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DESIGNING ON-PRODUCTION LINE QC MODEL: A CASE STUDY OF INDIA'S LARGEST EDIBLE OIL MANUFACTURING FIRM

Abstract:

Nowadays companies have to compete globally and to turn out to be a leader in global market, the firm has to utilize its resources to their maximum potential and have to be lean towards productivity at the same time. The present case study has been carried out in India's largest edible oil manufacturing plant, analysing the issues faced in the production line, which affects largely to the warehouse management and other operations as well. Thus to overcome these issues, we have developed a model for carrying out on-production line quality check which helps in proper manpower allocation and better warehouse management, making the plant more lean. In this study we have integrated Simplex algorithm and Parallel processing to develop a model that distributed appropriate labour force among several operations making the warehouse operations easier. This aided in reducing the overall time of the operations that carried out during the loading of finished goods into the truck. It helped in reduction of labor force, rework time and also increased the availability of floor area for the finished goods. After implementation of the proposed model, 95% of errors were able to get identified at the time of palletisation itself. Further this model was also verified by experts and then implemented over 24 production lines with a capacity of over 3000 MT.

Keywords:

Lean, On-Production line QC, Simplex algorithm, Warehouse Management.

JEL Classification: J22, J23, J29