Analysis of the Best Laptop Selection System Using Simple Additive Weighting (SAW) Method and Technique for Order Preference by Similarity to Ideal Solution (TOPSIS) Method

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Abstract: Every laptop has different specifications, and of course, the differences in specifications will affect the performance of the laptop when in use. The need to choose the right laptop depends on your needs. Therefore, we need an appropriate laptop recommendation system for prospective buyers. Choosing the optimal laptop according to your needs can be solved with a Decision Support System (DSS). The DSS has a mathematical model that can be used as a solution to these problems. There are several methods commonly used in solving problems, including the Simple Additive Weighting Method (SAW), Weighted Product (WP), and Technique for Order Preference by Similarity to Ideal Solution (TOPSIS). In this study, the SAW and TOPSIS methods were used, then the results were compared to those of the previous studies by using the WP method with the same data and criteria. The results of this study indicate that differences in laptop recommendations are only found in the second and third order. When using the SAW method, the second and third recommended laptops in a row are A6 (HP 14-G1024 U) and A3 (Acer Aspire E5-551). When using the TOPSIS method, the second and third recommendations for laptops in a row are A3 (Acer Aspire E5-551) and A6 (HP 14-G1024 U). The results of this study indicate that the SAW method gives the same laptop recommendation results as the WP method.

Keywords: *selection; laptop; TOPSIS; SAW; WP.*

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