



**DECISION MAKING IN PORT SELECTION FOR EXPORTING
COMPLETELY KNOCKED DOWN (CKD) AUTOMOTIVE
PARTS APPROACH OF AHP AND TOPSIS METHODS
A CASE STUDY OF PT. XYZ**

THESIS

**Submitted as one of the requirements to obtain
Magister Manajemen**

By

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**FACULTY OF BUSINESS
MASTER OF TECHNOLOGY MANAGEMENT STUDY
PROGRAM
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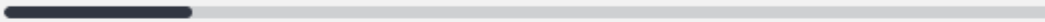
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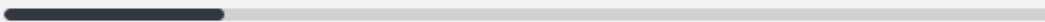
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ABSTRAK

Studi ini dilakukan dalam sebuah perusahaan logistik yang mengkhususkan diri dalam ekspor suku cadang otomotif dalam bentuk CKD. Dengan ekspansi perusahaan di Indonesia, tugas penting untuk memilih pelabuhan yang paling cocok muncul. Tujuan utamanya adalah mengevaluasi dua pelabuhan potensial, yaitu Pelabuhan Tanjung Priok dan Cikarang Dryport, berdasarkan beberapa kriteria kritis seperti kualitas layanan, keterjangkauan, layanan pelanggan, infrastruktur, dan inovasi. Untuk mencapai penelitian ini menggunakan metode Analytical Hierarchy Process (AHP) dan Technique for Order of Preference by Similarity to Ideal Solution (TOPSIS) untuk pemilihan pelabuhan. Penelitian ini mengidentifikasi seperangkat lima kriteria utama dan dua puluh sub-kriteria untuk proses evaluasi. Melalui implementasi metode AHP, Pelabuhan Tanjung Priok mencapai skor 10.35, sementara Cikarang Dryport mencetak 9.65. Selain itu, analisis TOPSIS menghasilkan nilai 0.61 untuk Pelabuhan Tanjung Priok dan 0.38 untuk Cikarang Dryport. Akibatnya, berdasarkan temuan ini, Pelabuhan Tanjung Priok dianggap sebagai pilihan yang paling optimal bagi perusahaan. Hasil penelitian ini memberikan kontribusi signifikan dalam bidang pengambilan keputusan strategis dalam pemilihan pelabuhan, memungkinkan perusahaan logistik untuk meningkatkan efisiensi operasional dan optimasi biaya untuk ekspor CKD mereka. Selain itu, studi ini memberikan wawasan berharga tentang aplikasi praktis metode AHP dan TOPSIS dalam konteks pemilihan pelabuhan.

Keywords: *Port Selection, Analytical Hierarchy Process (AHP), Technique for Order of Preference by Similarity to Ideal Solution (TOPSIS), Strategic decision-making.*

ABSTRACT

This study was conducted within a logistics company specializing in the export of CKD automotive parts. With the company's expansion in Indonesia, the crucial task of selecting the most suitable port arose. The primary objective was to evaluate two potential ports, namely Tanjung Priok Port and Cikarang Dryport, based on several critical criteria such as service quality, affordability, customer service, infrastructure, and innovation. To accomplish this, the study employed the Analytical Hierarchy Process (AHP) and the Technique for Order of Preference by Similarity to Ideal Solution (TOPSIS) methods for port selection. The research identified a comprehensive set of five main criteria and twenty sub-criteria for the evaluation process. Through the implementation of the AHP method, Tanjung Priok Port achieved a score of 10.35, while Cikarang Dryport scored 9.65. Furthermore, the TOPSIS analysis resulted in a value of 0.61 for Tanjung Priok Port and 0.38 for Cikarang Dryport. Consequently, based on these findings, Tanjung Priok Port was determined to be the most optimal choice for the company. The outcomes of this research offer significant contributions to the field of strategic decision-making in port selection, enabling the logistics company to enhance operational efficiency and cost optimization for their CKD exports. Moreover, the study provides valuable insights into the practical application of AHP and TOPSIS methods within the context of port selection.

Keywords: *Port Selection, Analytical Hierarchy Process (AHP), Technique for Order of Preference by Similarity to Ideal Solution (TOPSIS), Strategic decision-making.*

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