Analysis of customer choice navigation in customized product design

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Abstract:
Customized product design has been considered as a viable strategy for companies to produce higher-value products and better fulfill the diversified customer needs. However the vast number of product variants in customization process often makes it difficult for customers to make purchase decisions, a phenomenon referred to as information overload. To assist customers to become informed about choices and make the right decisions without the pressure of information overload, product configurators and recommendation systems have been widely used in industries. Successful examples include Dell’s PC and NIKE iD’s online configurators. In this talk I will introduce my work on improving the efficiency of configurators and recommendation systems to facilitate customer choice navigation. Particularly we are interested in supporting customers in identifying their own solutions while minimizing complexity and the burden of choice. Various product configurator design and product recommendation methodologies will be introduced, including adaptive configurator design, hierarchical configurator design and probability relevance model based recommendation. The proposed approaches are validated by analytical and experimental results.

Biography:
Yue Wang received his Ph.D. from The Hong Kong University of Science and Technology (HKUST). Currently he is a research assistant professor in the Department of Industrial Engineering and Logistics Management, HKUST.