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An Improvement Study for Mattress Manufacturing Line with a Simulation Model

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Abstract : Nowadays, in a furniture sector, competition of market share (portion) and production variety and changeability enforce the firm to reengineer operations on manufacturing line to increase the productivity. In this study, spring mattress manufacturing line of the furniture manufacturing firm is analyzed analytically. It's intended to search and find the bottlenecks of production to balance the semi-finished material flow. There are four base points required to investigate in bottleneck elimination process. These are bottlenecks of Method, Material, Machine and Man (work force) resources, respectively. Mentioned bottlenecks are investigated and varied scenarios are created for recruitment of manufacturing system. Probable near optimal alternatives are determined by system models built in Arena simulation software.

Keywords : bottleneck search, buffer stock, furniture sector, simulation
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