Decision Analysis Module for Excel

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Abstract : The Analytic Hierarchy Process is frequently used approach for solving decision making problems. There exists wide range of software programs utilizing that approach. Their main disadvantage is that they are relatively expensive and missing intermediate calculations. This work introduces a Microsoft Excel add-in called DAME – Decision Analysis Module for Excel. Comparing to other computer programs DAME is free, can work with scenarios or multiple decision makers and displays intermediate calculations. Users can structure their decision models into three levels – scenarios/users, criteria and variants. Items on all levels can be evaluated either by weights or pair-wise comparisons. There are provided three different methods for the evaluation of the weights of criteria, the variants as well as the scenarios – Saaty's Method, Geometric Mean Method and Fuller's Triangle Method. Multiplicative and additive syntheses are supported. The proposed software package is demonstrated on couple of illustrating examples of real life decision problems.

Keywords : analytic hierarchy process, multi-criteria decision making, pair-wise comparisons, Microsoft Excel, scenarios

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