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Authors: Sunil Kumar Jauhar, Millie Pant

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ACCEPTED MANUSCRIPT

Integrating DEA with DE and MODE for Sustainable Supplier Selection

Sunil Kumar Jauhar[1,*], Millie Pant[1]

[1]Indian Institute of Technology Roorkee, India, 247667

E-mail: - [1,*]suniljauhar.iitr@gmail.com, [1]millidma@gmail.com

**Corresponding author*

Highlights

- The main motivation of this study was to gain an understanding of the SSS in automotive industries.
- The second motivation of this study is the, Integrating DEA with DE and MODE for Sustainable Supplier Selection
- Proposed approach provides a solution methodology for the SSS, which have DEA based mathematical model.
- A comparative analysis is provided using DEA, DE and MODE to measure the sustainable suppliers performance.
- The detailed analysis validates the application of current approach using the case on Indian automotive industries SC.
- Observation of processes which bring new opportunities and challenges to future SSS modeling and efficiency measurement.

Abstract: In this study an effort is made for developing an efficient system for SSS by integrating together the traditional multi criteria performance evaluation tool DEA with DE algorithm and further with MODE to overcome the inherent drawbacks of DEA. The proposed model is implemented on a hypothetical but realistic automobile industry. The results indicate that the proposed integration of DEA

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