

Decision Making in Reinsurance with Induced OWA Operators and Minkowski Distances

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Resumen

The decision to choose a reinsurance program has many complexities because it is difficult to simultaneously achieve high levels in different optimal criteria including maximum gain, minimum variance, and probability of ruin. This article suggests a new method by which, through membership functions, we can measure the distance of each alternative to an optimal result and aggregate it by using different types of aggregations. In this article, particular attention is given to the induced Minkowski ordered weighted averaging distance operator and the induced Minkowski probabilistic ordered weighted averaging distance operator. The main advantage of these operators is that they include a wide range of special cases. Thus, they can adapt efficiently to the specific needs of the calculation processes. By doing so, the reinsurance system can make better decisions by using different scenarios in the uncertain environment considered.

Palabras clave

Palabras clave de autor: Fuzzy logic; Minkowski distance; OWA operators; reinsurance

KeyWords Plus: INDUCED AGGREGATION OPERATORS; WEIGHTED AVERAGING OPERATORS; EUCLIDEAN DISTANCE; INFORMATION

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