

ABSTRAK

Al Ibtikar *Logistic Services* merupakan perusahaan yang bergerak di bidang jasa logistik dengan berbagai lini usaha yang perlu dikelola secara strategis. Dalam praktiknya, proses penentuan prioritas usaha di perusahaan tersebut masih dilakukan secara subjektif, tidak terstruktur, dan belum mempertimbangkan banyak kriteria sekaligus, sehingga berpotensi menghasilkan keputusan yang kurang optimal. Penelitian ini bertujuan untuk merancang dan mengimplementasikan Sistem Pendukung Keputusan (SPK) multi kriteria berbasis web yang mampu membantu manajemen Al Ibtikar *Logistic Services* dalam menentukan prioritas usaha secara sistematis, objektif, dan terukur menggunakan metode *Analytical Hierarchy Process* (AHP). Sistem yang dirancang memungkinkan pengelolaan kriteria secara dinamis, sehingga pengguna dapat menambah, mengubah, maupun menyesuaikan kriteria penilaian sesuai kebutuhan perusahaan. Variabel penelitian mencakup kriteria-kriteria utama pemilihan prioritas usaha, meliputi: potensi pasar, tingkat profitabilitas, Biaya Operasional, Keandalan, Cakupan, serta tingkat risiko usaha. Metode AHP digunakan untuk mengolah perbandingan berpasangan antar kriteria dan antar alternatif usaha, sehingga diperoleh bobot prioritas yang konsisten. Sistem dikembangkan menggunakan pendekatan waterfall dengan antarmuka berbasis web agar mudah diakses oleh pihak manajemen. Hasil penelitian menunjukkan bahwa sistem mampu melakukan perhitungan AHP multi kriteria secara otomatis, menampilkan peringkat prioritas usaha, serta menghasilkan nilai *consistency ratio* (CR) $\leq 0,1$ yang menandakan konsistensi penilaian terpenuhi. Pengujian menggunakan metode *blackbox testing* menunjukkan seluruh fungsi sistem berjalan sesuai yang diharapkan. Sistem pendukung keputusan Multikriteria berbasis web dengan metode AHP ini terbukti efektif dalam mendukung pengambilan keputusan penentuan prioritas usaha di Al Ibtikar *Logistic Services* secara lebih transparan dan terstruktur.

Kata kunci: Sistem Pendukung Keputusan, *Analytical Hierarchy Process*, Multi Kriteria, Prioritas Usaha, Berbasis Web.

ABSTRACT

Al Ibtikar Logistic Services is a company engaged in logistics services with various business lines that require strategic management. In practice, the process of determining business priorities within the company is still carried out subjectively, in an unstructured manner, and without simultaneously considering multiple criteria, potentially leading to suboptimal decisions. This research aims to design and implement a web-based multi-criteria Decision Support System (DSS) to assist the management of Al Ibtikar Logistic Services in determining business priorities systematically, objectively, and measurably using the Analytical Hierarchy Process (AHP) method. The system is designed to support dynamic criteria management, allowing users to add, modify, and adjust evaluation criteria according to the company's needs. The research variables encompass the main criteria for business priority selection, including; market potential, profitability level, Operational Costs, Reliability, Coverage, and business risk level. The AHP method is used to process pairwise comparisons between criteria and business alternatives, resulting in consistent priority weights. The system was developed using a waterfall approach with a web-based interface to ensure ease of access for company management. The results show that the system is capable of automatically performing multi-criteria AHP calculations, displaying business priority rankings, and producing a consistency ratio (CR) value of ≤ 0.1 , confirming that assessment consistency is fulfilled. System testing using the blackbox testing method confirms that all system functions operate as expected. The web-based multi-criteria Decision Support System using the AHP method is proven effective in supporting business priority determination at Al Ibtikar Logistic Services in a more objective, transparent, and structured manner.

Keywords: Decision Support System, Analytical Hierarchy Process, Multi-Criteria, Business Priority, Web-Based.