ABSTRAK

UMKM Hafki Project adalah industri konveksi yang memproduksi berbagai jenis pakaian seperti kaos, kemeja, hoodie, dan jersey dengan sistem *make to order*. Selama periode Januari–Juni 2024, UMKM ini menghadapi permasalahan serius terkait tingginya tingkat kecacatan produk, yaitu sebesar 3,6%, yang melebihi batas toleransi perusahaan sebesar 2%.

Kecacatan tersebut disebabkan oleh kesalahan pada proses pemotongan kain, penyablonan, dan penjahitan, yang berdampak pada kerugian finansial hingga lebih dari 10 juta rupiah. Penelitian ini bertujuan untuk merancang strategi mitigasi risiko yang tepat guna mengurangi potensi kecacatan produk.

Metode yang digunakan adalah *House of Risk* (HOR) untuk mengidentifikasi dan menentukan prioritas risiko berdasarkan *Aggregate Risk Priority* (ARP), serta *Fuzzy Analytical Hierarchy Process* (F-AHP) untuk mengevaluasi strategi mitigasi risiko berdasarkan kriteria efektivitas dan kesulitan implementasi.

Hasil penelitian menunjukkan bahwa kombinasi kedua metode ini mampu memberikan rekomendasi strategi mitigasi yang terstruktur dan efektif bagi UMKM Hafki Project untuk mengurangi tingkat kecacatan produk dan meningkatkan efisiensi proses produksi.

Kata kunci: House of Risk (HOR), Fuzzy AHP, strategi mitigasi risiko, produk cacat, UMKM, proses produksi.

ABSTRACT

UMKM Hafki Project is a garment industry that produces various types of clothing such as t-shirts, shirts, hoodies, and jerseys with a make-to-order system. During the period of January-June 2024, this UMKM faced serious problems related to the high level of product defects, which was 3.6%, which exceeded the company's tolerance limit of 2%.

The defects were caused by errors in the fabric cutting, screen printing, and sewing processes, which resulted in financial losses of more than 10 million rupiah. This study aims to design an appropriate risk mitigation strategy to reduce the potential for product defects.

The method used is the House of Risk (HOR) to identify and prioritize risks based on Aggregate Risk Priority (ARP), and the Fuzzy Analytical Hierarchy Process (F-AHP) to evaluate risk mitigation strategies based on effectiveness criteria and implementation difficulty.

The results of the study show that the combination of these two methods is able to provide recommendations for structured and effective mitigation strategies for UMKM Hafki Project to reduce the level of product defects and increase the efficiency of the production process.

Keywords: House of Risk (HOR), Fuzzy AHP, risk mitigation strategy, defective products, UMKM, production process.