ROLE OF SENIOR MANAGEMENT IN TQM IMPLEMENTATION IN MALAYSIAN SMALL AND MEDIUM ENTERPRISES

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ABSTRACT

During the last two decades, quality had become a very important issue in many large organisations for both industrial and service sectors. They regard quality as a formidable weapon in addressing business competition and challenges both from local and global competitors. At present, small and medium enterprises (SMEs) had also joint the bandwagon in their effort to improve their products and services quality. One of the bold step taken by SMEs involved in the automotive components manufacturing sector to improve their product and service quality and hence their overall competitiveness in the open market is by implementing Total Quality Management (TQM). SMEs' main objectives in implementing TQM in their organisations are to ensure their products manufactured or services provided shall satisfy their customers' requirements and needs. This paper presents a survey conducted to identify the level of SMEs senior managements' awareness and their attitude towards implementing TQM activities. In this study, one important aspect of TQM that is "senior management responsibilities and involvement in providing top-down short and long term support" was used as a parameter to identify their level of awareness and attitude towards the importance of implementing TQM in SMEs.

Keywords: *Product, Quality, Service, Senior Management, SMEs, TQM*

1.0 INTRODUCTION

During the late 1990s, increasing globalisation and market competition had made it necessary for SMEs to improve their effectiveness. This new and challenging environment has motivated many senior management in manufacturing SMEs to re-evaluate their competitive strategies and management practices with the aim of improving organisational performance in the area of quality. TQM is a management philosophy that integrates strategy, management practices and organisational outcomes to create a quality organisation that continuously improves and sustain performance [1].

2.0 TQM DEFINITIONS

A review of the definitions of the TQM from literature indicates that it means differently to authors and researchers. Kanji [2] defines TQM "as a way of life an organisation committed to customer satisfaction through continuous improvement". This way of life varies from organisation to organisation and from one country to another but has certain principles, which can be implemented to secure market share, increase profits and reduce costs. Dale [3] defines TQM as "the mutual cooperation of everyone in an organisation and associated business process to produce products and services, which meet the needs and expectations of the customers". Dale [3] believes TQM is both a philosophy and a set of guiding principles for managing an organisation. Meanwhile, Juran and Gryna [4] define TQM as

"a philosophy aimed at achieving business excellence through the use and application of tools and techniques, as well as management of soft aspects, such as human motivation in work". On the other hand, Berry [5] defines the TQM process as "a total corporate focus on meeting and exceeding customers' expectations and significantly reducing costs resulting from poor quality by adopting a new management system and corporate culture". This review revealed that there is no universally agreed definitions of TQM, however, as noted by Mann and Kehoe [6], basically the various and variety of TQM definitions can be classified into two types, namely: definitions which describe TQM in terms of its ultimate goal; and definitions that describe TQM in terms of activities or functions that need to be addressed to achieve its objectives.

3.0 HISTORICAL DEVELOPMENT OF TQM

The historical development of TQM has been clearly established through the quality movement for most of the twentieth century. Garvin [7] classified the historical evolution of TQM into four distinct stages: Quality inspection (1910s); Quality control (1924s); Quality assurance (1950s) and Total quality management (1980s). Table 1 describe the stages and characteristics of TQM development. As shown in Table 1, throughout this period of ongoing development (*i.e.* 1910s to 1990s), TQM had advanced and developed through the influence of many differing factors.

Table 1 : Characteristics of different stages in TQM
(Source: Dahlgaard et al. [8])

Stage	Characteristics
QI (1910s) Quality Inspection	Salvage; Sorting; Corrective action; Identify sources of non-conformance
QC (1924s) Quality Control	Quality manual; Performance data; Self-inspection; Product testing; Quality planning; Use of statistics; Paperwork control
QA (1950s) Quality Assurance	Third-party approvals; Systems audits; Quality planning; Quality manuals; Quality costs; Process control; Failure mode and effect analysis (FMEA); Non-production operation
TQM (1980s) Total Quality Management	Focused vision; Continuous improvements; Internal customer; Performance measure; Prevention; Company-wide application; Inter-departmental barriers; Management leadership

Davenport *et al.* (1996), and Wilkinson and Willmott (1994), (as quoted by McAdam [9]) cited that these influencing development factors range from the business process movement to the development of human resources and empowerment concepts had holistically transformed the TQM philosophy as shown in Figure 1. Hence, it can be summarised, that throughout this development period, TQM has moved from a predominantly narrow and mechanistic approach to a more subjective and broader organisational philosophy.

4.0 SENIOR MANAGEMENT DEFINITION

Senior management is generally a team of individuals at the highest level of organisational management who have the day-to-day responsibilities of managing a corporation [10]. There are most often higher levels of responsibility, such as a board of directors and those who own the company (shareholders), but they focus on managing the senior management instead of the day-to-day activities of the business. They are sometimes referred to, within corporations, as top management, upper management, or simply seniors.

5.0 SENIOR MANAGEMENT COMMITMENT AND LEADERSHIP

The need for senior management commitment and leadership is recognised by most prominent writers in the area of quality such as Dale [3], Juran and Gryna [4], Berry [5], Garvin [7], Dahlgaard *et al.* [8], Yusof [10], Bounds *et al.* [11], Oakland [12], Aalbregtse *et al.* [13], Kanji and Baker [14], Deming [15], Feigenbaum [16], Crosby [17], and Shewhart [18].

For example, Yusof [10] reported "management commitment and leadership represents a paradigm shift from the traditional management role and responsibilities, towards a new role, supporting and enhancing the total quality culture and environment". In other words, the leaders who have a deep understanding and thinking, who know what to do and how to lead the change process, must lead TQM.

6.0 ROLE OF SENIOR MANAGEMENT IN TQM IMPLEMENTATION

The first thing which senior management must realise from the outset is that TQM is a long-term business strategy. The senior management should start TQM implementation because they are the primary internal change agent for quality improvement.

In this situation, the senior management has two major roles; they are shaping organisational values and establishing a managerial infrastructure to actually bring about change. They have to prepare themselves with knowledge about the criteria of TQM and put in their mind the TQM agenda [19].

TQM is the management process used to make continuous improvement to all functions in organisations. The ideal continuous improvement process is the ones that begin with and have genuine senior management involvement. On the other hand, Leonard and McAdam [20] believe TQM implementation needs commitment to quality and continuously improving from all levels of staff.

7.0 MOTIVES FOR IMPLEMENTING TQM

Shea and Gobeli (1995) (as quoted by Yusof and Aspinwall [21]) cited some of the motives reported by a group of small [20] companies, which studied, about the reasons to choose TQM process, namely:

(a) Promotion of growth – it is easier to convince the company's bankers to invest in them if there is evidence that the organisation is well run;

Figure 1 : TQM influencing development factors [9]

(b) Management belief in the principle of customer satisfaction and employee empowerment which reflects the management style supporting TQM;

(c) Changing customer expectations even for organisations seen to be doing well (competitive issue);

(d) Making work more enjoyable; and

(e) To improve poor company performance if the company is not doing well (survival issue).

Even though these reasons looked varied, they all are focusing on improvement. Income is an important issue especially for small businesses. They must understand and realise that improvements in their business and in other aspects such as the working environment are important for survival. For example, Yusof and Aspinwall [21] reported on a case study in a small company whose reason for adopting TQM was to develop a new culture as well as management's desire to return the company to profitability. Meanwhile, Ghobadian and Gallear [22] found in one of the companies they studied cited its prime reasons for adopting TQM are to overcome internal problems such as poor delivery performance, quality related problems caused by a narrow functional approach and poor financial returns.

8.0 SURVEY METHODOLOGY

A survey is considered the most economical among methods available for data collection due to its ability in performing quick, efficient data collection and analysis [23]. A prerequisite in designing a good questionnaire is to decide what to measure. This step seems simple and self-evident but if overlooked may result in producing low quality questionnaires [24].

The survey questionnaire in this study was developed based on previous studies found in the literature and the general rules by Fowler [25] on questions and answers basic characteristics, which are fundamental to a good measurement process. The final survey instrument was based on nine statements, believed to be critical for managing TQM implementation in an organisation.

In this survey, respondents were asked to rate two aspects on a five point Likert scale, first on the level or degree of importance placed on each statement and secondly, the extent to which they thought it is currently a practice in the organisation. For the perceived importance, the rating scales ranged from 1 = not important at all, 2 = not important, 3 = neutral, 4 = important, to 5 = very important; while for the extent or degree of practice was given as 1 = very low, 2 = low, 3 = moderate, 4 = high, 5 = very high. An additional scale (0) was provided for both aspects to allow for those respondents who did not know or unsure of the answer.

For example, 'Senior management gives an utmost attention and priority to internal and external customers and their needs. If importance = 4, this means it is an important indicator for successful TQM implementation; and if practice = 5, this means highly practiced.

9.0 POPULATION AND SAMPLE OF THE STUDY

The sample for the full survey consisted of 150 SMEs, which were randomly selected from the Malaysian automotive industry vendors' list. A questionnaire was sent by postal mail to the senior management of each SME. The authors believe that it is crucial to find out the perception of critical factors from those who have an understanding and practical experience in actual industrial environment. A reply-paid self-addressed envelope was included.

10.0 OBJECTIVES OF THE SURVEY

In this survey, the authors attempted to investigate the SMEs' senior management perceptions and practices of the nine statements that believed to be critical for managing TQM implementation in an organisation. The statements are, senior management:

(1) gives an utmost attention and priority to internal and external customers and their needs;

(2) employees are empowered to solve quality related problems within their own work areas;

(3) practice continuous improvement compared to maintenance;

(4) promotes cooperation and not competition among their employees;

(5) act as a coach and trainer to their employees;

(6) continuous commitment in providing high quality products and services;

(7) promotes teamwork effort;

(8) set realistic objectives for the company and let everyone knows about it;

(9) make decision based on facts.

11.0 SURVEY RESULTS AND ANALYSIS

In this study, 150 sets of questionnaires were distributed to the vendors for automotive manufacturers in Malaysia securing a response of 32 companies, which is equivalent to 21.3%. For comparison, a postal survey on 350 automotive manufacturers in Malaysia by Deros [1] also received a low response rate of 19.4%.

The first aspect investigated was the general background of the respondents, which includes respondent's occupation, number of years in the business, the type of products manufactured and quality system certification. Seventy percent (70%) of the respondents' comprise of senior executives, managers and engineers. Ninety percent (90%) of the companies had been in the business for more than 10 years.

The top three groups of products manufactured by the companies, which forms 87% are metal (48%), wood (29%) and plastic parts (10%). With regards to quality system certification, all of the respondents had a least one certification in place (*i.e.* ISO 9001, QS 9000, ISO 14000, TS 16949). The quality improvement activities that were performed by the respondents comprise of total productive maintenance, quality management system, quality function deployment (QFD), FMEA and *etc*.

The survey revealed some pertinent issues on the role of senior management in implementing TQM in their respective companies. Figure 2 shows the overall percentages with respect to the nine critical success factors for TQM implementation and their level of importance as perceived by the senior management. It can be seen from Figure 2, the two most critical success factors that received the highest percentage ranking (*i.e.* 41.38 percent) for very important level
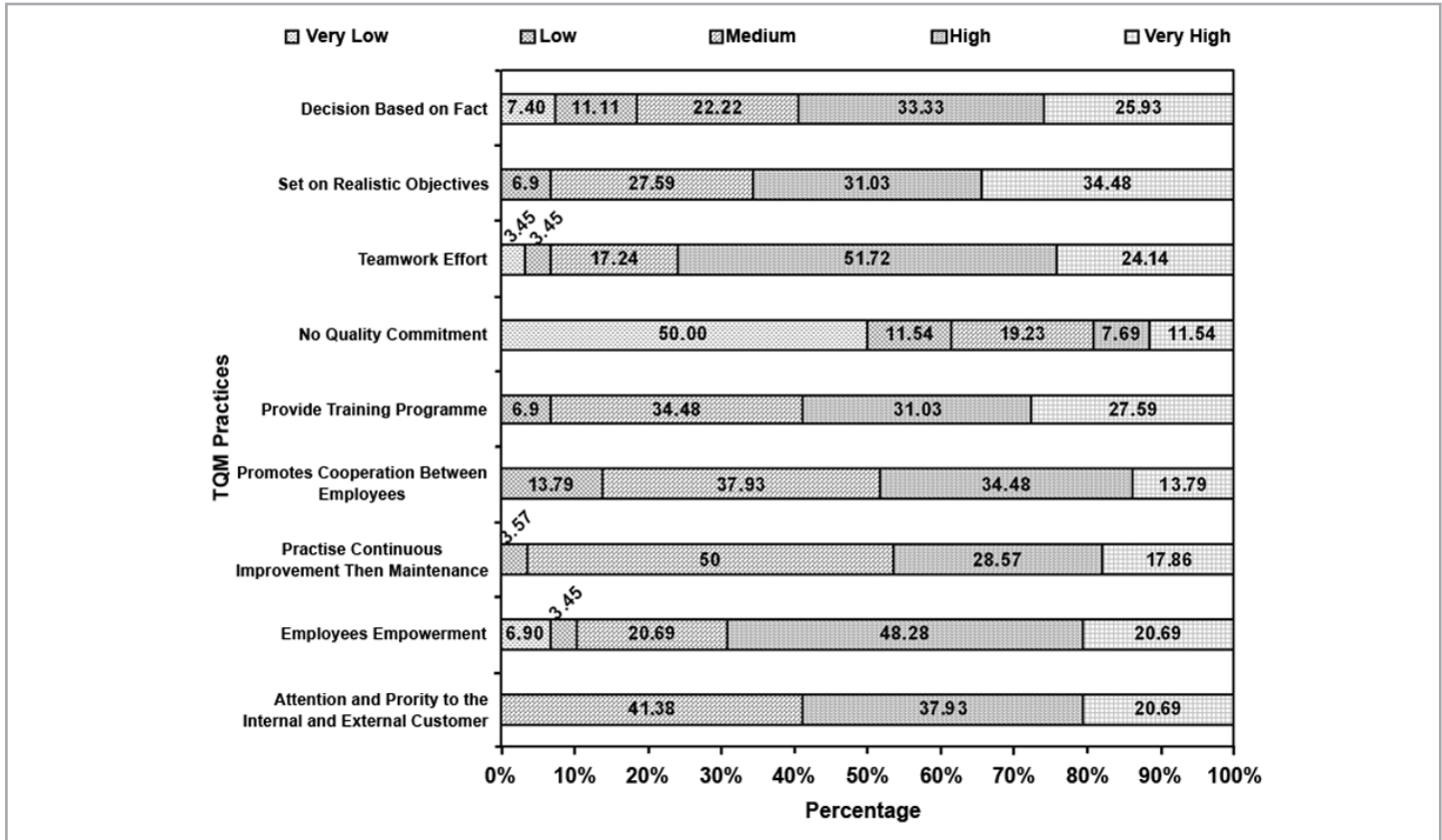
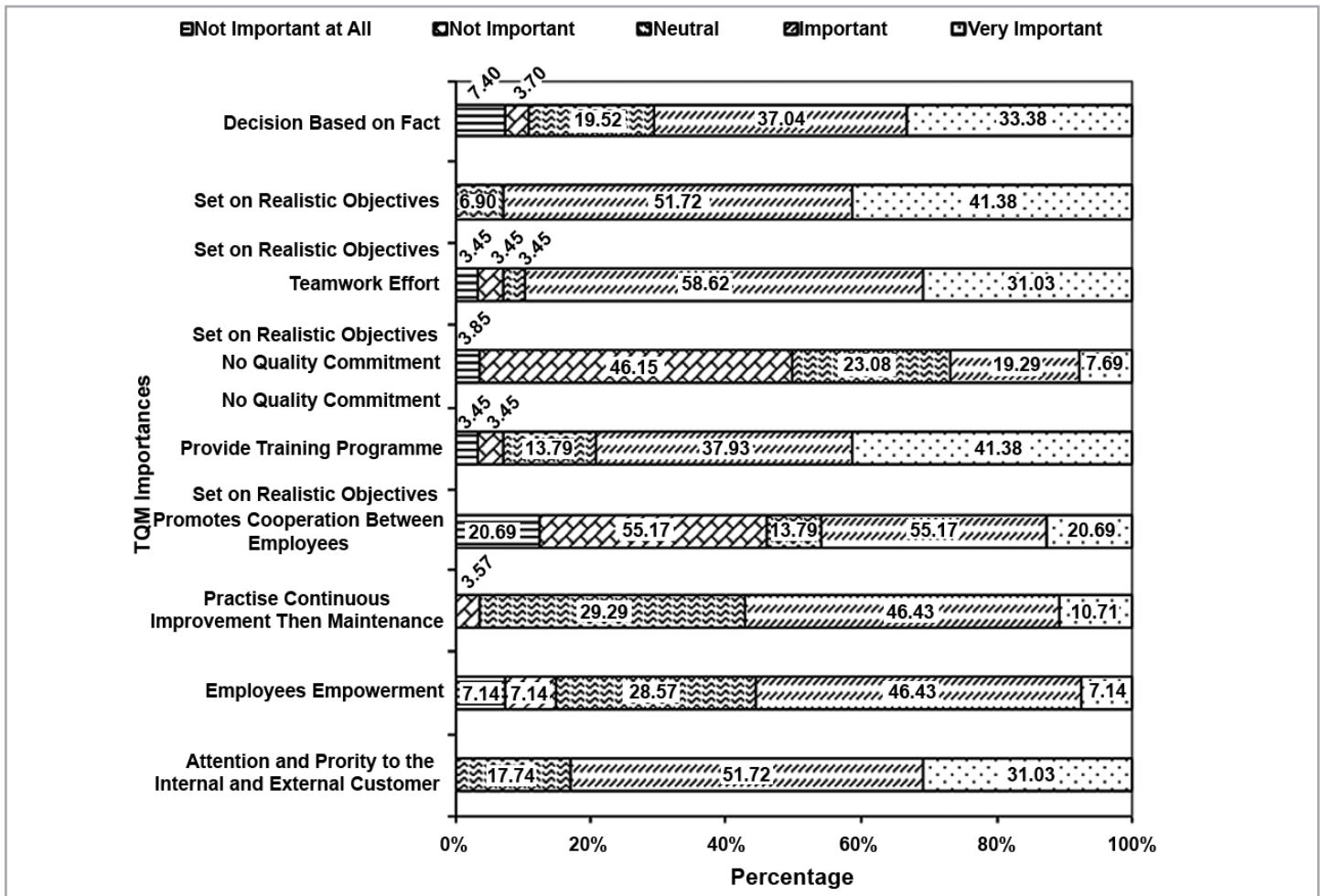*Figure 2 : Senior management's perception of importance on TQM*

Figure 3 : Senior management's TQM practices

(*i.e.* Likert scale value 5) are senior management's ability to set realistic TQM objectives and provide TQM training programme for their employees.

The critical success factors that receive the next highest percentage ranking of 33.33 percent is to make decision based on fact. It is followed by two other factors that shared the same ranking of 31.03 percent, which comprise of teamwork effort and attention and priority to internal and external customers. Thus, it can be concluded from the survey results that in order of importance the SMEs senior managements' believes the five critical success factors must be considered in TQM implementation effort in order to ensure its success are senior management's ability to: set realistic TQM objectives; provide TQM training programme for their employees; make decision based on fact; organise teamwork effort; and give proper attention and priority to internal and external customers.

On the other hand, the two success critical factors, which receive the lowest percentage rankings in terms of senior managements' perception of importance is related to their commitment to quality (7.69 percent) and employees empowerment (7.14 percent). In other words, the survey results reveal that senior management view these two critical success factors do not have much impact on the success or failure of the TQM implementation effort.

In the authors' view, the lower rankings by senior management for these two factors may probably be due to their view on TQM as a philosophy or mindset rather than TQM as a way of life or doing things on daily practices.

Referring to Figure 3, in terms of actual practice the most critical success factors that received the highest percentage ranking (*i.e.* 34.48 percent) for very important level (*i.e.* Likert scale value 5) is senior managements' ability to set realistic TQM objectives. The critical success factor that receives the next highest percentage ranking of 27.59 percent is senior managements' ability to provide TQM training programme for their employees.

It is followed by two other critical success factors in order of practice percentage rankings, which comprise of senior management practice of making decision based on fact (25.93

percent) and teamwork effort (24.14 percent). Therefore, it can be concluded that the SMEs' senior management practices these four critical success factors in order of percentage ranking as follows: set realistic TQM objectives, provide TQM training programme for their employees, makes decision based on fact, practice teamwork effort.

On the other hand, the two success critical factors, which receive the lowest percentage rankings in terms of senior managements' practice is related to their commitment to quality (11.54 percent) and promotes cooperation between employees (13.79 percent).

12.0 CONCLUSIONS

Since the number survey respondents were rather small, the survey result is not conclusive on its own, but is useful in understanding the current situation pertaining to the beliefs of TQM's importance and attitude towards implementing TQM activities as well as the actual practices of TQM in Malaysian SMEs. The authors concluded that the five most significant TQM implementation critical success factors are the SMEs' senior management perception and practice in setting a realistic TQM objectives, providing TQM related trainings to their employees, making decision based on fact, enhancing teamwork effort, giving priority and attention to the internal and external customer. Comparing the perceptions of importance and actual practices, reveal the similarities and consistencies between what SMEs senior management's perception of importance and actual practices on TQM.

In most cases, the actual practices are much lower than the perception of importance. However, it is quite surprising to know from both Figures 2 and 3 that the SMEs senior management have the least perception of importance and practice to quality commitment. The survey methodology used in this study has several limitations. The survey analysis is conducted based on 32 companies only. However, the authors believed, it is adequate to show the trend of TQM perceptions and practices among senior management in Malaysian automotive manufacturing SMEs. ∎

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PROFILES

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