

Abstract

PT. Telkom Group is one of the telecommunications company that also offer internet service products. Internet service products, especially in the macro sector BGES (Business, Government, Enterprise) has varies of products depend on the spesification sof each products. The number of criteria that differentiates one product to the other may lead to the selection process for subscription products become increasingly longer and less effective. And also there are some cases when customer complained or unsatisfied with the produch they have chosen. Beside it may lead there are addition of their needs, but also there are chances that marketing suggest wrong recommendation. Therefore, it takes a decision support system based on criteria which is Multi-Attribute Decision Making (MADM) that can help marketing to recommend potential customers in choosing which products that fit their needs.

This research is build a decision support system that implemented both of the method TOPSIS and Fuzzy that has been modified in one of part in TOPSIS. Fuzzy is used during the system of weighting the criteria and alternatives because its ability to cope with the uncertainty of the value of linguistic data into numerical data. While TOPSIS is used to form the ranks of each alternatives/products. Fuzzy combination with TOPSIS that has been modified (Modified TOPSIS) is done to get the ranks of each product, as required by potential customers. To test the system that has been built is by matching the result from system and the actual product that the customers has chosen. The result from the test is Modified Fuzzy TOPSIS method has 85% accuracy. While using traditional Fuzzy TOPSIS accuracy is equal to 69%. It shows that Fuzzy TOPSIS modifications can be implemented in a system to obtain a more optimal result.

Keyword: Multi-Attribute Decision Making (MADM), Fuzzy, Modified TOPSIS, internet, BGES