Factors Affecting Effective Lean Implementation: A Case Study of a Tyre Manufacturing Company in Sri Lanka

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Abstract

The lean manufacturing system is an integrated set of principles, practices, tools, and techniques which addresses the root causes of the operational problems. It ensures that the customer receives the product with required quality, price, and delivery performance while maximizing company’s competitive advantage and shareholder value. When lean system is successfully implemented production will be run smoothly without huge inventory. It was found that the companies had not reaped the expected benefits by implementing lean all the times. Studies reveal that the benefits are limited by the environmental context and the organizational contingencies. Therefore this study focuses on identifying the factors affecting the lean implementation using case study approach. A conceptual model was developed from the facts drawn from the literature and it was tested with a manufacturing organization which had implemented the lean concept. Core team members who directly involved during the implementation process were interviewed. A questionnaire was designed based on the information gathered from the core team members and the literature. It was distributed among 100 executives to collect data. They were randomly selected from those who participated in lean implementation process. Principal component analysis and descriptive statistics were used to analyze data using Statistical Package for Social Sciences (SPSS®). Results disclosed the factors which drove the lean implementation process and those that prevent effective implementation. The outcome of this study would help other manufacturing organizations to identify the critical factors that should be paid more attention during the lean implementation process in their organizations.