

ABSTRAK

Kopi Banaran PTPN IX merupakan salah satu produk unggulan dari Indonesia yang telah diekspor ke berbagai negara di dunia. Pelaksanaan rantai pasok di Kopi Banaran PTPN IX memiliki potensi untuk menghadapi risiko pada masing-masing pelaku rantai pasoknya. Penelitian ini bertujuan untuk (1) mengetahui aliran produk, aliran finansial, dan aliran informasi pada rantai pasok Kopi Banaran PTPN IX, (2) mengetahui risiko tertinggi pada masing-masing pelaku rantai pasok Kopi Banaran PTPN IX, dan (3) menyusun strategi mitigasi risiko pada masing-masing pelaku rantai pasok Kopi Banaran PTPN IX. Penelitian dilaksanakan di Kopi Banaran PTPN IX yang berlokasi di Gemawang, Asinan, Jawa Tengah. Responden dalam penelitian ini terdiri dari 2 bagian yaitu tahap pertama adalah responden *expert* yaitu Direktur Kopi Banaran dan tahap kedua adalah pelaku masing-masing rantai pasok minimal satu orang setiap rantai. Data yang diperoleh kemudian dianalisis dengan menggunakan analisis deskriptif dan *fuzzy Failure Mode Effect and Analysis* (FMEA). Hasil penelitian menunjukkan bahwa Kopi Banaran termasuk dalam kategori sangat lancar. Risiko rantai pasok Kopi Banaran PTPN IX, terdapat 19 risiko yang terdiri dari 7 risiko di kebun, 6 risiko di pabrik, 1 risiko di gudang, dan 5 risiko di pelabuhan. Risiko dengan nilai FRPN tertinggi di kebun adalah cuaca ekstrim (396). Risiko dengan nilai FRPN tertinggi di pabrik adalah kekurangan tenaga kerja sortir (391). Risiko dengan nilai FRPN di gudang adalah kelalaian karyawan dalam mengatur suhu ruangan (317). Risiko dengan nilai FRPN tertinggi di pelabuhan adalah harga fluktuatif (430). Berdasarkan hasil perhitungan metode AHP di kebun, risiko untuk dilakukan mitigasi yang paling tinggi adalah cuaca ekstrim dengan mitigasi pengelolaan air (0,490). Di pabrik, mitigasi dengan nilai bobot tertinggi adalah kekurangan tenaga sortir dengan mitigasi yaitu penggunaan pekerja kontrak (0,407). Di gudang mitigasi pada risiko kelalaian karyawan dalam mengatur suhu ruangan adalah mitigasi alarm pengatur suhu ruangan (0,455). Di pelabuhan, mitigasi dengan nilai bobot tertinggi adalah harga fluktuatif dengan mitigasi yaitu pemantauan pasar (0,409).

Kata kunci: Rantai pasok, Risiko, Manajemen Risiko, *Fuzzy Failure Mode and Effect, Analyss, Analytical Hierarchy Process*.



ABSTRACT

The Banaran Coffee supply chain structure consists of several supply chain members that have different roles. Supply chain members consist of farms, factories, warehouses, and ports. This study aims to examine the smooth flow of product, financial, and information flow in the PTPN IX Banaran Coffee supply chain, determine the highest risk in each PTPN IX Banaran Coffee supply chain actor, and develop risk mitigation strategies for each PTPN IX Banaran Coffee supply chain actor. This research is a quantitative research, because the author uses primary data in the form of numbers that will be obtained from the results of interviews. The research was conducted at PTPN IX Banaran Coffee located in Gemawang, Asinan, Central Java. The research location was determined by purposive. The sampling technique in this study used judgment sampling technique. Respondents in this study consisted of 2 parts, the first stage was expert respondents and the second stage was the actors of each supply chain. Analysis of product flow, financial flow, and information flow of Banaran Coffee supply chain using Likert scale. Supply chain risk analysis using Fuzzy FMEA and risk mitigation strategies using Analytical Hierarchy Process. The results showed that Banaran Coffee supply chain members consist of farms, factories, warehouses, and ports. The flow of products, finances, and information in the Banaran Coffee supply chain is categorized as smooth. Based on the results of the risk identification of the PTPN IX banaran coffee supply chain, there are 19 risks consisting of 7 risks in the garden, 6 risks in the factory, 1 risk in the warehouse, and 5 risks in the port. The results of the banaran coffee supply chain risk assessment using the Fuzzy FMEA method show risk prioritization based on the highest FRPN value for each risk in each banaran coffee supply chain actor. The risk with the highest FRPN value in the farm is extreme weather (396). The risk with the highest FRPN value at the factory is the shortage of sorting labor (391). The risk with the highest FRPN value in the warehouse is employee negligence in regulating room temperature (317). The risk with the highest FRPN value at the port is fluctuating prices (430). The results of the risk assessment are used in determining the risk mitigation strategy of the Banaran coffee supply chain. Based on the results of the AHP method calculation in the farm, the highest risk to mitigate is extreme weather with mitigation of water management (0.490). In the factory, the mitigation with the highest weight value is the shortage of sorting labor with mitigation, namely the use of contract workers (0.407). In the warehouse, the mitigation for the risk of employee negligence in regulating the room temperature is the mitigation of the room temperature control alarm (0.455). At the Port, the mitigation with the highest weight value is fluctuating prices with mitigation being market monitoring (0.409).

Keywords: Supply Chain, Risk, Risk Management, Fuzzy Failure Mode and Effect, Analyss, Analytical Hierarchy Process.