

A DECISION SUPPORT SYSTEM FOR SELECTING UNIVERSITY MAJORS USING THE SIMPLE ADDITIVE WEIGHTING (SAW) METHOD

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ABSTRACT

Selecting a university major is a critical decision that influences students' futures. Errors in choosing a major can lead to negative outcomes, such as misalignment with personality, difficulty in academic progress, and financial waste. To assist students in selecting a major aligned with their interests, talents, and other criteria, this research develops a Decision Support System (DSS) using the Simple Additive Weighting (SAW) method. The objective of this study is to develop a DSS application that provides objective recommendations based on criteria such as cost, accreditation, job prospects, and environmental support. The system development follows the Extreme Programming methodology, which includes four main stages: planning, design, coding, and testing. Data were collected through interviews and document analysis related to students' needs in major selection. The results show that the SAW method is effective in providing accurate major recommendations. The system produces a ranking of majors based on weighted criteria, enabling students to make quick and precise decisions. In conclusion, this application serves as a useful tool for supporting an efficient and objective major selection process, minimizing the risk of errors in decision-making.

Keywords: *Decision Support System, SAW Method, Major Selection*