

ABSTRACT

Today's global supply chain has many risk factors. These risks include supply disruptions, supply delays, demand fluctuations, price fluctuations, and exchange rate fluctuations. Risks that arise and cannot be mitigated properly in the supply chain can disrupt the company's business processes in various sectors. Companies in the construction sector when working on construction projects face many risks during the project cycle, especially risks in the supply chain process. Partial risk management, namely only on construction projects and not specifically on the supply chain process, cause potential risks in the supply chain process not to be identified in detail, and mitigation strategies cannot be determined effectively for risks in the supply chain. This research was conducted to identify risks and determine appropriate mitigation strategies using the house of risk as a framework and a fuzzy analytical hierarchy process weighting method to select the best mitigation strategy. The results of the research showed that there were 28 risk events and 21 risk agents identified, and the 5 best mitigation strategies were chosen from the 10 formulated strategies for a mitigation monitoring system. Based on research results, the best risk mitigation strategy can be used as a reference for risk mitigation actions in the company's supply chain as outlined in the form of a dashboard monitoring system.

Keywords – Supply Chain Management, Risk Mitigation, House of Risk, Fuzzy – AHP, Monitoring System