

Managing coproduction systems: implications to service operations

Sivakumar S.

Abstract

There is a growing demand for customized services in both developed and emerging markets. Simultaneously competitive dynamics is blurring the price difference between standard and customized services. Consequently service providers are seeking innovative ways to address the demand for customized services at lower price points. This dissertation attempts to organize these diverse models of delivering customized services ranging from classical mass customization strategy to the emergent coproduction strategy, using a structured framework. Particularly we focus on the drivers and implications of selecting, configuring and designing the operations systems underlying these business models. Our study first focuses on classifying / organizing these diverse business models into a structured typological framework of *Forms of Coproduction*. We empirically validate our conceptual framework and propositions by case research methodology with a sample of 18 cases. Our study further addresses the selection of appropriate form of coproduction. We focus on the business problem of configuration and pricing of a supplementary channel of coproduction. We obtain relative preferences for different business strategies by employing a suite of analytical modelling tools. Finally we focus on the design of the operations system underlying the selected form of coproduction. We compare two broad design alternatives on the basis of system performance using queuing network models and simulation modelling tools. **Managing Coproduction Systems – Implications to Service Operations** Our results characterize the applicability of different business models for pursuing different strategic objectives and their resulting implications to managing operations. Our results also indicate that the popular uniform pricing regime mandated by many regulators is not always preferable; and we identify settings where an alternate regime that accounts for spatially strategic behaviour of the customer is preferable. Our results also indicate that the domination of resource flexibility strategy in designing customized services is not absolute, especially in the context of coproduction systems when considering resource costs. This dissertation is one of the first to make a systematic attempt organize the diverse business models of delivering customized services and understand the drivers and implications of selecting a particular model. The insights from this dissertation provide strategic and tactical guidance to select, configure, design and manage customized coproductive services.