ABSTRACT

iPrice: A Collaborative Pricing Model for e-Service Bundle Delivery

Information goods pricing is an essential and emerging topic in the era of information economy. Myriad researchers have devoted considerable attention to developing and testing methods of information goods pricing. Nevertheless, in addition; there are still certain shortcomings as the challenges to be overcome. This study encompasses several unexplored concepts that have attracted research attention in other disciplines lately, such as collaborative prototyping, prospect theory, ERG theory, and maintenance from design, economic, psychological, and software engineering respectively. This study proposes a novel conceptual framework for information goods pricing and investigates the impact of three advantages: (1) provides collaborative process that could generate several prototypes via trial and error in pricing process, (2) deliberates the belief of consumer and producer by maximizing utility and profit, and (3) offers an appropriate service bundle by interacting with consumer and discovering the actual needs.

Due to the unique cost structure and product characteristics of information goods, conventional pricing strategies are unfeasible, and a differential pricing strategy is crucial. Nevertheless, few models exist for pricing information goods in the e-service industry. This study proposes a novel collaborative pricing model in which customers are active participants in determining product prices and adopt prices and services that meet their changing needs. This study also shows that the collaborative pricing model generates an optimal bundle price at equilibrium with optimal profit and utility. Theoretical proofs and practical implications justify this pricing model, which is essential for future information goods pricing in information economy.

Moreover, we apply iCare e-service delivery as an exemplar and scenario for our system. The objective of iCare is to provide quality e-services to the elderly people anywhere and anytime. The new pricing method will go beyond the current iCare e-service delivery process which furnishes personalized and collaborative bundles. iPrice system for pricing information goods fills the gap among previous literatures which only considers consumers or providers. Different from existing works, iPrice system is novel in integrating distinctively important concepts yielding more benefits to consumers and profits to more providers. Thus, iPrice also guides and provides a roadmap for information goods pricing for future research.

Keywords: Information goods pricing, Markov chain, ERG theory, Prospect theory