

**Title:**

Evaluation of limited Suppliers using mixed multi-criteria Decision-Making method

**Key words:**

Suppliers evaluation, mixed multi-criteria Decision-Making, ANP (Analytic Network Process), TOPSIS (Technique for Order Preference by Similarity to Ideal Solution).

**Abstract:**

Nowadays, development of competition grounds around the world has introduced the suppliers management as an important and determinative factor for companies to have a successful business.

For a company to optimize its competition grounds it is necessary to consider suppliers selection as an important task. Suppliers evaluation is a complex multi-criteria Decision-Making and it will be more complicated when there is close inter dependence and relation between selected criteria.

In this paper, multi-criteria Decision-Making is used as a quantitative approach for ranking suppliers. Hence, a "mixed multi-criteria Decision-Making method" is introduced through ANP and TOPSIS methods. With regard to restriction of company and suppliers and in order to achieve optimized orders, a mathematical planning is suggested including an applicatory example.

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