Review of: "Improved Cosine Similarity Measures for q-Rung Orthopair Fuzzy Sets"

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Potential competing interests: fuzzy sets, machine learning

Similarity measures in fuzzy sets and their variants play an important role in uncertain data analysis. A number of similarity measures have developed during the past decades. This short paper proposes some improved cosine similarity measures. The measures are given by using the average and Choquet integral of two components. The similarity measures are interesting for comparing different uncertain objects, but the following problems should be considered.

1. The example in this paper is very simple. It needs to use more examples to show the effectiveness of the measures.
2. The authors only give the definitions of similarity measures. It is much better to state the properties of similarity measures.
3. The weighted cosine similarity measures are given in a discrete version. It is much better to give continuous counterparts.
4. The effect of parameter q should be discussed.