

The Smartness Highway:

Four Roads of Configurations, Value Propositions, and Customer Logics

As businesses devote growing budgets to developing the smartness of their offerings, numerous calls emerge for guidance on how to invest in smart offerings (e.g. Bilstein & Stummer, 2021; Langley et al., 2021). Research suggests that these investments can occur along the four characteristics of smartness: *awareness* (i.e. enabling offerings to capture more data), *connectivity* (i.e. better connecting actors involved in the offering), *actuation* (i.e. allowing offerings to act increasingly independent), and *dynamism* (i.e. adapting offerings through AI-based learnings) (Henkens, Verleye, & Larivière, 2020). Against this background, we study how firms configure smartness. Specifically, we seek to show *what* dominant configurations result from manipulating the four smartness characteristics and to unravel *how* firms communicate about these configurations through customer-oriented value propositions. Additionally, we investigate *why* firms choose specific configurations and value propositions, thereby revealing firms' customer logic (i.e. firms' understanding of customers' reasoning and sense making) underpinning these decisions.

Based upon case studies of nine smart offerings, we identify four smartness configurations that align with specific customer-oriented value propositions and customer logics (see Table).

Smartness Configurations	Customer-oriented Value Propositions	Customer Logics
All-the-way configurations = configurations entailing solely manipulations of the smartness characteristics in standard ways (i.e. for all customers).	Focus on <i>transactional value</i> , namely cost-savings and convenience.	Customers as <i>demanding actors</i> who compare different smart offerings in terms of performance excellence.
Customized configurations = configurations entailing primarily manipulations of the smartness characteristics in an optional way (i.e. upon customer requests).	Focus on both <i>transactional and individual transformative value</i> , especially customization.	Customers as <i>empowered actors</i> whose lives can be facilitated by customizing their smart offerings.
Constrained configurations = configurations entailing primarily manipulations of the smartness characteristics in a limited way (i.e. suboptimal for customers).	Focus on <i>transformative value</i> , namely individual and/or social well-being.	Customers as <i>vulnerable actors</i> who may be unaware of the risks of smart offerings.
Mini-maxi configurations = configurations entailing combinations of standard, optional, and limited manipulations of the smartness characteristics.	Focus on the trade-off between <i>transactional and individual transformative value</i> , especially privacy.	Customers as <i>conscious actors</i> who strive for excellent services without privacy infringement.

These findings offer three contributions. First, by revealing the dominant smartness configurations, Henkens et al.'s (2020) smartness conceptualization and research on smartness development is progressed (Pardo et al., 2020). Second, we answer to recent calls for studying customer value in the context of technology-enabled services in general (Leroi-Werelds, 2019) and smart offerings in particular (Zeithaml et al., 2020). While all-the-way configurations aspire solely transactional value, other configurations also pursue transformative value as solicited by transformative service research (e.g. Anderson et al., 2013). Third, by unraveling businesses' driving customer logics, we respond to requests for guidance on strategically investing in smartness (Langley et al., 2021).

Keywords: Smart Service System; Smart Product; Smartness; Value Proposition; Customer Logic; Multiple Case Study Research