

UNIVERSITI TEKNOLOGI MARA

**THE RANKING OF THE PREFERRED FAST-FOOD
RESTAURANT AMONG CS248 STUDENTS IN
UITM PERLIS USING FUZZY TOPSIS**

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STUDENT'S DECLARATION

I certify that this report and the research to which it refers are the product of my own work and that any ideas or quotation from the work of other people, published or otherwise are fully acknowledged in accordance with the standard referring practices of the discipline.

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ABSTRACT

The purpose of this study is to rank the most preferred fast food restaurant among CS248 students. The selected fast food restaurants are KFC, Mc Donalds, Subway, and Pizza Hut. This paper also highlight the criteria involve in students decision making in choosing the restaurant. The method used in this study is Fuzzy Technique for Order Performance by Similarity to Ideal Solution (FTOPSIS). Triangular Fuzzy set is used into the proposed model to handle the ambiguity. The interdependencies between criteria are considered. The results show that FTOPSIS model is remarkably successful in determining the most preferred restaurant with stability in the ranking as it relates to the different criteria weights. The proposed methodology presents a comprehensive multi-criteria approach to find the best ranking among the alternative restaurants. The result shows that Mc Donalds is the most preferred fast food restaurant among CS248 students in Perlis with the Closeness Coefficient of 0.4719. The FTOPSIS model can be apply on other vague multiple criteria decision making problem since it shows good result in the research.

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