

Decision Support System for Choosing a New Smartphone with Simple Multi Attribute Rating Technique (SMART) Method

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ABSTRACT

The increasing diversity and complexity of smartphone features pose challenges for consumers making purchasing decisions. This study develops a Decision Support System (DSS) using the Simple Multi Attribute Rating Technique (SMART) to aid smartphone selection. Criteria considered include price, processor, RAM, storage, and camera quality, weighted via surveys in Sumbersari District, Jember Regency. The SMART method involves data normalization, utility calculation, and alternative ranking. Validation against 26 respondents shows a 66.67% accuracy rate, indicating the system's effectiveness in identifying top choices such as Samsung Galaxy A15 and Oppo A77S, which align with user preferences. However, there was a discrepancy in the third choice, where Vivo Y27S was recommended by the system but did not rank among respondents' top three preferences. The SMART-based DSS proves reliable for guiding consumer decisions, with suggestions for criteria refinement and future development.

Keywords: *Simple Multi Attribute Rating Technique, Decision Support System, Smartphone*