

7. 'TOP MANAGEMENT COMMITMENT' ASSESSMENT FOR TQM IMPLEMENTATION IN ENGINEERING EDUCATION- A FRAMEWORK

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Abstract

Major facets of TQM are Customer focus, Top Management Commitment, Total Employee Involvement, Continuous Improvement (CI), all these should be aptly supported by an adequate measure. Of these Top Management does inspire and drive the culture towards that of a total quality organization. Even in most quality awards like EFQM (European Foundation for Quality Management) model, leadership drives the policy, strategy, and people management within the organization, providing the resources and processes necessary for it to thrive. Thus, Top Management Commitment (TMC) has been emphasized widely in literature, but, the evidence to assess the commitment, and means to initiate have been inadequate or absent. TMC has been emphasized widely in literature, but, the evidence to assess the commitment, and means to initiate have been inadequate or absent. Unless this measure exists, it is difficult to assess the status of the organization and commenting on the lack of TMC would be unfair and in many a case, an eye opener is required to the management to show how they really are aiding in the TQM/CI implementation. This paper discusses only an approach towards the measure of TMC assessment in an Engineering education system and also methodology has been spelt out to make it dynamic with the changes in time.

Introduction

TQM has become an important management paradigm that enhances the quality of all functions of an organization. Industries have adopted TQM, particularly in developed world for more than two decades. Several industries in India have also adopted TQM, though the number compared to the number of industries that have adopted ISO9000 is less. Colleges and Universities in the developed world have also taken to TQM but mostly in administration than in teaching-learning process. In India, few

institutes have obtained ISO9000 certificate, but very few of them have gone for TQM.

Engineering Education in India is driven by commercialization leading to mushrooming of colleges, and stiff competition. However, in most of the cases the direction, relevance, and quality of engineering education have been questioned. Engineering colleges affiliated to universities have to work with many uncontrollable parameters like quality of input, and engineering curriculum. Also, the external threats from suppliers like NIIT, APTECH, ISCT, etc., who

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have a professional outlook and customer orientation, add to the industry pool especially in the information technology area. Considering the dynamic external environment, rigid working system, stiff competition, decline of funds, reduction in the intake (seats remaining vacant), demand for accountability from stakeholders and customers, perspective of quality has crept in and the need for a quality system is felt.

Taking the cue of a decade of TQM implementation in educational institutions elsewhere, their success and their problems encountered by them, it is required to assess the need, portability and means for institutionalizing TQM in Engineering Education in India. There is a lack of a well-defined focus and an appropriate roadmap for institutionalization of TQM process.

TQM has been the buzz word for almost a decade and literature review has reported more than 80% failure. Does it imply that concepts are wrong or we have not implemented it appropriately. Indeed it is mostly the wrong methodology and no explicit methodology of implementation. Major facets of TQM are Customer focus, Top Management Commitment, Total Employee involvement and Continuous improvement. All these should be aptly supported by an adequate measure. Of these Top Management does inspire and drive the culture towards that of a total quality organization. Even in most quality awards like EFQM (European Foundation for Quality Management) model, leadership drives the policy, strategy, and people management within the organization, providing the resources and processes necessary for it to thrive. Thus, Top Management Commitment (TMC) has been emphasized widely in literature, but, the evidence to assess the commitment, and means to initiate have been inadequate or absent. Authors have proposed a framework for assessing and measuring TMC for effective implementation of TQM in engineering education in India.

Methodology of Top Management Commitment Assessment

TQM starts with top management commitment, conviction, and determination, leading the initiative up front, with adequate support needed for its initiation and growth. The importance of top management is highlighted by the comments of Glasser(1995): Leaders, including members of the governing board, and senior administrators must not only "talk the talk," but, they must "walk the talk." They must not only talk quality, they must also demonstrate it in their management style.

Top Management(TM) should involve, every employee, right from identification of need for TQM implementation, in setting direction, and organization's Vision. Hyde(1992) and Chaudron(1992) have noted that, TQM results in a radical change in the culture, and in the way of work in an organization. But, the fundamental factor is leadership, which includes philosophy, style, and behavior, and all must be congruent. Bennis(1989) emphasized that, leadership development, is a prerequisite to effective functioning, as an internal change agent, advocating TQM.

Even in EFQM (European Foundation for Quality Management) model, leadership drives the policy, strategy, and people management within the organization, providing the resources and processes necessary for it to thrive. Thus, TMC has been emphasized widely in literature, but, the evidence to assess the commitment, and means to initiate have been inadequate or absent. Unless this measure exists, it is difficult to assess the status of the organization and commenting on the lack of TMC would be unfair and in many a case, an eye opener is required to the management to show how they really are aiding in the TQM/CI implementation.

Taking account of the institutions of engineering education, most of the colleges are run by private management and management committee rarely have a representation of the

faculty of the institute or other stakeholders. TM should inspire and drive the culture towards that of a total quality organization, but in many colleges top management body is unaware of the role and their responsibility, hence play a passive role.

Hence, a construct is provided for the measure of top management commitment. This has been obtained considering the case of the college considered for the case study. Suitable changes may be needed for contingent situations of its application elsewhere, and also based on years of college existence.

Based on the literature and the preliminary scanning of the environment in the college, constructs are being designed. It is not prescriptive and is amenable for changes as per requirements. The basic points that need to be considered for TMC construct development are:

- i) Constituents of TMC
- ii) TMC Assessment
- iii) Person to administer the questionnaire
- iv) Members of questionnaire design team
- v) The limiting/ minimum score for each item and its weightage.

Various facets that constitute TM are, a long-term focus; an outward customer-based approach; ability to allocate resources to ensure quality provision; ability to communicate; ability to delegate; ability to organize; ability of long term thinking; accepting responsibility and ability to motivate at all levels;

Proforma for TMC Assessment in the organization.

Constituents of the Top Management body: Since the decisions involved should encapsulate stakeholder expectations and customer needs

and requirements, it should include representatives from management body (Chairman, Secretary); Head of institution; Heads of the departments; Staff Representative (Teaching, non-teaching, administrative staff); Students, Parents; Industry, University etc. The roles for each category will be decided by a brainstorming exercise, carried out amongst the members of TMC body and also carried out at each hierarchy level.

Details of the items and *modus operandi* of use of few of the constructs have been explained Table 1

Every item in a construct needs to be rated on scale of 0-100(multiples of 10), where 0- Highly unsatisfactory (HUS); 50- Average satisfaction (AS); 100- Highly Satisfactory (HS) and suitably intermediate values could be assessed.

- i) The item "Establishment of a vision and mission statements involving faculty", will be rated '0', if the process has not been initiated and if the process has commenced or in initial stages it may be given a suitable value as perceived by the respondent.
- ii) In the item "Identification of the objectives of the organization and the critical success factors", the success factors vary from organization to organization. If in the initial stages the success factor may be results/placement, whereas after a longer period in the service, it may be societal contribution etc. Hence, based on the years of its inception, the critical parameters have to be identified. The scores need to be given based on decision, design of critical success factors.

Table 1 Top Management Commitment Assessment				
<div> <div>HUSASHS</div> <div>0---10---20---30---40---50---60---70---80---90---100</div> <div>0-Highly unsatisfactory (HUS) 50- Average satisfaction (AS)</div> <div>100- Highly Satisfactory (HS)</div> </div>				
Sl. No	Parameters for assessing the Top management commitment	Score (0-100)	Weights (Min 0- Max-1)	Weighted Score
	A	B	C	D= B*C
1	Establishment of a vision and mission statements involving faculty.			
2	Identification of the objectives of the organization and the critical success factors.			
3 ***	Establishment of effective communication mechanisms to inform, raise awareness and involving the staff.			
4	Development of individual work objectives of staff based on the institutional objectives.			
5	Planned review points for revisiting the vision to individual staff objectives.			
6 **	Implementation of quality policy.			
7	Availability of TM regularly, to speak to staff through open door policy, holding briefing sessions and feedback meetings.			
8	Act on the improvements suggested by staff.			
9	Establish mechanisms to identify successes at organizational, team and individual levels.			
10 ***	Provision of Infrastructural/ Financial resources for activities initiated or planned for.			
11 ***	Provision of appropriate resource persons for the activities planned for.			
12 *	Establishment of mechanisms to recognize, communicate and rewarding the successes.			
	TOTAL POINTS(Min score 0—Max-100)			100

iii) The item "Establishment of effective communication mechanisms to inform, raise awareness and involving the staff", may be rated based on the means by which awareness regarding the quality perspective has been initiated, i.e. in the form of workshops, seminars, bulletin boards, brochures, regular meetings, etc.

iv) Items 4 and 5 emphasize on development of individual work objectives of staff based on the institutional objectives, to what extent this has been done and how often

these objectives are reviewed as the time changes, as these also need to be dynamic to be compatible to changes either in the external environment or internal environment. Point in periods of time where review of the plan is decided quarterly/half yearly/annually etc..

iii) Item 6 emphasizes on Implementation of quality policy. Many a time the quality policy, vision and mission, will be more on paper than the implementation. The

item relates to what extent the policy implementation has been attained, in realistic terms.

- v) Item 7, Availability of TM regularly, to speak to staff through open door policy, emphasizes on the TM holding briefing sessions and feedback meetings, indicates the commitment and involvement of TM.
- vi) Item 8 emphasizes the action plan on the feedback obtained. Based on the extent of availability and action plan, they can be suitably be graded.

Similarly other items can be graded. There can be a minimum score for some important parameters; for instance resources like Infrastructure, manpower should have atleast say 70, as they play vital role in tuning other activities. Hence, for any value below certain limit, they may have to be addressed before and the process could then be continued after that. These are highlighted by the asterix(*) marks, indicating the importance. And also, a minimum limit on the total score can be devised.

Roles of quality Steering

Committee(SC) in TMC Assessment:

Steering Committee: Management has to form Steering Committee for TQM implementation and maintenance. The steering committee should have a senior faculty member (at professor cadre) as chairman and members from management, teachers, non-teaching staff and students. The Steering Committee is responsible to initiate the activities of TQM. It also has to carry out the assessment of TMC, Continuous Improvement, Total employee participation and customer satisfaction.

The steering committee, has to formulate the modus operandi of conducting TMC assessment. It shall collect information and data from the respondents from the teaching, non-teaching and administrative section as well as from students.

Time frame and schedule: Time frame for administering questionnaire should also be decided; for example, it could be once a year or once in two years.

Weightages for each item: For each item in the questionnaire weightage has to be given, with summation of all the weightages of the item as unity. To identify the weightages one to one comparison may be made among the items. For ascertaining the weightages, a preliminary survey could be taken, in addition to that of the responses for assessment.

Status of Progress, Benchmarking: SC has to develop action plans for the succeeding year with time frame for each action, and has to identify the person in-charge of every action. The corresponding in-charge shall also submit a report. The control limits need to be set for each parameter to identify, the variation pattern of each, to find out whether the improvement is taking place or not. The highest recorded scores could be set as a benchmark.

Statistical review of the results: The plot of the item scores, in due course of time may be kept, after 10 feedbacks have been collected, the Control Charts may be used to identify whether system is operating in chance causes or assignable causes mode. This would aid in probing the reasons for the assignable causes. If the results of an item show a dramatic increase/decrease, probing could give us insight into the causes for change and help in adopting the good practices and to overcome bad practices.

Reporting: SC has to document the action plans along with time frame and in-charge persons. This report has to be circulated to all concerned which becomes a measure for evaluation. SC has to bring to fore the activities that have been successful and that are partially complete.

Revision of the items: After submission of report, SC has to review the parameters identified for renewal. After a period of time, some of the parameters might become defunct, have

attained their limiting values or lose relevance with respect to the present context. Hence, a Review Committee should revise the TMC assessment sheet. For instance if the effective communication mechanisms to inform, raise awareness and involving the staff have been standardized and have become the norm of the system, it could then be eliminated from the list. There may be need for addition of new items from time to time, which should be done in consultation with all the members of the SC.

Conclusion

Most TQM failure can be attributed to not having an explicit methodology for TQM implementation and appropriate measures for all its constituents. The paper brings out one of the important features; a measure for top management commitment and how it has to be handled. It brings out how to quantify the TMC, what will be its constituents, from where to get the information, how important is each of its constituent in relation to others through the weightages to it. It also proposes that it can be made dynamic to accommodate the maturity of the institution, based on which these weightages are bound to vary and suitably fit to the institutions in which it is used. The operational framework presented here is a conceptual one. An attempt is made to develop the detailed formats for assessment of TMC. Authors have similarly developed detailed formats for implementing and evaluating Continuous Improvement, Customer satisfaction including the staff satisfaction. The modus operandi to carry out these activities in a college are also developed. It is possible that the formats may vary with the environment of the college, the society. The formats, therefore may have to be modified to the particular college while implementing.

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