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## **FUZZY MULTI-OBJECTIVE MODEL FOR SUPPLIER SELECTION CONSIDERING MULTIPLE PRODUCTS IN LOW CARBON SUPPLY CHAIN**

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### **Abstract**

Today companies are facing more and more with pressures for reducing carbon emissions, as a consequence of the development of the green movement and because materials continue to generate very large impacts on carbon emissions. In this context, supplier selection is one of the most vital components in purchasing management, which becomes more and more important. However, most of the earlier researchers have not paid enough attention to supplier selection in low carbon supply chain. Moreover, many criteria may conflict with each other in the selection process since sometimes information is uncertain. As a consequence, decision-making process becomes a difficult task and new supports are necessary in order to update the databases for decision-makers. In this paper, we continue our research in this area by developing and improving a fuzzy multi-objective supplier selection model so as to overcome the carbon emission issue and the uncertainty of the input information. A numerical example is presented to verify the effectiveness of the proposed model.

*Key words:* carbon emission, fuzzy multi-objective programming, supplier selection, supply chain

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