

***DECISION SUPPORT SYSTEM FOR SELECTING
SCHOLARSHIPS FOR POOR STUDENTS (BSM) IN HIGH
SCHOOL USING THE MULTI OBJECTIVE OPTIMIZATION
METHOD ON THE BASIS OF RATIO ANALYSIS (MOORA)***

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ABSTRACT

The process of determining recipients of the Poor Student Scholarship (BSM) at the high school level is still largely done manually, potentially leading to subjectivity and inaccuracy in decision-making. This problem results in less than optimal distribution of scholarships to students who truly deserve them. This study aims to design and build a Decision Support System (DSS) that can assist schools in determining BSM recipients objectively, systematically, and transparently. The Multi-Objective Optimization on the Basis of Ratio Analysis (MOORA) method is used as a decision-making method because it is capable of ranking alternatives based on a number of predetermined criteria. The system development was carried out using a Waterfall approach that includes the stages of needs analysis, system design, implementation, testing, and maintenance. This system manages three main criteria for student assessment and produces preference scores and a ranking of scholarship recipients' eligibility. The results of the study indicate that the system built is able to accelerate the selection process, reduce subjectivity, and produce more consistent and accurate decisions in determining recipients of the Poor Student Scholarship in the school environment.

Keywords: *Decision Support System, BSM, MOORA, Scholarship Selection*