

ABSTRACT

Title : Decision Support System for Selecting Educational Assistance Recipients Using the TOPSIS Method to Optimize Management at BAZNAS Kabupaten Solok.

The advancement of technology, particularly computers, is crucial in completing human tasks, including decision support systems (DSS) that aid in making precise, quick, and accurate decisions in semi-structured and unstructured situations. The high cost of education is a major issue in improving the quality of human resources in Indonesia, as evidenced by the low participation rate in higher education. The government, through educational assistance programs from BAZNAS, strives to address this issue. This study proposes the application of the Technique for Order Preference by Similarity to Ideal Solution (TOPSIS) method, using a web-based system, to select educational assistance recipients at BAZNAS Kabupaten Solok. The TOPSIS method is chosen for its ability to handle multi-criteria problems, provide accurate and quick recommendations, and enhance the efficiency, transparency, and objectivity of the selection process. Previous studies have shown this method to be effective in determining scholarship recipients, and it is expected to be successfully implemented at BAZNAS Kabupaten Solok. The study results indicate that the selection of students receiving educational assistance using the TOPSIS method has facilitated BAZNAS Kabupaten Solok in the selection process. Students with a total score above 0.5 are eligible for assistance. Out of 30 alternatives evaluated using 5 criteria (parental income, academic achievement, number of dependents, home ownership, and personal vehicle ownership), 30% of the students were selected to receive scholarships, including Oktavia Karmila Sari (0.71788), Nafisa Sri Wahyuni (0.6935), Luthfi Dwi Chanda (0.59675), Rahmat Rizki Fadillah (0.58477), Vito Maiyendri (0.58169), Fitri Yunita (0.53705), Syahla Qurratul Aini (0.51173), and Yola Dolvi Alivia (0.5089). Conversely, 70% of students with a total score below 0.5 did not receive scholarships.

Keywords: Decision Support System, Educational Assistance, BAZNAS, Scholarship Recipient Selection.

ABSTRAK

Judul : Sistem Pendukung Keputusan untuk Menyeleksi Mahasiswa Penerima Bantuan Pendidikan Menggunakan Metode TOPSIS untuk Optimalisasi Manajemen pada BAZNAS Kabupaten Solok.

Kemajuan teknologi, khususnya komputer, sangat krusial dalam menyelesaikan tugas manusia, termasuk dalam sistem pendukung keputusan (SPK) yang membantu pengambilan keputusan tepat, cepat, dan akurat dalam situasi semi terstruktur dan tidak terstruktur. Pendidikan yang mahal menjadi masalah utama dalam meningkatkan kualitas sumber daya manusia di Indonesia, terbukti dari rendahnya angka partisipasi sekolah di tingkat perguruan tinggi. Pemerintah melalui program bantuan pendidikan dari BAZNAS berusaha mengatasi masalah ini. Penelitian ini mengusulkan penerapan metode Technique for Order Preference by Similarity to Ideal Solution (TOPSIS) berbasis web untuk seleksi penerima bantuan pendidikan di BAZNAS Kabupaten Solok. Metode TOPSIS dipilih karena kemampuannya menangani masalah multi-kriteria, memberikan rekomendasi akurat dan cepat, serta meningkatkan efisiensi, transparansi, dan objektivitas seleksi. Hasil penelitian sebelumnya menunjukkan metode ini efektif dalam menentukan penerima beasiswa, sehingga diharapkan sukses diterapkan di BAZNAS Kabupaten Solok. Hasil penelitian menunjukkan bahwa seleksi mahasiswa penerima bantuan pendidikan dengan metode TOPSIS mempermudah BAZNAS Kabupaten Solok. Mahasiswa dengan nilai total di atas 0,5 berhak menerima bantuan. Dari 30 alternatif yang diuji menggunakan 5 kriteria (penghasilan orang tua, prestasi, tanggungan orang tua, kepemilikan rumah, dan kendaraan pribadi), 30% mahasiswa terpilih untuk menerima beasiswa, termasuk Oktavia Karmila Sari (0.71788), Nafisa Sri Wahyuni (0.6935), Luthfi Dwi Chanda (0.59675), Rahmat Rizki Fadillah (0.58477), Vito Maiyendri (0.58169), Fitri Yunita (0.53705), Syahla Qurratul Aini (0.51173), dan Yola Dolvi Alivia (0.5089). Sebaliknya, 70% mahasiswa dengan nilai di bawah 0,5 tidak menerima beasiswa.

Kata Kunci: Sistem Pendukung Keputusan, Bantuan Pendidikan, BAZNAS, Seleksi Penerima Basiswa.

