ABSTRACT

In the milk supply chain industry, the cooperative is one of the links between farmers and milk processing industry. In the years 2015 to 2018 a decline of the members of the cooperative affected the cooperative performance in the year 2018, the cooperative experienced a decline in production resulting in the delivery of milk to milk processing industry does not reach the break-even cooperative.One of the factor to decrease the number of milk receipts in the year 2018 is the decrease in milk quality. Seeing the problems that interfere with the business flow of cooperatives so that there is a decline in performance, can be concluded that there are vulnerable risk occurring as the flow of supply chain of milk to milk processing industry that need to be identified and addressed. Therefore, it takes steps to identify the risks that occur in the milk supply chain and mitigation measures to reduce the risks that may occur.

The research uses the Supply Chain Operation Reference (SCOR) model to perform the mapping of the company's activities and the identification of risks that are then identified using the ANP (Analitycal Networking Process) and FMEA (Failure Mode and Efect Analysis) methods to determine risk priorities.

The result of risk identification with experts gained five risk factors affecting the milk supply chain, which are the factors of quality, production, delivery, price and information risks. The risk factor of production and quality need to be carried out mitigation to improve the risks that may occur and there are 27 alternatives to mitigation measures. The other result of this research is a web-application monitoring system.

Keywords: SCOR, ANP, FMEA, Mitigation, Monitoring System