Special Issue for Journal of Manufacturing Technology Management

DIGITAL SERVICE INNOVATION: WHEN SMART PRODUCTS MEET SERVICE DOMINANT LOGIC

Guest Editors

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Special issue information:

The present special issue focuses on the work of two of the latest influential trends in business research nowadays: smart product development and service dominant logic. On the one hand, research on smart products primarily emphasizes the value generated by products through its connectedness and analytical potential, technological capabilities, complementary devices, and solution-delivery capacity (Porter and Heppelmann, 2015; Berente et al., 2021). In this frame, value results from technologically advanced products in combination with specific market conditions of increasing demand and limited offer (Chatain and Zemsky, 2011).

On the other hand, following the logic of the "*Service Dominant Logic*" (SDL) by Stephen Vargo, services are regarded as the basis for exchange and value creation (Vargo and Lusch, 2004). This approach focuses on the relationship between service providers and customers, highlighting the importance of interactions, experiences, and the integration of resources. The SDL asserts that value is not inherent in technologically augmented products but is instead determined by how effectively the offer addresses customers' needs and preferences (Vargo and Lusch, 2008).

This special issue seeks to accommodate this debate to the arguments of the digital service innovation (DSI) frame, a novel approach to service provision that integrates both service offerings and supporting frontier technologies (including blockchain, Internet-of-Things, Artificial Intelligence, cloud computing and big data analytics) into a unified entity—adaptable to evolving service, relationship (between people and machines), and technological landscapes (Kandampully et al., 2022). Following this logic the technological foundations of services act as catalysts for continuous service design reconfiguration, enhancing user experience and thus driving new innovations (Lafuente et al., 2023). Therefore, services themselves become sources of digital innovation, allowing complete overhaul tailored to specific service requirements (Opazo-Basáez et al., 2024). By doing so, DSI fosters innovation through digital technologies, interconnectivity, data, and learning, facilitating the creation of new digital service offerings across various business domains (Vaillant and Lafuente, 2024). This dynamic alignment enables firms to tailor business models dynamically to meet customer needs effectively (Rabetino et al., 2024).

Porter and Heppelmann (2015) suggest that digitalization enables the creation of product platforms offering connectivity and real-time data, enhancing product intelligence and facilitating the provision of digital services. However, this capability varies greatly across industries. Digitally-augmented industries—e.g., airlines, healthcare, and financial services—can develop product platforms for inputs, whereas digitally-intensive industries—e.g., machinery, electronics, and automotive—can interact with smart products for both inputs and outputs. This variability may impact the ability of the SDL to generalize value-creation processes and value capture across industries (Lafuente et al., 2023).

Recent work supports this line of reasoning. For example, Bowden et al. (2022) found for firms adopting big data analytics that shared learning logic based on product platforms helps vendors and clients negotiate high levels of multifaceted uncertainty more efficiently than SDL. Similarly, Kowalkowski et al. (2024) argued that technology-enabled services in B2B contexts differ in terms of value creation compared to the same technology-enabled services in B2C contexts, while Vaillant and Lafuente (2024) found that digitalization and service provision go hand in hand, and that digital technologies empower service-based value creation processes to generate superior levels of non-financial outcomes among manufacturing firms. However, Stephen Vargo has recently argued that the nature and fundamental elements of digital service innovation are acontextual, and that the underlying rationale behind SDL remains relevant despite the emergence of digital technologies (see Vargo et al., 2024). This goes in line with recent empirical research (e.g., Peltier et al., 2020; Lafuente et al., 2023; Struwe and Slepniov, 2023).

A possible path to reconciliation involves considering how each technology aids in interacting with suppliers and customers, influencing the ability to co-create value. It is therefore necessary to evaluate the capacity of DSI to support interactions with customers that enhance value creation through the development of multiple (product and process) innovations (see, e.g., the Treble innovation phenomenon in Vendrell-Herrero et al. (2023) and the analysis of digitally-powered co-innovation configurations in Lafuente et al. (2023). This evidence suggests that we are scratching the surface of the possibilities of digital technologies for enhanced DSI, and there is much to be learnt as to how DSI assists transformative processes of value creation by developing, detecting, and implementing other complementary innovations.

This special issue positions itself at the intersection of the relationships between DSI, Service Dominant Logic (SDL), and industry heterogeneity. The editorial team intends to select a collection of studies that fuel the dialogue between these apparently contrasting viewpoints. By taking a neutral position, the challenge for researchers is to adopt a critical perspective when scrutinizing the processes underlying the connection between DSI and the SDL and its outcomes across industries to identify common grounds between these views and take a stance on either end of the spectrum. Methodologically, the special issue welcomes conceptual, qualitative, and quantitative papers that contribute to understanding how digitalization via DSI is reshaping perceptions of value in services and altering (or not) relationships between producers and customers. The special issue is open to studies covering a wide range of industries, as long as they have a clear service element in their offerings.

Illustrative Research topics (from most theoretical to most empirical/practical)

1) Systematic literature reviews and meta-analyses of research combining DSI, frontier technologies, value co-creation, and value creation. This involves synthesizing existing theoretical frameworks and propositions.
2) Smart products vs. service dominant logic: Industry-Level Differences and Similitudes in DSI. This delves into theoretical debates between two influential trends in strategy.
3) The interplay between Porter's smart products and Vargo's revised SDL model for DSI. This bridges theoretical concepts with practical applications.
4) Shared Learning Logic vs. SDL beyond Big Data Analytics in DSI endeavours. This explores theoretical concepts in the context of specific technological applications.
5) Exploring the role of DSI as a catalyst for value-creation transformative processes and their interaction with product and process innovation. This involves theoretical discussions on innovation and value creation, but with practical implications.
6) Investigating the distinct and combined impact of digital frontier technologies on customer interactions and value co-creation with suppliers in DSI contexts. This starts to bridge theoretical concepts with empirical analysis.
7) The role of market frictions in DSI, and how they impact value co-creation and overall value creation. This explores theoretical concepts in the context of market dynamics and practical implications.
8) Explore the specificities of different frontier technologies to enhance DSI design and delivery. This delves into practical applications of theoretical concepts.
9) Digital intensive vs. Digital augmented industries: Exploring implications for value creation in DSI developments. This focuses on practical implications for different industry sectors.
10) Examine the distinct role of smart products in product innovation and DSI contexts. This is the most practical topic, focusing on specific products and industries.

Submission instructions

The guest editors consider these topics merely illustrative and are open to different proposals. For authors interested in proposals that fit the special issue topic but do not adhere to these points, please contact Marco Opazo-Basaez, lead guest editor (include a 500-words extended abstract in your message). Similarly, there will be an opportunity to discuss the progress of the research with guest editors at the International Conference on Business Servitization to be held on 6-7 November at Deusto Business School (Bilbao, Spain), www.servitization.org.

Manuscript submission information:
Submissions Open: November 30th, 2025
Submission Deadline: March 15, 2026

Guest Editors' Short Biographies

Marco Opazo-Basáez is an Associate Professor in Marketing at the University of Deusto, Deusto Business School, Spain. His work focuses on firms' leading-edge practices, analyzing the drivers that shape strategies, models, and mechanisms for value creation based on data-driven analysis. His research interests include servitization, digitalization, sustainability, and innovation. He has published in internationally renowned journals such as the *International Journal of Production Economics, Journal of Service Management, Technovation, Journal of Business Research, Annals of Operations Research, and Journal of Knowledge Management*, among others. Additionally, *he has served as leading guest editor for special issues in leading journals, including the Journal of Service Management, Journal of Enterprise Information Management, International Journal of Physical Distribution & Logistics Management, and Journal of Environmental Management*. Marco has also participated in international research projects funded by the European Commission, European funding organizations, and universities.

Ferran Vendrell-Herrero is an Associate Professor at the University of Edinburgh Business School, specializing in international business, innovation and the economic analysis of organizations. His contributions to these fields are evident through publications in prestigious academic journals such as the *Journal of International Business Studies*, *Journal of World Business*, *Journal of Product Innovation Management*, *British Journal of Management, International Journal of Operations and Production Management*, *Journal of Business Research,* and *Long Range Planning*. He has also served as a co-guest editor for special issues in leading journals like *Regional Studies, Technovation, International Journal of Production Economics* and *International Marketing Review*. His research has influenced the thinking and actions of private companies, as demonstrated by a REF-2021 impact case with the BBC. Additionally, he is the founder and scientific director of the international conference on business servitization, available at www.servitization.org.

Oscar F. Bustinza is Professor of Management at the University of Granada (Spain). His work aims to analyse product-service innovation, demand chain management, and drivers of firm's boundaries choice based upon data driven analysis. Prof. Bustinza's research has been published in the *Journal of Supply Chain Management, International Journal of Operations & Production Management, International Journal of Production Economics, Technovation, Journal of Product Innovation Management, and British Journal of Management* among other outlets.

Yancy Vaillant (PhD, HDR) is a Full Professor in the Department of Strategy, Entrepreneurship, and Innovation at Toulouse Business School (TBS Education). From a strategic management lens, Prof. Vaillant's research focuses on innovation and business servitization. He is also interested in studying the relevance of digital platforms for business value-creation processes. His research has been published in *Regional Studies, Small Business Economics, International Business Review, Industrial Marketing Management, International Journal of Production Economics, Technovation, and Journal of Business Research*, among others. He has also participated in several research projects for the European, Spanish or Catalan administrations that study and formulate policy recommendations in areas related to innovation systems, territorial strategy, entrepreneurship and innovation-based development programs.

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