

INTISARI

PERBANDINGAN METODE *TECHNIQUE FOR ORDER OF PREFERENCE BY SIMILARITY TO IDEAL SOLUTION (TOPSIS)* DAN *SIMPLE ADDITIVE WEIGHTING (SAW)* PADA SISTEM PENDUKUNG KEPUTUSAN PEMILIHAN TENDER

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Pelaksanaan Layanan Pengadaan Secara Elektronik (LPSE) sebagaimana diatur dalam Peraturan Presiden Nomor 54 Tahun 2010 bertujuan meningkatkan keterbukaan, responsibilitas, dan efisiensi dalam pengadaan barang dan jasa pemerintah. Namun, keberadaan sejumlah LPSE di Indonesia menimbulkan tantangan bagi penyedia jasa dalam memantau tender secara efektif karena keterbatasan akses dan kesulitan memilah tender yang relevan. Karena hal tersebut, penelitian ini berfokus pada pengembangan sistem pendukung keputusan (SPK) yang bertujuan memberikan rekomendasi tender sesuai dengan preferensi penyedia jasa, guna mendukung pengambilan keputusan secara efektif. Sistem ini mengimplementasikan dua metode, yaitu *Technique for Order Preference by Similarity to Ideal Solution (TOPSIS)* dan *Simple Additive Weighting (SAW)*, dengan membandingkan hasil pengujian untuk kedua metode. Data yang digunakan bersumber dari platform LPSE dengan kriteria penilaian nilai HPS, kesesuaian pekerjaan, lokasi pekerjaan, akhir daftar, dan jumlah peserta tender. Evaluasi dilakukan melalui *user acceptance testing (UAT)* untuk menilai fitur sistem secara keseluruhan serta performa kedua metode yang diimplementasikan. Temuan penelitian menunjukkan bahwa sistem terbukti efektif dalam memberikan rekomendasi tender, dengan skor UAT 88,4% untuk fitur penyedia jasa dan 86% untuk fitur admin, yang termasuk kategori "sangat baik". Selain itu, analisis metode menunjukkan bahwa metode SAW memiliki performa yang lebih unggul dengan skor UAT sebesar 87,2% dibandingkan metode TOPSIS yang memperoleh skor 82,8% dalam memberikan rekomendasi tender.

Kata kunci: TOPSIS, SAW, tender, penyedia jasa

ABSTRACT

COMPARISON OF TECHNIQUE FOR ORDER OF PREFERENCE BY SIMILARITY TO IDEAL SOLUTION (TOPSIS) AND SIMPLE ADDITIVE WEIGHTING (SAW) METHODS ON TENDER SELECTION DECISION SUPPORT SYSTEM

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The implementation of Layanan Pengadaan Secara Elektronik (LPSE) as regulated in Presidential Regulation Number 54 of 2010 aims to increase openness, responsibility and efficiency in the procurement of government goods and services. However, the existence of a number of LPSEs in Indonesia creates challenges for service providers in monitoring tenders effectively due to limited access and difficulty sorting relevant tenders. Because of this, this research focuses on developing a Decision Support System (DSS) which aims to provide tender recommendations according to service provider preferences, in order to support effective decision making. This system implements two methods, namely Technique for Order Preference by Similarity to Ideal Solution (TOPSIS) and Simple Additive Weighting (SAW), by comparing test results for both methods. The data used comes from the LPSE platform with assessment criteria for HPS value, job suitability, job location, end of list, and number of tender participants. Evaluation is carried out through user acceptance testing (UAT) to assess the overall system features and the performance of the two methods implemented. Research findings show that the system has proven effective in providing tender recommendations, with a UAT score of 88.4% for service provider features and 86% for admin features, which is in the "excellent" category. In addition, method analysis shows that the SAW method has superior performance with an UAT score of 87.2% compared to the TOPSIS method which obtained a score of 82.8% in providing tender recommendations.

Keywords: TOPSIS, SAW, tender, service provider