ASSESSING THE LEVEL OF MANAGEMENT COMMITMENT FOR TQM CORE VALUES -   AN INTRODUCTION TO MORE EFFECTIVE CHANGE

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Abstract

It is commonly accepted that constant change is needed to stay competitive. In spite of all existing improvement approaches, there is still room for more effective and efficient improvement. One of the causes for improvement results not attaining expectations is related to management commitment. The organisational maturity sets limits for the improvement approach. Improvement projects started without sufficient management support run a high risk of failing. In order to start improvements at the appropriate level, an assessment of the management maturity is needed. This paper proposes a method for assessment of the management commitment for change based on the core values of TQM. The proposed method is described both as a separate activity and as an integral part of a proposed generic improvement process. Finding the causes for improvement opportunities forms a part of this process. A modified 7M-fishbone diagram is used for classifying the causes for improvement potential. The proposed assessment method is used to quantify the M of Management and test models have been developed and submitted to pilot tests indicating that a quick assessment of the management TQM maturity level is possible. The method has been modified consequently and improved test models are proposed.

Introduction

The increasing pressure from customers and competition accelerates the need for change. Improvement strategies and methods such as Business Process Reengineering (BPR), Lean Production, Business Excellence models, Balanced Scorecard, and Six Sigma are constantly surfacing promising better improvement outcomes. Each strategy stands in the highlight for a relatively short time and is then replaced by others. Depending on the author these strategies are seen as something entirely new or only as versions of old theories and parts of the larger concept of TQM. Provided a broader definition of TQM as a management philosophy of customer focus and continuos improvement including the value of participation of everybody, there is no apparent contradiction with TQM and most of the common quality improvement methods, (1), (2). There seems even to be a convergence in quality thinking with the new ISO 9000 including many of the principal values of business excellence models, (3). In this paper TQM is used as the main framework for improvement and the basic values of TQM are used as an assessment criteria for the potential of change. Change management is difficult, and many of the change efforts fail to reach their goals, (4), (5). Successful improvement requires a pro-

cess view and focus on the management of processes (6), (7), (8). Process orientation has during the 90s established itself as one of the most popular movements for organisational change, restructuring and improvement, (9). Managing the processes has even been described as the only big idea among all the different management initiatives of the last fifteen years, (10). Based on common TQM and a process view, an improvement process framework has been proposed (11), figure 1. The figure is used as an orientation map for the presented research.

Management Processes	Mobilising commitment Defining policy, objectives and strategy Organising for management of processes

Operative Processes

Creating interest for change

Establishing a sense of urgency	Creating the guiding coalition	Developing a vision and strategy

Improving processes

Diagnosing the Potential for Improvement	Analysing the under-lying causes for Potential	Action Planning	Imple-menting	Eva-luating

Perceived need for improve-ment

Interest for improve-ment

Improved processes

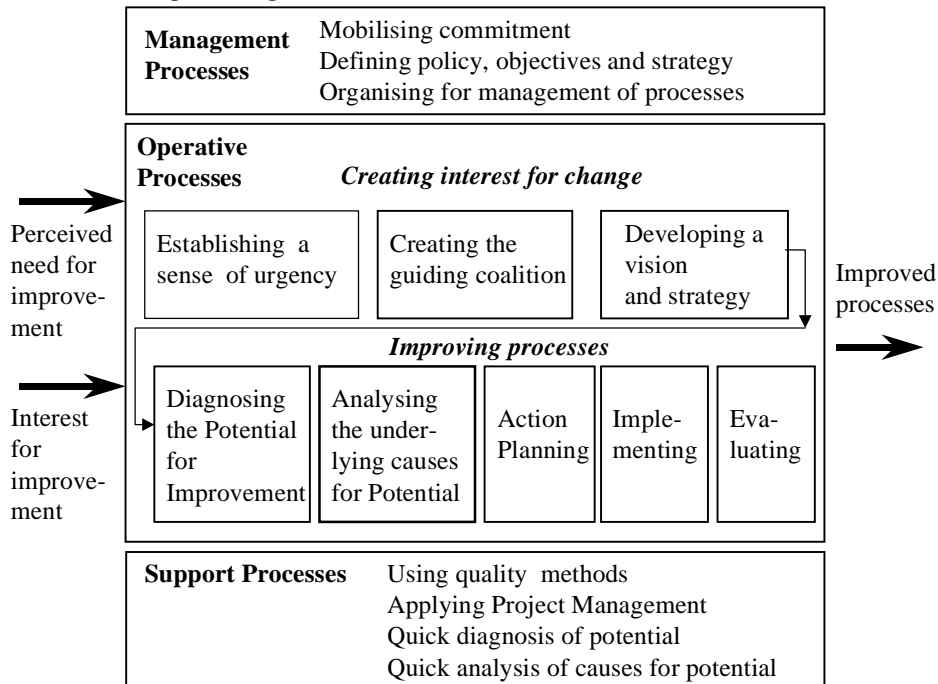| **Support Processes**	Using quality methods Applying Project Management Quick diagnosis of potential Quick analysis of causes for potential

Figure 1.   The improvement process framework.

Creating sufficient interest for improvement is a condition for the start of any seriously intended improvement activity. Most improvement methods and strategies mention the condition of management commitment as a given prerequisite. Often work is started with the assumption that there is sufficient management commitment which later might prove to be a costly error. The first condition for starting improvement work is that there is a potential for improvement. The second condition is that the underlying root causes are known and that they can be dealt with. Or in other words, that there is management commitment for change. One way of categorising the root causes is to use the 7M. In a quick version these could be used in the sub-process of "Establishing a sense of urgency" or they could be use in the sub-process of "Analysing the underlying causes for potential", (12).

Analysing the Root causes for Potential

In the original diagram for the 7M-version of the Fishbone diagram the outcome is a quality problem. This is modified to be a cause for process performance potential in any

process performance dimension such as capacity, cost, quality or environment, (13). The qualitative analysis is carried out based on interviews and observations. It is important to note that all the M relate to the process studied. This approach is mainly opportunity based more than problem based and looks at the general performance level of the 7M based on a top down approach (see Table 1).

M	To what extent :
Management	Does management adopt the values of TQM and to what extent is there a process view? Is there a policy and goals for the key processes?
Man	Is the personnel competent (defined as formal education, experience and motivation in relation to the requirements) in their work task?
Method	Is there a documented method, if relevant, for managing, controlling and improving each of the process dimensions (For ex. an ISO 9000-system for quality and ISO 14000 for environment)?
Measurement	Does there exist a Process Control and Information System (PCIS) that measures the relevant Key Performance Indicators (KPI) for the different dimensions and distributes the information to those that need it?
Machine	Is the machinery including buildings and premises up to the process requirements?
Material	Is the input material defined as raw material, wear and spare parts introducing variation or any other problems?
Milieu	Is the internal and external environment affecting process performance?

Table 1.   Proposed questions for the 7M qualitative top-down analysis of root causes.

Analysing the M of Management

The M of Management is probably the largest root cause for existing process performance potential. This is a conclusion based on what Deming and Juran have said about management being the cause of some 80-90% of the quality problems. The purpose of the proposed Maturity Models is to assess the management commitment to the fundamental values of TQM by looking generally at the level of TQM in the organisation and specifically on the process orientation, (14). A low rating in the maturity assessments indicates that any seriously intended improvement work must start with the management. The TQM-maturity model is based on a framework for a successful quality strategy consisting of the six elements of: Top management commitment; Focus on customers; Basing decisions on facts; Focusing on processes; Improving continuously and Letting everybody be committed, (15). The management commitment is the commitment of those responsible for the process and the customers are those being served by the process. This means that no particular distinction is made between internal and external customers. The management commitment is assessed by measuring the level of the values of customer focus, process focus, continuous improvement, decisions based on facts and participation of everybody in the studied process or organisation. Each value is defined on five different main levels. The levels are related to a proposed scale ranging from 0 to 20 for each of the five values, giving a total scale range from 0 to 100. By using a set of statements the

employees of the studied process or organisation choose a rating. For each of the five assessed values there is a table (see Table 2).

Customer focus points	Leadership Commitment (approach , deployment and results)
17-20	Top management representatives act as role models in personally promoting customer orientation in the whole of the organisation. All important external and internal customer needs are monitored and proactive actions are taken. Customer and personnel surveys constantly show the highest ratings.
13-16	Customer orientation is on the agenda and customer needs drive the activities. Proactive problem solving both based on the analyses of complaints and customer needs related measurements. Customers and personnel rate the organisation as above the average.
9-12	External customers and their needs are partly identified. Internal customer needs have been discussed. Some proactive problem solving. Some customer measurements are carried out to define product and service quality. Customers and personnel are fairly satisfied.
5-8	Customer complaints are recorded in a reactive system and solved whenever possible. Internal customers are not on the agenda. Customer and personnel satisfaction is not very good or not known.
0-4	External customer needs are discussed in connection with complaints. Customers needs have not been identified. Customers are only mentioned as problems, all focus is on managers and following the rules and procedures.

Table 2.   Customer focus maturity scale as an example of one of the five values in the proposed TQM Maturity Model.

The results of the five tables are summarised to get the average maturity level of TQM. Process orientation is central in TQM and a quick test to check this can be carried out using a table with ten statements with a scale ranging from 0 to 10 per statement (see Table 3). The statements are based on current process literature. The difference of process and functional orientation is simplified. The justification for the simplification is the easiness to carry out a measurement. The guiding values of process orientation are customer orientation and confidence in the employees. The guiding values of functional management are manager focus, functional specialisation and control. The questionnaires are given both to management and employees.

Results from tests

A few preliminary tests and a pilot test have been carried out. The pilot test was carried out at Scancem Research Ltd (SR) a company for technical services and consulting within the building materials industry.

No	Functional type of organisation. If the organisation being evaluated corresponds to description below then the rating is: 0 points	Process focused organisation. If the organisation being evaluated corresponds to description below then the rating is: 10 points	Points 0 - 10
1	Customers and customer needs are not defined	Customer needs are based on reliable surveys	
2	No supplier – customer co-operation. Suppliers are kept short in order to press prices	Supplier-customer co-operation in a win-win relation	
3	Customer satisfaction is not measured	Relevant measurement of customer satisfaction showing continuous improvement	
4	Processes are not flow chartered and there is no process owner – focus is on the functional organisation	All key processes are being actively managed using relevant performance measurements	
5	Processes are not measured and Key Performance Indicators (KPI) have not been identified	All key processes are measured for capacity, cost, quality, and environment if relevant and KPI are identified	
6	Employees do not know the value adding processes of the organisation	All employees are able to describe the value adding processes of the organisation	
7	The vision of the organisation and the organisational structure are not related to the value adding processes	The vision of the organisation is based on the value adding processes as is the organisational structure	
8	No learning from other groups within the organisation or from other organisations	Continuous comparison of processes – benchmarking - to improve the processes	
9	Individual functional work with focus on solving given tasks	Inter-functional teamwork with focus on increased customer value	
10	High organisation with many levels and small spans	Flat organisation with large spans	
		Total Score	

Table 3.   Test scale for level of process management. Each of the 10 aspects can score between 0 and 10 giving a total score between 0 to 100.

The entire personnel received the questionnaires for TQM and Process Orientation. The purpose of the test was to define a starting point for a planned improvement project. Out of 60 summaries, 38 were received back. The average result places both the values for TQM and Process orientation on the middle of the scale. The TQM-values received 59 and process orientation 52. The responses were grouped based on the organisational working groups with the management group being one of the eight groups. Focus was

put on studying the highest and lowest ratings for the TQM-values (see Table 4) and the statements concerning process orientation.

TQM- values	Groups scoring value as lowest ranking	Groups scoring value as highest ranking
Customer focus	0,5	2
Process orientation	**4**	
Continuos improvement	**3**	1
Decisions based on facts		1
Participation of everybody	0,5	**4**
Total of groups	8	8

Table 4. Lowest and highest ranking TQM-values marked in bold.

There seems to be some consensus on the lack of process focus and continuos improvement and that the participation of everybody is good. The management group had the highest estimate of all groups for the TQM-values, corresponding to 65 as compared to the average of 59. Another difference is that the management group gives the value of customer focus the highest score with 72%. Process orientation also shows some consensus with four of the groups rating statement 6 as lowest – "employees do not know the value adding processes of the organisation". Statement 10 – "flat organisation with large spans" – scores highest. This relates to the TQM-values indicating a low rating for processes and a high rating for the participation of everybody.

In order to assess the correctness of the obtained results all 8 groups were interviewed for comments concerning the outcome. Generally there was an agreement that the found level and the order of priority were correct. However, many had found the questions too complicated and either not participated or had answered with some level of randomness.

Range	Description	Comments
81-100	Top	Suitable for advanced programs and participation in full scale quality awards.
61-80	Developing	Good potential for improvement using different tools. Using of quality awards for self-assessment.
41-60	Starting	Simplified self-assessments could be used. Improvements in some areas possible.
21-40	Lagging	Limited possibilities for rapid improvement. Only minor local improvements without organisational changes.
0-20	Bottom	Very little to do without major reorganisation.

Table 5. Proposed scale for level of TQM-values.

Several improvements were proposed such as simplifying the language and providing definitions for many of the expressions used. An improvement discussed was filling in the maturity assessment in groups permitting a better explanation and with the objective of achieving consensus. A majority was of the opinion that the proposed measurements could be used for assessing the level of TQM and process orientation. Results from a

smaller test carried out at a department within the public service in Visby, Sweden gave a similar feed back – too many special words but the found level seemed reasonable and the measurement could be useful. A qualitative scale for the TQM-values is proposed in Table 5. There has so far not been any validation of the method. This could for example be done by subjecting organisations that have carried out self-assessments based on models such as the Malcolm Baldrige National Quality Award (MBNQA) to the proposed maturity tests and comparing the results. A simplified version of the Swedish Quality Award, which is based on the MBNQA, has been used for a self-assessment of SR some years ago. The latest score which was verified by external auditors placed the organisation on level 3 (250-400 points out of 1000). This indicates an organisation with a clear sign of quality culture but with still unsatisfactory integration among functions. This roughly corresponds to the level of "starting" (SR average 59) described in Table 5.

Conclusions

Results from applying the proposed maturity models indicate that these present a feasible method to assess the management commitment for the values of TQM generally and process orientation specifically. The methods still need validation and defining of the accuracy of the method. Further testing and development of the method is required in order to improve the usefulness. The accuracy could be considerably improved by seeing that the respondents have a sufficient level of understanding of the concepts. The proposed way to achieve this is to fill in the inquiry on a working group level where the statements are explained. The group should aim at a consensus. It is advisable to deal with the management as a separate group since they might have a differing view possibly overrating the level of maturity. Even if the accuracy of the method is still not defined the results obtained form a good basis for discussions. The proposed assessment should be carried out prior to any larger improvement activity. This puts focus in an early stage on the management commitment in a quantitative way and helps to define the chosen improvement strategy. This procedure should reduce the risk for failure by an early abortion of improvement activities not having sufficient management commitment.

Footnotes

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