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Fuzzy Analytic Hierarchy Process for Determination of Supply Chain Performance Evaluation Criteria

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Abstract : Fuzzy AHP (Analytic Hierarchy Process) method is decision-making way at the end of integrating the current AHP method with fuzzy structure. In this study, the processes of production planning, inventory management and purchasing department of a system were analysed and were requested to decide the performance criteria of each area. At this point, the current work processes were analysed by various decision-makers and comparing each criteria by giving points according to 1-9 scale were completed. The criteria were listed in order to their weights by using Fuzzy AHP approach and top three performance criteria of each department were determined. After that, the performance criteria of supply chain consisting of three departments were asked to determine. The processes of each department were compared by decision-makers at the point of building the supply chain performance system and getting the performance criteria. According to the results, the criteria of performance system of supply chain by using Fuzzy AHP were determined for which will be used in the supply chain performance system in the future.

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