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12-12-2022

# How to Play and Win the Smart Product Game: A Value Lifecycle Perspective to Unleash the Potential of Smart Products

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#### **Recommended Citation**

Raff, Stefan; Schulz, Colin; and Obwegeser, Nikolaus, "How to Play and Win the Smart Product Game: A Value Lifecycle Perspective to Unleash the Potential of Smart Products" (2022). *ICIS 2022 TREOs.* 23. https://aisel.aisnet.org/treos\_icis2022/23

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#### **TREO**

Technology, Research, Education, Opinion

## How to Play and Win the Smart Product Game:

A Value Lifecycle Perspective to Unleash the Potential of Smart Products

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Product companies are increasingly turning to smart and connected versions of their physical products (Cichy et al. 2021). These smart products outperform their analog counterparts thanks to built-in digital components, which enable autonomous action and integration into broader networks (Raff et al. 2020). They become launchpads for continuous flows of software and services, allowing companies to constantly evolve their offerings and adapt to changing customer needs, even while in use (BCG 2021). Yet, many product companies miss out on the potential of smart and connected products. They cling to their traditional product-focused "build and sell" mentality and try to squeeze profitability out of one-off transactions. To get out of this trap, we suggest that product companies must rethink the very core of their business model: their value proposition. Our research, based on 23 in-depth interviews with senior managers responsible for navigating their companies through the transition from traditional products to smart products (e.g., CTOs, CDOs, Digital transformation managers) shows that by adopting a more value- rather than product-centric perspective, companies can systematically develop, launch, and capture new value during extended product lifecycles. By transitioning towards value-based business models that focus on customer experience and loyalty, sustainable growth and recurring revenue streams can be created. From our research, we learned that successful smart product organizations across all industries break away from the idea that a product is finished when it is delivered. Instead, they follow a value-based approach that clearly identifies how customer experience and perceived value can be continuously nourished and renewed across both hardware and software dimensions. In addition, they offer customers the ability to integrate all customer-specific values, such as preferences, settings, and functions that have built up over time, into an individual profile that can then be carried over from one product generation to another. In this TREO talk paper, we present a preliminary framework that describes the customer value buildup of smart products along their lifecycle based on four integrated but independent phases. These are Service Adaptation, Product Proliferation, System Rejuvenation, and Next Product Generation. This framework can help executives systematically manage their company's transition into the world of smart products.

#### References

Boston Consulting Group 2021. "Chasing the Software-Defined Dream Car," Retrieved August 20, 2022, from https://www.bcg.com/de-de/publications/2021/software-transformation-in-the-automotive-industry.

Cichy, P., Salge, T. O., and Kohli, R. 2021. "Privacy Concerns and Data Sharing in the Internet Of Things: Mixed Methods Evidence from Connected Cars," *MIS Quarterly* (45:4), pp. 1863-1892. Raff, S., Wentzel, D., and Obwegeser, N. 2020. "Smart Products: Conceptual Review, Synthesis, and Research Directions," *Journal of Product Innovation Management* (37:5), pp. 379-404.