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Service Spotlights

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Eliminating the Inconvenience of Carrying: Optimal Pricing of Delivery Service for Retailers (p. 181)

Retailers in many tourist attractions are increasingly providing free delivery service to enhance customers' purchasing experience by eliminating the inconvenience of customers carrying souvenirs. For instance, tourists at Disneyland can collect purchased items at the reception point near the exit or at the Disney World Resort hotel. The authors investigate retailers' optimal delivery service at tourist attractions. The conventional wisdom indicates that charging an additional fee is always optimal for retailers, since there is no such thing as a free lunch. Surprisingly, the authors find that free delivery service is the best strategy when the delivery cost is relatively low compared to the value of the service, and recommend retailers select an appropriate delivery strategy that depends on both the cost and the value of the service. The insight for management is as follows: provide free delivery service for relatively low delivery cost, charge an additional fee for delivery service when the cost is intermediate, and do not provide delivery service if the cost is too high.

Patterns of Protecting Both Technological and Nontechnological Innovation for Service Offerings: Case of the Video-Game Industry (p. 192)

Service innovation involves both technological and nontechnological aspects, both of which need to be protected as intellectual property (IP). Focusing on two types of IP—that is, patents to protect technological aspects of innovation and trademarks to protect nontechnological aspects of innovation—this study investigated two research questions in the case of the video game industry: (1) Is the use of patents complementary or alternative to the use of trademarks? and (2) Are there any dominant hybrid IP strategies? The results indicated that (i) patents and trademarks are often used together as complementary tools for innovation protection in the video-game industry and (ii) firms have different IP strategies in the video-game industry according to their core capabilities as we found no single dominant hybrid IP strategy. Insight for management is as follows: trademarks as well as patents can be useful complementary mechanisms to protect service innovation, though hybrid IP strategies must be customized to a firm's core competence.

Location Design and Relocation of a Mixed Car-Sharing Fleet with a CO₂ Emission Constraint (p. 205)

Car-sharing companies like Zipcar, Car2Go, and Maven have shown increasing adoption of fuel-efficient cars to reduce CO₂ emissions and to meet demands from various customers for different types of cars. Because car-sharing demand volumes vary by both location and time, it is important to decide the optimal sizes of car fleets in different service zones and relocate them periodically to balance supply and demand. In this paper, we consider location design and relocation problems for sharing a mixed fleet of cars, and incorporate both one-way and round-trip car-sharing demands. We maximize the total profit of renting cars minus the cost of relocation and maintenance, subject to limited budget for purchasing cars and given CO₂ emission limits. We use optimization techniques for modeling car movement in road networks. We conduct computational studies to guide decisions for allocating different types of cars in zones at different times and measure their environmental impacts. Our results show high utilization of cars, and low demand losses and denied trips. Although the CO₂ emission limit may lower car-sharing profit, high demand on new energy-efficient cars may compensate for the loss.

Service Systems Analysis Methods and Components: A Systematic Literature Review (p. 219)

Service science began as a concept in the mid-2000s and has been increasing in importance and interest since that time. The focus of research and innovation in service science has evolved and grown. At the same time, the service system has emerged as the basic abstraction of service science and there has been much interest in the study and analysis of service systems. This paper presents the results of a systematic literature review of recent literature on service systems through which the authors characterize recent changes in research direction and focus. The authors discuss three approaches to service system analysis—descriptive, prescriptive, and evaluative—and also

discuss new research focused on studying the components of service systems. Based on research gaps observed in the review, the paper presents eight specific opportunities and three broad directions for future research: (1) refocusing attention on a greater diversity of research designs and analytical approaches; (2) leveraging new perspectives to perform more ontological work on system components; and (3) fostering a better understanding of the role of innovation. The results provide a roadmap and framework to help researchers identify opportunities for research in areas currently underexamined within service science.

The Interaction of Product-Service Systems (PSS) and Corporate Environmental Management (CEM): Can PSS Drive Today's Fashion Industry Toward More Environmental Sustainability? (p. 235)

Can product-service systems (PSS) drive today's fashion industry toward more environmental sustainability? This is an important question since the fashion industry is well documented for causing significant negative environmental impacts. PSS shift the focus toward complementary service offerings, which decouple customer satisfaction from material consumption and entail dematerialization. However, PSS are not eco-efficient by nature but must be accompanied by corporate environmental management (CEM) practices. The authors analyze data from 102 fashion firms. Results reveal that the diffusion of PSS in today's fashion industry is low and few firms consider implementing PSS, suggesting that fashion firms do not see the need for innovation. Furthermore, results demonstrate that PSS implementation is positively related to CEM, indicating that existing structures of CEM favor PSS implementation and unlock the eco-efficient potential of implemented PSS in the fashion industry. The insight for management is as follows: this article provides empirical data on the diffusion of PSS in the fashion industry along with a discussion of the corporate structures, processes, and mechanisms that facilitate PSS implementation.

Expanding Impacts of Technology-Assisted Service Systems Through Generalization: Case Study of the Japanese Service Engineering Research Project (p. 250)

Recent evolution of information communication technology (ICT) has brought with it huge expectations for innovation, which is highlighted by terms such as "digitalization" and "Internet of Things (IoT)." But how can such new technologies, especially in regional services—such as small retailers, local sightseeing areas, and municipalities—be implemented and disseminated effectively? The authors examined processes and deliverables to develop and disseminate ways to create value with such technologies. They analyzed five cases of a service engineering research project in Japan, which aimed at improving service industry productivity through disseminating developed technologies. They conducted semistructured interviews with researchers responsible in each case. Results suggest the importance of creating and using activity guidelines for stakeholders related to the applied technologies and creating and using an application process for both technologies and activity guidelines. These outputs (technology, activity guideline, and application process) can be organized as a set of more generalized deliverables for different application targets, such as knowledge-workers, service organizations, and associations. The insight for management is as follows: it is important to codevelop this set of deliverables with stakeholders in value creation processes to make effective use of evolving ICTs for the industrial and societal impact.