Developing new products in a network with efficiency and innovation

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Abstract

When managing a new product development (NPD) problem, a firm needs to consider the cooperation with its strategic partners in a network because surviving independently in the industry is almost impossible. However, due to the large variances among partners in terms of leadership, management, IT infrastructure and organizational cultures, it may lead to poor communication and cooperation and slow responses. A severe impact on the process and outcome of NPD may be resulted. To facilitate buyer-supplier cooperation, suitable knowledge management and product development process management need to be adopted to match the characteristics of the selected NPD mix. In this paper, a supermatrix analytic network process (ANP) model with sensitivity analysis is first developed to select the most appropriate NPD mix. Balanced scorecard (BSC) using ANP with sensitivity analysis is used next to demonstrate the effectiveness of the proposed model in the execution of NPD process.

Keyword：New product development (NPD); Analytic network process (ANP); Knowledge management (KM); Balanced scorecard (BSC)