ABSTRACT

QUALITY IMPROVEMENT OF FURNITURE PRODUCT BY FAILURE MODES AND EFFECT ANALYSIS METHOD (FMEA)

(*Case in Benakat Lestari Palembang Small and Medium Enterprises*)

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Benakat Lestari Furniture is a small and medium enterprises (SMEs) which produce furniture such as chairs and cabinets. These SMEs produce as many as 200 chairs and 20 cabinets per month. Preliminary observations indicate the quality of furniture produced did not meet quality standards including defective chairs by 15% and defective cabinets by 10%, as well as costs incurred Rp 1.659.810,97. The cause of defective product is human error, the material is not good, and working methods are wrong. These product defects are identified by using fishbone diagram and Failure Mode and Effect Analysis (FMEA). FMEA method is able to identify the causes, consequences, and detection had done by SMEs in reducing defective products and ranks how big influence on the quality of products which are often known as the Risk Priority Number (RPN). The production process which has the highest RPN value must first be improved through implementation. The implementation is to fix a broken machine, add attributes that accelerate work processes and reduce occupational accidents, change working methods by first providing education for workers. After implementation, the percentage of defective chairs decrease to 3% and the percentage of defective cabinets decrease to 5% and Benakat Lestari SMEs' could reduce the value of cost 20,89%.

Keywords: *quality, fishbone diagram, Failure Mode and Effect Analysis* (FMEA), *Risk Priority Number* (RPN)