

Decide or Divide?

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Abstract

The multi-attribute utility theory (MAUT) is the most prevalently used branch of Multiple Criteria Decision Making. MAUT is a system of calculated decision making based on rating characteristics of different options on a scale of zero to one (one being the best). Although MAUT is able to take many preferences into consideration, it is uncertain how well it truly works. In order to determine the accuracy of the MAUT, the decision making process for choosing a new car was simulated for twenty-two subjects. The subjects were surveyed on how they ranked the importance of different characteristics of new cars, as well as what specifically they were looking for in each category. At the end they were shown information on six different cars and asked to choose the one they would purchase if buying a new car. Then the preferences and importance rankings were used to perform the MAUT to calculate which choice best fit each subject. The results showed that less than half of the sampled body had the same decision using the MAUT calculations compared to deciding on their own.