

An Integrated DEMATEL-QFD Model for Medical Supplier Selection

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Abstract : Supplier selection is considered as one of the most critical issues encountered by operations and purchasing managers to sharpen the company's competitive advantage. In this paper, a novel fuzzy multi-criteria group decision making approach integrating quality function deployment (QFD) and decision making trial and evaluation laboratory (DEMATEL) method is proposed for supplier selection. The proposed methodology enables to consider the impacts of inner dependence among supplier assessment criteria. A house of quality (HOQ) which translates purchased product features into supplier assessment criteria is built using the weights obtained by DEMATEL approach to determine the desired levels of supplier assessment criteria. Supplier alternatives are ranked by a distance-based method.

Keywords : DEMATEL, group decision making, QFD, supplier selection

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