## **ABSTRACT**

CV. HRS is a company located in Larangan, Brebes which is engaged in agribusiness. In general, a series of business process activities from CV. HRS starts from procurement to the process of marketing products to customers through various series of activities and involving several parties. A long series of supply chain activities and involving several parties in it makes the supply chain not free from risk. One of the biggest risks that occur in the supply chain process at CV. HRS means that the demand for shallots cannot be fulfilled. The absence of a risk mitigation system makes it difficult for CV. HRS for decision making in choosing the right mitigation solution. Therefore, the purpose of this study is to design a risk management system in the shallot supply chain at CV. HRS which includes the risk identification process, risk analysis through risk assessment and measurement and risk mitigation.

In this final project, the risk identification stage for supply chain activities in CV. HRS, mapped using the SCOR (Supply Chain Operation Reference) model. The risk analysis stage is carried out by determining priorities through an assessment of each risk factor using the AHP (Analytical Hierarchy Process) method. The risk mitigation stage is carried out using the TOPSIS (Technique for Order Preference by Similarity to Ideal Solution) method. From the calculation results, it is obtained that the risk causes that most affect the supply chain in CV. HRS with the largest final weight value obtained from the AHP calculation of 0.206, namely supply disruptions due to erratic weather. The proposed alternative mitigation solutions were chosen with the largest preference value in the TOPSIS calculation of 0.873, namely implementing appropriate agricultural and logistics management.

Keywords: Risk Management, Supply Chain, SCOR, AHP, TOPSIS