

The development of quick response manufacturing in supply chains activities based on product planning control

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ABSTRACT

The research of Quick Response Manufacturing (QRM) in the production supply chain activities of an organization are based on product planning control. A supply chain with a poor flow for instance in the company's logistics could cause the performance of the company. Inadequate preparation will result in mediocre quality, a loss of productivity and inefficiency. The objective of this thesis is to enhance the critical supply chain of a selected production line in the company by analyzing the existing data. From there, a simulation using software which is WITNESS, is conducted. The output from the simulation will be used in determining methods or solutions to enhance the supply chain related issues. The methods or solutions will be resulting in better efficiency, quality, and productivity. The data collected from the improvement will then be compared to the existing data to gauge whether the improvement contributes to the increase in efficiency and productivity of the selected line. The results from the simulation appear positive feedback, with an average of 85% of the busy time on the proposed layout simulation compared to 66% on the current layout. Even though the differences are minor, they can be critical during peak hours. Finally, the result obtained between the current layout and improved layout proves that the implementation of Quick Response Manufacturing (QRM) can increase the productivity of Dunham Bush company at Kajang, Selangor.

KEYWORDS

Quick Response Manufacturing (QRM); WITNESS software; Supply chain

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