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Platform-Based Servitization: Reconciling Competing Growth Logics for Industrial Firms

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Anna Salonen[1], Julia A. Fehrer[2], Christian Kowalkowski[3], Paavo Ritala[4,5], and Elina Jaakkola[6]

Abstract

Servitization and platformization represent distinct logics through which industrial firms pursue growth. Servitization increases value through close customer integration, whereas platformization drives growth through ecosystem orchestration and scalability. These logics involve an inherent tension between relational depth and scalable flexibility, which the service literature has yet to resolve. This study draws on a systematic cross-field review of 129 articles spanning service, marketing, management, and information systems to theoretically ground platform-based servitization. We contribute to servitization by explaining how four configurational archetypes—product–service, customer solution, innovation, and transaction platforms—drive growth through platform-based servitization. Through a series of propositions, we explain how the cumulative layering of these configurations supports reinforcing and transformative pathways to growth, while data network effects emerge as a central growth mechanism, and combinatorial governance helps manage tensions between competing growth logics. We also contribute to platform scholarship by highlighting relational depth with customers and service partners as a critical condition shaping B2B platform transitions. For managers, our framework provides a strategic roadmap for leveraging platforms to move from digitalized product–service offerings to scalable platform growth. Finally, our findings open a research agenda for service scholars to further explore platform-based servitization.

Keywords

servitization, digital platforms, platformization, growth, tensions

Introduction

Over the past decades, servitization has emerged as a dominant strategy through which industrial firms pursue profitable growth by shifting from product-centric to service-oriented business models (Baines et al. 2024; Forkmann et al. 2017; Ostrom et al. 2015). A growing body of evidence continues to support this shift: a recent meta-analysis confirms a positive relationship between servitization and firm performance (Faramarzi et al. 2024), while industry reports underscore its prominence as a managerial priority for achieving strategic differentiation and unlocking new revenue streams (Salmeron et al. 2025; Shepley et al. 2025). Despite these benefits, servitization entails a fundamental constraint. The mechanisms that enable value creation, customization, and close relational integration with customers and service partners are difficult to scale, which constrains the growth potential of servitization (Bond et al. 2020; Eloranta et al. 2021; Salonen et al. 2018; Tuli et al. 2007).

To overcome this constraint, industrial firms are increasingly turning to platformization as an alternative pathway to growth (Filosa et al. 2025). Platformization is the process by which traditional "pipeline" businesses reorganize around digital platform architectures to support scalable growth through more flexible complementor participation and the generation of network effects (Cennamo et al. 2020; Ozalp et al. 2022). Siemens Insights Hub and Xcelerator Marketplace, as well as Hitachi Lumada, serve as notable examples of how some firms have successfully extended their IoT-enabled hardware and software businesses by mobilizing complementary digital services from third-party actors (Kurasawa 2026; Springer et al.

[1]Jyväskylä University School of Business and Economics, University of Jyväskylä, Finland
[2]University of Auckland Business School, New Zealand
[3]Department of Management and Engineering, CBMI—Centre for Business Model Innovation, Linköping University, Sweden
[4]Business School, LUT University, Lappeenranta, Finland
[5]Entrepreneurship and Innovation, Luleå University of Technology, Sweden
[6]Turku School of Economics, University of Turku, Finland

Corresponding Author:
Anna Salonen, Jyväskylä University School of Business and Economics, University of Jyväskylä, P.O. Box 35, Jyväskylä, FI-40014, Finland.
Email: anna.k.salonen@jyu.fi

2025). However, replicating these successes is difficult. GE Predix and Vestas Covento, for example, failed to generate sufficient user adoption and third-party participation and were eventually abandoned (Randhawa and Springer 2025).

These contrasting outcomes point to a central theoretical and managerial problem: while platforms appear to offer a solution to the scalability limits of servitization, industrial firms often struggle to make platform-based growth work. Existing research offers only limited guidance because servitization and platformization have largely developed as separate literatures, each advancing a different explanation of growth. Servitization research explains growth through relational integration, mutual adaptation, and long-term customer partnerships that support advanced service offerings such as outcome-based contracts and performance-based solutions (Raddats et al. 2019; Tuli et al. 2007; Ulaga and Reinartz 2011). Here, digital platforms function as infrastructure extensions to enhance customer integration and optimize service delivery (Kohtamäki et al. 2019; Struwe and Slepniov 2023), while their role as engines of scalable growth remains underexplored (Filosa et al. 2025).

By contrast, platformization research explains scalable growth through ecosystem orchestration, complementor participation, and network effects, with digital platforms serving as the organizational and economic core of value creation (Gregory et al. 2021; Hein et al. 2019; Jacobides et al. 2018). However, this research stream offers limited insight into how industrial firms with strong installed-base service capabilities can pursue ecosystem-based scalability while accommodating their relational commitments. Thus, although both research streams offer valuable guidance, they do not fully explain platform-based service growth.

Although recent studies have begun to bridge these domains (e.g., Filosa et al. 2025; Jovanovic et al. 2022; Smania et al. 2026), insights remain empirically and conceptually fragmented, leaving it unclear how industrial firms can combine platform-based scalability with the relational integrity that underpins business-to-business service provision. Accordingly, we ask: *How can fragmented insights from servitization and platformization research be synthesized to advance theory on platform-based servitization*?

To ground platform-based servitization theoretically, we conducted a systematic literature review of 129 studies spanning servitization and platformization (Tranfield et al. 2003). The review revealed distinct and partially conflicting growth logics across these streams (Bettis and Prahalad 1995). To reconcile these, we applied configurational theorizing (Campbell and Fiss 2026). This approach explains outcomes as coherent combinations of interdependent elements rather than single causes, to conceptualize platform-based servitization as a temporal process unfolding through the layering of platform configurations.

This study makes two primary contributions to the literature. First, we contribute to the phenomenon-driven field of servitization, which is managerially important but theoretically underdeveloped (Rabetino et al. 2021), by conceptually consolidating the nascent phenomenon of platform-based servitization. Moving beyond perspectives that treat platforms primarily as digital infrastructures that support the provision of smart services and solutions (Kohtamäki et al. 2019; Struwe and Slepniov 2023; Tian et al. 2022), we show that industrial firms can pursue platform-based servitization through four configurational archetypes: product–service, customer solution, innovation, and transaction platforms. Through a series of propositions, we explain how the cumulative layering of these configurations supports reinforcing and transformative pathways to growth, while data network effects emerge as a central growth mechanism, and combinatorial governance facilitates the management of tensions. In doing so, our study offers the first systematically developed and theoretically grounded explanation of platform-based servitization.

Second, we contribute to platform scholarship by incorporating relational depth as a critical condition that shapes B2B platform transitions. While mainstream platform research has focused on network effects and complementarities as sources of growth (e.g., Karhu et al. 2024; Rietveld and Schilling 2021), recent B2B-specific platform studies have emphasized the need to incorporate interdependencies, long-term contracts, legacy relationships, trust requirements, and customization as key contextual conditions (Agarwala et al. 2025; Compagnucci et al. 2025; Feike and Rösch 2026; Madanaguli et al. 2023; Marzi et al. 2023). By explaining how relational depth with customers and service partners influences platform-based servitization, we explicitly engage with these constraints and respond to recent calls in the B2B platform literature to understand how smaller networks and platform heterogeneity influence pathways to growth in industrial settings (Springer et al. 2025). We encourage the platform research community to engage more explicitly with these boundary conditions to support theorizing relevant to industrial service contexts.

For managers, our framework offers a clear roadmap: platform-based servitization involves making the right strategic choices at the right time. By sequentially layering platform configurations, firms can move from digitalized product–service offerings to scalable innovation and transaction platforms, with data network effects fueling growth at each step. The central leadership challenge is to manage the tensions that arise when relational and scalable growth logics collide. Finally, this study opens up a comprehensive research agenda for service and platform research to examine how platform-based servitization reshapes the organization of value creation and capability development over time as novel platform configurations and complementors are introduced.

Approach to Theorizing

The existing literature offers an incomplete foundation for conceptually grounding platform-based servitization. While both servitization and platformization are concerned with how industrial firms expand beyond product sales (Kohtamäki et al. 2019; Struwe and Slepniov 2023), platforms and their

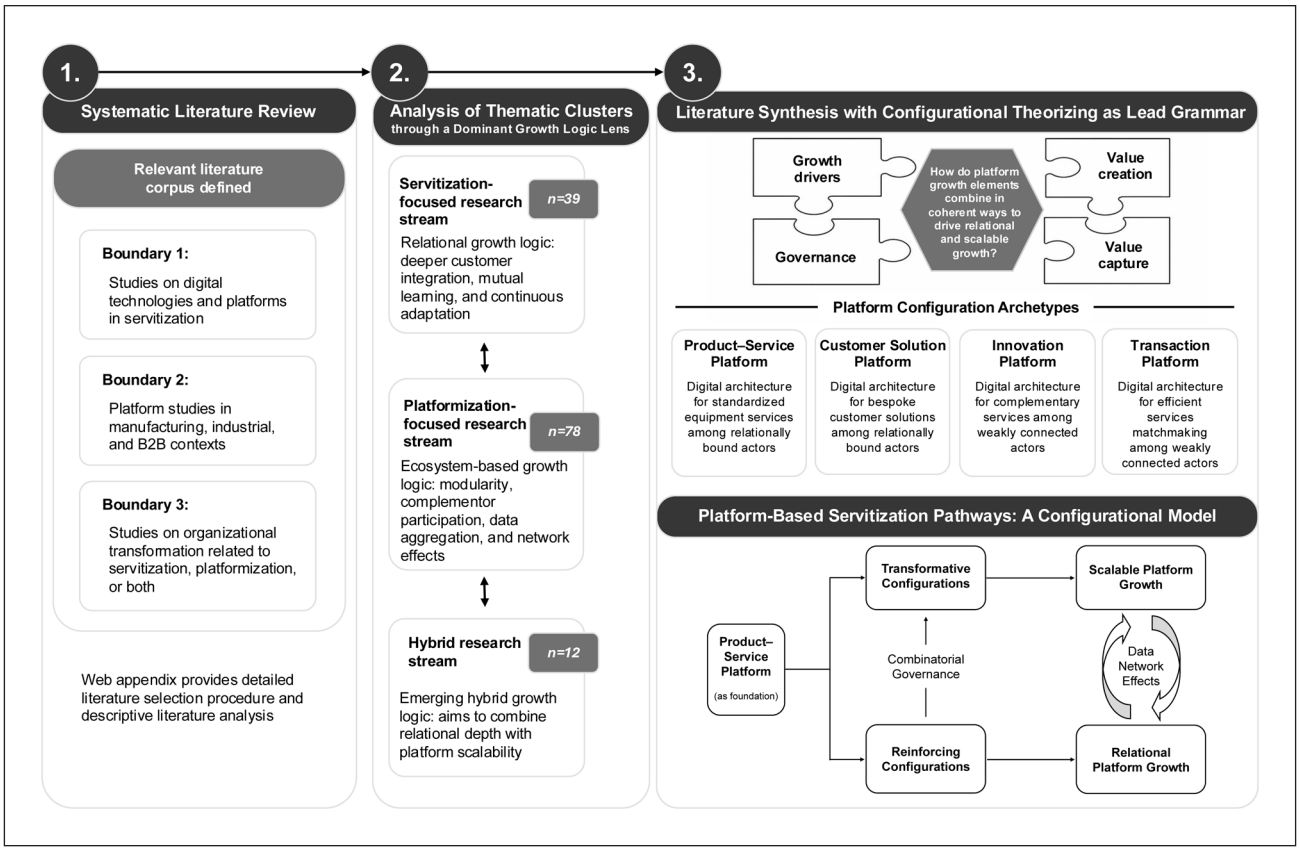

Figure 1. Literature review and theorizing process.

role in firms' growth trajectories are discussed in markedly different ways.

To understand the differences, and to compare and integrate insights from both streams, we conducted a systematic literature review (MacInnis 2011; Tranfield et al. 2003). Figure 1 summarizes the review and conceptual development process. The full search and selection procedure is documented in the Supplemental Appendix.

As a *first step, we defined a relevant literature corpus*. Given our objective of advancing theory on platform-based servitization, article selection was guided by three conceptual boundaries. First, we focus on studies that illuminate the role of digital technologies and platforms in servitization. Second, we focus on platform studies in manufacturing, industrial, or broader business-to-business contexts. Third, we focus on studies examining the organizational transformation processes associated with digital servitization, platformization, or their intersection. Scopus was selected as the primary database because of its extensive journal coverage and advanced search functionalities (Mongeon and Paul-Hus 2016). In line with methodological recommendations for conceptual research (Cornelissen 2017; Jaakkola 2020), we included a broad range of subject fields, spanning service research, industrial marketing, strategic management, and information systems, to capture complementary perspectives and the topic's interdisciplinary nature. We screened an initial corpus of 797 articles against the above-mentioned conceptual boundary conditions and applied well-defined inclusion and exclusion criteria to arrive at a final corpus of 103 articles. To ensure that the review captured the conceptual foundations of both fields, we subsequently used purposeful sampling to include twenty-six highly cited contributions in servitization (e.g., Macdonald et al. 2016; Tuli et al. 2007) and platformization (e.g., Baldwin and Woodard 2009; Parker et al. 2017; Rochet and Tirole 2006). This process yielded a final corpus of 129 studies.

As a *second step, we analyzed this corpus thematically*. Following Braun and Clarke (2006), we iteratively coded the articles to identify recurring themes, assumptions, and conceptual patterns pertaining to the nature of firm growth and the role of platforms. During this process, the notion of *dominant growth logic emerged as a useful analytical lens*. The concept of dominant logic refers to shared managerial mindsets, worldviews, and conceptualizations of the business, as well as assumptions about how a business should be organized to achieve its goals (Prahalad and Bettis 1986). Dominant logics operate as "information filters" that shape managerial attention and learning, thereby influencing how firms interpret growth opportunities and organize value creation and capability development over time (Bettis and Prahalad 1995; Mishina et al. 2004). This lens allowed us to compare how the servitization

and platformization literatures understand growth across three research clusters, each conceptualizing platforms differently, and to identify where their underlying assumptions converge, diverge, or remain undertheorized:

- *Servitization-focused research stream* reflects the growth logic of relational integration and explains how platforms and advanced digital technologies enable the provision of smart services and solutions ($n = 39$; e.g., Kohtamäki et al. 2019; Sjödin et al. 2020; Struwe and Slepniov 2023; Tian et al. 2022).
- *Platformization-focused research stream* reflects the growth logic of ecosystem-based scalability and explains how pipeline firms reorganize around digital platforms to support scalable growth ($n = 78$; e.g., Madanaguli et al. 2023; Springer et al. 2025; Stonig et al. 2022).
- Finally, a small and still *nascent hybrid research stream* has begun to bring both perspectives into conversation and, in doing so, offers early attempts to bridge the dominant growth logics while focusing on articulating the tensions between them ($n = 12$; e.g., Filosa et al. 2025; Haki et al. 2024; Jovanovic et al. 2022; Lerch et al. 2024; Smania et al. 2026).

As a *third step*, we extend the current literature by *applying configurational theorizing* (Campbell and Fiss 2026) as the lead grammar to develop internally consistent pathways for industrial firms to pursue what we describe as *platform-based servitization*. Configurational theorizing is well-suited to phenomena in which outcomes arise from combinations of interdependent elements rather than single causal drivers, and multiple alternative pathways may lead to the same outcome (Fiss 2007; Misangyi et al. 2017; Ragin 2008). This approach allowed us to develop four distinct platform configuration archetypes, each representing an internally coherent combination of growth elements (growth drivers, value creation and capture mechanisms, and governance models), through which industrial firms can pursue platform-based servitization. Second, building on recent extensions of configurational theorizing that emphasize the temporal layering and evolution of configurations over time (Campbell and Fiss 2026), we conceptualize platform-based servitization as a temporal process that unfolds through the layering of platform configurations. This allows us to explain how platform configurations build on one another over time as industrial firms pursue novel pathways to growth while leveraging an existing foundation.

Dominant Growth Logics of Servitization and Platformization

To clarify the different assumptions about growth that underpin the intersection of servitization and platformization, this section thematically unpacks the three research clusters identified in our review, servitization-focused, platformization-focused, and hybrid research streams, focusing on how each stream conceptualizes platforms, growth drivers, value creation and capture, governance, and transformation challenges. Table 1 summarizes the main insights and limitations of each cluster and provides a basis for subsequent configurational theorizing.

Cluster 1: Servitization Growth Logic

The servitization stream focuses on exploring how industrial firms pursue servitization through advanced services, smart solutions, integrated product–service systems, and outcome-based contracts. Studies in this cluster show how industrial firms use sensors, software, connectivity, analytics, artificial intelligence, and cloud-based infrastructures to provide services that increase customer integration (Kohtamäki et al. 2019; Raddats et al. 2019; Sjödin et al. 2020; Tian et al. 2022). Digital technologies support predictive maintenance, remote monitoring, automatic upgrades, adaptive optimization, and advisory services, thereby strengthening customer engagement and opening new growth opportunities (Dalenogare et al. 2023; Soellner et al. 2024; Vendrell-Herrero et al. 2017).

The underlying growth logic in this cluster is relational. Industrial firms grow by becoming more deeply embedded in customer processes, extending value creation across the product lifecycle, and linking their success more closely to customer productivity and operational outcomes (Faramarzi et al. 2024; Macdonald et al. 2016; Tuli et al. 2007; Ulaga and Reinartz 2011). Digital technologies intensify this by turning operational data into customer-specific service insights that improve reliability, performance, and operational outcomes (Kohtamäki et al. 2019; Sjödin et al. 2020; Tian et al. 2022).

Platforms support this growth logic by connecting products, supporting smarter and more scalable service provision, and customer operations over time (Eloranta et al. 2021; Lerch et al. 2026). Product and process data generated through platforms improve service efficiency and enable more proactive forms of maintenance and performance optimization (Ahmed et al. 2026). Platform-enabled customer integration supports self-service, learning, engagement, and more tailored service provision, as industrial firms better understand and respond to customer-specific use contexts (Soellner et al. 2024). Value creation involves transforming connected products and processing data into deep customer integration, whereas value capture occurs through subscriptions and performance-based contracts (Kohtamäki et al. 2019; Kowalkowski and Ulaga 2024; Kwak et al. 2026). Finally, relational and contractual governance safeguards trust, clarifies responsibilities, and sustains long-term service relationships, which are particularly important when providers assume greater accountability for customer outcomes (Kamalaldin et al. 2020; Tuli et al. 2007).

Taken together, the dominant servitization growth logic is relational growth through advanced digital technologies. Where digital platforms appear in the literature, they are treated as a technical infrastructure that supports deeper customer integration and enhanced service delivery. However, this stream of literature underplays the roles of complementor

Table 1. Literature Clusters and Their Distinct Underlying Growth Logics.

	Cluster 1: Servitization Stream	Cluster 2: Platformization Stream	Cluster 3: Emerging Hybrid Stream
Focus of the literature cluster	How industrial firms pursue servitization through advanced digital services, smart solutions, and digital platforms that enhance efficiency and deepen integration into customer processes	How industrial firms reorganize around digital platforms as infrastructural and economic cores that enable ecosystem participation, complementor innovation, and scalable growth	How industrial firms leverage platform capabilities to enable servitization while highlighting key constraints and tensions that complicate platform transitions
Exemplary references	Kohtamäki et al. 2019; Shen et al. 2023, Soellner et al. 2024; Struwe and Slepniov 2023; Tian et al. 2022	Hein et al. 2019; Schreieck et al. 2021; Springer et al. 2025; Stonig et al. 2022; Zeng et al. 2023	Filosa et al. 2025; Haki et al. 2024; Jovanovic et al. 2022; Lerch et al. 2024; Smania et al. 2026
Dominant growth logic	Relational: deeper customer integration, mutual learning, and continuous adaptation	Ecosystem-based: modularity, complementor participation, data aggregation, and network effects	Hybrid: aims to combine relational depth with platform scalability
Platform growth elements	– Product and process data facilitate customer process integration while modularity supports efficient service provision – Deep customer integration, self-service, iterative learning, and tailored service provision drive value creation – Value is captured through subscriptions and outcome-based contracts – Relational and contractual governance safeguard trust and maintain relationships	– Conventional and data network effects drive scalability while modularity supports complementarity – Scalable collaboration with minimal intervention from the platform owner drives value creation – Value is captured through monetizing access to and exchange on the platform – Ecosystem governance grants platform participants autonomy to innovate and co-create	– Elements from competing growth logics are difficult to combine; scaling through network effects is particularly difficult to achieve – Value creation through relational depth and ecosystem openness creates tensions – Value capture remains undefined – Ecosystem governance remains difficult to achieve
Key shortcomings	Overemphasizes platforms as service and customer integration infrastructure; underplays complementor participation, ecosystem expansion, and scalable growth	Pays insufficient attention to customer-specific adaptations and accountability requirements, making it difficult to apply the insights from this cluster to industrial service settings	Remains conceptually and empirically dispersed; lacks a theory-based explanation of how elements from competing growth logics combine

participation, modular ecosystem expansion, and the potential for platforms to grow through network effects, in which each additional participant makes the platform more valuable to others.

Cluster 2: Platformization Growth Logic

This cluster represents studies examining how digital platforms reorganize value creation and coordination in industrial and business-to-business markets. In this context, platforms have become an infrastructure for coordinating multiple actors, structuring participation, and enabling interactions across industrial ecosystems. Digital platforms function as the infrastructural and economic core of a firm, enabling growth through modular architectures, complementor participation, and network effects (Hein et al. 2020; Rochet and Tirole 2006; Sharma et al. 2024) while tighter interdependencies, longer sales cycles, long-term contracts, legacy relationships, trust requirements, and greater customization needs influence platform growth in B2B settings (Agarwala et al. 2025; Compagnucci et al. 2025; Feike and Rösch 2026; Madanaguli et al. 2023; Marzi et al. 2023).

The underlying growth logic in this cluster is ecosystem-based scalability. Growth is explained through expanding participation and interaction across an ecosystem of suppliers and complementors (Cennamo et al. 2020; Jacobides et al. 2018; Sharma et al. 2024). Platforms support this by connecting and coordinating specialized complementors, clarifying roles and rules of interaction, and incentivizing ecosystem participation (Compagnucci et al. 2025; Stonig et al. 2022), thereby increasing platform stickiness (Laczko et al. 2019). Two platform types, transaction platforms and innovation platforms, are particularly visible in the reviewed studies. Transaction platforms generate growth by connecting different user groups and facilitating exchanges, whereas innovation platforms provide a foundation for complementors to develop new modules, services, and applications around a shared core (Cenamor 2021; Hein et al. 2020; Ritala and Jovanovic 2024; Rochet and Tirole 2006). Importantly, these platforms can be scaled up by enabling others to innovate, transact, and co-create value beyond the focal firm.

The key growth drivers of this cluster are platform orchestration, modularity, complementor participation, and network effects (Cenamor and Frishammar 2021; Liu and Gao 2023; Wormald et al. 2023). While conventional network effects are important, they are less self-reinforcing than those in consumer markets (Hein et al. 2019; Stonig et al. 2022). This highlights the importance of aggregating and sharing data across products, services, and ecosystem actors (Kazantsev et al. 2023; Mancuso et al. 2024; Ritala et al. 2024) to drive data network effects (Gregory et al. 2021). Such effects occur when the value that a platform provides to each user increases as it gathers and learns from user data (Gregory et al. 2021).

Value creation enables others to innovate, transact, and co-create beyond the focal firm, whereas value capture occurs by monetizing access to and exchange on the platform, allowing new value propositions that are not necessarily defined by the platform owner to emerge (Leutheuser et al. 2025). Finally, ecosystem governance becomes central, because platform scaling requires coordination beyond bilateral relationships, relying on boundary resources, participation rules, transparency, monitoring, and sometimes more distributed governance structures (Budde et al. 2024; Chen et al. 2021; Hein et al. 2019; Schmeiss et al. 2019; Springer et al. 2025).

In summary, the dominant platformization logic is one of scalable ecosystem orchestration. Platforms are considered infrastructure and economic cores that enable complementor participation, modular ecosystem expansion, and growth through network effects. However, this stream pays insufficient attention to how industrial firms can scale through platforms while preserving the relationships, trust, and deep customer integration upon which their businesses have been built.

Cluster 3: Emerging Hybrid Growth Logic

A smaller but growing third stream, although empirically and conceptually dispersed, points to a hybrid growth logic that combines the relational depth of servitization with the scalability of platformization (e.g., Haki et al. 2024; Kapoor et al. 2022; Kohtamäki et al. 2022; Lerch et al. 2024). However, this growth logic remains implicit without clear guidance on how it can be achieved.

In this literature, platforms are discussed as enablers of advanced servitization that help industrial firms move toward dynamic, multi-sided ecosystems that support smart, connected services (Beverungen et al. 2021; Jovanovic et al. 2022). Here, platforms help industrial firms manage complexity, scale service offerings, and coordinate networks through modular architectures and digital platform capabilities (Eloranta et al. 2021; Haki et al. 2024; Lerch et al. 2024).

Studies in this cluster highlight the key tensions that emerge as manufacturers attempt to maintain deep customer integration and outcome accountability while simultaneously enabling ecosystem openness, autonomous innovation, and efficient matchmaking (Beverungen et al. 2021; Jovanovic et al. 2022). Resolving this tension requires governance designs that balance centralized control and decentralized autonomy; however, how to achieve this balance remains insufficiently understood (Kapoor et al. 2022; Kohtamäki et al. 2022; Sandberg et al. 2020; Struwe and Slepniov 2023). Studies in this cluster also highlight that conventional network effects remain difficult to achieve in industrial settings (Beverungen et al. 2021; Filosa et al. 2025; Meier et al. 2024). This creates a persistent mismatch between the growth potential of platforms and the realities of their implementation (Filosa et al. 2025; Jovanovic et al. 2022; Lerch et al. 2024; Smania et al. 2026).

Taken together, the three clusters show that platform-based servitization, which sits at the intersection of the two, is only partially compatible with these underlying growth logics. The servitization stream explains growth as stemming from deepened integration into customer processes and greater adaptivity and outcome accountability. The platformization stream focuses on the scalability of transactions across a wider ecosystem, complementarity, and the generation of network effects. The emerging hybrid stream recognizes that industrial firms increasingly draw from both logics but primarily documents the resulting tensions rather than explaining how elements from competing growth logics can be combined into coherent growth trajectories.

Archetypes of Platform Configurations

The preceding section shows that servitization and platformization explain industrial firm growth through distinct but only partially compatible logics. Building on this insight, we now move from comparing these literature streams to specifying how the platform growth elements inductively identified in our review (growth drivers, value creation and capture mechanisms, and governance designs) come together in distinct platform configurations. Following Campbell and Fiss (2026), we use configurational theorizing to develop four archetypes that capture internally coherent combinations of these elements and demonstrate how each configuration supports a different growth trajectory. The four platform configurations, namely, *product–service, customer solution, innovation, and transaction platform*, represent ideal types (Cornelissen 2017; Doty and Glick 1994). Product–service and customer solution platforms function as *reinforcing configurations* that extend servitization growth logic, whereas innovation and transaction platforms represent *transformative configurations* in which platformization growth logic becomes more prominent. Table 2 presents the four platform configurations and outlines their growth elements.

In the remainder of this section, we define and explain each archetype and illustrate the configurations through multiple empirical examples using the elevator manufacturer Kone as an integrative example across all four archetypes.

Product–Service Platform Configuration

We define the product–service platform configuration as *a digital architecture that facilitates the provision of standardized, data-enabled equipment services among relationally bound actors*. Examples include condition monitoring and diagnostics, remote assistance, and online training, which ensure that products function effectively throughout their lifecycle (Kowalkowski et al. 2024; Ritala et al. 2024). For example, Caterpillar's Cat® Connect platform provides remote access to customer operations and delivers data-driven insights into equipment use via web and mobile apps, illustrating how direct digital connectivity enhances operational reliability and scalable service provision.

This configuration leverages modularity as a growth driver (Meyer and Lehnerd 1997), enabling manufacturing firms to navigate the tension between customization and standardization. Increased modularity works in tandem with the systematic use of product and process data. Through continuous learning from customer product usage data, the platform's accuracy and utility increase (Kohtamäki et al. 2019). Analytics and real-time connectivity enhance manufacturers' capacity to provide preventive and predictive maintenance services (e.g., fleet management), thereby optimizing equipment functionality (Kohtamäki et al. 2019; Shen et al. 2023). The deeper manufacturers can integrate into customer processes, the richer the data captured by the platform becomes, thereby further increasing predictive power and reinforcing data network effects (Gregory et al. 2021; Jovanovic et al. 2022; Springer et al. 2025).

While manufacturers often depend on intermediaries such as dealers for sales and service provision (Lerch et al. 2024), product–service platforms increasingly facilitate direct connections between manufacturers and customers (Kowalkowski and Ulaga 2024), further reinforcing manufacturers' process integration with customers. This platform configuration also allows customers to perform tasks independently, thereby reducing the need for on-site assistance and offering real-time access and cost savings (Coreynen et al. 2017). This enables manufacturers to capture value through subscription services, thereby providing recurring revenue streams (Kowalkowski and Ulaga 2024).

From a governance perspective, the product–service configuration relies on centralized governance through contractual and relational mechanisms (Hein et al. 2020; Veile et al. 2022). Selective interface sharing plays a key role (Gawer and Cusumano 2014); for instance, customers gain streamlined access to standardized service bundles and subscription services, whereas suppliers and channel partners are tightly governed to maintain service quality and reliability (Kapoor et al. 2022; Perks et al. 2017).

Kone's 24/7 Connected Service exemplifies this archetype. It utilizes AI-based analytics to minimize disruptions to building occupants through preventive and predictive maintenance services provided by the firm and its service partners. Customers who subscribe to the service allow Kone to collect data from the installed equipment. The collected data are then analyzed in the cloud using the IBM Watson platform, which constantly learns from thousands of identical units while being refined by Kone's analysts. As the installed base grows, each additional connected unit generates new data that improves the accuracy of predictions across all units, creating data network effects. Customers gain real-time visibility into equipment performance through online portals and mobile apps, ensuring transparency and reliability in service delivery.

In summary, the product–service platform configuration presents a relatively straightforward form of platform-based

Table 2. Overview of Platform Configurations Driving Platform-Based Servitization.

	Product–Service Platform	Customer Solution Platform	Innovation Platform	Transaction Platform
Definition	Digital architecture facilitating standardized, data-enabled equipment services among relationally bound actors	Digital architecture facilitating integration of bespoke customer solutions among relationally bound actors	Digital architecture facilitating development of complementary digital services among weakly connected actors	Digital architecture facilitating efficient matchmaking of industrial products and services among weakly connected actors
Value creation	Maintaining equipment functionality	Optimizing the solution's performance in the customer's process	Extending platform value-in-use for customers by enabling autonomous complementor innovation	Enabling customers to self-order resources needed in service operations
Value capture	Subscription-based services	Outcome-based services	Access and data-as-a-service fees	Access and transaction fees
Platform growth drivers	Modularity, data network effects, customer integration	Modularity, data network effects, deep customer integration	Modularity, complementarity, conventional and data network effects	Conventional and data network effects
Governance model	– Centralized decision-making and control – Contractual and relational governance – Owner directs resource integration via cloud-based interfaces	– Centralized decision-making and control – Contractual and relational governance – Owner co-develops with supply chain partners and customers via digital and non-digital boundary resources	– Decentralized decision-making, centralized control – Platform rules and technical standards govern interactions – Complementors access platform via APIs/SDKs for continuous service innovation	– Decentralized decision-making, centralized control – Owner sets rules of engagement and monitors compliance – Actors are connected via web-based interfaces
Platform-based servitization pathway	Reinforcing: growth through data-enabled smart services	Reinforcing: growth through data-enabled customer solutions	Transformative: growth through complementary digital services	Transformative: growth through matchmaking services
Empirical example	Kone 24/7 Connected Service: AI analytics on connected equipment enables customers to make better maintenance decisions	Kone People Flow Platform: integrates core and peripheral modules from strategic partners into a personalized building access solution	Kone People Flow Platform Ecosystem: complementors access the platform via APIs to innovate services that extend platform value-in-use	Kone Parts Store: customers self-order multi-brand spare parts for elevators, escalators, and doors through a one-stop solution

servitization that enables the provision of data-enabled smart services. Governance privileges centralized decision-making and control, allowing industrial firms to effectively direct the activities of relationally bound customers and complementors.

Customer Solution Platform Configuration

We define the customer solution platform configuration as *a digital architecture that facilitates the effective integration of bespoke customer solutions among relationally bound actors*. In practice, this configuration often involves system-wide optimization or digital integration of customer processes, equipment, software, and service modules to improve business performance. For instance, Valmet, a leading global provider of process technologies for the pulp, paper, and energy industries, offers mill-wide optimization by delivering a system that self-monitors performance, demonstrating how deep process integration can be combined with a platform-based approach to solution assembly.

Similar to a product–service platform, this configuration does not challenge servitization as a growth logic; rather, it leverages it by positioning modular platform architectures as supporting tools that enable manufacturers to scale tailored solutions across service contexts while delivering advanced customization, maintaining outcome accountability, and close customer collaboration (Salonen et al. 2018). This configuration builds on the same growth drivers as the product–service platform: data network effects from product and process data, modularity, and deep customer integration.

This configuration is distinguished by amplifying these growth drivers through advanced customization and system-wide integration. Smart services delivered via product–service platforms often serve as integral inputs (Hsuan et al. 2021), but the customer solution configuration extends them into tailored, end-to-end solutions (Salonen et al. 2018). Deeper relational engagement (Kapoor et al. 2022; Tuli et al. 2007) facilitates the operational and technical integration of these solutions into customer processes (Salonen et al. 2018). This results in enhanced productivity, improved product and process performance, and greater resilience in customer operations (Jovanovic et al. 2022; Tian et al. 2022). From a value-capture perspective, this often translates into value-based pricing and outcome-oriented contracts, shifting emphasis from selling potential to monetizing realized performance (Lerch et al. 2024; Ritala et al. 2024).

Regarding governance, this configuration aligns with servitization as a growth logic. While the customer solution configuration encourages greater participation from suppliers, channel partners, and customers than the product–service configuration, the manufacturer still retains the familiar lead-organization structure (i.e., centralized governance) to coordinate complexity (Colm et al. 2020; Kapoor et al. 2022; Shen et al. 2023). However, to support co-evolution and knowledge integration, actors commit to shared boundary objects, such as joint performance dashboards, co-developed machinery specifications, or dedicated liaison roles, that stabilize collaboration without foreclosing adaptation (Colm et al. 2020; Lerch et al. 2024).

Kone's People Flow Intelligence platform further exemplifies this configuration. The term "People Flow Intelligence" refers to Kone's customer value proposition of ensuring more effective movement of people within buildings. This is achieved by integrating Kone's core products, elevators, escalators, and doors, with access, destination, information, and monitoring modules provided by complementary partners such as the access control provider Dormakaba. As an integrated and digitally enabled smart system based on a modular platform architecture, the People Flow Intelligence platform combines connected intelligent technologies and data to monitor movement, equipment status, and traffic performance. Access systems identify users, destination controls optimize lift allocation, and monitoring tools provide real-time visibility that can be dynamically configured to prioritize specific users or areas.

In summary, the customer solution platform builds on the product–service platform configuration while extending it through more comprehensive integration into customer processes, thus supporting growth through data-enabled customer solutions. Governance privileges centralized decision-making and control, allowing the manufacturer to effectively direct the activities of relationally bound actors.

Innovation Platform Configuration

We define the innovation platform configuration as *a digital architecture that facilitates the development of complementary digital services among weakly connected actors*. This platform configuration grants complementors, ranging from consultants to software developers to other OEMs, autonomy to engage in continuous digital service innovation to address both current and emerging customer needs (Haki et al. 2024; Hein et al. 2020; Kapoor et al. 2022; Schreieck et al. 2021). Axis, the industry leader in video surveillance, illustrates this configuration. The company maintains an active community of software developers with access to resources and technological updates. It also partners with technology integration firms that offer complementary software or hardware, thereby deepening integration and expanding business opportunities for both Axis and its partners.

This platform configuration aligns more closely with platformization as a growth logic (Filosa et al. 2025), where the core tension for industrial firms relates to reconciling two competing demands: maintaining relational depth and outcome accountability with customers, while granting autonomy to complementors (Eloranta et al. 2021; Haki et al. 2024; Jovanovic et al. 2022). Navigating this tension involves turning the manufacturer's core offering into a platform that enables complementary innovation through the process of "coring" (Gawer and Cusumano 2008); that is, establishing a component

as central to both a technological system and a market by addressing technical problems that affect a large proportion of other system components. It creates visibility into technological interdependencies within a cyber-physical system, fostering tighter alignment and learning among ecosystem participants (Dalenogare et al. 2023; Stonig et al. 2022; Veile et al. 2022). Growth then arises from complementarities and network effects: as visibility increases and a growing pool of complementors expands, shared data generate deeper insights, which, in turn, accelerate the recombination of product and service modules (Stonig et al. 2022).

Another tension in industrial settings relates to initially weak network effects, as the number of complementors tends to be relatively small compared to digital-born companies (Meier et al. 2024; Springer et al. 2025). However, this limitation of conventional network effects can be offset by data network effects; as data flows expand, predictive accuracy and innovation potential improve, attracting more customers and complementors, which gradually reinforces conventional network effects. Although these effects might unfold more slowly, they can still create a self-reinforcing growth dynamic over time (Hsuan et al. 2021; Jovanovic et al. 2022). Distributed ledger technologies, such as blockchain, can further accelerate growth in this configuration (Malthouse et al. 2019; Schmeiss et al. 2019). Blockchain provides a decentralized and secure method for recording transactions, ensuring that the data are consistent and tamper-proof across all users. Consequently, it can support the emergence of data-driven innovation by providing a reliable framework for secure and transparent data sharing and collaboration (Kazantsev et al. 2023).

In this configuration, platform owners capture value indirectly through increased platform value and directly by charging for platform (data) access according to a "data-as-product" logic (Ritala et al. 2024). Data network effects play a critical role in encouraging customers to increase their investments in smart products. Platform owners can better predict customer needs, thus creating increased returns on ecosystem innovation (Stonig et al. 2022).

Regarding governance, relatively weak relational ties among actors shift emphasis from bilateral relationships to the provision of infrastructure, rules, and incentives that maintain connectivity and data integrity across an evolving ecosystem (Zeng et al. 2023). Digital boundary resources, such as technical standards, APIs, and SDKs, become critical as they structure collaboration among actors on the platform by granting access to selected functionalities while safeguarding overall system coherence (Eaton et al. 2015). Although digital boundary resources are common across all platform types, the primary role of innovation platforms is to enable independent service innovation by complementors, augmenting rather than competing with platform owners' services (Hein et al. 2020).

Kone illustrates this configuration by extending its People Flow Intelligence platform with APIs that empower complementors to develop new services independently. This ecosystem logic enables the creation of integrated cyber-physical systems that build on and enhance the value of Kone's product–service and customer solution platforms. For example, Relay Robotics uses Kone's APIs to deploy autonomous service robots in the hospitality sector, achieving hotel room deliveries in just 4 min. With customer consent, third-party data analytics providers, such as Switch Automation, can be granted access to analyze the flow of people within buildings. In doing so, complementors can leverage the accumulated data to develop their own branded services that optimize building operations and reduce costs.

In summary, the innovation platform configuration builds on the product–service and customer solution infrastructures but leverages a transformative pathway to platform-based servitization by opening the platform for complementor innovation. Governance no longer privileges strong relational ties and instead supports decentralized decision-making, while boundary resources protect the platform's stable infrastructural core.

Transaction Platform Configuration

We define the transaction platform configuration as *a digital architecture that facilitates the efficient matchmaking of industrial products and services among weakly connected actors*. Although less prominent in the servitization literature, transaction platforms are well established. In essence, transaction platforms provide a digital marketplace where customers and suppliers can transact semi-autonomously, with the platform owner operating the marketplace infrastructure (Ritala and Jovanovic 2024). For example, Lufthansa's StaffNow platform matches aircraft maintenance contractors with maintenance, repair, and overhaul companies, allowing the flexible allocation of staff to resolve equipment maintenance issues.

Similar to the innovation platform configuration, transaction platforms seek to generate network effects across weaker ties, while ensuring that trust and quality in customer interactions remain central. This configuration leverages manufacturer integration with customer assets to generate actionable transaction opportunities. For instance, AI-enabled platform functionalities can transform equipment and service data into real-time recommendations for matching, scheduling, and coordinating service capacity across semi-autonomous actors, as illustrated by platforms such as StaffNow, where maintenance requirements and contractor availability can be matched more flexibly in response to operational demands (Saunila et al. 2025).

Growth in this configuration is fueled by operational efficiency, streamlined processes, and mutually reinforcing network effects on multiple sides of the market. By lowering transaction costs and providing seamless access to a broad range of resources, the platform enables quick responses to customer service needs, while extending the manufacturer's service reach (Lerch et al. 2024; Ozalp et al. 2022).

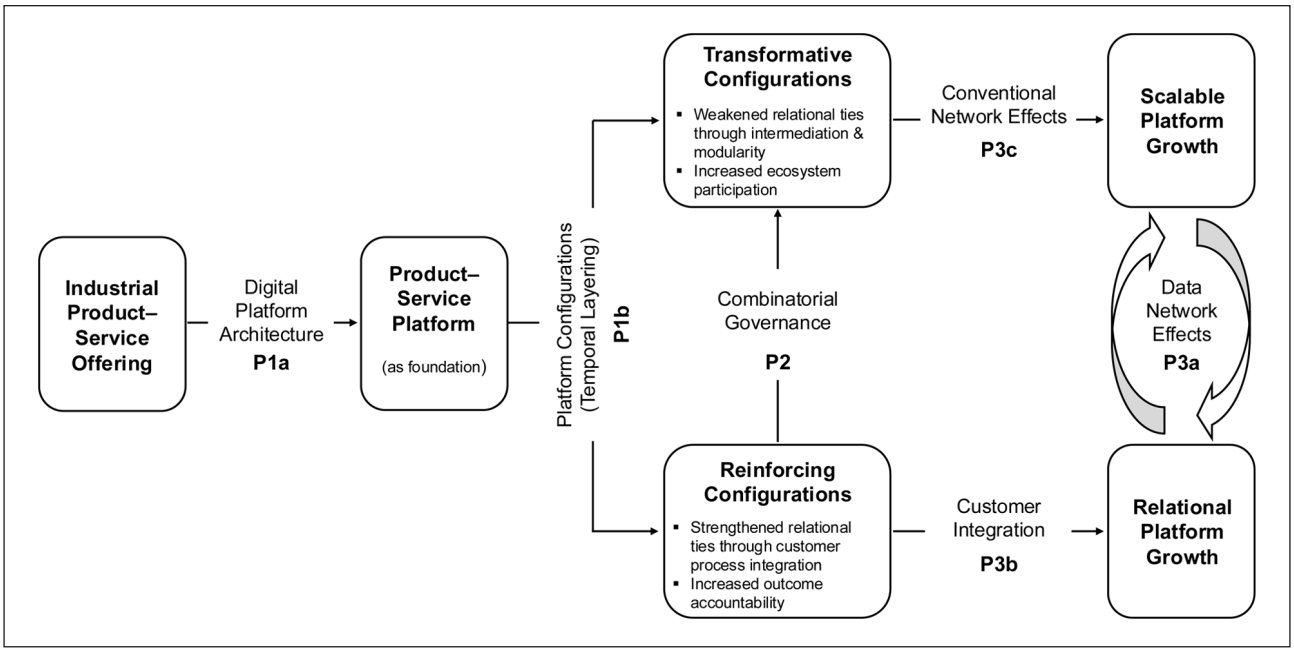

Figure 2. Platform-based servitization pathways: a configurational model.

Conventional network effects arise when a growing customer base attracts more suppliers, and the increasing number of services and products available from suppliers attracts more customers. Simultaneously, data network effects enhance predictive accuracy, matchmaking quality, and service personalization, which further encourages customer engagement and strengthens supplier alignment with the platform (Ritala and Jovanovic 2024).

From a governance perspective, this configuration combines a centralized rule setting with decentralized transactions to balance service quality control with open access (Springer et al. 2025). Thus, transaction platforms play a central role in resolving the trust–scalability tension. Platform owners establish and monitor rules of participation (Ozalp et al. 2022), while sophisticated certification, filtering, and feedback systems safeguard quality and build trust (Laczko et al. 2019). Incentives, such as enhanced visibility for positively reviewed suppliers, further encourage compliance, while the selective onboarding of new suppliers ensures quality alignment with the platform's value proposition, even if this slows growth (Muzellec et al. 2015). The assurance of secure transactions and prompt responses to service failures are critical for establishing trust and high-quality interactions (Benoit et al. 2017). Digital technologies such as blockchain, resource passports, QR codes, and cloud computing can further increase the transparency and reliability of transactions (Ritala 2024).

The transaction platform configuration is illustrated through the Kone Parts store, which offers registered customers access to more than 200,000 spare parts, including parts for Otis, Schindler, Thyssen, Oron, and many other brands besides Kone, via a single platform. This one-stop solution not only simplifies the purchasing process but also ensures quality and compliance through material identification services. By streamlining service-related tasks into a single interface, the Kone Parts store supports product and service management, helps customers maintain operational continuity, optimizes service usage, and ensures timely support.

In summary, the transaction platform configuration creates another transformative pathway for platform-based servitization, which achieves scalable growth through matchmaking services. Governance has shifted away from privileging strong relational ties to supporting decentralized decision-making by combining broad accessibility with selective safeguards.

Synthesis: Configurational Paths for Industrial Firms to Achieve Platform-Based Servitization

To explain how industrial firms can generate scalable growth by combining the growth logic of servitization and platformization over time, we synthesized the reviewed literature into a configurational model of platform-based servitization pathways. Following Campbell and Fiss (2026), we used configurational theorizing as our lead grammar, combining the propositional logic of necessary, sufficient, and equifinal conditions with a process logic that captures temporal-configurational layering. This allows us to explain how industrial firms move across, combine, and govern distinct platform configurations over time and how these configurations generate growth through reinforcing and transformative pathways. Figure 2 illustrates this process model, which we subsequently unpack using a set of propositions.

Platform-Based Servitization Unfolds Through Temporal Layering of Configurations

Platform-based servitization typically begins with the digitalization of the traditional product–service offering, which has historically formed the foundation of servitization strategies (Baines et al. 2024; Forkmann et al. 2017; Ostrom et al. 2015). By embedding products and services into a modular digital platform architecture (Hsuan et al. 2021; Perks et al. 2017), industrial firms establish the technological foundation for further platform development. Therefore, the product–service platform configuration represents the foundational layer of platform-based servitization. It enables the integration of connected products, services, and customer data while preserving the established relational growth logic of servitization.

From this foundation, platform-based servitization proceeds through a process of *temporal layering*. As suggested by the digital servitization literature, a common next step is the customer solution platform configuration (Beverungen et al. 2021; Kohtamäki et al. 2022). As a *reinforcing configuration*, the customer solution platform broadens the scope of integration into customer processes (Salonen et al. 2018; Storbacka 2011). This is a useful stepping-stone because it enables the platform to generate richer data and deeper insights into customer processes, thereby enhancing its attractiveness to complementors.

Industrial firms may also extend their product–service platform toward more *transformative configurations*. One important pathway is the transaction platform, in which the industrial firm takes on an intermediation role (Ritala and Jovanovic 2024), such as setting up a marketplace platform for buyers and sellers of industrial spare parts. Another central pathway is the innovation platform, which emerges when firms open the platform to loosely couple complementors to develop new applications and services (Filosa et al. 2025; Springer et al. 2025).

Although both reinforcing and transformative configurations rely on modular platform architectures (see, e.g., Ritala and Jovanovic 2024; Salonen et al. 2018), they differ fundamentally in how modularity is governed and enacted. In reinforcing configurations, modularity is primarily deployed to standardize and scale tightly coordinated service offerings in dyadic relationships. The platform architecture supports relational integration rather than replacing it. By contrast, transformative configurations leverage modularity to enable broader participation by independent third-party actors who engage in complementary innovation or provide products and services to the platform marketplace. This shift redistributes value creation across a broader ecosystem, thereby weakening the centrality of dyadic firm–customer relationships. Accordingly, we propose the following:

Proposition 1a: The introduction of a digital platform architecture initiates platform-based servitization by establishing the product–service platform as the foundational configuration.

Proposition 1b: Platform-based servitization evolves through the temporal layering of configurations, typically beginning with a reinforcing configuration that further strengthens relational ties before extending toward transformative configurations that enable growth through weaker ties and intermediation.

Combinatorial Governance Stabilizes Competing Growth Logics

Platform-based servitization introduces a governance challenge that cannot be adequately explained using traditional platform governance frameworks. Prior research assumes that platform governance aligns with a single dominant platform logic, such as centralized governance in vertically integrated product–service platforms or decentralized governance in open innovation platforms (Hein et al. 2020; Kapoor et al. 2022; Schreieck et al. 2021). Such perspectives implicitly assume that organizations sequentially change their governance designs, transitioning from one platform to another. However, our configurational perspective suggests a different governance requirement: platform governance must allow for the coexistence of multiple growth logics corresponding to different configurations.

The four configurational archetypes identified in this study rely on fundamentally different interaction structures. Product–service and customer solution platform configurations are built around tightly integrated relationships among industrial firms, customers, and selected complementors. In these reinforcing configurations, industrial firms remain responsible for equipment performance and service outcomes, often through preventive maintenance, outcome-based contracts, or integrated process optimization (Colm et al. 2020; Kowalkowski and Ulaga 2024). Therefore, platform governance prioritizes relational coordination and contractual safeguards, combined with the controlled participation of selected complementors, to ensure reliability and accountability. In other words, governance mechanisms are designed to support the dominant logic of relational growth.

Simultaneously, innovation and transaction platforms operate under different conditions and dominant logics. They enable interactions among broader sets of loosely connected complementors, suppliers, and third-party service providers. In these transformative platform configurations, governance shifts to decentralized mechanisms to support distributed ecosystem participation (Springer et al. 2025). Digital boundary resources such as APIs, standardized interfaces, certification procedures, and participation rules have become central to coordinating ecosystem activity (Eaton et al. 2015; Haki et al. 2024; Hein et al. 2020).

This creates differentiated domains of control and autonomy within the same platform ecosystem architecture and gives rise to a *combinatorial governance structure*: activities that require reliability and outcome accountability, such as the integration of customized solutions, remain governed through relational

coordination and controlled participation (Sjödin et al. 2020), whereas activities oriented toward ecosystem expansion are organized through more open participation structures and digital boundary resources (Kapoor et al. 2022). Across these configurations, a modular platform architecture preserves the integrity of the core product–service system, while combinatorial governance supports expansion to more peripheral domains of value creation. These domains extend beyond a firm's relationally embedded core services and become accessible through ecosystem participation, enabling scalable growth through complementary actors. Thus, we propose:

Proposition 2: In platform-based servitization, firms employ a combinatorial governance approach, with centralized control over the operational core and more decentralized governance for transformative platform configurations that enable broader ecosystem participation.

Data Network Effects Drive Growth Across All Configurations

Configurational theorizing suggests that outcomes may depend on the necessary conditions without which the outcome cannot occur (Fiss 2007). While reinforcing and transformative platform configurations pursue different growth logics, we suggest that they share a common underlying necessary condition for growth: *data network effects*. Prior research on digital platforms has primarily emphasized the role of conventional (i.e., direct and indirect) network effects as the central driver of platform growth (Parker et al. 2017; Rochet and Tirole 2006). However, while the servitization literature does not use the term or explicitly theorize data network effects, it highlights an additional growth driver that is particularly relevant to industrial settings: the accumulation and utilization of product and process data generated through connected assets and related services, which constitute a necessary condition for the emergence of data network effects (Jovanovic et al. 2022; Kohtamäki et al. 2019; Ulaga and Reinartz 2011). Because data network effects are less reliant on user growth than conventional network effects, they can serve as powerful growth drivers in contexts where the user base may be narrow, but data richness is high.

At the same time, data network effects alone are insufficient for scalable growth and must be combined with either increased customer integration (Kowalkowski and Ulaga 2024) or conventional network effects (Schreieck et al. 2021). In reinforcing platform configurations, data help industrial firms improve predictive maintenance, optimize service interventions, and refine performance outcomes over time (Kohtamäki et al. 2019; Ritala et al. 2024; Shen et al. 2023). As the installed base of connected products expands, the volume and variety of available data increases, enhancing the predictive capabilities and value of services delivered through the platform (Jovanovic et al. 2022). Thus, reinforcing configurations combine data network effects with customer integration to drive relational growth.

Transformative platform configurations combine data network effects with conventional network effects, which accumulate as the number of weak relational ties increases. Innovation platforms enable complementors to develop new applications and services that extend platform functionality, while transaction platforms facilitate interactions between buyers and sellers of products and services (Hein et al. 2020; Ozalp et al. 2022; Ritala and Jovanovic 2024; Schreieck et al. 2021). As the number and participation of complementors, buyers, and sellers increases, the range of services expands, matchmaking improves, and ecosystem participation becomes more attractive to additional actors (Kapoor et al. 2022). However, in industrial settings, these conventional network effects often develop gradually, because participation is embedded in complex physical systems (Meier et al. 2024; Springer et al. 2025). Therefore, data network effects also play a key role in more transformative configurations; rich operational data and insights into customer processes increase the platform's attractiveness to complementors and ecosystem partners by revealing opportunities for new digital services, applications, and transactions (Gregory et al. 2021; Ritala and Jovanovic 2024). This suggests that transformative configurations depend on a dual-scaling mechanism: data improves the platform's capacity to deliver increasingly valuable services, while growing participation expands the range of actors able to exploit those services, further driving platform growth. Accordingly, we propose the following:

Proposition 3a: Data network effects are a necessary but not sufficient condition for platform-based servitization.

Proposition 3b: Reinforcing configurations combine data network effects with customer integration across strong relational ties to drive relational growth.

Proposition 3c: Transformative configurations combine data network effects with conventional network effects across weak relational ties to drive scalable ecosystem growth.

Contributions, Implications, and Future Research

Our study responds to calls for more robust platform research in the service domain (Field et al. 2021; Kapoor et al. 2022; Kowalkowski et al. 2024). In doing so, we set out to resolve the following question: *How can fragmented insights from servitization and platformization research be synthesized to advance theory on platform-based servitization*? Our answer builds on a theorizing process that combines the comparison, differentiation, and integration (MacInnis 2011) of two literature streams that have developed in relative isolation, servitization and platformization, and organizes and extends the research by applying a configurational lens. In so doing, our study advances more than two decades of servitization research, which has traditionally focused on the shift from basic to advanced services and

solutions enabled by deepened relational integration into customer processes (e.g., Forkmann et al. 2017; Gebauer et al. 2010; Neu and Brown 2005; Oliva and Kallenberg 2003; Ulaga and Reinartz 2011).

We contribute to the servitization literature with the first systematically developed and theoretically grounded explanation of the novel phenomenon of *platform-based servitization* by theorizing about its configurational pathways. Although our integrative review has identified an emerging stream of research that has begun to delineate a hybrid logic that combines the relational depth of servitization with the scalability of platformization (e.g., Beverungen et al. 2021; Filosa et al. 2025; Haki et al. 2024; Jovanovic et al. 2022; Lerch et al. 2024), this stream remains empirically and conceptually dispersed.

By applying configurational theorizing (Campbell and Fiss 2026; Fiss 2007) and the growth logic lens (Bettis and Prahalad 1995; Mishina et al. 2004; Prahalad and Bettis 1986), our literature synthesis extends existing servitization perspectives that conceptualize platforms as types of digital infrastructure supporting the provision of smart services and solutions (Kohtamäki et al. 2019; Soellner et al. 2024; Struwe and Slepniov 2023; Tian et al. 2022). As our literature synthesis shows, platform architectures operated by industrial firms can be better understood as temporally layered configurations that support both reinforcing and transformative pathways to growth.

By synthesizing two previously disconnected literature streams, we also contribute to platform scholarship by conceptualizing relational integration as a defining boundary condition that shapes how industrial firms pursue platform-based growth. While mainstream platform research primarily explains platform growth through network effects and complementarities (e.g., Karhu et al. 2024; Rietveld and Schilling 2021), recent B2B-specific platform studies emphasize that theorizing specific to industrial contexts must better account for interdependencies, long-term contracts, legacy relationships, trust requirements, and customization as factors shaping platform transitions (Agarwala et al. 2025; Compagnucci et al. 2025; Feike and Rösch 2026; Madanaguli et al. 2023; Marzi et al. 2023). Our configurational model of platform-based servitization incorporates these contextual dynamics. Furthermore, our identification of data network effects as the primary growth mechanism responds to recent calls in the B2B platform literature to understand how smaller networks and platform heterogeneity influence pathways to growth in industrial settings (Springer et al. 2025). Collectively, the insights from this study extend platform research by showing that growth in industrial platform ecosystems depends not only on scaling through network effects but also on balancing relational depth with ecosystem expansion.

Managerial Implications

The first implication of this study is that platformization should not be approached as a pure technological initiative or as a one-size-fits-all solution. Different platform configurations enable fundamentally different service types and growth paths. Platforms can be used to stabilize and extend advanced services without undermining the relational foundations of servitization. Simultaneously, transformative configurations that rely on intermediation and deliberately weaken relational ties are more effective for scaling. These configurations shift the growth logic away from deep bilateral integration and toward broader ecosystem participation. Transaction platforms can be used to defend and extend traditional service businesses by retaining control over spare parts and consumables markets. In contrast, innovation platforms allow firms to expand into new service domains by enabling complementary innovation from external actors. For practitioners, the key managerial task is to determine which service activities should remain relationally governed, which can be standardized, and which can be opened to ecosystem participation.

Second, managers should create data foundations and capabilities that enable growth through data network effects. This requires investing in sensors and connectivity, as well as data quality routines, customer consent mechanisms, cross-customer learning processes, and analytics. Every connected asset, customer interaction, or partner engagement generates data that can be used to improve service design and delivery. As platforms learn from these data, they enable smarter, more proactive, and more customized services, thereby increasing customer value through higher uptime, lower costs, and improved outcomes. Ideally, this reinforces customer loyalty and attracts additional users and partners, creating a self-reinforcing cycle that supports scalable growth.

Finally, our study has implications for service partners, technology providers, and other complementary actors. These actors should recognize that opportunities differ markedly across the configurations. In reinforcing configurations, access is selective, and value creation depends on deep integration with the manufacturer's installed base, processes, and accountability structures, requiring close alignment with the focal firm's service logic. By contrast, transformative configurations offer broader participation but weaker relational ties, favoring offerings that benefit from scale, modularity, and standardization. Complementors, therefore, face a strategic trade-off between depth and reach and may have to actively decide where to anchor their capabilities, investments, and dependence within evolving platform ecosystems.

Avenues for Future Research

Given the infancy of platform discussions in servitization research, we outline several avenues for future research that collectively offer a high-impact research agenda. Table 3 summarizes these directions.

First, complementing recent findings (Micallef et al. 2023; Springer et al. 2025), our study highlights the importance of exploring manufacturers' multi-platform strategies and their

Table 3. Future Research Agenda.

Theoretical Grounding	Research Questions
Proposition 1a–b: Temporal layering of platform configurations	1. How do manufacturers decide the sequence in which they introduce new layers of platform configurations? 2. What are the risks associated with directly transitioning to more transformational platform configurations? 3. How do manufacturers coordinate multiple parallel platform configurations while drawing on cross-platform synergies? 4. How do incumbent manufacturers decide between establishing new platforms or integrating as complementors into existing ones? Which factors influence these strategic decisions? 5. How can manufacturers effectively engage and onboard complementors as they move across different platform configurations? 6. How does complementor-driven servitization reshape manufacturers' value propositions? 7. How do service ecosystem design and modularization principles facilitate the development and evolution of new platform configurations?
Proposition 2: Combinatorial governance across platform domains	8. How can manufacturers determine which (combinations of) governance mechanisms are most effective depending on industry context, digital maturity stage, and other relevant factors? 9. How can manufacturers effectively manage different governance modes across ecosystem partners with different levels of tie strength? 10. As manufacturers experiment with more open governance structures and complementor integration, how can they maintain a balance between competition and cooperation? 11. What risks arise as manufacturers shift between governance structures? 12. Which governance decisions can be automated without undermining service quality or accountability? 13. How do algorithmic governance mechanisms, such as automated rules, ranking systems, or access controls, influence trust and participation among customers and complementors?
Proposition 3a–c: Data network effects and scalable growth	14. How can manufacturers and their ecosystem partners develop the capabilities needed to effectively harness data network effects for mutual value creation? 15. How can manufacturers orchestrate the interplay between data network effects and conventional network effects? 16. How does AI enhance the value creation opportunities associated with customer process integration for manufacturing firms and their service ecosystem partners? 17. What control mechanisms support trusted data sharing and collaboration while managing data asymmetries? 18. What ethical challenges related to data privacy and ownership arise when firms seek to harness data network effects?

implications for servitization. More research is needed to understand how such strategies are shaped not only by platform owners but also by complementors and other third-party service providers (Cenamor 2021; Cenamor and Frishammar 2021; Hein et al. 2020). An interesting question in this context is how complementor-driven servitization reshapes the manufacturer's value proposition and vice versa and how this reshaping is managed.

Second, future studies should explore how manufacturers can collaborate with customers and other ecosystem actors with varying relationship strengths, ranging from weak to strong ties. Key questions include how different governance modes influence trust building (Beverungen et al. 2021; Jovanovic et al. 2022), how digital interfaces affect the depth and quality of relationships, and how concerns about data privacy and security shape ongoing engagement among complementors, customers, and other ecosystem actors (Hein et al. 2020; Kapoor et al. 2022; Struwe and Slepniov 2023). While the configurations identified here rely primarily on human-led decision rights and control, future developments may shift toward hybrid regimes that combine algorithmic and collaborative governance, potentially yielding novel platform configurations (Saunila et al. 2025; Springer et al. 2025). Empirical work should assess which decisions can be delegated to algorithms without undermining accountability, and how algorithmic governance influences transparency, auditability, and trust.

Third, harnessing network effects in industrial settings requires deeper investigation (Kapoor et al. 2022; Springer et al. 2025) to understand the specific mechanisms through which manufacturing firms create and capture value by managing the intertwining of data and conventional network effects (Gregory et al. 2021). One promising avenue is to examine how manufacturers can integrate more deeply into customer data, processes, and digital infrastructure via AI-enabled platform connectivity, and how this creates value for both manufacturers and the broader ecosystems in which they operate (Kohtamäki et al. 2019; Saunila et al. 2025; Shen et al. 2023). Furthermore, future work should explore control mechanisms, such as access rights, data governance protocols, and contractual safeguards to facilitate trusted data sharing and collaboration across ecosystem actors while managing the risks of embedded data asymmetries that may undermine transparency.

Author Note

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ORCID iDs

Anna Salonen https://orcid.org/0000-0003-3404-8304
Julia A. Fehrer https://orcid.org/0000-0003-1369-7049
Christian Kowalkowski https://orcid.org/0000-0002-4081-9737
Paavo Ritala https://orcid.org/0000-0002-8525-4610
Elina Jaakkola https://orcid.org/0000-0003-4654-7573

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References

Agarwala, Rashi, Krishna Satyanarayana, Deepak Chandrashekar, and R. Srinivasan. 2025. "How Does a Digital Business-to-Business Platform Transform Logistics Management in Manufacturing Firms?—An Examination," *Technovation* 141, 103168.

Ahmed, Tanvir, Christian Kowalkowski, and Alexey Sklyar. 2026. "Platform Evolution for Data-Driven Servitization: An Affordance Perspective," *Journal of Business & Industrial Marketing* 41, no. (13): 28–45.

Baines, Tim, Ali Ziaee Bigdeli, and Kawal Kapoor. 2024. *Servitization Strategy: Delivering Customer-Centric Outcomes Through Business Model Innovation*. Palgrave Macmillan.

Baldwin, Carliss Y., and C. Jason Woodard. 2009. "The Architecture of Platforms: A Unified View." *In Platforms, Markets and Innovation*, edited by Annabelle Gawer, 19–32. Edward Elgar Publishing.

Benoit, Sabine, Thomas L. Baker, Ruth N. Bolton, Thorsten Gruber, and Jay Kandampully. 2017. "A Triadic Framework for Collaborative Consumption (CC): Motives, Activities and Resources & Capabilities of Actors." *Journal of Business Research* 79, 219–27.

Bettis, Richard A., and C. K. Prahalad. 1995. "The Dominant Logic: Retrospective and Extension." *Strategic Management Journal* 16, no. (1): 5–14.

Beverungen, Daniel, Dennis Kundisch, and Nancy Wünderlich. 2021. "Transforming into a Platform Provider: Strategic Options for Industrial Smart Service Providers." *Journal of Service Management* 32, no. (4): 507–32.

Bond, Edward U., III, Ad de Jong, Andreas Eggert, et al. 2020. "The Future of B2B Customer Solutions in a Post-COVID-19 Economy: Managerial Issues and an Agenda for Academic Inquiry." *Journal of Service Research* 23, no. (4): 401–8.

Braun, Virginia, and Victoria Clarke. 2006. "Using Thematic Analysis in Psychology." *Qualitative Research in Psychology* 3, no. (2): 77–101.

Budde, Lukas, Roman Hänggi, Leonardo Laglia, and Thomas Friedli. 2024. "Leading the Transition to Multi-Sided Platforms (MSPs) in a B2B Context: The Case of a Recycling SME." *Industrial Marketing Management* 116, 106–19.

Campbell, Joanna T., and Peer C. Fiss. 2026. "Tackling the Complexity Challenge: When and How to Engage in Configurational and Hybrid Theorizing." *Academy of Management Review (online)*: 1–28. https://doi.org/10.5465/amr.2024.0187

Cenamor, Javier, and Johan Frishammar. 2021. "Openness in Platform Ecosystems: Innovation Strategies for Complementary Products." *Research Policy* 50, no. (1): 1–15.

Cenamor, Javier. 2021. "Complementor Competitive Advantage: A Framework for Strategic Decisions." *Journal of Business Research* 122, 335–43.

Cennamo, Carmelo, Giovanni B. Dagnino, Alberto Di Minin, and Gianvito Lanzolla. 2020. "Managing Digital Transformation: Scope of Transformation and Modalities of Value Co-Generation and Delivery." *California Management Review* 62, no. (4): 5–16.

Chen, Yan, Jack I. Richter, and Pankaj C. Patel. 2021. "Decentralized Governance of Digital Platforms." *Journal of Management* 47, no. (5): 1305–37.

Colm, Laura, Andrea Ordanini, and Torsten Bornemann. 2020. "Dynamic Governance Matching in Solution Development." *Journal of Marketing* 84, no. (1): 105–24.

Compagnucci, Lorenzo, Francesca Spigarelli, Paolo Sernani, Emanuele Frontoni, and Paolo Seri. 2025. "A Systematic Literature Review of Business-to-Business Platforms for the Digital Transformation of the Manufacturing Industry: Taking Stock and Advancing Through Research." *Technovation* 148, 103330.

Coreynen, Wim, Paul Matthyssens, and Wouter van Bockhaven. 2017. "Boosting Servitization through Digitization: Pathways and Dynamic Resource Configurations for Manufacturers." *Industrial Marketing Management* 60, 42–53.

Cornelissen, Joep. 2017. "Editor's Comments: Developing Propositions, a Process Model, or a Typology? Addressing the Challenges of Writing Theory without a Boilerplate." *Academy of Management Review* 42, no. (1): 1–9.

Dalenogare, Lucas, Marie-Anne Le Dain, Nestor Ayala, Giuditta Pezzotta, and Alejandro Frank. 2023. "Building Digital Servitization Ecosystems: An Analysis of Inter-Firm Collaboration Types and Social Exchange Mechanisms Among Actors." *Technovation* 124, 1–16.

Doty, D. Harold, and William H. Glick. 1994. "Typologies as a Unique Form of Theory Building: Toward Improved Understanding and Modeling." *Academy of Management Review* 19, 230–51.

Eaton, Ben, Silvia Elaluf-Calderwood, Carsten Sørensen, and Youngjin Yoo. 2015. "Distributed Tuning of Boundary Resources: The Case of Apple's iOS Service System." *MIS Quarterly* 39, no. (1): 217–44.

Eloranta, Ville, Marco Ardolino, and Nicola Saccani. 2021. "A Complexity Management Approach to Servitization: The Role of Digital Platforms." *International Journal of Operations & Production Management* 41, no. (5): 622–44.

Faramarzi, Ashkan, Stefan Worm, and Wolfgang Ulaga. 2024. "Service Strategy's Effect on Firm Performance: A Meta-Analysis of the

Servitization Literature." Journal of the Academy of Marketing Science 52, no. (4): 1018–44.

Feike, Maximilian, and Jürgen Rösch. 2026. "Where Innovation Meets Inertia: Relational Challenges to B2B Platform Adoption—An Explorative Multiple Case Study." *Electronic Markets* 36, no. (1): 9.

Field, Joy M., Darima Fotheringham, Mahesh Subramony, et al. 2021. "Service Research Priorities: Designing Sustainable Service Ecosystems." *Journal of Service Research* 24, 462–479.

Filosa, Clara, Marin Jovanovic, Lara Agostini, and Anna Nosella. 2025. "Pivoting B2B Platform Business Models: From Platform Experimentation to Multi-Platform Integration to Ecosystem Envelopment." *International Journal of Production Economics* 280, no. (10946): 1–14.

Fiss, Peer C. 2007. "A Set-Theoretic Approach to Organizational Configurations." *Academy of Management Review* 32, no. (4): 1180–98.

Forkmann, Sebastian, Stephan C. Henneberg, Lars Witell, and Daniel Kindström. 2017. "Driver Configurations for Successful Service Infusion." *Journal of Service Research* 20, no. (3): 275–91.

Gawer, Annabelle, and Michael A. Cusumano. 2008. "How Companies Become Platform Leaders." *MIT Sloan Management Review* 49, no. (2): 28–35.

Gawer, Annabelle, and Michael A. Cusumano. 2014. "Industry Platforms and Ecosystem Innovation." *Journal of Product Innovation Management* 31, no. (3): 417–33.

Gebauer, Heiko, Bo Edvardsson, Anders Gustafsson, and Lars Witell. 2010. "Match or Mismatch: Strategy-Structure Configurations in the Service Business of Manufacturing Companies." *Journal of Service Research* 13, no. (2): 198–215.

Gregory, Robert Wayne, Ola Henfridsson, Evgeny Kaganer, and Harris Kyriakou. 2021. "The Role of Artificial Intelligence and Data Network Effects for Creating User Value." *Academy of Management Review* 46, no. (3): 534–51.

Haki, Kazem, Michael Blaschke, Stephan Aier, Robert Winter, and David Tilson. 2024. "Dynamic Capabilities for Transitioning from Product Platform Ecosystem to Innovation Platform Ecosystem." *European Journal of Information Systems* 33, no. (2): 181–99.

Hein, Andreas, Jörg Weking, Maximilian Schreieck, Manuel Wiesche, Markus Böhm, and Helmut Krcmar. 2019. "Value Co-creation Practices in Business-to-Business Platform Ecosystems." *Electronic Markets* 29, no. (3): 503–18.

Hein, Andreas, Maximilian Schreieck, Tobias Risanow, et al. 2020. "Digital Platform Ecosystems." *Electronic Markets* 30, 87–98.

Hsuan, Juliana, Marin Jovanovic, and Diego Honorato Clemente. 2021. "Exploring Digital Servitization Trajectories within Product–Service–Software Space." *International Journal of Operations & Production Management* 41, no. (5): 598–621.

Jaakkola, Elina. 2020. "Designing Conceptual Articles: Four Approaches." *AMS Review* 10, no. (1–2): 18–26.

Jacobides, Michael G., Carmelo Cennamo, and Annabelle Gawer. 2018. "Towards a Theory of Ecosystems." *Strategic Management Journal* 39, no. (8): 2255–76.

Jovanovic, Marin, David Sjödin, and Vinit Parida. 2022. "Co-Evolution of Platform Architecture, Platform Services, and Platform Governance: Expanding the Platform Value of Industrial Digital Platforms." *Technovation* 118, 102218.

Kamalaldin, Ahmad, Lina Linde, David Sjödin, and Vinit Parida. 2020. "Transforming Provider-Customer Relationships in Digital Servitization: A Relational View on Digitalization." *Industrial Marketing Management* 89, 306–25.

Kapoor, Kawaljeet, Ali Ziaee Bigdeli, Andreas Schroeder, and Tim Baines. 2022. "A Platform Ecosystem View of Servitization in Manufacturing." *Technovation* 118, 102248.

Karhu, Kimmo, Mikko Heiskala, Paavo Ritala, and Llewellyn D. Thomas. 2024. "Positive, Negative, and Amplified Network Externalities in Platform Markets." *Academy of Management Perspectives* 38, no. (3): 349–67.

Kazantsev, Nikolai, Nazrul Islam, Jeremy Zwiegelaar, Alan Brown, and Roger Maull. 2023. "Data Sharing for Business Model Innovation in Platform Ecosystems: From Private Data to Public Good." *Technological Forecasting and Social Change* 192, 122515.

Kohtamäki, Marko, Rodrigo Rabetino, Vinit Parida, David Sjödin, and Stephan Henneberg. 2022. "Managing Digital Servitization toward Smart Solutions: Framing the Connections between Technologies, Business Models, and Ecosystems." *Industrial Marketing Management* 105, 253–67.

Kohtamäki, Marko, Vinit Parida, Pejvak Oghazi, Heiko Gebauer, and Tim Baines. 2019. "Digital Servitization Business Models in Ecosystems: A Theory of the Firm." *Journal of Business Research* 104, 380–392.

Kowalkowski, Christian, and Wolfgang Ulaga. 2024. "Subscription Offers in Business-to-Business Markets: Conceptualization, Taxonomy, and Framework for Growth." *Industrial Marketing Management* 117, 440–56.

Kowalkowski, Christian, Jochen Wirtz, and Michael Ehret. 2024. "Digital Service Innovation in B2B Markets." *Journal of Service Management* 35, no. (2): 280–305.

Kurasawa, Misa. 2026. "From 'All Concept, No Substance' to a ¥4 Trillion Business: How Hitachi's Lumada Transformed in Nine Years." *The Oriental Economist*, March 4. Retrieved May 5, 2026, from https://toyokeizai.net/articles/-/934408?display=b.

Kwak, Kiho, Namil Kim, and Haneul Lee. 2026. "Unpacking Digital Servitization and Firm Performance in B2B Manufacturing: Evidence from US Firms." *Technovation* 150, 103381.

Laczko, Pavel, Dusana Hullova, Andrew Needham, Ann-Marie Rossiter, and Martina Battisti. 2019. "The Role of a Central Actor in Increasing Platform Stickiness and Stakeholder Profitability: Bridging the Gap Between Value Creation and Value Capture in the Sharing Economy." *Industrial Marketing Management* 76, 214–30.

Lerch, Christian M., Angela Jäger, Andrea Bikfalvi, and Cornelius Moll. 2026. "Unpacking Digital Servitization: How Its Facets Drive Platformization and Industry 4.0." *Technovation* 150, 103430.

Lerch, Christian M., Djerdj Horvat, and Johannes Jasny. 2024. "When Manufacturers Turn into Digital Platform Providers: A Transformation Model to Understand the Platformization Pathway." *International Journal of Production Economics* 273, 109235.

Leutheuser, Viktoria, Julian M. Müller, and Kai-Ingo Voigt. 2025. "Industrial Transaction Platforms: Impact and Archetypes for Business Model Innovation." *Technovation* 147, 103324.

Liu, Yi, and Wei Gao. 2023. "Which Is More Effective for Platform Performance: Punishments or Incentives?" *Industrial Marketing Management* 110, 117–28.

Macdonald, Emma K., Michael Kleinaltenkamp, and Hugh Wilson. 2016. "How Business Customers Judge Solutions: Solution Quality and Value in Use." *Journal of Marketing* 80, no. (3): 96–120.

MacInnis, Deborah J. 2011. "A Framework for Conceptual Contributions in Marketing." *Journal of Marketing* 75, no. (4): 136–54.

Madanaguli, Arun, Vinit Parida, David Sjödin, and Pejvak Oghazi. 2023. "Literature Review on Industrial Digital Platforms: A Business Model Perspective and Suggestions for Future Research." *Technological Forecasting and Social Change* 194, 122606.

Malthouse, Edward C., Alexander Buoye, Nathaniel Line, Dahlia El-Manstrly, Tarik Dogru, and Jay Kandampully. 2019. "Beyond Reciprocal: The Role of Platforms in Diffusing Data Value Across Multiple Stakeholders." *Journal of Service Management* 30, no. (4): 507–518.

Mancuso, Ilaria, Antonio M. Petruzzelli, and Umberto Panniello. 2024. "Value Creation in Data-Centric B2B Platforms: A Model Based on Multiple Case Studies." *Industrial Marketing Management* 119, 1–14.

Marzi, Giacomo, Anna Marrucci, Donata Vianelli, and Cristiano Ciappei. 2023. "B2B Digital Platform Adoption by SMEs and Large Firms: Pathways and Pitfalls." *Industrial Marketing Management* 114, 80–93.

Meier, Philip, Nicolas Friederici, Tina Krell-Sun, and Daniel Trabucchi. 2024. "Strategies for Designing and Growing Business-to-Business Platforms: A Study of Six Cases Across Industrial Sectors in Germany." *Research-Technology Management* 67, no. (2): 44–56.

Meyer, Marc H., and Alvin P. Lehnerd. 1997. *The Power of Product Platforms: Building Value and Cost Leadership*. Free Press.

Micallef, Mark, Joona Keränen, and Olga Kokshagina. 2023. "The (Un)Intended Consequences of Multi-Sided Platform Adoption for Different Actors in Business Networks." *Industrial Marketing Management* 115, 214–27.

Misangyi, Vilmos F., Thomas Greckhamer, Santi Furnari, Peer C. Fiss, Donal Crilly, and Ruth V. Aguilera. 2017. "Embracing Causal Complexity: The Emergence of a Neo-Configurational Perspective." *Journal of Management* 43, no. (1): 255–82.

Mishina, Yuri, Timothy G. Pollock, and Joseph F. Porac. 2004. "Are More Resources Always Better for Growth? Resource Stickiness in Market and Product Expansion." *Strategic Management Journal* 25, no. (12): 1179–97.

Mongeon, Philippe, and Adèle Paul-Hus. 2016. "The Journal Coverage of Web of Science and Scopus: A Comparative Analysis." *Scientometrics* 106, no. (1): 213–28.

Muzellec, Laurent, Sébastien Ronteau, and Mary Lambkin. 2015. "Two-Sided Internet Platforms: A Business Model Lifecycle Perspective." *Industrial Marketing Management* 45, 139–50.

Neu, Wayne A., and Stephen W. Brown. 2005. "Forming Successful Business-to-Business Services in Goods-Dominant Firms." *Journal of Service Research* 8, no. (1): 3–17.

Oliva, Rogelio, and Robert Kallenberg. 2003. "Managing the Transition from Products to Services." *International Journal of Service Industry Management* 14, no. (2): 160–72.

Ostrom, Amy L., Ananthanarayanan Parasuraman, David E. Bowen, Lia Patrício, and Christopher A. Voss. 2015. "Service Research Priorities in a Rapidly Changing Context." *Journal of Service Research* 18, no. (2): 127–59.

Ozalp, Hakan, Pinar Ozcan, Dize Dinckol, Markos Zachariadis, and Annabelle Gawer. 2022. "'Digital Colonization' of Highly Regulated Industries: An Analysis of Big Tech Platforms' Entry into Health Care and Education." *California Management Review* 64, no. (4): 78–107.

Parker, Geoffrey G., Marshall W. Van Alstyne, and Xiaoyue Jiang. 2017. "Platform Ecosystems: How Developers Invert the Firm." *MIS Quarterly* 41, no. (1): 255–66.

Perks, Helen, Christian Kowalkowski, Lars Witell, and Anders Gustafsson. 2017. "Network Orchestration for Value Platform Development." *Industrial Marketing Management* 67, 106–21.

Prahalad, C. K., and Richard A. Bettis. 1986. "The Dominant Logic: A New Linkage Between Diversity and Performance." *Strategic Management Journal* 7, no. (6): 485–501.

Rabetino, Rodrigo, Marko Kohtamäki, Christian Kowalkowski, Tim Baines, and Rui Sousa. 2021. "Guest Editorial: Servitization 2.0: Evaluating and Advancing Servitization-Related Research through Novel Conceptual and Methodological Perspectives." *International Journal of Operations & Production Management* 41, no. (5): 437–64.

Raddats, Chris, Christian Kowalkowski, Ornella Benedettini, Jamie Burton, and Heiko Gebauer. 2019. "Servitization: A Contemporary Thematic Review of Four Major Research Streams." *Industrial Marketing Management* 83, 207–23.

Ragin, Charles C. 2008. *Redesigning Social Inquiry: Fuzzy Sets and Beyond*. University of Chicago Press.

Randhawa, Krithika, and Virginia Springer. 2025. "Why Do B2B Platforms Fail? The Missing Links in Identity, Architecture, and Network Effects in Industrial Ecosystems." *IEEE Transactions on Engineering Management* 72, 4079–93.

Rietveld, Joost, and Melissa A. Schilling. 2021. "Platform Competition: A Systematic and Interdisciplinary Review of the Literature." *Journal of Management* 47, no. (6): 1528–63.

Ritala, Paavo, and Marin Jovanovic. 2024. "Platformizers, Orchestrators, and Guardians: Three Types of B2B Platform Business Models." *In Business Model Innovation: Game Changers and Contemporary Issues*, edited by A. Aagaard, 91–125. Palgrave Macmillan.

Ritala, Paavo, Joona Keränen, Jessica Fishburn, and Mika Ruokonen. 2024. "Selling and Monetizing Data in B2B Markets: Four Data-Driven Value Propositions." *Technovation* 130, 102935.

Ritala, Paavo. 2024. "Grand Challenges and Platform Ecosystems: Scaling Solutions for Wicked Ecological and Societal Problems." *Journal of Product Innovation Management* 41, no. (2): 168–83.

Rochet, Jean-Charles, and Jean Tirole. 2006. "Two-Sided Markets: A Progress Report." *The RAND Journal of Economics* 37, no. (3): 645–67.

Salmeron, Francisco, Michael Dahle, and Jonathan Brown. 2025. "Aftermarket Services Drive Growth and High Margins for Industrial Manufacturers." *Boston Consulting Group*, February 18. Retrieved May 5, 2026, from https://www.bcg.com/publications/2025/after-market-services-drive-growth-for-industrial-manufacturers.

Salonen, Anna, Risto Rajala, and Ari Virtanen. 2018. "Leveraging the Benefits of Modularity in the Provision of Integrated Solutions: A Strategic Learning Perspective." *Industrial Marketing Management* 68, 13–24.

Sandberg, Johan, Jonny Holmström, and Kalle Lyytinen. 2020. "Digitization and Phase Transitions in Platform Organizing Logics: Evidence from the Process Automation Industry." *MIS Quarterly* 44, no. (1): 129–53.

Saunila, Minna, Tero Rantala, and Juhani Ukko. 2025. "Artificial Intelligence-Driven Digital Servitization: The Importance of Platform Characteristics and Firm-Level Factors." *Industrial Marketing Management* 130, 35–45.

Schmeiss, Jessica, Katharina Hoelzle, and Robin Tech. 2019. "Designing Governance Mechanisms in Platform Ecosystems: Addressing the Paradox of Openness through Blockchain Technology." *California Management Review* 62, no. (1): 121–43.

Schreieck, Maximilian, Manuel Wiesche, and Helmut Krcmar. 2021. "Capabilities for Value Co-creation and Value Capture in Emergent Platform Ecosystems: A Longitudinal Case Study of SAP's Cloud Platform." *Journal of Information Technology* 36, no. (4): 365–90.

Sharma, Divya, Neetu Yadav, Yogesh K. Dwivedi, and Mihalis Giannakis. 2024. "Digital Transformation of Incumbent Pipeline Firms through Platformization." *International Journal of Electronic Commerce* 28, no. (2): 186–216.

Shen, Lei, Wanqin Sun, and Vinit Parida. 2023. "Consolidating Digital Servitization Research: A Systematic Review, Integrative Framework, and Future Research Directions." *Technological Forecasting and Social Change* 191, 122478.

Shepley, Steve, John Morehouse, Kate Hardin, and Kruttika Dwivedi. 2025. "2026 Manufacturing Industry Outlook." *Deloitte*, November 13. Retrieved May 5, 2026, from https://www.deloitte.com/us/en/insights/industry/manufacturing-industrial-products/manufacturing-industry-outlook.html.

Sjödin, David, Vinit Parida, Marko Kohtamäki, and Joakim Wincent. 2020. "An Agile Co-Creation Process for Digital Servitization: A Micro-Service Innovation Approach." *Journal of Business Research* 112, 478–91.

Smania, Guilherme Sales, Néstor Fabián Ayala, Wim Coreynen, Leonardo Augusto de Vasconcelos Gomes, and Glauco H. S. Mendes. 2026. "Understanding Paradoxical Tensions and Coping Strategies in Platform-Based Servitization." *Industrial Marketing Management* 132, 1–16.

Soellner, Stephan, Roland Helm, Patrick Klee, and Herbert Endres. 2024. "Industrial Service Innovation: Exploring the Transformation Process to Digital Servitization in Industrial Goods Companies." *Industrial Marketing Management* 117, 288–303.

Springer, Virginia, Krithika Randhawa, Marin Jovanovic, Paavo Ritala, and Frank Piller. 2025. "Platform Design and Governance in Industrial Markets: Charting the Meta-Organizational Logic." *Research Policy* 54, no. (6): 1–18.

Stonig, Joachim, Torsten Schmid, and Günter Müller-Stewens. 2022. "From Product System to Ecosystem: How Firms Adapt to Provide an Integrated Value Proposition." *Strategic Management Journal* 43, no. (9): 1927–57.

Storbacka, Kaj. 2011. "A Solution Business Model: Capabilities and Management Practices for Integrated Solutions." *Industrial Marketing Management* 40, no. (5): 699–711.

Struwe, Sascha, and Dmitrij Slepniov. 2023. "Unlocking Digital Servitization: A Conceptualization of Value Co-creation Capabilities." *Journal of Business Research* 160, 113825.

Tian, Jiamian, Wim Coreynen, Paul Matthyssens, and Lei Shen. 2022. "Platform-Based Servitization and Business Model Adaptation by Established Manufacturers." *Technovation* 118, 102222.

Tranfield, David, David Denyer, and Palminder Smart. 2003. "Towards a Methodology for Developing Evidence-Informed Management Knowledge by Means of Systematic Review." *British Journal of Management* 14, no. (3): 207–22.

Tuli, Kapil R., Ajay K. Kohli, and Sundar G. Bharadwaj. 2007. "Rethinking Customer Solutions: From Product Bundles to Relational Processes." *Journal of Marketing* 71, 1–17.

Ulaga, Wolfgang, and Werner J. Reinartz. 2011. "Hybrid Offerings: How Manufacturing Firms Combine Goods and Services Successfully." *Journal of Marketing* 75, no. (6): 5–23.

Veile, Johannes W., Marie-Christin Schmidt, and Kai-Ingo Voigt. 2022. "Toward a New Era of Cooperation: How Industrial Digital Platforms Transform Business Models in Industry 4.0." *Journal of Business Research* 143, 387–405.

Vendrell-Herrero, Ferran, Oscar F. Bustinza, Glenn Parry, and Nikos Georgantzis. 2017. "Servitization, Digitization and Supply Chain Interdependency." *Industrial Marketing Management* 60, 69–81.

Wormald, Audra, Sonali K. Shah, Serguey Braguinsky, and Rajshree Agarwal. 2023. "Pioneering Digital Platform Ecosystems: The Role of Aligned Capabilities and Motives in Shaping Key Choices and Performance Outcomes." *Strategic Management Journal* 44, no. (7): 1653–97.

Zeng, Jing, Yunlu Yang, and Soo Hee Lee. 2023. "Resource Orchestration and Scaling-up of Platform-Based Entrepreneurial Firms: The Logic of Dialectic Tuning." *Journal of Management Studies* 60, no. (3): 605–38.

Author Biographies

Anna Salonen is an associate professor of Marketing at University of Jyväskylä, Finland. Her research focuses on B2B selling and servitization. Her work has been published in the *Journal of the Academy of Marketing Science*, *Industrial Marketing Management*, *Journal of Personal Selling & Sales Management*, and *Journal of Service Management*.

Julia A. Fehrer is an associate professor of Innovation and Strategy at the University of Auckland Business School. Her research focuses on market and ecosystem innovation as a catalyst for digital and societal transformation. Her work has been published in the *Journal of Service Research*, *Industrial Marketing Management*, and the *Journal of Service Management*.

Christian Kowalkowski is a professor of Industrial Marketing and Director of the Centre for Business Model Innovation at Linköping University, Sweden. His areas of expertise include servitization, B2B strategy, and qualitative research. He was named a Clarivate Highly Cited Researcher in the Economics & Business category in 2022, 2023, and 2025.

Paavo Ritala is a professor of Strategy and Innovation at LUT University, Finland. His main research themes include ecosystems and platforms, the role of data, algorithms, and digital technologies in organizations, and the circular and regenerative economy. He has received the Clarivate Highly Cited Researcher 2025 award in the cross-field category.

Elina Jaakkola is a professor of Marketing at University of Turku, Finland, and Ander Visiting Professor at CTF Research Center at Karlstad University, Sweden. Her areas of expertise include service research, B2B research, and qualitative and conceptual research. Her current projects focus on customer experience, customer/actor engagement, and the circular economy.