Strategies For The Successful Lean Manufacturing Implementation: A Case Study In A Malaysian Automotive Parts Manufacturing

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Abstract

In recent global business environment, many manufacturing companies are attempting to implement lean manufacturing system. Malaysian manufacturing companies are no exception, and they consider lean manufacturing as an effective manufacturing strategy to survive in a highly competitive market. Given the lack of clear guidelines or step-by-step procedure in effectively implementing of lean manufacturing system among Malaysian manufacturing companies, this paper aims to present a case study of a manufacturing company pertaining to the automotive parts manufacturing company in Malaysia which has achieved significant improvement in productivity as a result of successful lean manufacturing implementation. The finding suggests that factors such as continuous management commitment, teamwork, and organization-wide involvement are crucial to lean success. The case study is expected to contribute important implications strategies for lean manufacturing system implementation in Malaysian manufacturing organization.

Keywords: Manufacturing Organization, Lean Manufacturing System, Productivity Improvement, Malaysian Automotive.

1. Introduction

Automotive industry in Malaysia currently faces a wide variety of challenges in order to be classified as a world class manufacturer as well as to sustain in the global competitiveness business. This has prompted many manufacturing companies to adopt or to change their current manufacturing system to more productive strategies that can improve their performance, increase efficiency and thus competitiveness. Lean manufacturing system is one of the proven strategy and has been regarded as a remedy to survive and be competitive in this global market [1]. The ultimate goal of lean manufacturing is to create a smooth and high quality organization that is consistently able of producing finished products that conforms to the customer’s demand in the quality-looked while at the same time achieving minimal wastage of resources.

Lean Manufacturing strategy is being supported by the Malaysian government [2-4] towards creating world class manufacturing and that could face sustained high competitiveness in global market. The implementation of lean manufacturing system is considered to be very useful in the automotive industry in Malaysia. In order for the industry to improve their operational performances as well as to remain competitive [3]. Although many companies under this industry are interested in the lean manufacturing system and trying to implement lean tools, however, prior studies show that the level of implementation and adoption of lean manufacturing in Malaysia has yet to become comprehensive and is currently being applied only in certain stages and known areas [2, 3].

There are many documented instances in literature that describe the companies that have successfully implemented lean systems and had achieved significant improvements in terms of shorter lead times, lower inventory levels, better quality and higher profitability. However, despite intending to apply lean systems, there are companies that are struggling to change the work culture which is crucial towards successful implementation in their operational processes, thus having problems adapting and sustaining the lean principles. To the best of our knowledge, there are no