

# 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.

**Recommendation:** Major Revision

**Summary:** The manuscript presents an interesting and potentially impactful study. However, several critical issues need to be addressed to improve the quality and clarity of the work. The following points highlight the major areas that require revision:

**Methodological Concerns:**

The methodology section lacks sufficient detail to allow for replication of the study. Specific parameters, tools, and procedures used in the experiments are not adequately described.

There is a need for a more rigorous statistical analysis. The current analysis does not sufficiently justify the conclusions drawn from the data.

**Data Presentation:**

The data are not presented in a clear and organized manner. Figures and tables are either missing or not referenced correctly in the text.

Some of the graphs are difficult to interpret due to poor labeling and lack of units. Ensure that all figures are self-explanatory and include necessary legends.

**Literature Review:**

The literature review is not comprehensive. Several key studies in the field have not been cited, which could provide a more robust context for the current research.

There is a need to better integrate the literature review with the discussion section to highlight how the current findings contribute to the existing body of knowledge.

**Discussion and Conclusion:**

The discussion section does not adequately address the limitations of the study. A more critical analysis of the potential weaknesses and how they might affect the results is necessary.

The conclusion is too brief and does not fully encapsulate the significance of the findings. It should be expanded to

provide a more thorough summary and implications of the research.

High-Level Technical Questions:

Can you provide a more detailed description of the experimental setup, including the specific equipment and software used?

How were the sample sizes determined, and what statistical methods were employed to ensure the validity of the results?

Could you elaborate on the criteria used for data inclusion and exclusion? How did you handle any missing or incomplete data?

What are the potential sources of bias in your study, and how did you mitigate them?

Can you provide a more detailed comparison of your findings with those of previous studies? How do your results align or contrast with existing literature?

What are the specific limitations of your study, and how might they impact the generalizability of your findings?

How do you plan to address the issues related to data presentation, such as unclear graphs and missing tables, in your revision?

Can you expand on the implications of your findings for future research and practical applications in the field?

By addressing these concerns and questions, the manuscript can be significantly improved to meet the standards of a high-quality publication. I look forward to reviewing the revised version.