

Adherence to Total Quality Management Philosophy of Selected Companies in the CALABARZON Region, Philippines

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Abstract—Total Quality Management is a philosophy which has invaded the business landscape. Strong adherence therefore would bring mostly positive impact on the business organizations. Along this line, this study was conducted to assess the adherence of the various companies in the CALABARZON (Cavite-Laguna-Batangas-Rizal-Quezon) region. The problems addressed by the study are the typical profile of the respondents, their assessment on Total Quality Management Philosophy, their degree of agreement on the barriers to TQM implementation, and the significant difference between TQM Philosophy and Barriers to TQM Implementation. A total of 109 respondents participated in this study. The study utilized the descriptive design to examine the phenomena as they exist. The study indicated that the respondents typically were manufacturing, ISO (International Organization for Standardization) Certified, with customer satisfaction initiatives, and garnering a Quality Management Award. It was revealed by the findings of the study that the companies surveyed have a high level of adherence to TQM philosophy. Of the nine areas of TQM, the respondents reported that they have higher adherence to work environment, management leadership, education and training, supplier quality management and systems and processes. Like in any other business philosophies, there are also pitfalls or hindering factors in implementing TQM. The respondents showed fair agreement that availability to training, lack of understanding, resistance to change, and lack of system and structure for TQM hinders the TQM implementation.

Index Terms—Total quality management, philosophy, barriers.

I. INTRODUCTION

The Philippines is divided into seventeen political regions. One of these regions is Region IVA-CALABARZON, an acronym for Cavite, Laguna, Batangas, Rizal and Quezon. This is now considered one of the growth centers in the Philippines in terms of population, business and economic development. As reported by Macasaquit, del Prado, Mantaring, and Gabalfin (2010), CALABARZON is where the major manufacturing activities in the nation are located and has established itself as regional cluster for such. Activities of these companies are guided by business

philosophies acceptable not only in the Philippines but also in the world. One of these business philosophies is Total Quality Management. Joss (2010) opined that TQM is an integrated, corporately-led program of organizational change designed to engender and to sustain a culture of continuous improvement based on customer-oriented definition of quality. With this as a conceptual underpinning, this study was conducted to determine adherence to total quality management philosophy of selected companies in the CALABARZON region. Likewise, this paper would like to enumerate the barriers to TQM implementation. Moreover, it determines whether adherence to TQM and the barriers to TQM implementation varies across companies.

II. LITERATURE REVIEW

A. Total Quality Management Philosophy

Total Quality Management (TQM) is a management philosophy as underscored by various authors. Crosby (2010) defined TQM as a systematic way of guaranteeing that organized activities happen the way they are planned. It is a management discipline concerned with preventing problems from occurring by creating the attitudes and controls that make prevention possible. Oakland (2013) presupposes that TQM helps in improving the effectiveness and flexibility of a business as a whole. It is essentially a way of organizing and involving the whole organization, every department, every activity, every single person at every level. For every organization to be truly effective, every part of it must work together, recognizing that every person and every activity affects and in turn is affected by others. It is in this note that Macdonald and Pigott (2010) argued that Quality Management is not a fixed body of truths, but a process that is evolving and will take different forms to meet the needs of individual companies. Taking from this argument, TQM implementation may vary across different organizations. Atkinson (2010) identified the proactive elements of TQM. According to him, TQM is a preventive strategy replacing rework, fire-fighting and crisis management with planning, co-ordination and control. TQM is the umbrella, under which a great number of quality incentives can be managed. There are other authors who laid down the important elements of TQM such as Lundquist (2011), Ho and Fung (2011), Mann and Kehoe (2014), Powell (2011), and Black and Porter (2010). In the latest study, Choi and Eboch (2011) identified constructs of TQM implementation. This includes management of process quality, human resources

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management, strategic quality planning, and information and analysis.

B. The Hindrances in Implementing TQM

As a management philosophy, different barriers in its implementation were identified by various authors. Oakland (2013) identified two reasons. According to him, if the program is not introduced and implemented effectively, the TQM implementation will be hampered. Moreover, if during the implementation, the members will allow the effects to fade away over time, this is a potential pitfall likewise. Other hindering factors include overenthusiasm, uncoupled efforts, lack of commitment, organizational resources and capabilities, and false underlying assumptions at the time of planning can increase resistance and barriers to the effective implementation. Dale, et. Al. (2010) opined the in TQM implementation, employee resistance due to various reasons can be the biggest resistance to the introduction and implementation of TQM.

III. RESEARCH METHODOLOGY

A. Sampling Design

The participants in this study are the 109 employees in the various companies located in the CALABARZON region. They were randomly selected from the pool of possible key informants for this study.

B. Research Procedure

The decision to conduct this study was motivated by the previous work of the author on the adherence to quality management principles of higher education institutions in the CALBARZON region (Limpiada, 2013). A questionnaire was devised based on the original instrument used in Malaysian automobile industry. After modifying some parts of the questionnaire, to make it suit to the Philippine culture, the crafted questionnaires were distributed to the targeted respondents. After which, the questionnaires were retrieved. Tallying of the results followed. Statistical tools were applied such as frequency count, weighted mean and single factor ANOVA using Microsoft Excel Data Analysis Tool Pack. Results were presented using tables.

IV. DATA ANALYSIS

Question 1. What is the typical profile of the respondents?

Fig. 1 shows the typical profile of the respondents. As shown, the 109 respondents are typically employees of manufacturing companies accounting to 74 or 67.05%. Their companies have initiated customer satisfaction initiatives as reported by 60 or 15.11%. Certification to ISO 14001 was reported by 50 or 34.25% of the respondents. Finally, forty-six or 36.80% of the respondents have said that their companies received Quality Management award.

Question 2. What is the respondents' assessment of their adherence to Total Quality Management philosophy?

Table I shows the assessment made by the respondents on their adherence to Total Quality Management philosophy in

eight components. They have reported that their adherence to TQM philosophy along the eight dimensions is high as evident in the general weighted mean of 4.09. The top three raters are the adherence to TQM philosophy along with work environment and culture, management leadership and education and training. In the bottom three are their adherence to continuous improvement, measurement and feedback and resource management.

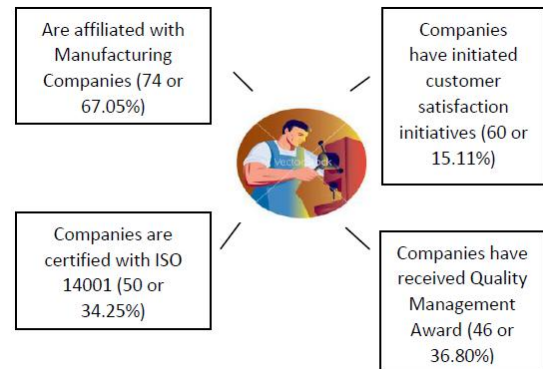


Fig. 1. Typical profile of the respondents.

TABLE I: WEIGHTED MEANS OF THE ASSESSMENT OF THE RESPONDENTS ON THEIR ADHERENCE TO TOTAL QUALITY MANAGEMENT PHILOSOPHY

NO	Aspects of Total Quality Management Practices	Weighted Mean	Verbal Interpretation	Rank
1	Work Environment and Culture	4.25	High	1
2	Management Leadership	4.16	High	2
3	Education and Training	4.15	High	3
4	Supplier Quality	4.13	High	4
5	Management Systems and Processes	4.12		5
6	Continuous Improvement	4.09	High	6
7	Measurement and Feedback	3.97	High	7
8	Resource Management	3.84	High	8
	General Weighted Mean	4.09	High	

Question 3. What is the respondents' degree of agreement on the barriers to TQM implementation?

Table II shows the degree of agreement of the respondents on the fourteen indicators of barriers to TQM implementation. The weighted mean of 2.34 can be interpreted as disagree. It means that generally, they have not seen these barriers in their respective companies. However, a fair agreement was reported by the respondents on the presence of some barriers like, availability to training, lack of understanding, resistance to change and lack of system and structure for TQM activities.

Question 4. Is there any significant difference on the adherence of the companies to TQM philosophy and barriers to TQM implementation when they are grouped by type of business organization?

TABLE II: WEIGHTED MEANS OF THE DEGREE OF AGREEMENT OF THE RESPONDENTS ON THE BARRIERS TO THE IMPLEMENTATION OF TQM

No.	Indicators of Barriers	Weighted Mean	Verbal Interpretation	Rank
1	Availability to training	2.63	Fairly Agree	1
2	Lack of understanding	2.60	Fairly Agree	2
3	Resistance to change (Too busy)	2.51	Fairly Agree	3.5
4	Lack of systems and structures for TQM activities	2.51	Fairly Agree	3.5
5	Lack of preparation (No budget, no sponsor)	2.49	Disagree	5.5
6	Lack of resources	2.49	Disagree	5.5
7	Lack of effective measurement criteria	2.26	Disagree	7
8	Training with no purpose	2.25	Disagree	8
9	Lack of customer focus	2.22	Disagree	9
10	Lack of top management commitment	2.21	Disagree	10.5
11	Lack of rewards and recognition	2.21	Disagree	10.5
12	Costly consultancies, training programs	2.20	Disagree	12
13	Lack of evaluation procedures and benchmark indices	2.17	Disagree	13
14	Lack of vision	1.98	Disagree	14
	General Weighted Mean	2.34	Disagree	

TABLE III: SINGLE FACTOR ANOVA RESULTS TO DETERMINE IF THERE IS A SIGNIFICANT DIFFERENCE ON THE ADHERENCE TO TQM PHILOSOPHY AND BARRIERS TO TQM IMPLEMENTATION WHEN THE RESPONDENTS ARE GROUPED ACCORDING TO TYPE OF COMPANY

Aspects of TQM and Barriers	F-Value	Conclusion
Work Environment and Culture	1.3157	No significant difference
Management Leadership	1.2481	No significant difference
Education and Training	1.2253	No significant difference
Supplier Quality Management	1.1933	No significant difference
Systems and Processes	1.2733	No significant difference
Continuous Improvement	1.3938	No significant difference
Measurement and Feedback	1.4168	No significant difference
Resource Management	2.1876	There is a significant difference
Barriers to TQM Implementation	1.8056	No significant difference

*F-Critical Value at 0.05 level of significance is 1.8544

Table III shows the Single Factor ANOVA results to determine if there is a significant difference on the adherence to TQM and the perception on barriers to TQM implementation when the respondents are grouped by type of company. It was revealed that there is no significant difference on adherence to work environment and culture, management leadership, education and training, supplier quality management, systems and processes, continuous improvement, and measurement and feedback. No significant difference was also noted on the barriers to TQM across companies. On resource management aspect of TQM, there is a significant difference according to the results shown.

V. CONCLUSION AND DISCUSSION

The successful implementation of TQM in any company would always depend on the adherence of the people on the philosophy behind its implementation. The results of the study pointed to a high level of adherence of the companies to the TQM philosophy especially in the areas of work environment and culture, management leadership, education and training, supplier quality management, and systems and processes. These findings are in consonance to earlier propositions of Black and Porter (2010) who identified ten critical factors in TQM implementation. This includes people and customer management, supplier partnership, communicating of improvement information, customer satisfaction orientation, external interface management, strategic quality management, team-work structure for improvement, operational quality planning, quality improvement measurement systems and corporate quality culture. In terms of barriers, the respondents further reported slight agreement that availability to training, lack of understanding, resistance to change, and lack of system and structure for TQM activities constitute barriers to TQM implementation. This is related to the findings of Polat, Damci, and Tatar (2011) among contractors in Turkey who implemented TQM. They are aware of the benefits of TQM implementation but there are several barriers such as lack of top management's support, commitment and leadership.

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