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Familiarization of TQM Excellence in the Educational Institutions

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Abstract:

The main responsibility of Educational Institutions is to shape the future India to become self-sustained in manufacturing and service sector to realize the dream of our Prime Minister's "Make in India" movement. All organizations shall focus their action towards achieving World Class Excellence status to become strong in manufacturing and service sectors. This can be achieved only practicing TQM initiatives through the involvement of all devoted employees together in the organization and work for continual improvements. In such case, Indian products will acquire a large demand in the international competitive market. In order to see such progress, the people involved should have developed a flawless philosophy and improve the processes associated with Total Quality Management. Just those Nations which have conveyed to light the principals vibrantly to the society, have seen the stage of 'Developed Nations'. The status of TQM teaching and exposure to the youth of the future ruler of India is rather in dilapidated status only. In this paper, the authors discuss the required thrust on TQM courses to be taught in higher education. These types of changes in a set of principles and policy to bring India as "Big power" what the former president of India Dr. A P J Abdul Kalam dreamt.

Keywords: Management Concepts, TQM Philosophy, Employee Involvement, Continual Improvement.

1. Introduction

Of late, University Grand Commission and ministry of human resources are working out schemes to capture the resources made available in the developing countries and under Dec accordingly anyone looks into the higher education sectors, it moves with large amount of perturbations and expectations in achieving academic excellence so that foreign scholars to prepare India for royal education. In Germany Indians signing well and allow Indian scholars took employment also. Now, it is the time for UGC to expand the system of education in a suitable way. At this occasion one has to appreciate the hard efforts earlier Government of India have expanded higher education as Universities of different grades such as A,B,C, Central Universities, State Universities and Deemed Universities. When the former PM addresses the graduates, conveyed that Government of India is prepared to export human power and also foreign scholars to our country for higher education at the cheapest cost. In order to attract the university higher education sector, we have to strengthen the infrastructure and academic excellence. For achieving this, many learner scholars suggest the necessity of TQM excellence in educational institutions is must to obtain world class status of the product manufacturer or service provider. The organizations shall work towards implementations on all TQM initiatives. [1]

TQM is a holistic approach to long-term success that involves continual improvement in all aspects of an ever growing organization that too, as a process and not a short term goal and not as a transient objective, such continuous development aims to radically transform the organization through dynamic changes in the states of mind, practices, structures and systems. Total quality management transcends the products to obtain quality approach, involves the different organization and encompasses all its activities such as administration, communications, dispersion, producing, marketing, arranging, planning and training.

The earlier US Naval Air Systems Command started projecting this video coverage in early 1980s, this term has now tackled a few implications and incorporates(1)commitment and direct involvement of highest-level executives in setting quality objectives and strategies, distribution of assets, and monitoring of results;(2) Realization that transforming an association implies basic changes in essential convictions and practices and that this transformation is everyone's job;(3) incorporating quality with items and practices right from the earliest starting point;(4) understanding of the changing needs of the internal and external customers & stakeholders and satisfying them in a cost effective manner; (5)instituting administration set up of insignificant supervision, so that each person

performs in the best possible manner to improve quality what's more, efficiency, in this way ceaselessly diminishing aggregate expense;(6) eliminating barriers between people and departments what's more, efficiency, in this way ceaselessly diminishing aggregate expense; and (7)instituting flexible programs for training and education, what's more, giving significant measures of execution that guide the self-improvement efforts of everyone involved.

2. Historical Back Ground

The After the Second World War 1945, Japanese corporations could not sell their products in the market because non availability of these spares and service technicians, poor quality and lack of durable raw materials in view of such crazy the product loss the resell value of manufacturing those products since, their products or service was of poor Quality and were able to sell their products only at ridiculous low prices. During such occasions, the poor quality of products grib to other. One can assume that the administrations of the company as their not realize the importance of quality crudely and the leading reseachers citizens of experts in Europe started the attempt to inover the problems in facing the TQM one in 1950's PDCA concept and SQC techniques of Dr. Deming implemented through gave better results. Similar data was spread in to the management principles SQC in that concept adopted as they were in line with the attitudes of the period it was found easier to implement can be access from various report and publication the year 1950 first time the world came forward to propagate SQC technique that industry admisistator more or less the year 1950 the officers in the organization one can visualize the Japanese hardwork could not give any uplift the corporations had not recognized the importance of Quality.

On that movement the learner scholars, writers like took all out effort to findout the causes for such failure Dr.W.E. Deming; management principles from Dr. J.M. Juran and Quality Circle concept from Dr.K. Ishikawa have been deployed in the efforts They found it easier to implement these learnings as it was in line with their attitude.

These were resulted in improved product quality and able to achieve the 2nd Best Quality Product manufacturer in the world during 1970's. This success motivated them to further improve their Quality level to reach No.1 Best Quality producer in the world. For that, they developed their own way of improving this status by implementing Company Wide Quality Control (CWQC).

Later this CWQC is known as TQM in other Countries. CWQC include all initiatives and innovative tools like, Just in Time, Poka Yoke, Single Minute Exchange of Dies, Six Sigma, Internal Customer Concept, Quality Control Circles, Five "S", Bench Marking and other techniques with sincere involvement of all workmen. They made the working atmosphere as Joy of working. With these innovative techniques and involvement of all workmen, they reached the Number 1 Best Quality Product manufacturer in the world in 1980's. After 1980 only, the Japanese shared their success with all developed nations. Japan allowed other country technologists/CEOs to learn their implementations in Japan industries. In this stage lot of Americans make use of this opportunity to visit the industries in Japan and learn the techniques implemented in the world class industries in Japan.

In early 1980s, the developed countries of North America and Western Europe endured financially in the face of stiff competition from Japan's ability to deliver top notch products at aggressive expense. For the first time since the start of the Industrial Revolution, the United Kingdom turned into a net shipper of completed products. The United States undertook its own soul-searching, expressed most distinctly in the TV show of "If Japan Can... Why Can't We?". Firms began reexamining the techniques of quality control developed in the course of recent years and how those techniques had been so successfully employed by the Japanese. Until 1985 lot of American delegates where sent to Japan to learn these initiatives how Japan can implement these initiatives in their manufacturing organization. It was in the midst of this economic turmoil that TQM took root in the Navy first, than this TQM spread throughout the US Federal Government, resulting in the following:

- The making of the Malcolm Baldrige National Quality Award in August 1987
- The creation of the Federal Quality Institute in June 1988
- The appropriation of TQM by numerous components of government and the military, including the United States Department of Defense, [2] United States Army, [3] and United States Coast Guard [4]

The private sector followed suit, flocking to TQM standards not just as a way to recover market share from the Japanese, but also to remain competitive when bidding for contracts from the Federal Government [5] since "total quality" requires involving suppliers, not just employees, in process improvement efforts.

The exact origin of the term "Total Quality Management" is uncertain [6]. It is almost certainly inspired by Armand V. Feigenbaum's multi-edition book Total Quality Control and Kaoru Ishikawa's. It may have been first coined in the United Kingdom by the Department of Trade and Industry amid its 1983 "National Quality Campaign". Or it may have been first coined in the United States by the Naval Air Systems Command to depict its quality-improvement efforts in 1985.

In 1987, Malcom Baldrige National Award (MBNA) was introduced for recognizing the best American organization implemented the organizational performance excellence (TQM) initiatives.

3. MBN Award Winners in Various Industrial Sectors

In the United States, the Baldrige Award, made by Public Law 100-107, every year perceives American organizations, training foundations, medical services, associations, and government or not-for-profit associations that are role models for organizational performance excellence. Organizations are judged on criteria from seven categories: [7]

1. Leadership
2. Strategy

3. Customers
4. Measurement, analysis, and knowledge management
5. Workforce
6. Operations
7. Results Example criteria are: [8]
 - How do you obtain information on your clients' fulfillment with respect agreeable to them with your competitors?
 - How do you select, collect, align, furthermore, coordinate information and data for following every day operation?
 - How do you manage your workforce, its needs, and your necessities to guarantee coherence, avert workforce decreases, and minimize the impact of workforce reductions, if they do become necessary?

The list of Award winners (2010 to 2015) are given in Table -1[9]. Out of 26 award winner during 2010 to 2015,3 organizations were Educationist. Total number of award winners from 1988 to 2015 was 105 and in that Educational institutes were 11. It indicates that educationist was also equally competing with other sectors. The overall past data are consolidated and given in Fig 1.

S. No	Year	Award Winner	Field
1	2015	Midway USA, Columbia, Mo. (won in the same category in 2009)	Small business
2	2015	Charter School of San Diego, San Diego, Calif.	Education
3	2015	Charleston Area Medical Center Health System, Charleston, W. A	Health care
4	2015	Mid-America Transplant Services, St. Louis, Mo.	Nonprofit
5	2014	Pewaukee School District, Pewaukee, Wis.	Education
6	2014	Baylor Regional Medical Center at Plano, Texas	Hospital
7	2014	Sutter Davis Hospital, Davis, Calif.	Hospital
8	2013	Lockheed Martin Missiles and Fire Control, Grand Prairie, Texas	Manufacturing
9	2013	MESA Products Inc., Tulsa, Okla.	Small business
10	2013	North Mississippi Health Services, Tupelo, Miss.	Health care
11	2013	City of Irving, Irving, Texas	Nonprofit
12	2012	Lockheed Martin Missiles and Fire Control, Grand Prairie, Texas	Manufacturing
13	2012	MESA Products Inc., Tulsa, Okla.	Small business
14	2012	North Mississippi Health Services, Tupelo, Miss.	Health care
15	2012	City of Irving, Irving, Texas	Nonprofit
16	2011	Concordia Publishing House, St. Louis, Mo.	Nonprofit
17	2011	Henry Ford Health System, Detroit, Mich.	Health care
18	2011	Schneck Medical Center, Seymour, Ind.	Health care
19	2011	South central Foundation, Anchorage, Alaska	Health care
20	2010	MEDRAD, Warrendale, pa	Manufacturing
21	2010	Nestlé Purina PetCare Co., St. Louis, Mo.	Manufacturing
22	2010	Freese and Nichols Inc., Fort Worth, Texas	Small business
23	2010	K&N Management, Austin, Texas	Small business
24	2010	Studer Group, Gulf Breeze, Fla.	Small business
25	2010	Advocate Good Samaritan Hospital, Downers Grove,	Health care
26	2010	Montgomery County Public Schools, Rockville, Md.	Education

Table 1: Award winners (2010 to 2015)

4. Benefit achieved by Award winning Educational Institutes

1. Operate as a Leader; Organizational Effectiveness Outcomes: Baldrige Award recipients strive to accomplish authoritative adequacy and procedure proficiency by developing and tracking key operational performance measures that are relevant and important to their organizations.
 - In the Pearl River School District (2001 Award Recipient), the rate of understudies graduating with a Regents recognition—a key target for the locale—expanded from 60 percent in 1996 to 86 percent in 2001, just 4 rate focuses underneath the state's top entertainer. By correlation, the rate of understudies winning Regents recognitions in schools outside the area with comparative financial profiles diminished from 61 percent in 1996 to 58 percent in 2000
 - At Richland College (2005 Award Recipient), a community college in Dallas, the faculty's use of e-Campus Blackboard technology—a tool which provides courses, discussions, assignments, and grades online—has ascended from below 10 percent in 2001 to 37 percent in spring 2005, exceeding best-peer performance. [10]
2. Be a Role Model; Leadership and Social Responsibility Outcomes: Baldrige Award recipients' senior leaders understand the benefit of serving as good examples and of strengthening their organization's ethics, values, and expectations, with the point of keeping up a monetarily stable, moral association that is a good citizen in its communities.

- In the Jenks Public Schools (2005 Award Recipient), service learning by students is considered part of preparing them to be productive, mindful nationals. Understudies are included in various activities that help the group. The locale likewise keeps up an imaginative organization—perceived by Education Week, CNN, and People magazine—in which prekindergarten and kindergarten classes are held in a long haul care office, profiting understudies, instructors, and senior natives in the group.
- Richland College's(2005 Award Recipient),over the-educational programs Service Learning program sends understudies to 68 group associations as a major aspect of their "group building" learning. Understudies contribute about 13,000 administration hours every year to these associations. Senior pioneers, personnel, and staff serve on key urban and business sheets and councils and give volunteer administration hours to different magnanimous offices serving the are Initiatives Implemented in the Award winning organizations:

Total quality management (TQM) is achieved and becomes part of the overall organizational culture when the five principles are practiced by all employees.

1. Produce quality work the first time
2. Focus on the customer
3. Have a strategic approach to improvement
4. Improve continuously and
5. Encourage mutual respect and teamwork

Apart from the above culture the following initiatives shall be implemented to achieve excellence is given in Table 2.

S. No	Initiatives / Techniques	Major responsibility lies with
1	Five S initiatives	All
2	Implementation of ISO 9000 standards	Management
3	Total Employee involvement	All
4	Quality Circle activities	Workmen
5	Kaizen implementation	All
6	Six Sigma	Management
7	Elimination of 7 wastes	All
8	Overall Equipment Effectiveness	Maintenance
9	Root Cause Analysis Committee	Quality
10	Cross Functional teams	Management
11	Single Minute Exchange of Dies	Management
12	Failure Mode Effective Analysis	Maintenance
13	Total Productive Maintenance	Maintenance
14	Lean	Management
15	Value Stream Mapping	Management
16	Visual Factory	Management
17	Kanban	Management
18	Internal Customer Concept	Management
19	3 M (Muda, Muri, Mura)	All
20	Just in Time	Management
21	PDCA	All

Table 2: Achieve of excellence

By implementing all the above initiatives / techniques in the organization, the culture of the employee will change and continuing the rest of the activities needing to achieving excellent performance.

5. Importance of Learning These Techniques in the Educational Institution

After finishing the educations all of us will either start out own business or join at any one of the organizations either in the manufacturing sector or in the service sector. In both cases learning these techniques in school's/college level will be much easier than learning these techniques during employment. Educational institute shall have the moral responsibility to teach these techniques to the students so that for further developing this skill during employment will be much easier.

6. Conclusion

Government of India is striving hard to compete in a track underdeloed nations and other developing nations in providing higher educations to the youth of those nations it is another difficult to compete developed nations like Russia, America, industrilzation like in Germany for the example of tamarined tree, the applications of management principles of Dr. J.M.Juran and Quality Circle concept from Dr.K.Ishikawa With all seriousness of the management this study has made it clear that to get better quality one has to adopt continuous growth processes now to obtain these are expertise level it is felt that TQM implementation. In order to achieve TQM Quality we have to adopt as many volunteers from.

However much who adopt the government and put them in specially qualified schools and colleges, many of the stall wards have pointed out all the employees should have confidence and devotions in the work and faith on the management. If such process is brought in force the model philosophy of TQM can be seen in the organizations. The present conditions TQM all those techniques recommended by experts like "5 S", Quality Circle Concept, Kaizen, Six Sigma Concept, Zero Defect and Zero Effect, Lean, Value Stream Mapping, Just in Time, Single Minute Exchange of Time, FEMA, Cost of Quality, Kanban, 3 M, 7 wastes, SQC Techniques, TPM/OEE etc. shall be taught to these future employees/management staffs during their education stage itself. If one is confident to apply though techniques and processes the basic responsibility of the institutions to induct awareness on TQM one has to sacrifice certain extent to learn new lessons, they have to attend school along with children if necessary presently PM of India has planned to bring the country not only the country of TQM but a country vision of "Make India", "Digital India" and "Power India" movements' success

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