

ABSTRAK

PT Magnum Attack Indonesia merupakan industri manufaktur pakaian jadi yang menghasilkan limbah kain dan produk cacat dalam proses produksi. Hingga saat ini, perusahaan belum menerapkan prinsip *Circular Economy* dalam pengelolaan limbah produksinya, sehingga limbah kain dan produk cacat yang dihasilkan belum dimanfaatkan kembali secara optimal. Penelitian ini bertujuan mengidentifikasi faktor penghambat penerapan *Circular Economy*, menganalisis hubungan antar faktor, serta menyusun strategi penerapan *Circular Economy* guna meminimalkan limbah produksi. Penelitian dilakukan menggunakan pendekatan ISM dan MICMAC *Analysis* berdasarkan studi literatur, observasi, serta penilaian para ahli. Hasil penelitian menunjukkan terdapat tujuh faktor penghambat penerapan *Circular Economy*. Analisis ISM menunjukkan bahwa elemen E1 (Rendahnya komitmen manajemen terhadap penerapan *Circular Economy*) merupakan faktor penggerak utama yang memengaruhi faktor lainnya. MICMAC *Analysis* menempatkan E1 pada kuadran *Independent* dengan nilai *Driving Power* tertinggi dan *Dependence Power* terendah. Oleh karena itu, strategi diprioritaskan pada penguatan komitmen manajemen melalui integrasi target pengurangan limbah dalam KPI perusahaan dan penyediaan anggaran khusus pengelolaan limbah. Strategi tersebut didukung oleh penguatan kebijakan SOP pengelolaan limbah, integrasi praktik keberlanjutan dalam rantai pasok, serta penyediaan teknologi pendukung sebagai faktor *Linkage*. Hasil penelitian mendukung pencapaian *Sustainable Development Goals* (SDGs) poin 9, yaitu *Industry, Innovation and Infrastructure*, melalui penguatan industri yang lebih inovatif, efisien, dan berkelanjutan.

Kata kunci: *Circular Economy*, faktor penghambat, ISM, MICMAC, industri pakaian jadi.

ABTRACT

PT Magnum Attack Indonesia is a manufacturing company engaged in apparel that produces fabric waste and defective products during the production process. To date, the company has not adopted Circular Economy principles in its production waste management practices, resulting in fabric waste and defective products that are not optimally reutilized, recycled, or recovered. This study aims to identify the barriers to Circular Economy implementation, analyze the interrelationships among these barriers, and develop Circular Economy implementation strategies to minimize production waste. The study employed ISM and MICMAC Analysis based on literature review, observations, interviews, and expert judgments. The results identified seven barriers to Circular Economy implementation. The ISM analysis revealed that E1 (Low management commitment to Circular Economy implementation) is the primary driving factor influencing other barriers. Furthermore, the MICMAC analysis positioned E1 in the Independent quadrant with the highest Driving Power and the lowest Dependence Power. Therefore, the proposed strategy prioritizes strengthening management commitment through the integration of waste reduction targets into the company's KPIs and the allocation of a dedicated budget for waste management. These strategies are supported by strengthening waste management policies and standard operating procedures, integrating sustainability practices into the supply chain, and providing supporting technologies as Linkage factors. The findings contribute to the achievement of Sustainable Development Goal (SDG) 9, Industry, Innovation and Infrastructure, by promoting a more innovative, efficient, and sustainable industrial system.

Keywords: *Circular Economy, barriers, ISM, MICMAC, apparel industry.*