

Dynamic Risk Identification Using Fuzzy Failure Mode Effect Analysis in Fabric Process Industries: A Research Article as Management Perspective

Authors : A. Sivakumar, S. S. Darun Prakash, P. Navaneethakrishnan

Abstract : In and around Erode District, it is estimated that more than 1250 chemical and allied textile processing fabric industries are affected, partially closed and shut off for various reasons such as poor management, poor supplier performance, lack of planning for productivity, fluctuation of output, poor investment, waste analysis, labor problems, capital/labor ratio, accumulation of stocks, poor maintenance of resources, deficiencies in the quality of fabric, low capacity utilization, age of plant and equipment, high investment and input but low throughput, poor research and development, lack of energy, workers' fear of loss of jobs, work force mix and work ethic. The main objective of this work is to analyze the existing conditions in textile fabric sector, validate the break even of Total Productivity (TP), analyze, design and implement fuzzy sets and mathematical programming for improvement of productivity and quality dimensions in the fabric processing industry. It needs to be compatible with the reality of textile and fabric processing industries. The highly risk events from productivity and quality dimension were found by fuzzy systems and results are wrapped up among the textile fabric processing industry.

Keywords : break even point, fuzzy crisp data, fuzzy sets, productivity, productivity cycle, total productive maintenance

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