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# MAGDM method based on some qROFDPPHM operators

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1 Works for me dx.doi.org/10.17504/protocols.io.5j2g4qe

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ABSTRACT

In this paper, a set of Dombi power partitioned Heronian mean operators of *q*-rung orthopair fuzzy numbers (*q*ROFNs) are presented and a multiple attribute group decision making (MAGDM) method based on them is proposed. Firstly, the operational rules of *q*ROFNs based on the Dombi t-conorm and t-norm are introduced. According to these rules, a *q*-rung orthopair fuzzy Dombi partitioned Heronian Mean operator and its weighted form are then established. To reduce the negative effect of unreasonable attribute values on aggregation result in these operators, a *q*-rung orthopair fuzzy Dombi power partitioned Heronian mean operator and its weighted form are constructed via combining them with the power average operator of *q*ROFNs. On the basis of the constructed operators, a method to solve the MAGDM problems based *q*ROFNs is designed. Finally, a practical example, a set of experiments, and comparisons are reported to demonstrate the feasibility and effectiveness of the proposed method. The demonstration results show that the method is feasible, effective, and flexible, which has satisfying expressiveness and concurrently can consider the interrelationships between different attributes comprehensively and reduce the negative influence of biased attribute values.

EXTERNAL LINK

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MAGDMTest.py MAGDMTest.py

BEFORE START

software JetBrains PyCharm Community Edition 2018.1.4
version Python 3.6

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