

Productivity Improvement of Garments Industry by Assembly Line Technique of Lean Manufacturing

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Abstract

The project is concerned with the Assembly line balancing of Sheet set a product of ABC textile mills Karachi that consist of (one fitted sheet, one flat sheet and two pillows). The study aims to improve the Assembly line balancing from stitching to packing Sheet Set. The problem is regarding the number of non-value adding activities that have been found which bring unbalanced lines such as waiting time, unnecessary movement, derangement of Machines. These non-value adding activities need to be identified and improved to reduce the labor cost and to optimize the line. To overcome this problem we have used Line Balancing Technique. Line balancing is the mechanisms of cellular manufacturing that involve key techniques of Work-study, and lean manufacturing. Line balancing is also an effective tool for allocate tasks over the work station so the idle time for men and machine can be reduced in order that there is no delay occur during the production, and nothing is overburden. Successfully we have applied Line Balancing Technique from Stitching to Checking then Checking to Packing, Increase the productivity and efficiency by reducing the resources and by increasing the production capacity. Removal of non-value added activities, Reduction in idle time and Elimination of Bottleneck help us to Balance the Line. Elimination of Downtime and Ensuring the Availability of Accessories must be taken into consideration while balancing the Line.

Key words: Line balancing, time and motion study, work-study, process flow chart, assembly line.