## 博士论坛

# 大规模定制产品平台更新熵权——模糊物元决策

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收稿日期 2008-12-4 修回日期 2009-1-6 网络版发布日期 2009-3-26 接受日期

为了提供一种更为合理而有效的公共产品平台更新决策依据,建立了基于熵权和模糊物元评估公共产品平 台的模型,提出了一种运用4种模糊算子进行自我验证评估模型的稳定性与可靠性的方法。以冰箱产品平台更新为▶加入我的书架 例,采用熵权和模糊物元评估模型对产品平台的综合性能进行了评估,给出了与通用评估方法一致的评估结果。 从而为面向产品族设计的公共产品平台综合性能评估与决策提供一种客观、有效的新方法。

关键词 产品族设计 公共产品平台 熵权 模糊物元

分类号

# Comprehensive evaluation of product platform upgrading decision in mass customization based on entropy weight and fuzzy matter-element

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#### Abstract

In order to provide an effective and reasonable decision supporting for upgrading common product platform, evaluation model which combines entropy weight with fuzzy matter-element evaluation approach is constructed to evaluate common product platform, and a method that the stability and reliability of evaluation result is self-proved by 4-fuzzy operators is proposed. Taking evaluation of refrigerator product platform updating as an example, entropy weight and fuzzy matterelement evaluation model is applied to evaluate comprehensive performance of product platform, and evaluation results is consistence with general evaluation approaches. The method provides a feasible and objective evaluation method for common product platform oriented to product family design.

**Key words** product family design common product platform entropy weight fuzzy matter-element

DOI: 10.3778/j.issn.1002-8331.2009.10.006

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