PEMILIHAN PEMASOK BERKELANJUTAN DALAM INDUSTRI 4.0 DI. PT XYZ

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ABSTRAK

PT XYZ merupakan salah satu perusahaan otomotif di Indonesia, terdapat keluhan keterlambatan bahan pasokan ke PT XYZ pada tahun 2019-2020 sekitar 15% dari total armada yang dikeluarkan. Keterlambatan yang terjadi mengakibatkan kerugian omset. PT XYZ hanya menilai berdasarkan harga, kualitas, pengiriman dan *safety* secara subyektif. Oleh karena itu, perlunya pertimbangan yang lebih komprehensif dan obyektif sesuai kebutuhan perusahaan Dalam penelitian ini metode *Analytic Network Process* (ANP) digunakan untuk pembobotan kriteria dan uji tingkat konsistensi terhadap matriks perbandingan berpasangan dan jika matriks tersebut telah konsisten maka akakn dilanjutkan dengan metode *Technique For Others Reference by Similarity to Ideal Solution* (TOPSIS) untuk melakukan perankingan dan menentukan aternatif supplier terpilih dengan menggunakan input bobot kriteria. pengambilan keputusan. Terdapat 3 perspektif kriteria yaitu: ekonomi, lingkungan dan sosial dan 12 subkriteria. kriteria ekonomi bobot tertinggi yaitu kualitas dan terendah keandalan lingkungan bobot tertinggi yaitu penanganan limbah dan bobot terendah kemampuan *green desain* kriteria sosial bobot tertinggi yaitu mematuhi kebijakan dan terendah dukungan untuk masyarakat setempat. Urutan prioritas pemasok untuk bahan baku di PT.X diantaranya adalah supplier A dengan nilai preferensi 0.81, supplier B senilai 0.36 dan supplier C dengan nilai terendah yaitu 0.34 namun perlunya Penambahan kriteria dan subkriteria agar tingkat akurasi dalam pemilihan alternatif pemasok di PT X bertambah.

Kata kunci: *Supplier,* persepektif*, Analytic Network Process*, *Technique For Others Reference by Similarity to Ideal Solution* (TOPSIS), *green* desain

SUSTAINABLE SUPPLIER SELECTION IN INDUSTRY 4.0 AT PT.XYZ

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ABSTRACT

PT XYZ is one of the automotive companies in Indonesia, there are complaints of delays in supply of materials to PT XYZ in 2019-2020 about 15% of the total fleet issued. Delays that occur result in loss of turnover. PT XYZ only assesses subjectively based on price, quality, delivery and safety. Therefore, the need for more comprehensive and objective considerations according to company needs. In this research, the Analytic Network Process (ANP) method is used to weight the criteria and test the level of consistency of the pairwise comparison matrix and if the matrix is consistent, it will be continued with the Technique For Others Reference by Similarity to method. Ideal Solution (TOPSIS) to rank and determine the selected alternative supplier by using the criteria weight input. decision-making. There are 3 perspective criteria, namely: economic, environmental and social and 12 sub-criteria. the highest weight economic criteria is quality and the lowest is environmental reliability, the highest weight is waste handling and the lowest weight is green design ability, the social criteria is the highest weight is complying with policies and the lowest is support for the local community. The priority order of suppliers for raw materials at PT. X includes supplier A with a preference value of 0.81, supplier B of 0.36 and supplier C with the lowest value of 0.34 but the need for additional criteria and sub-criteria so that the accuracy level in the selection of alternative suppliers at PT X increases.

Keywords: Supplier, Perspective, Analytic Network Process, Technique For Others Reference by Similarity to Ideal Solution (TOPSIS), green design