Ten Tenets of Achieving Resilience with Excellence in Uncertain Times

NATIONAL CENTRE FOR QUALITY MANAGEMENT · FOUNDED 1985
Quality : The only Strategy

Introduction

If you go to Google and see which is the most googled word in the last 6 months, it is "Resilience". So how do you match "Resilience" with "Excellence" or how do you create resilience with returns while managing excellence. Therein lies the challenge.

We are in the midst of a pandemic. These crises are not new. For example, the geopolitical crisis (Donald Trump and Brexit) or economic slowdown 2008 was not the first one. Natural calamities (tsunamis, cyclones, floods) we have seen many and of course climate crisis is staring us in the face and leading to droughts, wildfires, rising sea levels and of course pandemics (SARS, Swine Flu and COVID 19). **So it becomes very important is that we must build resilience and that is going to be the most important leadership skill.**

Many people call COIVD 19 a "Black Swan" event. However, in an article in Harvard Business Review, someone has called it a "Black Elephant" – *a cross between a black swan event and the elephant in the room*. Therefore, we need to be careful about the events coming up in the future. For example, when we talk about Digital India, we need to be concerned about cyber security. And tomorrow, if a disaster takes place due to cyber security, we cannot complain that we did not anticipate it.

Significant setback for the world's ambition to achieve Sustainable Development Goal (SDG) is abundantly clear because we had talked about no poverty, no hunger, quality education by 2025 . All of these have not been achieved. Now there are mega trends that need to be revisited post pandemic. Accelerating digitalization of life and business will lead to concentration of profits to digital platforms. Similarly, there are other trends such as dispersion of urban population as well as cross-border divisions of labour to be considered. Digitalization has hit a fast forward button.

Why Resilience is Important Now?

As a political scientist, Joseph Nye said, "*We will have less historical precedent or understanding of today's challenges and that demands a new dimension of resilience*". This resilience has to be at the Individual level, Team level, Organizational level and National level. Two examples of most resilient individuals are Nelson Mandela and

Dr. R. A. Mashelkar, National Research Professor, has been the Director General of Council of Scientific and Industrial Research, Chairman of National Innovation Foundation as also the President of Indian National Science Academy, Global Research Alliance and Institute of Chemical Engineers (UK).

In recognition of his pioneering research contributions in polymer science & engineering, he has been honored as a Fellow of Royal Society, Foreign Fellow of US National Academy of Science as well as Engineering, Foreign Associate of American Academy of Arts & Science and Fellow of US National Academy of Inventors. 44 universities from around the world have honored him with honorary doctorates.

The sixty plus awards won by him include the prestigious TWAS-Lenovo Science Prize, Business Week (USA) award of `Stars of Asia' & JRD Tata Corporate Leadership Award.

Dr. Mashelkar, who was a member of the Scientific Advisory Council to the Prime Minister for over thirty years, has been honored with Padmashri, Padmabhushan, and Padma Vibhushan, three of the highest civilian honors.

and Mahatma Gandhi. We have seen many examples of individual resilience e.g. 15 year old girl cycling 1200 kms to bring her father home from Gurugram to Bihar. It is the human spirit which will finally conquer.

We learn a lot about resilience from biological systems viz:

- Redundancy – duplication of elements (factories, stocks)

- Heterogeneity – Different type of elements (contract types, factory types and locations)

- Modularity – Separate modules (subsidiaries, plants) loosely linked can act like circuit breakers

- Adaption – Rapid adjustment to new circumstances

- Prudence – While future may not be foreseeable, downside scenarios can often be plausibly envisioned

- Embeddedness – Most systems are embedded within larger systems.

And applying these design principles from biological systems can increase resilience.

Ten Tenets for Resilience

The Ten tenets for Resilience are:

1. Adaptability
2. Agility
3. Resilience Thinking
4. Scenario-based Planning
5. Purpose Driven
6. Platformization
7. Digital Ready
8. Foster Self Disruption
9. Climate Conscious
10. Autonomous Innovation.

1. Adaptability

It is the best strategy when the business environment is hard to predict and shape. Classical strategy is to be big, but it is preferable to be Adaptive and be fast, or a Visionary and be first. However, most important is Shaping (Be the Orchestrator) strategy whereby organizations can renew themselves viably in a harsh environment. TCS grew from $155 million in 1996 to $21 billion in 2019. They follow a strategy which adapts to shift in technology, customer needs and business environment. **For Charles Darwin said, "*It is not the strongest that survive nor the most intelligent that survive. It is the one that is the most adaptable to change.*"**

2. Agility

Agility is how quickly you can adapt and respond to change.

For example an open source ventilator was developed in just 13 days at 1% of the cost of high-end ventilators in Israel where 40 collaborators developed it from scratch, and then they released the source code to make and use freely. In India, MyLab started work in Jan 20 as soon as WHO released the genome sequence. On 28 March they launched the first made-in-India kit. They tested 1.2 million people in three months with a 3X reduction in price and 95% components sourced locally. On 25th July they launched the first ever made-in-India antigen testing kit at a cost of $7.00 per test. The $1 antiviral repurposed drug for COVID 19 (Favipiravir) was developed by CSIR in four weeks.

3. Resilience Thinking

Resilience Thinking means designing the system in such a way that it can handle any unforeseen events. When Dhirubhai Ambani wanted to set up a refinery in India the global consultants asked for what specifications would he like to design. He said he would want his refinery to handle every type of crude. Reliance today handles 135 types of crude! They are completely resilient to all sudden

geopolitical changes.

4. Scenario-based Planning

Scenario-based planning is about making assumptions on what the future is going to be and planning accordingly. e.g. Shell has been developing possible visions of the future since 1970s. For almost 25 years they have been ranked amongst the top ten companies globally because of their expertise in scenario-based planning. Shell has responded faster than other companies by virtue of its sensitivity to emerging topics such as climate change, the rise of China and shale gas. *Future back planning based on megatrends and scenarios will be critical to succeed in future*.

5. Purpose Driven

Purpose is about why does an organisation exist. If you look at an organisation people know what we do and how we do it. However, they don't know why we exist! **Hence understanding purpose is important and every employee should be engaged in fulfilling that purpose.**

Purpose-driven companies outperformed S&P 500 by 10X between 1996 and 2011. Employees with strong sense of purpose were at least 4X more likely to be engaged in their jobs when compared to other employees. Reliance's response to financial meltdown of 2008 was to create a purpose driven alignment across all levels called "Mission Kurukshetra" and, it focused on Extreme Efficiency, Value Maximisation and War on Waste.

6. Platformization

Platformization is particularly important. Moving from products to platforms is the future. In 2009 out of the top five companies globally (except Microsoft) all were brick and mortar companies but in 2019 all top five global companies were platform companies. **In fact, platform forms the world's most valuable company**. In India, Jio's success has been due to its total solutions approach - inclusive

business models and world class digital capabilities. That is why RIL was able to jump 47 places to be 51st most valuable company in the world!

7. Digital Ready

Digital Ready is about adoption of digital technologies/end-to-end digitalisation for value creation. Digital transformation is key to becoming resilient. End-to-end digital companies show great improvement on parameters such as productivity, sustainability, agility, speed to market and customization. **Digital transformation builds long term resilience and financial performance**. *As Industry 4.0 has gained importance, agility and flexibility have gained prominence over cost.* Companies with mature Industry 4.0 implementation report stronger ability to respond to crisis.

Digitalization is the core of self-optimization. Aspen Tech software's self-optimising characteristics include **self-learning** (utilising systems data for accurate prediction), **self-adapting** (reacting in real time to changing conditions) and **self-sustaining** (detect anomalies and trigger mitigation). This helps them anticipate future conditions and build resilience. *Therefore, definition of quality should change from just products and services to a broader one in the digital age.* Digital Twin is helping build resilient operations across Oil & Gas, Renewable Energy, Transportation and Manufacturing. In the healthcare industry, digital twin is a multi-scale personalised computational model of a patient built from the patient's data updated with each scan and exam resulting in person-centric prevention and holistic treatment.

8. Foster Self Disruption

Foster Self Disruption is about innovate to disrupt yourself or someone else will! I recommend a book by Vijay Govindrajan titled, "*The Three Box Solution*" where he says that companies will have to manage three boxes

Past (forget the past, let go of values and practises that fuel current business but fail new ones), Present (optimise current business) and Future (invent a new business model). By balancing these three boxes, managers can resolve the inherent tension of innovating a new business while running a high performing business at the same time. **Inventing new business models is going to be critical.**

Over 260 years, Novartis has been thriving by leaping across knowledge disciplines. It started with organic chemistry then moved to microbiology and then to genomics, and today Novartis is a medicine and data science company. **If we don't reimagine or don't reinvent ourselves, we will not survive!**

9. Climate Conscious

Climate Conscious is about adopting sustainability and environmentally friendly approach while doing business. Sustainability is not a choice, it is a business imperative. **It is not "good" or "green", businesses have to be both "good" and "green". It cannot be "green" or "growth", it has to be "green growth".**

C K Prahalad wrote a paper in 2009 on why sustainability is a key driver of innovation. Unilever launched its Sustainable Living Plan in 2010. Reliance is talking about becoming a net carbon zero company by 2035. In fact one of the greatest ways of removing CO_2 is using algae. In the presence of sunlight, water and CO_2, algae photosynthesise and convert it into lipids which goes to oil. World's biggest "Algae to Oil" plant is being experimented with in Gujarat.

There is Mission Possible Platform, a World Economic Forum initiative, where a coalition of 26 public and private partners are working on industry transition to set heavy industry and mobility sectors on the pathway towards net zero emissions by mid-century. The objective is to initiate 15 transitions across three socio economic systems viz. Food, Land and Ocean use, Infrastructure and Built in Environment and, Energy and Extractives to deliver $10 trillion of annual business opportunities and 395 million jobs by 2030.

10. Autonomous Innovation

Autonomous innovation is vital as communities are primary responders to crisis. An amphibious bicycle made in just 3 days by Bihar's Mohammad Saidullah for tackling flood water related problems is an example of innovation out of necessity. He was rewarded by the National Innovation Foundation for this grassroots innovation. This is at an individual level however at the collective level innovating during a crisis triggers faster recovery.

I would like to end by talking about a book titled, "*Leapfrogging to Pole Vaulting*" by myself and Ravi Pandit published in 2019. The origin of this book is my conversation with Mr Mukesh Ambani where he talked about leapfrogging. A frog leaps because it is afraid of a predator and hence jumps a few feet. Applying this to business, being afraid of a competitor should we also jump a few feet or should we pole vault? The size of the pole determines the size of ascension.

This book has a third chapter which talks about the 10 resilience tenets integrated into a single **ASSURED** framework:
A – Affordable
S – Scalable
S – Sustainable
U – Universal (User Friendly)
R – Rapid
E – Excellent, and
D – Distinctive.

The framework has been tested against companies and found to be validated. I recommend that we adopt this framework for our organisations. **My final point is that building "Atmanirbhar Bharat" with ASSURED resilience would be the key for our future!**
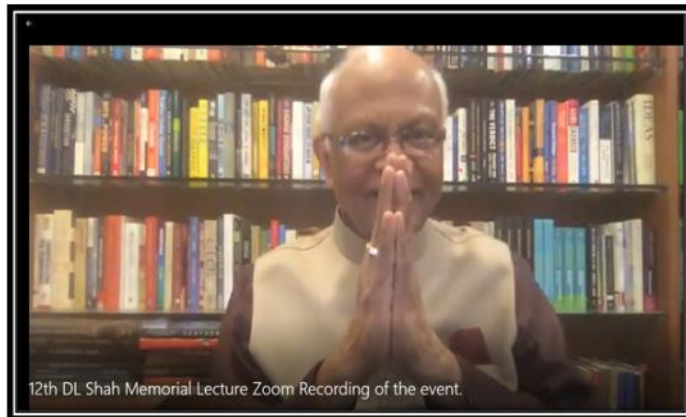
NCQM Trustee, Mr. Maheshbhai Gandhi delivering the welcome address

Trustee, Mr. Hari Taneja informing about D L Trust and its activities

Dr R A Mashelkar delivering the 12th D L Shah Memorial Lecture

NCQM Trustee, Mr Basudev Banerjee facilitating the Learning Session

NCQM Office Bearers at NCQM office for the virtual 12th D L Shah Memorial lecture