Improving quality management methods in manufacturing SMEs: a conceptual framework

ABSTRACT

The purpose of this paper is to deliver a critical review of quality management process improvement methods, determine the critical success factors to Lean Six Sigma implementation in manufacturing SMEs and design the conceptual execution framework to Lean Six Sigma implementation successfully in manufacturing SMEs. A variety of methods are available for implementation in quality management process improvement. In this paper four of the well-known methods have been briefly described including Total quality management (TQM), Lean Manufacturing, Six Sigma and Lean Six Sigma (LSS). The previous studies showed that all the four methods have some barriers and challenges that requires an elimination, Lean Six Sigma which is a combination of both Lean Manufacturing and Six Sigma is considered as the most updated method with less barriers in implementing quality management process in manufacturing SMEs.

Keyword: Quality management; Total quality management; Lean manufacturing; Six sigma; Lean six sigma; Critical success factors; Small to medium-sized enterprises