TOPSIS based multiple-attributes decision making in hesitant fuzzy environment

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In present work an approach based on TOPSIS (Technique for Order Preference by Similarity to Ideal Solution) for solving multiple-attributes decision making (MADM) problems under hesitant fuzzy environment is present. The case when the information on the attributes weights is completely unknown is considered. The attributes weights identification based on De Luca-Termini information entropy is offered in context of hesitant fuzzy sets. In the TOPSIS approach ranking of alternatives is made in accordance with the proximity of distance to the ideal solution vector. An investment example is used to illustrate the application of the proposed approach.