

Identifying Key Factors in New Product Development Using Hybrid MCDM Model

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ABSTRACT

In the age of global village, it had not to separate enterprises in distance. When competition is more and more fierce in the global market. All enterprises cannot but recognize the importance of new product development (NPD). NPD has the critical importance that impacts the success and to keep the ability of competition to a enterprise. Both critical success factors and key performance indicators influence the NPD. In the past years, scholars have been making efforts in exploring the key factors that impacted NPD. However, the requirements of most enterprises and managers pursued the success of the NPD. This study followed the suggestion by the relative references and chose the critical success factors and the key performance indicators by multi-dimensions. It also treated the key factors of the NPD by multiple criteria decision making method. By utilizing the fuzzy Decision Making Trial and Evaluation Laboratory method to research the connection between criteria. Finally, using fuzzy Analytic Hierarchy Process to establish the affecting weights of the NPD. The study provides several useful and valuable suggestions that can assist in choosing the most suitable strategy for practitioners. The limited resource will allocate in best conditions and also produce the most benefits. It will reach the objectives that are the success of the NPD.

Keywords : new product development(NPD)、critical success factors(CSF)、key performance indicators(KPI)、multiple criteria decision making(MCDM)、fuzzy decision making trial and evaluation laboratory(FDEMATEL)、fuzzy analytic hierarchy process(FAHP)

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