The Relationship between Lean Manufacturing and Firm Performance – A Study of Manufacturing Companies in Sweden

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Abstract

The aim of lean manufacturing is to remove waste to increase the value for the customer. Some of the outcomes from implementing lean manufacturing are increased quality, improved productivity and reduced costs. There is however a mixed result in the empirical evidence concerning lean manufacturing's relation to performance. This study looks at the implementation level of lean manufacturing in Swedish manufacturing companies and investigates lean manufacturing's impact on firm performance. A survey was made based on an electronic questionnaire sent to Swedish manufacturing firms and a total of 35 companies within ten different industries responded to the questionnaire. The result shows that the implementation level on average is moderate. The implementation was measured by ten constructs, of which development of suppliers, pull and controlled processes is implemented to a little extent. Just in time delivery, involved customers, flow, reduced setup, involved employees and productive maintenance has an average of "some" implementation. Feedback to suppliers has extensive implementation. The results indicate that lean manufacturing has a positive and significant relationship with firm performance, both financial and nonfinancial performance. The main conclusion of the result is therefore that lean practices together create synergies that lead to enhanced firm performance.

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List of Abbreviations

FMEA Failure Modes and Effects Analysis

HRM Human Resource Management

JIT Just In Time

PDCA Plan-Do-Check-Act

ROA Return on Assets

ROE Return on Equity

ROI Return on Investment

SMED Single Minute Exchange of Dies

SPC Statistical Process Control

TPM Total Productive Maintenance

TPS Toyota Production System

TQM Total Quality Management