

# Review of: "Refrigerant Selection in Air Conditioning Systems Considering Thermodynamic, Environmental, and Economic Performance Using the BHARAT-II Multi-Attribute Decision-Making Method"

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Potential competing interests: No potential competing interests to declare.

The authors have presented a multi-attribute decision-making method, BHARAT II, to select the suitable alternative from amongst the available alternatives. The method is applied to two case studies in this paper. However, one should not think that this method is applicable only to these case studies and only to these attributes and performance data. One has to understand that the method is so general and can be applied to any MADM problem involving any number of attributes and alternatives with their related data.

The readers are advised to read all the steps of the proposed decision-making method thoroughly before putting questions in the name of reviews. I understand that the two case studies presented are only for the demonstration of the proposed method (so that the readers can understand the steps of the proposed decision-making method).

The proposed method has clearly stated the bitter fact that the play going on at present in the academic research field of decision-making in the name of objective weights and even the composite weights is not meaningful.

There is no need to incorporate fuzzy logic or other such techniques to handle the so-called uncertainties and imprecisions in the input data. The scale developed in this paper can deal with such data. Simply fuzzifying the available "uncertain" or "imprecise" data by means of different fuzzy membership functions does not guarantee the accuracy of decision-making. Which fuzzy membership function to use? Different membership functions are available, and using those different functions will lead to different defuzzification values!! No strong evidence is available so far proving that the fuzzy scales are better than the simple scales (if applied for the same case studies for fair comparison).

Overall, I feel that researchers can make use of the method proposed in this paper for their specific applications.