

Project Title: Configuration-based Recommendations for Online Product Customization in e-Commerce

研究項目: 電子商務中基於配置系統的在線定制化產品推薦方法

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Abstract

E-commerce accounts for a large proportion of total retail spending worldwide and continues to expand rapidly. The customised products segment is one of the highest growth areas. Companies extend their business from traditional standard products to customised products that better satisfy their customers' requirements. In contrast to traditional product design-make-sell development cycles, e-commerce platforms provide online configuration systems and product recommendation systems to address customer requirements. However, these systems may not fit the context of product customisation due to different customer needs elicitation and recommendation procedures.

A configuration-then-recommendation mechanism is proposed in this project to meet the challenges. The mechanism firstly elicits customer needs by asking customers to specify the most relevant product attribute. Then the most likely accepted product variants are recommended based on each product variant's marginal relevance. The proposed methodology 1) requires minimal input from customers, 2) does not require prior knowledge about customers and 3) does not require customer expertise about the product.

