APPLICATION OF ANALYTIC HIERARCHY PROCESS (AHP) IN SELECTING THE BEST TRANSPORTATION FROM EAST COAST TO WEST COAST OF PENINSULAR MALAYSIA DURING PUBLIC HOLIDAY

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ABSTRACT

The Analytic Hierarchy Process (AHP) method is one of the methods used for Multi Criteria Decision Making (MCDM). The value of maximum eigenvalue (λ_{max}) in this research study is used to determine the consistency of the pairwise comparison matrix before finalising the results. From the six criteria (cost, reliability, safety, capacity, duration, utility) and three alternatives (own car, bus, aeroplane), a total of twenty-one pairwise comparison matrices were built. The data is obtained in the form of three categories of overall data, married and single data. From the results, the objectives to find the most preferable transportation, the priority criteria leading to choose the preferable transportation and the best transportation to use during Eid al- Fitr from the East Coast to the West Coast of Peninsular Malaysia during public holiday are achieved. In conclusion, own car has been chosen as the best transportation due to its dominating the charts and placing first in many criteria's rankings.

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