ABSTRAK

UMKM Koekoesan Bolu Tiwul merupakan usaha mikro, kecil, dan menengah yang bergerak di bidang produksi makanan olahan berbasis singkong. Dalam menjalankan proses produksinya, perusahaan menghadapi permasalahan berupa keterlambatan pengadaan bahan baku dan kemasan yang berdampak pada terhambatnya proses produksi. Berdasarkan data internal selama satu tahun, pengadaan bahan baku mengalami keterlambatan sebesar 57,69% dari total 52 kali pengadaan, sedangkan pengadaan kemasan mengalami keterlambatan sebesar 53,85% dari total 52 kali pengadaan. Tingginya frekuensi keterlambatan tersebut berdampak langsung terhadap pencapaian produksi, di mana realisasi produksi hanya mencapai 87,67% dari target 28.800 kotak yang seharusnya diproduksi dalam periode satu tahun.

Penelitian ini menggunakan pendekatan *House of Risk* (HOR) dan *Analytical Hierarchy Process* (AHP) untuk mengidentifikasi sumber risiko keterlambatan pengadaan serta menentukan prioritas tindakan mitigasi risiko yang paling efektif. HOR Fase 1 digunakan untuk mengidentifikasi kejadian risiko (*risk event*) dan sumber risiko (*risk agent*), serta menentukan prioritas sumber risiko berdasarkan nilai *Aggregate Risk Potential* (ARP). Selanjutnya, HOR Fase 2 digunakan untuk merancang dan memprioritaskan tindakan mitigasi risiko (*preventive action*) berdasarkan nilai efektivitas tindakan. Metode AHP digunakan untuk menentukan *supplier* alternatif yang sesuai berdasarkan pembobotan dengan nilai *Alternative Weight Evaluation* (AWE).

Hasil penelitian menunjukkan bahwa terdapat beberapa sumber risiko dominan yang berkontribusi signifikan terhadap keterlambatan pengadaan bahan baku dan kemasan. Berdasarkan hasil HOR Fase 1, diperoleh lima *risk agent* prioritas dengan nilai ARP tertinggi, di mana ketergantungan pada satu *supplier* menempati peringkat pertama dengan nilai ARP sebesar 2.088. Selanjutnya, hasil HOR Fase 2 didapatkan tindakan mitigasi risiko prioritas yaitu menambah alternatif *supplier (multi sourcing)*. Pembobotan menggunakan AHP menunjukkan bahwa pada pemilihan *supplier* bahan baku, alternatif yang direkomendasikan adalah Gudang Tepung Indonesia X Bintang Baru Indonesia, dengan nilai *AWE* sebesar 0,543. Sementara itu, pada pemilihan *supplier* kemasan, alternatif yang terpilih adalah PT Yogyakartas Grafika, dengan nilai AWE sebesar 0,428. Implementasi tindakan mitigasi tersebut diharapkan mampu mengurangi potensi keterlambatan pengadaan, meningkatkan kelancaran proses produksi, serta mengoptimalkan kinerja rantai pasok UMKM Koekoesan Bolu Tiwul secara berkelanjutan.

Kata kunci: Mitigasi risiko, Rantai pasok, *House of Risk* (HOR), *Analytical Hierarchy Process* (AHP)

ABSTRACT

Koekoesan Bolu Tiwul is a small and medium-sized enterprise engaged in the production of cassava-based processed food products. In carrying out its production activities, the company faces problems related to delays in raw material and packaging procurement, which hinder the production process. Based on internal data over a one-year period, delays in raw material procurement occurred in 57.69% of 52 procurement cycles, while packaging procurement experienced delays in 53.85% of 52 procurement cycles. The high frequency of these delays directly affected production performance, as actual production achieved only 87.67% of the target of 28,800 boxes that were planned to be produced within one year.

This study employs the House of Risk (HOR) and Analytical Hierarchy Process (AHP) approaches to identify sources of procurement delay risks and to determine the priority of the most effective risk mitigation actions. HOR Phase 1 is used to identify risk events and risk agents and to prioritize risk agents based on the Aggregate Risk Potential (ARP) values. Subsequently, HOR Phase 2 is applied to design and prioritize preventive actions based on their effectiveness values. The AHP method was further utilized to determine the most suitable alternative suppliers based on the Alternative Weight Evaluation (AWE) scores.

The results indicate that several dominant risk sources significantly contribute to delays in raw material and packaging procurement. Based on the results of HOR Phase 1, five priority risk agents with the highest ARP values were identified, with dependency on a single supplier having the highest ARP value of 2.088. HOR Phase 2 identified the addition of alternative suppliers (multi-sourcing) as the primary mitigation strategy. AHP results show that for raw material procurement, Gudang Tepung Indonesia x Bintang Baru Indonesia was selected as the preferred supplier with an AWE value of 0.543. For packaging procurement, PT Yogyakartas Grafika was identified as the most suitable alternative supplier with an AWE value of 0.428. The implementation of these mitigation actions is expected to reduce the potential for procurement delays, improve production process continuity, and optimize the supply chain performance of Koekoesan Bolu Tiwul in a sustainable manner.

Keywords: *Risk mitigation, Supply chain, House of Risk (HOR), Analytical Hierarchy Process (AHP)*