Sistem Rekomendasi Penentuan Penerima Beasiswa KIP-K Menggunakan Metode Analytical Hierarchy Process (AHP): Studi Kasus Di Politeknik Negeri Jember

(Recommendation System for Determining KIP-K Scholarship Recipients Using the Analytical Hierarchy Process (AHP) Method: A Case Study at Politeknik Negeri Jember)

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ABSTRACT

Introduction: Education plays a crucial role in national development, yet financial constraints prevent many Indonesian high school graduates from pursuing higher education. The KIP-K scholarship aims to address this issue, but its manual selection process at Politeknik Negeri Jember is time-consuming and prone to errors. Method: This study develops a web-based Decision Support System (DSS) using the Analytical Hierarchy Process (AHP) to rank scholarship applicants based on five key criteria: KIP Cardholder Status, Inclusion in the Social Welfare Database (DTKS), Enrollment Status, Parental Income, and Academic Achievements. Results: The system successfully automates the selection process, ensuring fairness and efficiency. User Acceptance Testing showed an 88.5% approval rating, indicating high effectiveness. Conclusion: The AHP-based DSS improves scholarship selection by making the process more objective, accurate, and transparent, ensuring financial aid reaches deserving students.

Keywords: Education, KIP-K Scholarship, Decision Support System, Analytical Hierarchy Process (AHP), Scholarship Selection, Jember State Polytechnic.