Risk Analysis Of Tofu Production Using The Failure Mode And Effect Analysis (FMEA) Method At UD Al Jaliil Jember Regency

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ABSTRACT

The tofu production process at UD Al Jaliil has various risks that can affect product quality and the smooth production process, so a method is needed that can identify and determine risk management priorities. This study aims to analyze the risk of tofu production at UD Al Jaliil, Jember Regency by identifying risks, determining risk priorities, and developing risk mitigation strategies. The research method used is Failure Mode and Effect Analysis (FMEA) to identify potential failures at each stage of the production process and determine the level of priority risk based on the Risk Priority Number (RPN) value, as well as the Fishbone Diagram to identify the root causes of priority risks as the basis for the preparation of mitigation strategies. The results of the study show that there are 17 risks that occur in the tofu production process. The risks with the highest RPN values include tofu being destroyed during the cutting process, inappropriate coagulant dosage, and workers not using complete personal protective equipment (PPE). Analysis using the Fishbone Diagram shows that the main causes of risk come from human factors, methods, machines, materials, and the environment. Recommended mitigation strategies include worker training, preparation of standard operating procedures (SOPs), determination of appropriate measurement standards and the use of measuring instruments, as well as increasing the implementation of K3 through socialization, supervision, and provision of adequate PPE.

Keywords: Risk, FMEA, Fishbone Diagram.