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# Contextual Examination of TQM Practices and Competitive Advantage in the Malaysian Manufacturing Sectors

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**Abstract** - This paper examines TQM managerial practices in number of Malaysian manufacturing sectors. The outcome of this study helps actuate the future level of potential competitive advantages and economic implications. The objectives of the paper is to assess the implementation of quality measures used by a Malaysian manufacturers including managing quality in production, training, quality improvement, and quality assurance. A qualitative approach was applied in this research. Findings suggest that TQM concepts are of minimal concern to frontline workers, which impacts overall quality of production. Labor shortage, and lack of sufficient training amongst reasons attributed to lack of effective TQM implementation. This research also finds that China is taking away manufacturing grounds from Malaysian as well as India and Indonesia as future manufacturing hubs. Copyright © 2014 Penerbit Akademia Baru - All rights reserved.

**Key words:** Malaysian manufacturing, TQM, quality, production.

## 1.0 INTRODUCTION

As a byproduct of globalization, the competitive landscape is causing hypertension in much of the globalized manufacturing sectors. As companies focus on customer satisfaction to ensure long-term survival, modern manufacturers are expected to go beyond customer satisfaction by focusing on customer loyalty [1]. In order for companies to achieve customer loyalty they are expected to constantly provide higher value, efficient cost reduction and highly degree of innovation to compete in future marketplace [1]. Although Total Quality Management (TQM) takes many shapes, forms and names, TQM implementation as an agent of competitive advantage is not always successful in all cases. That is because TQM implementation requires different approaches, which differ according to industries and cultures. Small and medium sized enterprises (SMEs) in Malaysia, for example, have been slow in adopting TQM when compared to large companies. Their involvement has focused primarily on ISO 9000 certification, and very few had advanced beyond that [2]. Consequently, it's imperative for manufacturers to identify critical success factors associated with TQM implementation and contribute to their long-term competitive advantage. The importance of this research is to determine the degree of TQM implementation in the Malaysian manufacturing sector as an agent of competitive advantage.

The scope of this study is limited to furniture, automotive, tools and machinery, fabrication, plastic injection molding, sub assembly, final assembly and electronics. It was out of the scope of this study to examine foreign subsidiaries of companies such as Intel, and other multinationals since they are not necessarily considered as Malaysian manufacturers. The aim was to examine Malaysian small and mid-size manufacturers.

### **1.1 Problem Statement**

The productivity of manufacturers as a critical sector of the Malaysian economy is measured via the output of aggregate production. As production teams tends to set target output to complete their line based on customer requirement; and each models target output differ according to the complexity of the model, the output of each model is counted based on hourly basis and later on will total up as shift output. Eventually this will be combined and calculated as daily output. The major challenge to production department was observed by [3-6] is the lack awareness of quality amongst workers in the Malaysian manufacturing sector.

As interruption in manufacturing or line down is a common phenomenon. Line down is a situation in which the assembly line is not fully utilized due to some uninvited issues such as insufficient part to run the line, which impacts the quality of final product. Shortage of labor is another contributing factor. Lack of quality awareness or measures amongst Malaysian manufacturers is contributing to the problem. It was also observed by the researchers that new workers are being employed without adequate training or specialization. Hence, an examination of the extent of TQM awareness and implementation was needed to determine the state of competitiveness of Malaysian manufacturers.

### **1.2 Research Questions**

RQ1. What is the degree of TQM implementation amongst Malaysian manufacturers?

RQ2. How important is the concept of quality amongst Malaysian frontline workers?

RQ3. What are the quality related issues facing Malaysian manufacturers?

### **1.3 Literature Review**

Various aspects of Malaysian manufacturing practices have been investigated. Jafartayari & Rahmandoust [7] examined sustainability practices and manufacturing awareness. They concluded that little emphases are put on issues of sustainability in Malaysian manufacturing. Onn [8] was describing the growing manufacturing sector of the Malaysian economy and challenges facing the growth of manufacturing as future pillar of the Malaysian economy. Onn further highlighted the shift from labor-intensive manufacturing in Malaysia to capital-intensive sectors. With lack of competitive advantage against Chinese manufacturing, Malaysian and other Southeast Asian countries are constantly losing their manufacturing ground. Ishak [9] argues that emphases in Malaysia are geared towards oil and gas industries at the expense of other industries. Mahadevan [10] predicted that the Malaysian manufacturing sector will remain a second-tier and will loose ground to other more economic production countries. Wong [11] concur to the notion that the agriculture sector of palm oil and rubber is the leading sector of the economy. Agus & Abdullah [12] asserts that most TQM practices in Malaysian manufacturing sector is concerned with ISO certification rather than advanced implementation of TQM concepts. Karia et al. [13] further assert the notion that worker-related attitude hinders TQM practices in Malaysian manufacturing sector.



## **2.0 METHODOLOGY**

To evaluate the TQM implementation in the Malaysian manufacturing sector, the researchers observed production lines and interviewed workers at 32 manufacturers in Johor Bahru and Kuala Lumpur and Klang Valley. The industrial sectors examined are furniture, automotive, tools and machinery, fabrication, plastic injection molding, sub assembly, final assembly and electronics. Researchers examined manufacturers and studied their current problems they face in production, raw materials, delivery, order fulfillment and customer relationship management. Qualitative analyses included open-ended questions through interviews with frontline workers and line-managers. A classification of issues facing manufacturers were outlined and led to further interviews. A total 193 frontline workers and line-managers were interviewed across 32 manufacturers. Subsequent interviews with 6 owners, general managers, or directors followed the qualitative analyses to compare findings. Qualitative analyses consisted of classification of issues facing production, workers, TQM implementation, training and other quality issues. Problems facing manufacturers were investigated to determine what approach is incorporated to solve or deal with such issues. A total of 35 workers and line-managers were interviewed at ATA group of companies in Johor Bahru, Malaysia as one of the fastest growing contract manufacturing (CM) companies. Under this group, there are 5 subsidiary companies, which are namely, ATA Industrial (Malaysia), ATA Precision (Malaysia), Jabco Filter System (Malaysia), ATA Precision (Shanghai), ATA Industrial (Singapore) and Microtronic Technology (Malaysia). These groups of companies are players in various business lines such as design and engineering solution, molding design and fabrication, plastic injection molding, sub assembly, final assembly and PCBA producers.

## **3.0 ANALYSES AND FINDINGS**

Findings of this research shows that various manufacturers are experimenting with various TQM concepts, however, TQM remains low amongst frontline workers. Shortage of labor is causing meeting deadlines as a priority over quality in the furniture, tools and machinery, fabrication, plastic injection molding, sub assembly, final assembly and electronics industries. Lack of comprehension of the English language is causing lack of communications and lack of training. Training programs were found to take second place to meeting deadline.

Frontlines managers and workers were found to lack the ability to make risky decisions. This is attributed to fear of consequences as primary reason. 72% of interviewed workers expressed lack of connection with top management. 61% of interviewed workers expressed lack of understanding by top management of problems they face on daily bases. 42% of workers were found to lack training in technical skills related to the job. 67% of frontline workers indicated that no training related to quality was conducted within the past 12 months. 87% of owners and managing directors indicated that China is dominating the manufacturing landscape and they are loosing ground and market share to Chinese manufacturers.

It is also the finding of this research that the agriculture sector of palm oil and rubber will continue to dominate other sectors of the Malaysian economy. This research further predicts that Malaysia will continue to loose its ground as a manufacturing hub to other Southeast Asian countries such as India, and Indonesia. This research also confirms Karia et al. [13] that worker's attitude hinders effective implementation of TQM concepts. This is primarily because of lack of knowledge, awareness, and importance of quality to the individual worker. This research also finds

ISO standards are still of primary importance and concern to Malaysian manufacturers and the most sought after principle as far as TQM is concerned amongst Malaysian manufacturers.

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