

INTISARI

Sentra IKM Aluminium Sorosutan adalah sentra penghasil kerajinan cor aluminium di Indonesia. Sektor ini terus mengalami kemunduran yang ditunjukkan dengan berkurangnya anggota Asosiasi Pengusaha Aluminium Yogyakarta (Aspayo) akibat ketidakpastian pasokan bahan baku ingot dan *scrap* serta permintaan produk. Oleh karena itu, diperlukan manajemen risiko rantai pasok aluminium yang optimal untuk memastikan kelancaran pasokan bahan baku dan permintaan produk bagi IKM aluminium.

Penelitian ini bertujuan untuk memetakan jaringan rantai pasok aluminium di sentra IKM Aluminium Sorosutan, menilai risiko yang berkaitan dengan performansi rantai pasok, mengidentifikasi risiko prioritas yang harus ditangani, dan merumuskan tindakan mitigasi untuk risiko-risiko tersebut. Dalam penelitian ini, diterapkan matriks risiko berdasarkan AS/NZS 4360:1999 dan metode Analytical Hierarchy Process (AHP) untuk menentukan risiko yang menjadi prioritas penanganan.

Hasil penelitian mengidentifikasi empat model peta rantai pasok aluminium di sentra IKM Aluminium Sorosutan, yaitu model A (WL Aluminium), model B (SP Aluminium), model C (TS Aluminium), dan model D (IKM plasma mandiri). Selain itu, terdapat 38 risiko yang mempengaruhi rantai pasok. Beberapa *stakeholder*, seperti pemulung, IKM Inti TS Aluminium, dan IKM Inti SP Aluminium, memiliki risiko tinggi, sementara pengepul rongsok besar, pengepul rongsok kecil, dan distributor berisiko sedang. Secara keseluruhan, nilai risiko rantai pasok aluminium adalah 12,334, termasuk dalam kategori risiko sedang.

Dari 38 risiko teridentifikasi, ada 10 risiko yang menjadi prioritas dan memerlukan tindakan mitigasi. Risiko-risiko tersebut meliputi penurunan daya beli masyarakat yang dialami oleh distributor, pembayaran oleh IKM aluminium terlambat melebihi tempo di pengepul besar, kerusakan produk dari *supplier* yang dihadapi oleh distributor, pemesanan ingot oleh IKM terhenti karena menurunnya permintaan yang berdampak pada TS Aluminium, proses penukaran produk defek yang lama yang dihadapi oleh distributor, kelangkaan bahan baku dialami oleh pengepul besar dan TS Aluminium, aluminium *scrap* yang masih tercampur logam lain dialami oleh pengepul besar, fluktuasi harga bahan baku dialami oleh pengepul besar, serta penurunan pembelian produk dari distributor yang berdampak pada SP Aluminium.

Kata kunci: analisis risiko, *Analytical Hierarchy Process* (AHP), AS/NZS 4360, Industri Kecil Menengah (IKM), rantai pasok aluminium.

ABSTRACT

Sorosutan Aluminium Small and Medium Enterprises (SMEs) Center is one of the centers producing aluminum castings in Indonesia, particularly recycled aluminum kitchen equipment products. This industry sector has been experiencing setbacks as indicated by the decreasing number of members in the Yogyakarta Aluminum Entrepreneur Association (Aspayo) over the years, mainly due to the uncertainties in ingot and scrap raw material supplies and product demand. Therefore, an optimal supply chain risk management for aluminum is needed to ensure the smooth supply of raw materials and product demand for aluminum IKMs.

This research aims to map the aluminum supply chain network in the Sorosutan Aluminium IKM Center, assess the risks associated with the supply chain performance, identify priority risks that need to be addressed, and formulate mitigation actions for these risks. This study utilizes a risk matrix based on AS/NZS 4360:1999 and the Analytical Hierarchy Process (AHP) method to determine the priority of handling risks.

The research identified four models of aluminum supply chain maps in the Sorosutan Aluminium IKM Center, namely Model A (WL Aluminium), Model B (SP Aluminium), Model C (TS Aluminium), and Model D (independent plasma IKM). In addition, there are 38 risks that affect the aluminum supply chain. Several stakeholders, such as scavengers, Core IKM TS Aluminium, and Core IKM SP Aluminium, face high risks, while scrap collectors, small-scale scrap collectors, and distributors have moderate risks. Overall, the aluminum supply chain risk score is 12.334, categorized as moderate risk.

Out of the 38 identified risks, 10 are prioritized and require mitigation actions. These risks include the decrease in the purchasing power of the community experienced by distributors, delayed payments by aluminum IKM to scrap collectors, damage to products from suppliers experienced by distributors, halted ingot orders due to decreased demand affecting TS Aluminium, prolonged defective product exchange processes faced by distributors, scarcity of raw materials experienced by scrap collectors and TS Aluminium, mixing of aluminum scrap with other metals faced by scrap collectors, fluctuations in raw material prices experienced by scrap collectors, and a decrease in product purchases from distributors affecting SP Aluminium.

Keywords: aluminium supply chain, Analytical Hierarchy Process (AHP), AS/NZS 4360, risk analysis, Small and Medium Enterprises (SMEs).