

## **VENDOR SELECTION USING COMBINED ANALYTICAL HIRARCHY PROCESS AND GREY RELATIONAL ANALYSIS- A CASE STUDY**

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### **Abstract**

Outsourcing means contracting our tasks and jobs –which are being carried out in house to an outside vendor(s). While some view outsourcing as a weapon in the armory for cost control, others view this exercise as an instrument to offload non-core activities to a suitable vendor or as it call a business partner or strategic partner having expertise in carrying out the assignment as envisaged in the outsourcing contract. One of the most critical steps in outsourcing is a vendor selection which is a strategic decision. Which helps in streamline material and /or service flow, reduce manufacturer and supplier cost, improve quality and customer service (delivery) performance and create a long term partnerships. In this paper an attempt has been made on for vendor selection criteria, vendor selection approaches and a decision-making integrated model for outsourcing vendor was developed using combined the Analytic Hierarchy Process (AHP) and Grey Relational Analysis (GRA) in to single evaluation model. With this technique, several options are considered in the decision analysis that make it possible to adequately evaluate and determine whether outsourcing vendor may be beneficial or not for the company. The case example given in this paper proves the effectiveness of this integrated model.

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