## Paying For a Higher Workload? The Relation Between Customer's Co-Production and Willingness to Pay

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We increasingly observe the use of co-production in managerial practice, as customers undertake additional tasks in service processes that service providers traditionally have performed. In 1995 Continental was the first airline to offer self-check-in kiosks, but today more than two thirds of travelers check in using self-service. Similarly, since their introduction more than 10 years ago, supermarket self-checkouts have grown widespread (Hill, 2011). Nor are these shifts to more customer co-production limited to technology-enabled contexts. Even some highend restaurants use co-production as core part of their business model, such as the Seafood Market and Restaurant in Bangkok, where customers take a shopping trolley and wander around the market to choose their food. They move to the checkout counter, where it is weighed and sent to the kitchen while customers pay, before being seated to wait for their dishes (http://www.seafood.co.th). In all these examples,

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CUSTOMER & SERVICE SYSTEMS KIT SCIENTIFIC PUBLISHING Vol. 1, No. 1, S. 49–53, 2014 DOI 10.5445/KSP/1000038784/06 ISSN 2198-8005 providers benefit from co-production by substituting employee labor with customer efforts. This substitution can lead to productivity gains (Bendapudi and Leone, 2003).

Yet such productivity gains through co-production can be a double-edged sword. Acting as "partial" employees (Mills et al, 1983, p.120), customers might come to expect compensation for the time and effort they invest in the service process. Thus, co-production may reduce their willingness to pay (WTP), defined as the maximum price a customer will exchange (Wang et al, 2007) to receive a service they co-produce. In many cases, service firms compensate customers with a price reduction (e.g. Bowen, 1986), but if the price reduction must be very high to compensate customers, it might outweigh the company's productivity gains.

The price reductions offered for co-production often reflect the "gut feelings" of executives, who might award them without clear knowledge of whether and to what extent they are required by customers. Some customers simply do not expect any monetary compensation for their efforts, because in addition to inducing costs (i.e., efforts), co-production provides nonmonetary value (Yim et al, 2012). Customers might enjoy co-production and thus find value in it (Lusch et al, 2007); this value in turn can (partially) compensate customers and influence the relationship between their co-production and their WTP. This interaction requires managers to design pricing plans connected to co-production more carefully.

If the link between co-production and WTP is not as intuitive as it may seem at first, we consider it surprising that no empirical study has examined this relationship. To the best of our knowledge, this study offers the first empirical investigation of this issue, in an attempt to address three main research questions: Does co-production lead to lower or higher levels of WTP? To what extent does co-production decrease or increase WTP? Which factors moderate the link between co-production and WTP?

In turn, this research contributes to current research on co-production which represents one of the key topics in marketing and service research (Kunz and Hogreve, 2011). Prior studies link co-production to service quality, perceived control, enjoyment, satisfaction, well-being, and loyalty (e.g. Bendapudi and Leone, 2003; Gallan et al, 2013; Guo et al, 2013).

Despite the relevance of this issue, the price-related consequences of co-production remain neglected; we extend previous research by linking co-production to customers' WTP. Beyond this main effect, we also provide evidence of the contingent nature of the relationship between coproduction and WTP.

Definitions of co-production thus far have been neither selective nor consistent (e.g. Auh et al, 2007). The plethora of definitions has contributed to mixed and partly contradictory empirical results (Groth, 2005), though they all require customers to be active in the service process (e.g. Gallan et al, 2013). Because co-production processes vary with regard to the degree of customer participation, we also differentiate coproduction activities that are inseparable from the customer (e.g., seeing the doctor for an examination) from those for which the performer does not matter (e.g., blow-drying hair at the hairdresser). These facets of coproduction have not been discussed previously but seem highly relevant for effective co-production management. Specifically, co-production activities may have varying impacts on outcome variables such as WTP or satisfaction, depending on whether the customer must accomplish them or not. Non-transferable co-production involves activities that must be performed exclusively by customers. Transferable co-production instead refers to participative activities that can be delivered by the customer or the provider.

To address our central research questions, we conducted five studies regarding the relation of co-production with WTP and its moderators. We apply three methodological approaches. By relying on different experimental designs and using representative consumer and student data, we also affirm the robustness of our results, increase their validity, and strengthen the implications of our findings for theory and management.

From a conceptual perspective, we propose a new approach to coproduction, such that we differentiate non-transferable (i.e., tasks that must be delivered by the customer) and transferable (i.e., tasks that can be delivered by the customer) forms. Distinguishing these two types of coproduction improves understanding co-production itself and, by offering a common definition for further research, supports the development of a coherent body of knowledge.

From a methodological perspective, this study is one of the first to manipulate co-production by a real-world exercise in a service process (for an additional example see Troye and Supphellen, 2012). In two studies, participants actually "worked" before consuming a co-produced service, which provided a direct implementation of co-production in an experimental design. To test the robustness of our results, we apply three ap-

proaches across different service contexts: First, we used an incentivized economic laboratory experiment to implement co-production and control for external effects due to the absence of any frames. Second, we framed co-production in a scenario-based and a field experiment. Third, in two additional scenario experiments, we identified moderators of the relationship between co-production and WTP, which would not be effectively possible in the monetarily incentivized experiment.

From a managerial perspective, our study provides insights into the extent to which consumers will expect price discounts or pay price premiums for varying levels of co-production. These insights support managers in designing their pricing strategy and implementing appropriate pricing instruments (e.g., price differentiation, price discrimination, value-based pricing, price bundling) if customers co-produce. The findings will also help managers with decisions relating to how co-production processes should be designed and which market segments should be targeted in order to realize higher prices.

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