Two-layer preference models with methodologies using induced aggregation in management administration and decision making

Cite

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Abstract: In this work, we propose some two-layer preference models that can be appropriately applied in management problems such as the group decision making about predicting the future market share of certain product. By introducing the convex IOWA operator paradigm and some related properties and definitions, we list some detailed preference and inducing preference models to demonstrate and exemplify the proposed conceptual frame of two-layer preference model. The convex IOWA operator paradigm facilitates the modeling process and, from mathematical view, makes it stricter. When relevant inducing information and aggregation selection change, the proposed models can be easily adapted to accommodate more different applications in decision making and evaluation.