ABSTRACT

Decision Support System is an interactive system that can help decision making with the used of data and decission models to solve structurize and semi-structurize problems.

An alternative medicine is medicine which used a natural substance, in this case is plants which have special virtue as the material. To cure one kind of illness, it can have more than one prescription.

Knowing about that condition, it means to choose an alternative medicine also one of problems with multi-criteria (MCDM).

This final project build a decision support system for choosing an alternative medicine with two methodology of multi-criteria decision making (MCDM). The two methods are ELECTRE (*Elimination and Choice Translation Reality*) and TOPSIS (*Technique for Order Preference by Similiarity to Ideal Solution*). The two methods are implemented on decision making process of choosing alternative medicine.

This final project make the implementation of each methods to help determine priority (ranking) of choosen alternative medicine which is become settlement suggestion for user.

From both methods, we know that TOPSIS could give better accuration in giving solution based on the simmiliarity with the solution given by the expert, the accuration is 86% compared to ELECTRE which only 78%

Key word : *Alternative medicine, DSS, MCDM, ELECTRE,* and *TOPSIS*

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