began to signify 'the standard for good quality.' This subsequently manifested in the Japanese auto industry as well.

t the end of World War II,
Japan emerged a shattered
nation, with negligible
natural resources, damaged
factories, and no buying
power. However, the
citizens of Japan had a great
desire to survive, and succeed.

The Emperor of Japan invited industry leaders to explore all options available to the proud nation. They looked around, globally, and ultimately it was the model of Great Britain that they chose to mimic. Great Britain, also an island economy, imported materials from its

Quality and reliability

I believe India has many lessons to learn from the story of Japan, as well as the leadership of



the Japanese Emperor. 'Quality improvement for cost reduction' can be applied universally—in manufacturing, services, construction, healthcare, and education sectors, be it government or private organisations and institutions.

Examples of Indian successes following this principle, and competing through quality, are plenty—Tata Group, Aditya Birla Group, Mahindra and Mahindra, Larsen & Toubro, Bajaj, and Hero, to name a few. Quality does not need a passport or visa to transcend borders.

I wish to share three 'quality fables' that reinforce the criticality of quality, and its cousin reliability.

Legitimising absenteeism

A chronic problem at Tata Steel in the late 1980s was absenteeism. It was just under 1%; nothing alarming. What did the management do about

India has many lessons to learn from the story of Japan, as well as the leadership of the Japanese Emperor. it? They factored absenteeism into the operational plans and budget. With that, absenteeism was legitimised at the Jamshedpur campus of Tata Steel.

The quality council, chaired by Dr J J Irani, selected absenteeism at Jamshedpur as one of the five pilot problems to be

solved by the Juran on Quality Improvement (JQI) methodology. The business case for this selection included high visibility, and ease of understanding the problem organisation-wide.

But how can you eat an elephant in one bite? You can only eat it bite by bite, project

by project. The bite-sized pilot project for absenteeism in Jamshedpur was localised to the tubes division, headed by Firdaus Vandrewala. Defining the problem helps to estimate the COPQ. In the case of the tubes division, Vandrewala identified the following that he considered non-controversial:

- The appointment of a daily *badli* (replacement) worker who is obviously not as well trained as the absent worker.
- The variation in tube lengths resulting from the *badli* work. This led to the additional step of cutting and trimming the tubes, burdening production with more physical waste and loss of productivity.

Quite elementary, but what was the COPQ? A non-debatable ₹1,400,000 per month. Multiply that by 12 months and you have an alarming annual COPQ that corrodes the bottom line of business results.

The diagnostic journey involved meeting absent workers at home. One instance involved the following conversation, in the afternoon, at the home of a healthy looking absent worker:

"Why are you absent, Sardar?"

"My son is not well."

"Is it serious?"

"No. Just a simple cough and cold."

"In which case, why are you absent?"

"Sir. It is like this. When I went to Tata Hospital, the paperwork took three hours. Then I waited in another line with my son to see the doctor. That was another hour. Thereafter, I waited for half an hour for the prescribed medication. By which time, Sir, you had already marked me absent for the full day".

The remedial journey lay in reengineering the admissions process at Tata Hospital—the process was reduced from three hours to 30 minutes. The results from cracking this project had a multiplier impact on the entire Jamshedpur campus of Tata Steel. The Tubes division was the smallest manufacturing unit of Tata Steel at Jamshedpur.



LESSONS LEARNED

- Chronic problems should not be legitimised in the budget
- Use a structured, problem-solving methodology
- Big problems must be broken into manageable, bite-size projects
- When estimating COPQ, work with non-controversial factors and non-debatable numbers
- See the problem with your own eyes
- Improvement projects should always be approved by senior management.

Purchasing department as quality consultant

What do you purchase from vendors? The following 'quality fable' may help you articulate your answer.

A couple of decades ago, I was invited to speak at a Maruti Suzuki's Annual Vendors Meeting. Excited at the prospect of learning from Suzuki leaders about the state-of-the-art methods for quality management, I readily accepted the invitation.

The meeting was held at The Taj Palace, New Delhi, in the largest conference room available.

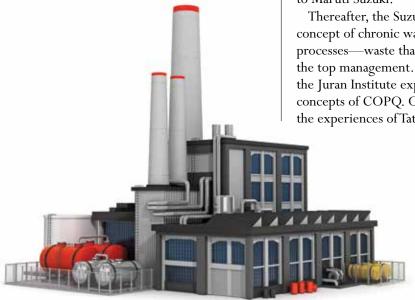
Horseshoe seating was provided for the top 100 vendors. Seated at the front, facing the vendors, were R C Bhargava, the Managing Director of Maruti; two Suzuki leaders; a consultant from the Juran Institute; and me.

The session commenced with an address by R C Bhargava. He extended a warm welcome to all A-category Maruti Suzuki vendors and thanked them for their contribution to a successful year at Maruti Suzuki, even in those turbulent and inflationary times. He remarked that Maruti Suzuki would like to see each one of them prosper and grow, and wanted every one of them to drop their prices by 3%! The word 'drop' was not an accident; he never meant to use the word 'increase.' Bhargava explained, "I have trained my executives in the purchase department on 'quality improvement and cost reduction.' Each executive will be assigned to a couple of vendors. Their mandate is to improve your process capability by solving chronic problems using a structured quality improvement methodology. The resultant reduction in cost of poor quality should be 10% of your total costs for next year. You keep 7% of the savings and transfer the balance 3% benefit to Maruti Suzuki."

Thereafter, the Suzuki leaders explained the concept of chronic waste in cross-functional processes—waste that is even budgeted for by the top management. Next, the consultant from the Juran Institute explained the underlying concepts of COPQ. On my part, I shared the experiences of Tata Steel, Cummins,



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and Caterpillar with the 'Juran on Quality Improvement' methodology.

So, the answer to the question, 'what do you purchase from vendors?' is 'process capability'.

LESSONS LEARNED

- Top management budgets for chronic waste in cross-functional processes
- The by-product of quality improvement is cost reduction
- COPQ in any organisation is over 20% of total costs
- The purchase department should serve as quality improvement consultants to vendors
- Organisations purchase process capability of vendors
- Transparency in joint costing
- Win-win partnership between purchaser and vendor
- Purchase department must conduct itself as a world-class customer.

Failures and disasters

The fear of major disasters and near disasters has resulted in product quality concerns being raised to a position of prominence in the public mind.

In the early morning hours of December 3, 1984, 40 tons of methyl isocyanate (MIC), hydrogen cyanide, mono-methyl amine, and

India must make a choice—will it go the China way or make 'quality' the differentiating factor that will set it apart from the competition?

other lethal gases began spewing from Union Carbide's pesticide factory in Bhopal. Nobody outside the factory was warned because the safety siren was turned off. Not until the gas was upon them in their beds, searing their eyes, filling their mouths and lungs, did the communities of Bhopal realise that their lives were in danger. Over half a million people were exposed to

the deadly cocktail. The gases burned the tissues of their eyes and lungs, entered the bloodstream, and damaged almost every system in the body. Nobody knows how many died, but over the next few days, more than 7,000 death shrouds were sold in Bhopal.

On the night of the disaster, the water used for washing the lines entered a tank containing MIC, via leaking valves. The refrigeration unit, which should have kept the MIC gas close to zero degrees centigrade, had been shut off by the company officials to save on electricity bills. Water entering into the tank full of MIC at ambient temperature triggered an exothermic runaway reaction and, consequently, released the lethal gas mixture.

This is only but one example. The 1986 space shuttle Challenger disaster, which lost all its crew, or the Singapore Airlines SQ 006 crash at Taipei's Chiang Kai-shek Airport (now the Taiwan Taoyuan International Airport)—these are just the tip of the iceberg when it comes to safety-related, and quality-related, failures and disasters.

LESSONS LEARNED

- Failure of product
- Failure of process
- Failure of system
- Failure of management
- Failure of individual

Conclusion

The Make in India initiative can make India a global manufacturing hub. However, India must make a choice—will it go the China way (mass producing while sacrificing quality) or will it make 'quality' the differentiating factor that will set the nation apart from the competition? All things considered, this is not much of a choice at all; Indian organisations cannot gloss over the impact a focus on quality will make. I believe India can make it, and make it better! As a nation, we have to tackle the four Cs that hold the country back—corruption, casteism, communalism, and crime. Once we overcome these shackles, nothing can keep India away from the glorious future that has been promised. M