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Np MODEL – A HANDY TOOL FOR EVALUATION OF FMS ALTERNATIVES

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Abstract

Flexible manufacturing system selection has been so complex and elusive problem for a decision maker that he/she is still perplexed in spite of umpteen numbers of methods/models available for flexible manufacturing system selection process. The confusion and uncertainty about the correctness or appropriateness of the final selection solution is due to increasing number of attributes/features offered by the new and upcoming FMS systems and lack of appropriate methods or models to input all the attribute features with their nature of contribution as positive contribution or negative contribution on selection explicitly and arrive at a solution in an environment of competing time constraints. Hence an attempt has been made in this work to present an FMS selection model in which the decision maker can explicitly designate an attribute as contributing positively or negatively to the final selection, combine ordinal and cardinal values of attribute features and arrive at a unique solution for a set of input data with in no time.

Keywords : FMS selection, decision model, attributes, alternatives, cardinal and ordinal values.