

Application of Material Flow Cost Accounting Analysis to Increase Pajama Production Efficiency: A Case Study of Confederate International Co., Ltd.

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Abstract

This research aims to apply the Material Flow Cost Accounting (MFCA) method to evaluate and improve the production process and reduce the production cost by using Lean and the discrete system simulation techniques. This research followed the MFCA procedures by starting from identifying materials losses and wastes from the entire production process. The difference between inputs and outputs for each processing step was quantified, reported and depicted using the material flow model and MFCA cost matrix. The findings were used to derive measures to improve the production planning, the process control, the work procedure and to reduce the cost using Lean technique by reducing wastes, rearranging the sequence of sewing department production, the bottle neck process which account for the longest cycle time. After implementing the proposed measures, comparison between before and after improvement were reported under the Material Flow Cost Accounting format.

Keywords

MFC, Productivity Improvement, Discrete Simulation, Pajama Production, Lean.

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Biography

Wichai Chattinnawat is an associate professor of Industrial Engineering at Chiang Mai University in Thailand. He holds Ph.D. and M.S. in Industrial Engineering, and a M.S. in Statistics from Oregon State University. His research focuses on statistical process control, quality engineering, applied statistics for quality improvement, as well as concurrent design of quality and productivity. Assoc.Prof.Wichai Chattinnawat has extended the research into the area of Material Flow Cost Accounting (MFCA) Analysis and Application in Industry. He was appointed by Thailand Productivity Institute as MFCA trainer. He conducted MFCA research for National Science and Technology Development Agency (NSTDA) of Thailand and provides consulting to leading firm in Thailand in applying the MFCA to reduce cost and improve efficiency. He has been regarded as a leader in the MFCA technique in Thailand.