

Preparing the Industry for A WINNING CULTURE – TQM WITH LEAN CONCEPTS

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Abstract:

After the announcement of reformation of Indian economic policies during year 1991 the business environment keeps on changing its phase. One side various Quality Management System includes ISO9001, IATF16949 (Formally known as TS16949), Total Quality Management, Lean Management and Six Sigma are some of the standards which are viewed and given importance for implementing the same to get significant achievement in Customer satisfaction. On the other hand the Technological advancement like Industry revolution 3.0, and now Industry Revolution 4.0 are become mandatory to achieve outstanding and uniqueness of the product in all its features and not only that but at the same time to ensure the competitive advantage in a global market condition. Under this critical stage all Industry needs a major change and follow a systematic approach for their continuous success there by to ensure their business leadership. Most appropriate way to improve and change the culture, TQM Total Quality Management Concepts have more advantages to equip the company to fit for survival and to ensure the global growth. With this there are still more advantages in the Lean Manufacturing concepts which ensure the reduction in wastages. By combining these two strategies any industry can form a culture which ensures the continuous success in the Industry.

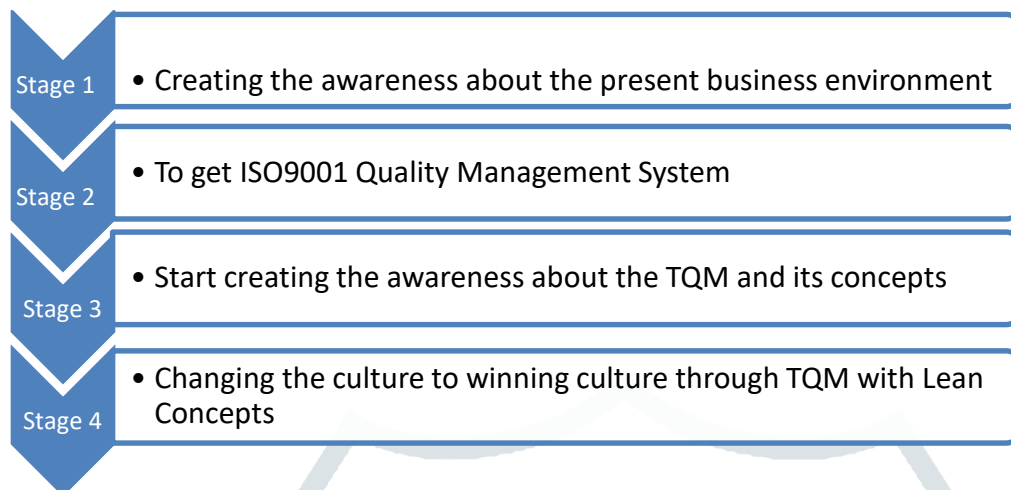
Key Words: Lean Management, TQM – Total Quality Management, Industry 4.0, Culture Change.

Since 1991, after the announcement Indian economic and business environment keeps on changing its phase. One side various Quality Management System includes ISO9001, IATF16949 (Formally known as TS16949), Total Quality Management, Lean Management and Six Sigma are some of the standards which are viewed and given importance for implementing the same to get significant achievement in Customer satisfaction. On the other hand the Technological advancement like Industry revolution 3.0, and now Industry Revolution 4.0 are become mandatory to achieve outstanding and uniqueness of the product in all its features and not only that but at the same time to ensure the competitive advantage in a global market condition.

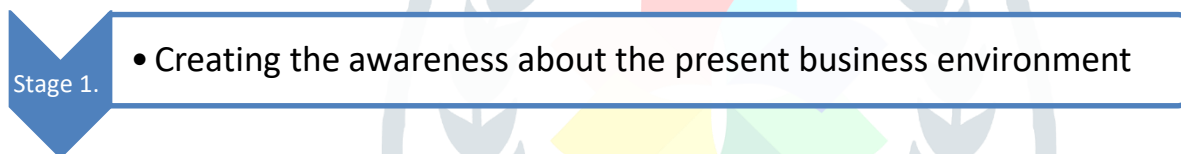
There are different perceptiveness to many Industry legends in adopting the Technological advancement. We can understand the renovation of Industry by having latest technology is not so easy in fact in Involves lots of cost implications which could be a burden to any industry under this indefinite business environment. Also there are serious concerns about the change restrictions from employees as they feel it is a threat to their life span and Job insecurity. Of course it is true those who are not ready to adjust themselves for latest technology no longer survive. It would be very much critical and their life span will be very short and it is obvious there are so many examples right from NOKIA cell phone, Ambassador Car manufacturer, Aircel and BPL in telecom industry and so on We can say many examples.

As it is well known that before going to have a winning battle it is important to prepare the people to face the consequences and make them to aware about the long term benefits by changing them to take the battle. When any industry needs or expects improvements then change is inevitable it should under go a massive change towards the betterment. It is not possible by maintain our selves in a constant manner to get benefits.

To overcome the barriers and change the culture of the Industry it is important to follow steps as mentioned below:



In an industry changing the culture is taking the challenge in a battle field to win the war and we need to struggle, tolerance, compromise set examples models every thing to win. It takes minimum of 3 years and maximum of 5 years. Of course the system implementation, Data Collection and software implementation for analysis would sure help to make each and every one in the organisation to follow understand and to adopt the changes



In order to prepare the employees and to make them understand the systematic work environment and its importance we need to explain the following points:

- 1.1) Change in Business environment before and after 1991 LPG
- 1.2) Globalisation Concepts in Buying and Selling

1.1) Change in Business Environment before and after 1991 LPG

Before 1991, the Indian consumer market is a Sellers Market. The product manufacturer offered certain range of products and people buy those products and compromise with those products. These compromise is in many ways

- 1.1.1) Quality
- 1.1.2) Cost
- 1.1.3) Delivery
- 1.1.4) Service

1.1.1. Quality

When we say Quality each and every one of us have different perception towards the understanding the quality and listed some of them as follows

- a) To Serve Intended Purpose
- b) Less in Cost
- c) Good in Aesthetic
- d) Durability

- e) Add-on features
- f) Status symbol etc.,

But we can give a common name to all the above perception which may be called as Expectations of the Customer. When these expectations are met every customer will be satisfied. When the expectation are met we can get satisfied and repeated customer. At final we can understand Quality is nothing but Customer Satisfaction. In short we can understand as follows:

$$\text{i) Quality = Customer Satisfaction} = \frac{\text{Performance of the Product}}{\text{Expectation of the Customer}} < 1$$

$$\text{ii) Quality = Customer Satisfaction} = \frac{\text{Performance of the Product}}{\text{Expectation of the Customer}} = 1$$

$$\text{iii) Quality = Customer Satisfaction} = \frac{\text{Performance of the Product}}{\text{Expectation of the Customer}} > 1$$

In the above 3 understandings we can discuss the interpretations as follows:

Case I, the Product Performance is not met with customer expectations so the result is <1 in this case the company have not achieved the Customer Satisfaction. It is sure that the customer will go out once they find an alternate in the market. Lose of the customer is confirmed.

Case II the Performance of the Product is met with Customer expectations so the result came as $=1$ Of course the customer is just satisfied and it is also observed n case of any alternate comes customer may also choose an another product. There are every chance to lose the customer if any alternate is available in the market

Case III the Performance of the product is above the level of the Customer expectations. So the result of the equation is >1 . IN this case the customer can be retained without lose.

We should also understand that it is not enough we need to keep on improving our product quality to ensure the customer retention and by repeating this we can also attain Customer Loyalty and only this makes us to withstand in the Market in a long time.

In the above point of view before the reformation of Indian economic policies most of the Indian Industry do not have proper understanding of the above strategy and although they understood they have not given much attention to the customers expectations.

When we open the Indian market for global competitions there are many suppliers entered in our India Market and offered products with various features and Customer started to buy those products and the Indian manufacturers started to realize the importance of the customer satisfaction and all the Indian manufacturers are forced to take various steps to withstand in the market by maintaining the Quality and there by Satisfying the customer.

On the other hand we also have opportunity to sell our products in the world market. But the for that we need to work hard to improve and match the need of the global requirements.

1.1.2 Cost

Before the 1991 the Price calculations are as follows:

$$\text{Price} = \text{Cost} + \text{Profit}$$

The actual cost has been taken and the profit as desired by management and it is added along with actual cost to arrive the price of the product. It was adopted and acceptable to the customer during the sellers market.

Whereas in the buyers market condition the cost calculations are different. In the buyers market condition the Price of the product is desired by competitor and the profit is desired by management so the above formula has been changed as

$$\text{Cost} = \text{Price} - \text{Profit}$$

The above concept is followed after the liberalisation policies. We need to understand the changes because the market changes from Sellers Market to Buyers Market. Now the Price is fixed by the market and Competitors and the Profit is fixed by the management. The balance is the Cost within which we need to maintain the production of goods.

To ensure the day by day reduction of the product cost we need to practice various strategies and need to change the culture of the Industry to ensure the bread winner. We have no choice but left with only option TQM – With the Lean Concept.

1.1.3 Delivery

During the Sellers Market there are lot of manufacturers fixed premium prices for quick delivery of machines and Automobile products. Lot of customer do business at the time of delivery and they have changed the supplies to some other third party and they took more premium for the product early delivery

The entire show becomes upside down when it changes to buyers market and all are looking to place the product in the market for the people's instant gratification. If not people have more choice to pick and meet the requirement.

1.1.4 Service

During the sellers market no one understood the service give better business and brings more and potential business. They don't even consider the Warrantee and Guarantee of the product and the charges are made at very high prices.

This scenario is also changed upside down and service becomes very important aspects in selling the product in the market during Buyers Market. Not only that Service ensures the repeated customer and Customers are maintain the Loyalty.

The best example is Maruthi Car and they started to give advertisements as the service stations are available even in the Himalays Mountain side.

1.2) Globalisation Concepts in Buying and Selling

Indian also need to understand it's economy gets very bad shape at the time of implementation of Globalisation and infact Indian economy faces greater shortfall of Foreign exchange. No FDI Foreign Direct Investments and at one stage government conditioned those who do exports can only Import and rest are not permitted to import the goods.

Under these circumstances Indian Industries have crossed a very crucial stage of business growth and with a greater effort by Indian Business society and continuous government support the situation gets improved and we have started to hold enough foreign exchange.

Almost all the countries in the world has accepted for this policies and hear and there some short falls and non acceptances of the Policy by the countries in certain areas are also convinced and finally we are at success stage.

We are now in the next levels of improvements and Indian economy is changed it's phase from under developing country to stepped in to developed country.

We now selling our Products to entire world with very minimum obstacles and buying the materials for our consumption from any where from the world.

People must aware exactly 100 years back US\$ 1.00 is equal to INR 1.00 but now with so many financial intelligence approach we are at US\$ 1.00 is equal to INR 77.00(Buying rate Approximately). Now India is focusing the concept of Make in India strategy and by ensuring the self saturation we can improve the situation.

In short we need to encourage more export and spend more time for Import substitute products innovation and productivity i.e. efficiency and effectiveness of the manufacturing to support this make in India strategy.

There exists the concept of Supply Chain Management, Logistics, Value Chain etc., which replaces the Operations Management.

Stage 2

• To get ISO9001 Quality Management System

Most of the Indian Industries especially MSME sectors are functioning with the human dependent and not with the system dependent. When one person is not there everything becomes stand still. Industries started to feel the heat the becomes more losers because of lack of system.

The Industry situation becomes as follows when the system is absence:

- In-consistent Performance
- Performance depend on Individual's brilliance
- Close and tight supervision required
- Work Hard = Negligible Results
- Everybody under pressure & arguments
- De-motivated and indifferent workforce
- Search everywhere for everything
- Customers frequent calls at high pitch

- Reduced and depleting bottom-line
- Lesser re-investment on improvements

Now all the Industry sectors in India started to realize the importance of Systematic approach and started to search for best system. At that time Indian government supported to Industry to implement the ISO9001 Quality Management System by providing the grants and subsidies which paves the way to all the Industry to implement the ISO9001 Quality Management System and enjoyed the success presence of system as follows:

- Consistent and System based results
- Tasks are well allotted and clear
- Work towards targets and improvements are measured
- Problems are solved systematically with focus on prevention
- Meeting customer targets repeatedly
- Employees focus on improvements / reduced firefighting
- Lesser customer calls and follow-ups
- Improved profitability
- New employees can easily occupy positions
- Improved Accountability

But the things are still challenging and for continuous success and to compete with the world class companies we need to do lot more.

This also realised by the Indian Government and started to support Industry. Initially every industry starts to attend further improvements with more confident but the world economic decline stage made worst set back and world terrorism and threats of terrorists become an another challenge to India.

This is the present conditions of our Country and we need to improve lot more to over come this economic set backs for which industries need to improve their professional approach above the platform of ISO9001 Quality Management System.

Stage 3

- Start creating the awareness about the TQM and its concepts

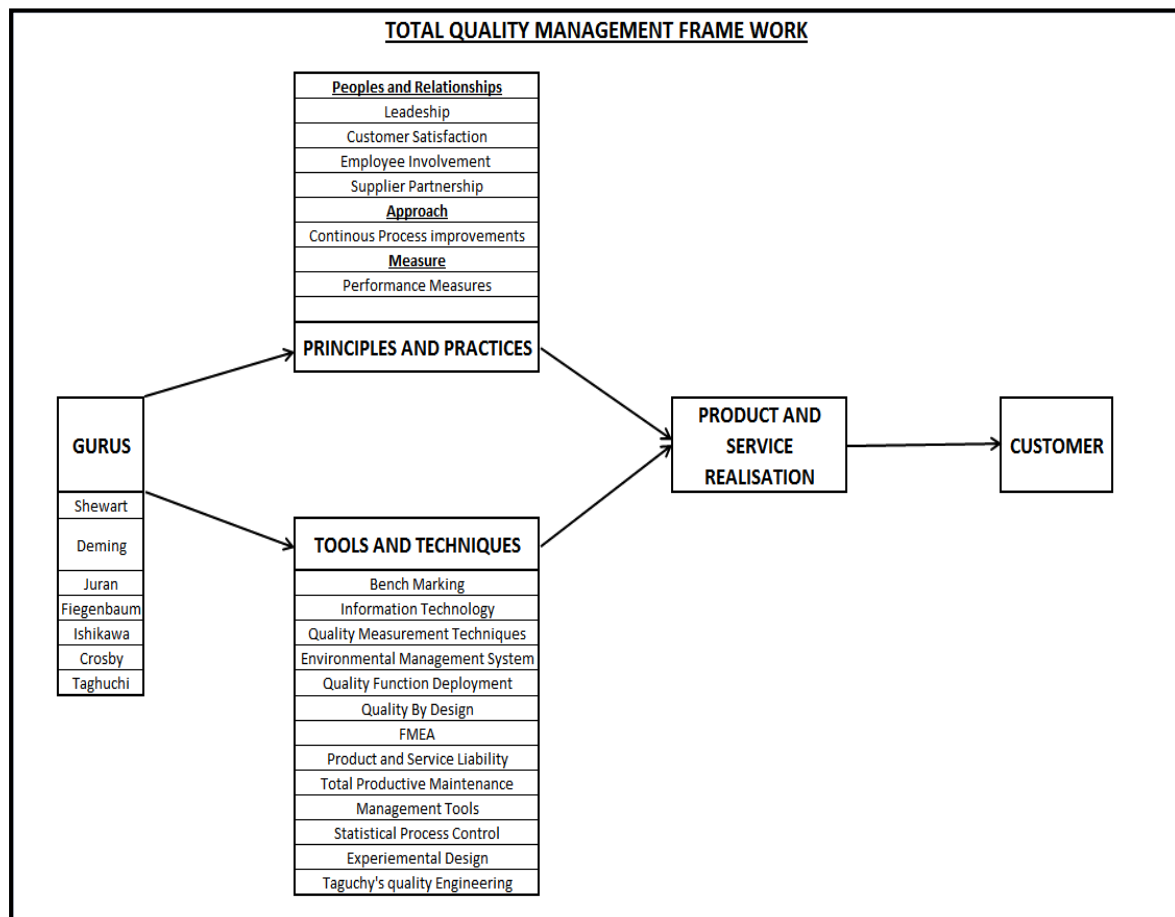
Total Quality Management is a philosophy that involves every One in an organization in a continual effort to improve quality and achieve customer satisfaction. It requires cultural change and it integrates fundamental management techniques, existing improvement efforts and technical tools under a disciplined approach.

- Total - Made up of the whole. Every one should involve
- Quality - Customer Satisfaction
- Management - Act, Arts and Science, or manner of handling
controlling directing etc., (POSDCORB)

We can also reframe the Total Quality Management definition as follows:

“Every member of an organisation from Top Management to Bottom Management, should contribute to improve Quality of the product it may be goods or it may be service to ensure the Customer Satisfaction through a systematic and scientific approach in all business function continually”

“It is equally important to remember that it is a cultural change, it is a holistic, integrated and team approach it can not happened in a single day and in any one area of the business alone.”



From the above picture it can be easily understood that the customer gets the Products, before it reaches to them the product and service realisation happened by using the Principles and Tools and techniques framed by the Quality Gurus.

Total Quality Management culture can be built for long term benefits above the platform of ISO9001 Quality Management System. As we know without any system further improvements can not be achieved.

Stage 4

- Change the culture of industry to winning culture which gives the TQM with Lean Concepts

“Success is not a Destination, it is a continuous Journey”

4.1 Business peoples always accepts the above slogan and they always target to maximise the business by grabbing all right opportunities. For this in industry certain principles are essential to ensure the accountability of the business functions Heads and they are as we have seen in the above Total Quality Management Frame Work List as follows:

4.1.1 People and Relationship:

- LEADERSHIP : A committed and involved management to provide long term to bottom organizational support
- CUSTOMER SATISFACTION : An unwavering focus on the internal as well as external customer
- EMPLOYEE INVOLVEMENT : Effective involvement and utilization of the entire work force
- SUPPLIER PARTNER Treating suppliers as partners

4.1.2. Approach

- CONTINUOUS PROCESS IMPROVEMENT Continuous improvement of the business and production process

4.1. 3. Measure

- PERFORMANCE MEASURE Establish performance measures for the processes

4.2.Lean Concepts

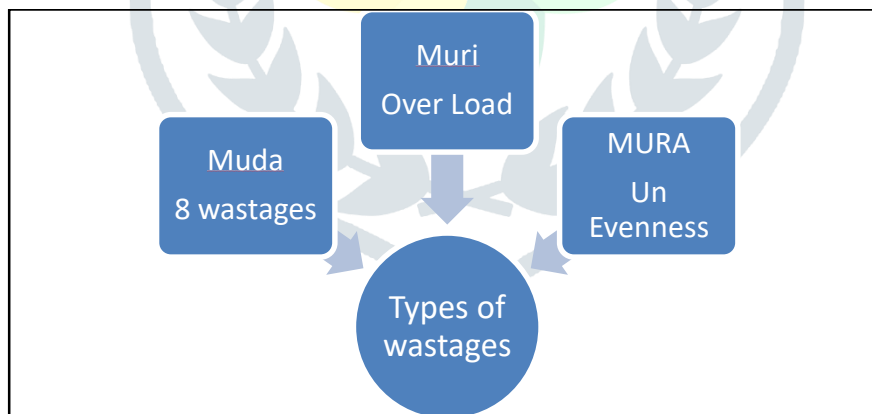
On the other hand the Lean Concepts ensures the Waste reduction

Lean Management is

- a) elimination of all kind of wastages
- b) adding Values (For which Customer willing to pay) in the business process. i.e. Continuous improvements
- c) Giving Respect to the people.

The Toyota (The first company successfully implemented the Lean Concepts) Production System categorized the wastages as 3 types:

1. Muda, 2 Muri and 3.Mura



The Wastages of MUDA is 8 Different wastages and they are :

Defects	: Efforts Caused by rework scrap and incorrect information
Over Production	: The production that is more than needed or before it is needed
Waiting	: Wasted time waiting for the next step in a process
Non – Utilized talent	: Under utilizing the peoples talents skills and knowledge
Transportation	: Unnecessary movements of Products and materials
Inventory	: Excess Products and Materials not being processed
Motion	: Unnecessary movements by the people (e.g. : Walking)
Extra Processing	: More work and higher quality than required by the customer

The Wastage of MURI is Over Loaded or burden than the recommended which creates more stress and higher and frequent break down and early aging of the machine.

The wastage of MURA is inconsistent loads to machine and man and instead of working from the beginning working only at the end of the dead line.

The above wastages can be eliminated by following the TQM Tool and Techniques mentioned in a Total Quality Frame Work.

5.0 Conclusion:

It is essential to prepare the employees of Industry by educating them about this winning culture, the employees are mentally prepared and by having strong management commitments it can be succeeded to change the Industry Culture to A Winning Culture – TQM with Lean Concepts.

