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Selling and sales management for successful servitization: a systematic review and research agenda

Christian Kowalkowski^{a,b} , Victoria Kramer^c , Sertan Eravci^c , Anna Salonen^d  and Wolfgang Ulaga^e 

^aCBMI—Centre for Business Model Innovation, Department of Management and Engineering, Linköping University, Linköping, Sweden; ^bCERS—Centre for Relationship Marketing and Service Management, Department of Marketing, Hanken School of Economics, Helsinki, Finland; ^cChair of Marketing Management, Marketing Center Münster, University of Münster, Münster, Germany; ^dSchool of Business and Economics, University of Jyväskylä, Jyväskylä, Finland; ^eINSEAD Middle East Campus, INSEAD, Abu Dhabi, UAE

ABSTRACT

Servitization—the shift from product to service-centric business models—has attracted widespread attention, yet best practices for selling services and transforming the salesforce remain unclear. In response, this study systematically reviews the literature on selling and sales management for servitization. Analyzing 66 articles across 21 journals, we identify three key themes: customer engagement throughout the purchase journey, skills and abilities of selling actors, and sales management support. Our integrative framework highlights how the selling of services and solutions necessitates a collaborative, cross-functional process of customer engagement across various stages of the journey. Ideally, this engagement fosters recurring cycles with loyalty loops, driven by proactive customer success management. We also present a comprehensive research agenda with four key themes bridging critical gaps in current knowledge. From a managerial perspective, our review underscores that servitization necessitates extensive organizational changes beyond the sales function, affecting not only *what* firms sell but also *how* they sell.

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Introduction

Intensified competition and rapid technological advancement have prompted business-to-business (B2B) firms to expand into service provision and customer solutions as a means to enhance revenue streams, improve profit margins, and build closer customer relationships (Böhm et al. 2020; Fang, Palmatier, and Steenkamp 2008; Kowalkowski and Ulaga 2017). This strategic shift from product-centric to service-centric business models—a process commonly referred to as *servitization*—has attracted growing interest in both academia and industry (Baines, Bigdeli, and Kapoor 2024; Kowalkowski et al. 2017). The shift spans various sectors, from traditional manufacturers integrating services into their core product offerings to software firms adopting cloud-based subscription models in place of conventional software sales (Terpoorten, Klein, and Merfeld 2024).

While servitization is an organizational strategy, solution selling is the sales approach and relational process that supports the successful execution of servitization efforts (Böhm et al. 2020). Extant research has identified the sales function as a major hurdle in the transition to servitization (Bongers et al. 2025; Kindström, Kowalkowski, and Alejandro 2015; Reinartz and Ulaga 2008; Ulaga and Kohli 2018). The organizational changes required for servitization span a wide range of sales-related challenges, including the need to

translate servitization goals into sales strategies, align goods-, services-, and solution-centric salesforces within a supplier's organization, and mitigate conflicts with channel intermediaries and ecosystem partners (Kowalkowski and Ulaga 2017). These challenges are particularly pronounced in today's environment, where suppliers are increasingly investing in Direct-to-Customer (D2C) go-to-market approaches, effectively bypassing established channel partners in many industries (Kowalkowski and Ulaga 2024).

Resistance within sales organizations often forces firms to restructure their salesforces, with some replacing up to 80% of existing personnel (Reinartz and Ulaga 2008). Ulaga and Reinartz (2011, 13) report that only one-third of industrial salespeople successfully transitioned to selling hybrid offerings, while the rest required extensive training or reverted to product sales. As one manager put it, “Product salespeople are from Mars, while services salespeople are from Venus.” Supporting this, Ulaga and Loveland (2014) show that high-performing goods- and service-centric salespeople differ significantly in personality traits and sales proficiencies, while recent studies demonstrate that solution selling requires additional personal and procedural competencies (Bongers et al. 2025; Salonen, Terho, et al. 2021).

Regardless of industry and level of maturity, servitization presents B2B sales organizations with substantial challenges and a need for considerable adjustments

(Kindström, Kowalkowski, and Alejandro 2015; Salonen, Terho, et al. 2021). Many initiatives stall and fail to gain traction, often due to the lack of understanding and adaptation in sales strategies (Alavi et al. 2022; Ulaga and Loveland 2014). Servitization imposes more demanding requirements on the organization (Alavi, Habel, and Vomberg 2024), necessitating alignment across multiple functions within the firm (Storbacka, Polsa, and Sääksjärvi 2011) and engagement with a broader network of stakeholders in both customer and vendor organizations (Ulaga and Loveland 2014). The proliferation of digital technologies has intensified these challenges. Being more idiosyncratic and reliant on data exchange, digitally enabled services and solutions require a radically different type of salesforce and approach to selling (Guenzi and Nijssen 2023, 2024).

Against this backdrop, the aim of this study is to synthesize contemporary research on service and solution selling to consolidate existing knowledge and identify future research priorities. While servitization is now among the most active domains in B2B marketing, operations management, and service research (Rabetino et al. 2021; Ulaga and Kowalkowski 2022), the domain remains fragmented. Despite the acknowledged pivotal role of sales, most servitization research does not focus on this aspect. Hence, there are still limited insights into how to successfully sell services and solutions and make the necessary salesforce transformation.

This study aims to bridge two significant gaps identified in the existing literature. First, service and solution selling places increased emphasis on the post-purchase phase of the customer journey, which includes deployment and operations (Purmonen, Jaakkola, and Terho 2023; Tuli, Kohli, and Bharadwaj 2007; Ulaga and Kohli 2018; Witell et al. 2020). Contemporary sales literature points to the expansion and blurring of sales-oriented tasks and responsibilities to encompass those traditionally linked with other roles (Rapp et al. 2017) and highlights the need for broader alignment among stakeholders from various functions and organizations throughout the sales processes (Hartmann, Wieland, and Vargo 2018; Plouffe et al. 2016). However, servitization puts additional pressure on the sales function and organization. The integration of digital services and a focus on subscriptions and other recurring revenue models, which are increasingly central (Kowalkowski and Ulaga 2024), further exacerbate this challenge. In particular, advances in digital technologies have major implications for how to sell data-driven and increasingly digital, platform-based services and solutions (Guenzi and Nijssen 2024). Yet, there is a lack of knowledge about the effects of these changes. Generally, prior studies focus either on broad organizational and technological transformations (e.g., Salonen 2011; Ulaga and Reinartz 2011) or on individual salesperson characteristics and competencies (e.g., Alavi et al. 2022; Böhm et al. 2020; Guenzi and Nijssen 2024), which points to the need for a holistic perspective on the phenomenon.

Second, while building on the previous argument, it is evident that prior literature reviews on servitization tend to overlook sales-related aspects, opting instead for a broader examination of the topic (e.g., Baines et al. 2009; Fliess and Lexutt 2019; Khanra et al. 2021; Lightfoot, Baines, and

Smart 2013; Rabetino et al. 2018; Raddats et al. 2019). Alternatively, these reviews focus on other issues, such as environmental and economic performance (Menon et al. 2024), innovation (Xing, Liu, and Davies 2023), digital technology adoption (Paschou et al. 2020), specific challenges (Zhang and Banerji 2017), business models (Adrodegari and Saccani 2017), or ecosystems and supply chains (Davies et al. 2023; Kolagar, Parida, and Sjödin 2022). For example, in one of the most marketing-oriented reviews (Raddats et al. 2019), sales is merely a subset of one of the five identified research themes—service development, sales, and delivery. In most other reviews, selling and sales management are not discussed at all. Therefore, an exhaustive thematic account of selling and sales management for successful servitization is needed to provide a state-of-the-art overview and identify the most pressing issues requiring research attention.

Accordingly, this systematic literature review provides an overview of key themes and identifies knowledge gaps that represent research priorities crucial for advancing theory and practice in the field. The objectives of this review are:

- To offer a comprehensive overview of existing research linking servitization and customer solutions with selling and sales management.
- To explore knowledge gaps and research-related issues within these key themes.
- To pinpoint critical research areas that could yield valuable theoretical, methodological, or practical insights.

We offer three important research contributions bridging servitization and sales literature. First, through our systematic review of 66 articles from 21 journals, we assess the state of knowledge and identify three primary themes essential to effective service and solution selling: (1) customer engagement throughout the purchase journey; (2) skills and abilities of selling actors; and (3) sales management support. Customer engagement is central to selling advanced services and solutions, as it follows a co-creation model where sellers and customers collaborate to achieve customer goals. This requires specialized skills from sales professionals and other selling actors. It also places new demands on sales management, including designing supportive structures, recruiting and empowering the right salespeople, and implementing effective control mechanisms. Together, these elements create a strong foundation for effective sales.

Second, based on these themes, we propose an integrative framework emphasizing a collaborative, cross-functional approach to customer engagement. This process involves managing uncertainty, customizing offerings, and ensuring value realization. Its complexity varies based on the offering and the customer's experience, affecting decision-making and the buying center's composition. By co-creating solutions, the process fosters loyalty loops through proactive customer success management.

Third, building on our review, we provide a comprehensive research agenda with four themes that address key gaps in current knowledge: (1) organizing service and solution selling across the customer purchase journey; (2) sales

management and practices; (3) digitalization and digital services; and (4) method-related issues. For each theme, we highlight several research priorities to encourage further studies in the field of selling and sales management for advanced services and solutions.

The remainder of this manuscript is structured as follows: We begin by explicating the phenomenon of servitization, including its key terminology and conceptual underpinnings. Next, we detail our methodological approach to the systematic review and provide key descriptive statistics of our sample. We then present a thematic analysis of sales-related research within servitization and propose an integrative framework, using the customer purchase journey as a theoretical lens to understand the process of selling advanced services and solutions. Building on our review and framework, we outline key avenues for future research, accompanied by specific subthemes to guide further investigation. Finally, we summarize our contributions to theory, outline key implications for decision-makers leading sales transformation efforts and practice, and discuss the limitations of our review.

Conceptual background

In this section, we provide a brief overview of servitization and its impact on the business models of manufacturing firms. We also differentiate between various types of services, discuss the concept and origins of customer solutions, and outline the implications for salespeople and other selling actors. Definitions of key terms are provided in [Appendix A](#).

Servitization and service business models

Coined by Vandermerwe and Rada (1988), the term “servitization” describes a market strategy that integrates products and services into innovative offerings, with services playing the lead role. Over time, servitization has become a major driver for companies looking to expand beyond traditional product-focused operations. Today, it is widely viewed as a strategic imperative for manufacturers and other product-centric firms in B2B industries (Baines, Bigdeli, and Kapoor 2024), though it also occurs in consumer markets and service industries (Vandermerwe and Erixon 2023). The concept represents a fundamental shift from a product-centric to a service-centric business model, enabling companies to capture customer relationship value, leverage product and technology assets, and unlock new market opportunities (Kowalkowski et al. 2017). Research in this field examines the development of value-led business models, the organizational and structural transformations required, and the digital technologies that facilitate this shift (Raddats et al. 2019).

Companies may adopt servitization defensively, to protect and reinforce existing product sales, or proactively, to acquire new customers and achieve greater volumes and higher margins. By leveraging their engineering and technological capabilities, manufacturers can introduce innovative services aimed at restoring or enhancing product functionality (Uлага and Reinartz 2011). Services typically yield higher margins

than products and provide a more stable revenue stream (Malleret 2006). Importantly, services help unlock value from relationship assets, fostering closer and longer-lasting customer relationships (Raddats et al. 2019).

Although the roots of servitization stretch back over 150 years (Schmenner 2009), digital technologies have opened new avenues for value creation and revenue generation, accelerating the growth of services—a trend often referred to as digital servitization¹ (Paschou et al. 2020). Enabled by cloud technologies and digital platforms, companies can now deliver a wide array of ‘anything-as-a-service’ offerings, significantly transforming traditional product-centric sales strategies and practices. Unlike one-off transactions, these digital services rely on recurring revenue models (e.g., subscriptions), requiring continuous customer engagement and a focus on long-term value rather than immediate deal closure (Kowalkowski and Uлага 2024). Because these offerings require ongoing updates, ‘the sale is never truly over’ (Vandermerwe and Erixon 2023).

Moreover, the flexibility of digital services allows customers to adjust purchases in response to sales fluctuations, making it an often-utilized selling point (Bond et al. 2020). However, this same flexibility increases pressure on providers to develop strong sales and risk management capabilities (Uлага and Reinartz 2011), as customers may be less committed to long-term contracts, raising the risk of churn (Hochstein et al. 2021). Selling digital offerings also introduces longer and more volatile sales cycles. Sales professionals need to navigate these extended buying processes while addressing concerns about uncertain value realization and implementation risks. To succeed, companies must ensure that their sales control systems align with these new business models (Tienken, Classen, and Friedli 2023).

While servitization can imply a full transition *from* products *to* services,² it more commonly involves a service infusion where the company expands its offerings. As a result, companies pursuing servitization often move from a product-centric business model to a dual business model, which allows them to operate two distinct business models within the same market space (Visnjic, Jovanovic, and Raisch 2022).

For manufacturers, adopting a service-based business model represents a substantial shift in both value propositions and revenue streams. They must balance a traditional capital expenditure (Capex) model—focused on product sales and product-supporting services—with an operating expenditure (Opex) model that delivers service outcomes for a recurring fee (Nansubuga and Kowalkowski 2024). This shift is particularly challenging when manufacturers operate two distinct salesforces: one dedicated to product sales and the other to selling services and solutions. Introducing service-based solutions can lead to a decline in product sales, creating tensions between the two salesforces (Renault, Dalsace, and Uлага 2010). These changes also affect partner firms, such as dealerships, which must adapt to new roles and revenue streams (Sjödin et al. 2020). As a result, manufacturers pursuing a dual orientation need to clearly articulate a compelling service value proposition for customers and address any negative impacts on the existing business

models of their channel partners (Nansubuga and Kowalkowski 2024; Renault, Dalsace, and Ulaga 2010).

Service and solution selling

The servitization literature highlights the diverse forms services can take. While traditional services like after-sales support remain vital, manufacturers are increasingly encouraged to offer advanced services and solutions to better meet customer expectations and capture downstream opportunities (Salonen 2011). Mathieu (2001) classifies services into two main types: those supporting the supplier's product (SSP) and those supporting the client's actions (SSC). SSPs, such as installation and maintenance, focus on product functionality with lower relationship intensity, while SSCs, like financing and consulting, are customized to the customer's activities and require deeper relationship involvement. Advanced SSCs shift the focus from selling inputs (SSP) to delivering customer outcomes, such as availability or performance levels (Ulaga and Reinartz 2011), often blending goods and services to create comprehensive customer solutions.

The concept of customer solutions can be traced back to early marketing literature on "systems selling" (Hannaford 1976; Mattsson 1973; Page and Siemplenski 1983), which refers to the sale of product-service combinations designed to perform a complete function, thus fulfilling a broader customer need. Over time, systems selling has evolved beyond solely solving customers' operational problems to encompass more strategic, solutions-based marketing (Davies, Brady, and Hobday 2007). While there is general agreement on the strategic imperative of servitization as a necessary means of differentiation in mature, commoditized markets (e.g., Baines, Bigdeli, and Kapoor 2024; Ulaga and Reinartz 2011), advanced services and solutions can also play a crucial role in the earlier stages of an industry lifecycle (Cusumano, Kahl, and Suarez 2015).

Customer solutions can be understood as ongoing relational processes in which a provider integrates products, services, and knowledge into customized combinations that address strategically important, customer-specific problems, with compensation tied to the customer's achieved value-in-use (Storbacka 2011). Thus, solutions require operational integration that goes beyond the sum of the solution's individual components (Sawhney 2006). Effective implementation depends on mutual engagement throughout the relationship, from basic information sharing to active co-creation and joint implementation of the agreement (Tuli, Kohli, and Bharadwaj 2007; Ulaga and Reinartz 2011). To ensure the promised value materializes in practice, companies must identify opportunities for value-in-use enhancements, which can also serve as a basis for contract renewal (Prohl and Kleinaltenkamp 2020). Furthermore, solutions demand a strong alignment of interests between the parties and typically involve transferring some or all outcome risk from customers to providers (Bond et al. 2020).

As services gain prominence, salespeople increasingly act as customer resources and problem solvers, collaborating closely with clients (Kindström, Kowalkowski, and Alejandro 2015). Although the sales process for services is not

necessarily more complex than that for hardware or software systems, it tends to be longer and involves more interactions with decision-makers across various levels of the customer organization (Ulaga and Loveland 2014). In servitization, the customer's buying center includes stakeholders with diverse functions, interests, and influence levels who collectively contribute to selecting, implementing, and using services or solutions. Their roles vary based on the organization and complexity of the purchase (Johnston and Bonoma 1981; Macdonald, Kleinaltenkamp, and Wilson 2016; Webster and Wind 1972). Consequently, managing customer expectations, ensuring customer success, and demonstrating value to key stakeholders becomes essential (Ulaga and Loveland 2014). Servitization also requires a broader view of selling actors; that is, companies should expand their perspective beyond traditional salespeople to include a wider range of individuals for whom selling is a complementary activity (Hartmann, Wieland, and Vargo 2018).

Methodology

While there is broad agreement on the vital role of salespeople in selling services and solutions, a structured overview of existing knowledge about selling and sales management for successful servitization is lacking. To achieve the study's objectives and to create a sound understanding of the implications servitization has for selling and sales management, we conduct a systematic literature review following best practice guidelines (e.g., Snyder 2019; Tranfield, Denyer, and Smart 2003) and previous examples of systematic literature reviews in the sales domain (e.g., Fischer, Seidenstricker, and Poeppelbuss 2023; Lindsey-Hall et al. 2024; Mullins, Chase, and Friend 2024).

Review process

The initial stage of the review process involved compiling a list of keywords to identify relevant literature on solutions and servitization in the context of selling and sales management. To determine appropriate search terms, we conducted a comprehensive review of scoping articles within the field, drawing on the collective expertise of the research team. This procedure resulted in the identification of keywords that can be categorized into three groups: (1) terms indicating a focus on services and solutions (e.g., product-service system, *serviti**, *solution**); (2) terms specifying the context of sales management (*sales**, *selling*); and (3) terms reflecting the B2B context of servitization (e.g., business-to-business, industrial) (see Appendix B). These keywords were combined using Boolean operators to search within titles, abstracts, and keywords in the SCOPUS database, covering literature up to 2024 and resulting in 2,393 entries.

We applied rigorous inclusion and exclusion criteria to ensure the literature obtained was of high quality and aligned with the review's objectives. Given that our topic encompasses both the strategic firm perspective and the transformation of the salesforce, we broadly searched for English-language publications within the field of Business,

Management, and Accounting. Hence, we deliberately chose not to limit our search to specific disciplines or fields, such as sales and B2B marketing. This approach aligned with the procedure used by Raddats et al. (2019). It allowed us to capture both broader strategic discussions on servitization, more specific studies on salesforce transformation, and relevant papers in other disciplines, such as production and operations management. Next, all non-peer-reviewed materials (e.g., conference papers, book chapters, surveys, reviews, books, and editorials) were excluded, and only publications in journals with a minimum rating of 2, according to the Academic Journal Guide (AJG),³ were retained (Raddats et al. 2019), which reduced the number of articles to 274.

To refine the sample, two members of the author team independently reviewed the titles and abstracts of the remaining studies, with uncertain cases discussed among the authors. Only papers focusing on solutions and servitization in the context of selling and sales management were retained at this stage. The review was not limited to empirical publications, as conceptual papers could also provide relevant insights. For papers where relevance was unclear, the full text was reviewed, and a discussion was held among the entire author team until reaching a consensus on inclusion or exclusion. This process resulted in a sample of 61 articles. Except for two articles (from 1971 and 1981), all papers were published after 2008. This is expected, given that servitization research only gained momentum in the early 2000s. After analyzing the articles, we concluded that those from 1971 and 1981 lacked relevance for contemporary sales management. Thus, in line with prior systematic reviews (Fischer, Seidenstricker, and Poepelbusch 2023; Raddats et al. 2019), we excluded them. To ensure no relevant papers were missed, we cross-checked the references of included articles (Aman, Azam, and Akhtar 2022; Fischer, Seidenstricker, and Poepelbusch 2023), which led to the addition of seven

articles, resulting in a final sample of 66 articles (see Appendix C). A detailed PRISMA diagram illustrating the search process is shown in Figure 1.

In the next step, two members of the author team conducted a full-text review of the sample to extract and analyze relevant information. They assessed each article's theme, theoretical lens (if applicable), method(s), unit of analysis, type of service offerings studied, focus on digitalization, measurement of performance indicators (if applicable), and key insights for servitization and solution selling. Additionally, in discussion with the entire author team, each article's fit into the sales cycle and customer purchase journey was assessed. The articles were then classified as either "core" (directly related to the topic based on the title and research question) or "peripheral" (sales management implications derived from specific sections of the paper). For instance, Salonen, Terho, et al. (2021) is a core article as it specifically examines how a manufacturer transforms a product-focused sales force to engage in solution selling, whereas Ulaga and Reinartz (2011) is peripheral due to its broader focus on resources and capabilities for successful servitization, with sales skills identification being only one of several contributions.

Descriptive analysis of the sample

Our sample of 66 articles (30 core and 36 peripheral) was published in 21 different journals, with the majority appearing in marketing journals. However, as servitization is a topic addressing the strategic transformation of a firm, our review also covers management and operations journals. The primary outlet was *Industrial Marketing Management*, with 21 articles, followed by the *Journal of Business and Industrial Marketing* (9), the *Journal of Personal Selling and Sales Management* (5), the *European Journal of Marketing* (4), and

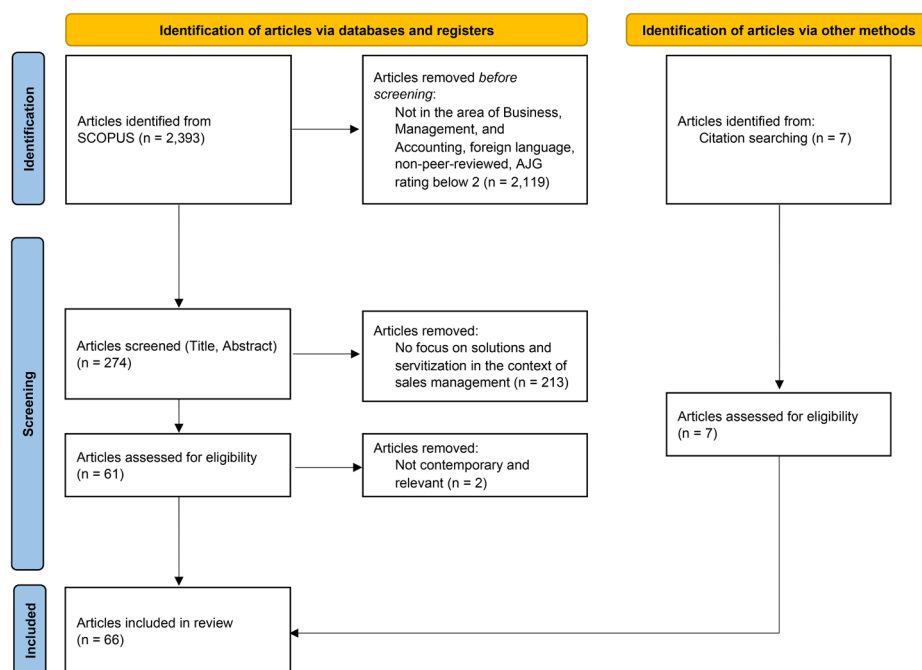


Figure 1. PRISMA diagram illustrating the literature search process (adapted from Page et al. (2021)).

the *Journal of Business-to-Business Marketing* (4).⁴ Table 1 provides an overview of the distribution of articles across outlets. These findings suggest that most sales-related research on servitization is published in marketing journals, with lesser representation in fields like service or management research. Additionally, interest in servitization in the context of selling and sales management has been rising, especially in recent years: nearly 70% of the articles in our sample were published after 2017.

In terms of authorship, research interest in servitization is particularly high among scholars from the Nordic countries; 27 articles had their first author from this European region, with Finland leading ($n=19$). Nordic marketing scholars are strong in the B2B marketing domain, where servitization-related topics are frequently addressed, and those active at the intersection of servitization and sales often collaborate with North American and German researchers. Consequently, many reviewed articles were also (co-)authored by US (12) and German (9) researchers. Appendices D provides an overview of first-author countries. The articles in our review were cited an average of 51.3 times. Notably, the two most cited papers are by Ulaga and Reinartz, with Ulaga as co-author on four of the ten most cited articles in our sample (see Appendix E).

Table 1. Journals and research fields in the review.

Journal	No. of articles	No. of articles in core group	Research field
Industrial Marketing Management	21	7	Marketing
Journal of Business and Industrial Marketing	9	2	Marketing
Journal of Personal Selling and Sales Management	5	5	Marketing
European Journal of Marketing	4	3	Marketing
Journal of Business-to-Business Marketing	4	1	Marketing
Journal of Service Research	3	2	Services
Journal of the Academy of Marketing Science	3	2	Marketing
International Journal of Project Management	2	2	Operations and technology management
Journal of Marketing	2	1	Marketing
Journal of Service Management	2	1	Services
Business Horizons	1	–	General management
European Business Review	1	–	General management
Harvard Business Review	1	1	General management
IEEE Transactions on Engineering Management	1	–	Operations and technology management
International Journal of Research in Marketing	1	1	Marketing
Journal of Business Research	1	–	General management
Journal of Marketing Theory and Practice	1	1	Marketing
Journal of Product Innovation Management	1	1	Innovation
Management Decision	1	–	General management
Production Planning and Control	1	–	Operations and technology management
Technovation	1	–	Innovation
Total	66	30	

The research primarily employed qualitative methods (62%), such as in-depth interviews and case studies. Quantitative methods, typically surveys, were used less frequently (20%), and mixed methods were even less common (9%). The remaining studies were conceptual or literature reviews. An overview of all methods is provided in Table 2. The qualitative nature of most articles partly explains why only a small number included performance indicators: while only one qualitative article reports performance indicators (Levihn and Levihn 2016), they are measured in most quantitative studies, either as self-reported metrics (e.g., Guenzi and Nijssen 2023) or objective performance measures (e.g., Krämer et al. 2022). Despite growing interest and improved understanding of the topic, there remains potential to further explore the consequences of servitization on sales outcomes.

Of the 66 studies in our review, only 27 explicitly build on a theoretical framework rather than merely drawing from a specific literature stream. Table 3 provides a summary of the theories employed across these studies. Notably, 63% of the theory-based studies were published after 2020, indicating a growing trend toward theory testing in recent years.

In examining digitalization and its intersection with servitization (i.e., digital servitization), we evaluated whether studies focus on digital solutions and/or digital servitization, as well as whether the companies or salespeople studied operate in digital industries and/or offer digital services. Of the 23 articles in our sample that mention new technologies or digital offerings, 17 employed qualitative methods. The rising interest in and impact of digitalization align with the expanding body of research on how servitization affects selling and sales management, as shown in Figure 2.

Thematic review

This section examines the themes from our review of the literature on selling and sales management in advanced services and solutions. Three overarching themes emerged: (1) customer engagement throughout the purchase journey; (2) skills and abilities of selling actors; and (3) sales management support.

Table 2. Overview of applied methods.

Methodological approach	Frequency	Percentage
Qualitative	41	62%
In-depth interviews	22	
(Multiple) case studies	14	
Focus groups	4	
Fuzzy-set qualitative comparative analysis	3	
Action research	2	
Video recordings	2	
Quantitative	13	20%
Survey	12	
Company records	6	
Mixed methods	6	9%
In-depth interviews	5	
Focus groups	1	
Survey	4	
Company records	3	
Quasi-experiment	1	
Conceptual	4	6%
Literature review	2	3%

Note: Several studies have employed multiple methods, leading to discrepancies in the total count.

Regarding customer engagement, the reviewed literature commonly emphasizes that selling advanced services and solutions relies on a sales model grounded in a co-creation perspective, rather than the persuasion model typical of goods-centric sales (Kindström, Kowalkowski, and Alejandro 2015; Luotola et al. 2017; Ulaga and Loveland 2014). To facilitate co-creation, the seller engages customers across the phases of the customer’s purchase journey (Witell et al. 2020) to address mutually recognized problems within the customer’s value processes through joint resource integration (Jaakkola and Hakanen 2013).

Selling advanced services and solutions requires specific skills and abilities from individual salespeople and other selling actors, differing from traditional product sales. It also places unique demands on sales management, including the design of supportive structures and processes, the recruitment of salespeople with the right profile, their empowerment, and the implementation of appropriate forms of

control (Alavi et al. 2022; Salonen, Terho, et al. 2021; Ulaga and Loveland 2014).

During engagement, actors from the seller and buyer sides contribute a variety of resources, such as time, money, information, and human resources. The effectiveness of resource integration depends on how smoothly the resources of both parties—notably their personnel and information systems—interact (Plötner, Lakotta, and Jacob 2013). Maintaining stability in the assignment of salespeople and other customer interactors is important (Tuli, Kohli, and Bharadwaj 2007). Likewise, the composition of the customer’s buying center should ideally remain consistent during the selling process to avoid a siloed experience and ensure smooth implementation of the co-created offering. This consistency is crucial, as not all specifications and agreements needed to develop a solution are documented in detail during pre-purchase negotiations and may only be known to the staff involved (Rodríguez et al. 2018). We will further explicate these arguments through a detailed description of the identified themes.

Table 3. Overview of applied theories.

Category	Theory	Frequency
Strategic and structural theories	Resource-based view	4
	Configurational theory	3
	Agency theory	2
	Transaction cost economics	2
	Dynamic capabilities theory	1
	Value capture theory	1
	Resource-advantage theory	1
	Institutional theory	1
	Modularity theory	1
	Actors, resources, and activities model	1
Behavioral and relational theories	Self-determination theory	1
	Motivation-opportunity-ability theory	1
	Employee capital theory	1
	Role balance theory	1
	Transformative learning theory	1
	Social identity theory	1
	Expectancy theory	1
	Self-focus theory	1
	Social exchange theory	1
	Teleological framework	1
	Expectancy disconfirmation theory	1
	Channel theory	1

Note: Two studies apply more than one theory.

Theme 1 – customer engagement during the purchase journey

Pre-purchase phase

Selling of services and solutions can be understood as a process of managing uncertainty (Luotola et al. 2017). Specifically, the seller first identifies explicit or implicit customer problems and then establishes certainty around the proposed solution throughout the selling process. Customer needs can be abstract, particularly with complex problems, and customers may struggle to articulate what an ideal solution would entail from their perspective (Ulaga and Kohli 2018). However, effectively managing customer expectations enhances the likelihood that customers will be satisfied and realize the value-in-use potential of the offering (Paesbrugghe et al. 2018; Salonen 2011; Strandvik, Holmlund, and Edvardsson 2012).

The seller can proactively create sales opportunities by influencing the customer’s mental models of what they aim to achieve from a purchased offering (Strandvik, Holmlund, and Edvardsson 2012). This requires leveraging of internally

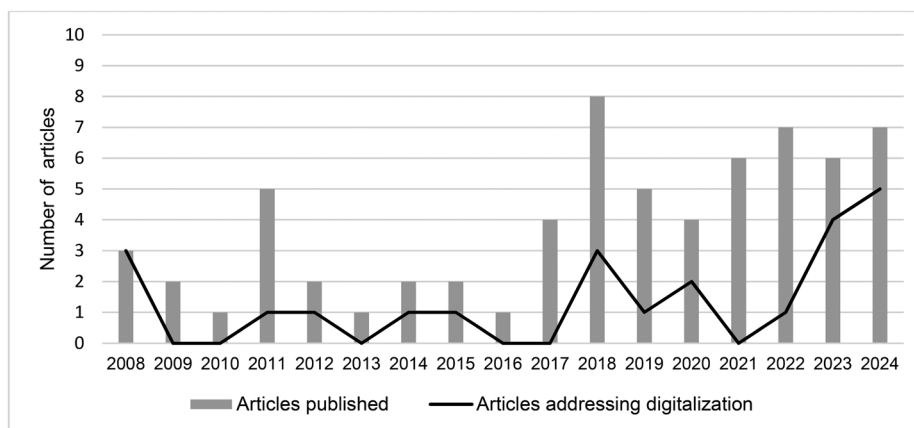


Figure 2. Distribution of published articles by year.

available customer data (Plötner, Lakotta, and Jacob 2013; Ritala et al. 2024; Ulaga and Reinartz 2011) and effectively engaging key stakeholders in the customer's buying center during the "fuzzy front-end" of the requirements definition stage (Ulaga and Loveland 2014).

Recognizing that not all customers are potential solution customers allows for strategic differentiation of offerings (Stähle and Ahola 2022), the development of targeted proposals (Crecelius et al. 2022), and the selective use of the seller's most experienced and high-cost customer-facing personnel, who can effectively engage members of the customer's buying center across various functions and hierarchical levels (Plötner, Lakotta, and Jacob 2013).

Building trust is essential for managing customer uncertainty, particularly for sophisticated offerings such as solutions with digital service elements (Valtakoski 2015). Rapport-building, as an early-stage interpersonal mechanism, plays a vital role in establishing this trust and enabling collaborative interactions in complex sales (Kaski, Niemi, and Pullins 2018). While these services offer high value-in-use, they may be unfamiliar to customers and pose data security risks. Valtakoski (2015) outlines two trust-building strategies to mitigate uncertainty. The first, direct mitigation, enhances tangibility through clear market standards and transparent development. The second, compensating mitigation, fosters cognitive and affective trust by using targeted customer references and nurturing relationships early in solution selling to build confidence and reduce perceived risks. Collaboration with marketing—documenting and sharing customer success stories (Boldosova 2020)—can further shape customer perceptions (Nenonen, Storbacka, and Windahl 2019; Strandvik, Holmlund, and Edvardsson 2012).

Purchase phase

Ideally, by the end of the pre-purchase phase, the seller has successfully convinced the customer of the seller's capabilities to address mutually recognized customer problems. This forms the basis for commencing the purchase phase characterized by extensive, iterative dialogue (Kaski, Alamäki, and Pullins 2019; La Rocca and Snehota 2014) to determine the specific combination of product- and service-based resources to be integrated into a customer-specific solution (Schaefers, Ruffer, and Böhm 2021; Tuli, Kohli, and Bharadwaj 2007).

Numerous studies emphasize the importance of value-based selling during this phase (e.g., Nijssen, van der Borgh, and Totzek 2022; Panagopoulos, Rapp, and Ogilvie 2017; Salonen et al. 2021). Rooted in value co-creation, this collaborative approach helps sellers translate benefits into monetary terms by deeply understanding the customer's business model (Terho et al. 2012). It keeps the customer focused on value while building trust and reducing privacy concerns and price sensitivity (Nijssen, van der Borgh, and Totzek 2022). Particularly for digital, data-driven solutions, which are often costly and complex, value-based selling aids decision-making by addressing risks tied to data management and new processes (Hasselblatt et al. 2018; Ritala et al. 2024; Zolkiewski et al. 2023). This approach also mitigates uncertainties and lowers the risk of solutions failing to meet customer expectations (La Rocca and Snehota 2014; Plötner,

Lakotta, and Jacob 2013; Schaefers, Ruffer, and Böhm 2021; Ulaga and Kohli 2018).

In negotiating the terms of the agreement, salespeople must carefully consider the risk and uncertainty being transferred to the provider (Ulaga and Reinartz 2011; Worm et al. 2017). For instance, offering performance-based guarantees significantly increases operational risks for the supplier, and this risk should be factored into both pricing decisions and the terms and conditions. To mitigate customer uncertainty regarding the solution's effectiveness (Luotola et al. 2017), salespeople can provide tangible evidence, leverage storytelling, and use references (Boldosova 2020; Schaefers, Ruffer, and Böhm 2021).

To close such deals, value-based pricing—setting prices based on the customer's perceived value-in-use—is essential. This approach requires a thorough dialogue with the customer to determine appropriate pricing for the offering (Raja et al. 2020). Crecelius et al. (2022) demonstrate that discounts need to be carefully managed, as offering discounts can be detrimental to the supplier's efforts to expand the relationship.

Post-purchase phase

Once the offering is sold and the contract is signed, the focus shifts to supporting the value-in-use of the deployed solution in the customer's process through a relational, long-term approach that strengthens relationships with customers (Kramer, Krafft, and Storbacka 2024; Zolkiewski et al. 2023). Extending beyond simply ensuring satisfaction and loyalty (Hochstein et al. 2021; Tuli, Kohli, and Bharadwaj 2007), providers of advanced services and solutions are increasingly utilizing customer success managers as customer-facing personnel who proactively manage the customer's ability to use the sold offering and derive value-in-use from it (Bond et al. 2020; Hochstein et al. 2021). Customer success management (CSM) is particularly prevalent among providers of subscription-based services, as they rely heavily on long-term customer relationships and recurring revenues. Therefore, driving the adoption of new customer metrics and dashboards that yield insights into customer lifetime value and customer equity is essential (Hochstein et al. 2021; Kowalkowski and Ulaga 2024).

While salespeople are primary boundary spanners (Stähle and Ahola 2022), the reviewed studies increasingly recognize the critical role of service personnel in engaging customers in the post-purchase phase. Service employees are well-positioned to accumulate customer-specific knowledge. These insights can be utilized to seize new sales opportunities, such as cross-selling and upselling, and to create new offerings (Berkmann et al. 2024; Kowalkowski 2011). With advancements in digital technology and data analytics, sellers can now monitor solution usage more effectively and systematically incorporate customer feedback—often without requiring direct involvement from boundary-spanning personnel (Khan et al. 2024). However, customers may express concerns about sharing their data, particularly regarding the ownership and access rights to business-critical information. This underscores the importance of addressing privacy concerns and implementing stringent data security measures in service and solution selling contexts (Ritala et al. 2024).

Theme 2 – skills and abilities of selling actors

Selling advanced services and solutions requires a different type of salesperson than product selling, as the necessary skills and abilities differ (Uлага and Loveland 2014; Uлага and Reinartz 2011). Skills reflect an individual's competency in performing a task, typically improving through training and experience. Abilities, on the other hand, refer to “more general enduring traits an individual possesses when he or she first begins to perform a task” (Gatewood and Field 2001, p. 370). Since they reflect innate personality traits, they influence the extent to which training can achieve the desired effect.

In analyzing the required abilities and skills of selling actors, we distinguish between “salespeople” and “selling actors,” with the latter referring to employees from all functions who engage in selling activities (Hartmann, Wieland, and Vargo 2018). This distinction is necessary because many of the reviewed studies emphasize that selling is no longer solely the responsibility of the sales department (Berkmann et al. 2024; Hochstein et al. 2021; van der Borgh, de Jong, and Nijssen 2019).

Salespeople abilities and skills

Salespeople act as key boundary spanners (Rodríguez et al. 2018; Stähle and Ahola 2022) during the pre-purchase and purchase phases and are responsible for coordinating interactions between selling and buying actors (Alnakhli, Inyang, and Itani 2021; Kolagar, Parida, and Sjödin 2024). To do so, they need sophisticated interpersonal and communication skills. Koponen, Julkunen, and Asai (2019) found that in solution selling, salespeople must demonstrate behavioral (relational, personal selling, language), affective (motivation, attitude, cultural sensitivity), and cognitive (knowledge, meta-cognition) communication skills, as well as general sales acumen (strategic understanding, leadership).

To identify value opportunities in the early stages of solution selling, salespeople need both customer and technical knowledge, with customer knowledge being especially crucial (Böhm et al. 2020; Le Meunier-FitzHugh et al. 2011). Böhm et al. (2020) explain that while technical knowledge can be supplemented by strong internal relations, there is no substitute for understanding customers' business models and processes.

Sales orchestration, encompassing the effective coordination between the selling organization and the customer's buying center, fosters seamless solution delivery (Kolagar, Parida, and Sjödin 2024; La Rocca and Snehota 2014; Rodríguez et al. 2018). The need for orchestration reflects the broader notion that selling is embedded in wider social systems, where diverse sets of actors integrate and apply resources through “service-for-service exchange” to co-create value (Hartmann, Wieland, and Vargo 2018). In the context of value-based selling, Liu and Zhao (2021) describe proactivity as an essential personality trait in teamwork constellations. For example, proactive salespeople can build social ties with various internal and external actors to gather the information required for effective resource integration.

Salespeople also require intrinsic motivation—enjoying a task primarily for internal reasons rather than external

incentives—as extrinsic motivation is more effective for fostering transactional product sales (Leff Bonney and Williams 2009; Raddats and Easingwood 2010; Uлага and Loveland 2014). Intrinsically motivated sellers are more likely to invest time in solving customers' problems (Leff Bonney and Williams 2009) and demonstrate a stronger overall focus on the sales process (Uлага and Loveland 2014). This applies to the sales of traditional industrial services (SSP & SSC) as well as digital solutions. These findings are further supported by Guenzi and Nijssen (2024), who show that in the context of digital solutions, intrinsic motivational aspects are more important than extrinsic monetary incentives for encouraging salespeople to engage in solution selling. Specifically, salespeople should be challenge-seeking, driven by a desire to serve others, score high on learning orientation, and generally enjoy the execution of digital solution selling.

Adaptability, based on customer feedback and evolving conditions, is also vital in selling advanced services and solutions (Krämer et al. 2022; Pieringer and Totzek 2022). Adaptive salespeople can assess customer information more efficiently and adjust their actions to ensure that the solution's value is clearly communicated (Krämer et al. 2022). Furthermore, ambidexterity—balancing the exploration of new solutions with the efficient exploitation of current, product-focused strategies—is critical for maintaining focus on both customer outcomes and supplier profitability (Classen and Friedli 2022; Liu and Zhao 2021). In addition to these skills, salespeople should demonstrate general innovativeness by developing novel ideas and solutions tailored to customer-specific needs, thereby enhancing the overall value proposition (Kindström, Kowalkowski, and Alejandro 2015; Kramer, Krafft, and Storbacka 2024).

Skills and abilities of other selling actors

While traditionally the division between sales and service personnel has been clear, firms are increasingly leveraging field service personnel in the selling task (Berkmann et al. 2024; Classen and Friedli 2022). Service technicians have direct access to customer processes, providing opportunities for cross-selling equipment and services during on-site visits. To succeed in this task, field service personnel need targeted training and experience in selling (Berkmann et al. 2024; Classen and Friedli 2022). However, this training should be narrow in scope and focused on specific sales situations, as field technicians are, first and foremost, technical experts (Pereira et al. 2018).

Furthermore, while identification with the selling brand can drive persistence in selling, frontline employees should avoid overly advocating the brand. Otherwise, customers may perceive the encounter as a promotional attempt to sell additional offerings, which can harm satisfaction with the service (Schepers and Nijssen 2018). To avoid customer annoyance, it is important that service personnel recognize when customers are likely to be most receptive to additional purchases and when to refrain from selling. In this regard, Berkmann et al. (2024) found that optimal selling situations are often counterintuitive from a service technician's perspective.

Theme 3 – sales management support

For salespeople and other customer-facing personnel to effectively implement a sales model grounded in a co-creation perspective, sales management must provide appropriate support via recruitment of the right people, their empowerment, and the design of appropriate organizational support structures and processes.

Recruitment and empowerment

Sales management plays a crucial role by providing the necessary tangible (technical) and intangible (human and knowledge) resources (Plötner, Lakotta, and Jacob 2013). To ensure the availability of human and knowledge resources, individuals with the required abilities can be recruited or existing selling actors can be trained (Hasselblatt et al. 2018; Kaski, Alamäki, and Pullins 2019; Ulaga and Kohli 2018).

To empower the salesforce, management should foster creative problem-solving by promoting intellectual stimulation and encouraging employees to challenge conventional thinking while exploring innovative approaches (Groza, Zmich, and Rajabi 2021). Transformational leadership plays a key role in this process by inspiring employees to go beyond personal interests and align with the organization's vision and goals (Böhm et al. 2020). Simultaneously, empowering leadership boosts employees' motivation and autonomy, enabling them to confidently take initiative and pursue creative solutions that benefit the organization (Guenzi and Nijssen 2024).

For tangible resources, it is critical that salespeople have access to sales collateral and value quantification tools, which help communicate the value of complex offerings (Momeni et al. 2023; Mustak et al. 2023). Less experienced field service personnel can benefit from recommendation systems that indicate which products are likely to sell in specific situations (Berkmann et al. 2024). Sales managers should also equip their teams with the necessary (digital) tools and resources to facilitate customization and enable continuous monitoring of customer satisfaction (Momeni et al. 2023). Furthermore, Kowalkowski and Ulaga (2024) highlight the growing importance of digital supply chain capabilities, emphasizing the need for companies to recruit and empower sales teams with new expertise in data-driven customer management and subscription pricing models.

The shift from products to solutions requires adjusted forms of incentivization, considering the higher degree of cross-functional teamwork and a stronger focus on quality over quantity in sales (Kaski et al. 2017; Ulaga and Loveland 2014; Momeni and Martinsuo 2019). These incentive schemes must be designed cautiously. Although monetary incentives can improve salespeople's performance, if poorly conceptualized, they can have adverse effects on individual problem-solving behavior or lead to unhealthy competition among colleagues (Alavi et al. 2022; Reinartz and Ulaga 2008). Alavi et al. (2022) recommend a moderate level of variable compensation based on service selling success. Additionally, incentivizing sales teams through rewards tied to growth and customer satisfaction encourages long-term, customer-centric behaviors (Alavi et al. 2022; Kindström, Kowalkowski, and Alejandro 2015; Mustak et al. 2023).

Supporting structures and processes

Formalized processes and structures help manage customer interactions effectively, especially when internal information is required (Böhm et al. 2020; Tienken, Classen, and Friedli 2023). As the selling of solutions and services often requires orchestrating expertise from different company functions, sales management should establish cross-functional teams (Panagopoulos, Rapp, and Ogilvie 2017; Rodriguez et al. 2018; Zolkiewski et al. 2023) so that not only the sales department but also personnel from marketing, services, and project management are involved in the selling processes (Kindström, Kowalkowski, and Alejandro 2015; Kumar, Steward, and Morgan 2018). This requires developing and strengthening what La Rocca and Snehota (2014) refer to as "relating capabilities" to ensure a strong connection with both customers and coworkers. Additionally, several studies highlight the need to implement new customer-centric interfaces and processes, such as sales and marketing selling centers (Johnson, Matthes, and Friend 2019) and high-performing CRM and ERP systems (Classen and Friedli 2022). In companies where different types of offerings are sold parallelly (e.g., products vs. solutions vs. more basic services), the different selling models must be clearly defined and effectively coordinated so that customer-facing personnel understand what is expected of them and how they can collaborate with others, ensuring that, from the customer's perspective, the purchasing journey is smooth (Reinartz and Ulaga 2008; Storbacka, Polsa, and Sääksjärvi 2011).

Selling of advanced services and solutions: an integrative framework

The customer journey has become a key customer-centric lens for analyzing contemporary B2B customer behaviors across various research streams (Purmonen, Jaakkola, and Terho 2023), including sales (Toman, Adamson, and Gomez 2017). Accordingly, we adopt this conceptual lens to understand the process of selling advanced services and solutions. Based on the reviewed literature and as summarized in Figure 3, we argue that selling advanced services and solutions requires enactment of a collaborative, cross-functional process of customer engagement across the different journey stages.

This engagement facilitates the co-creation of solutions to customer problems and ideally leads to recurring cycles with loyalty loops, achieved through the proactive management of customer success (Hochstein et al. 2021; Purmonen, Jaakkola, and Terho 2023; Tuli, Kohli, and Bharadwaj 2007). Depending on the complexity of the offering and the customer's prior experience with the seller, the purchase journey may vary in terms of buying center composition and the duration of each journey step (Purmonen, Jaakkola, and Terho 2023). In the context of complex service offerings, the customer's purchase journey typically involves a thorough decision-making process with an expanded buying center.

Our analysis of the reviewed papers suggests that in the pre-purchase phase, the seller's primary task is to create a need by helping the customer recognize a problem that needs to be solved (Luotola et al. 2017). This forms the basis

for managing customer uncertainty about the problem resolution process while positioning the seller as a trustworthy partner (Plötner, Lakotta, and Jacob 2013; Valtakoski 2015). In the purchase phase, the focus shifts to fulfilling the customer’s need, requiring detailed negotiations to customize and integrate a service-based offering that addresses the problem (Schaefers, Ruffer, and Böhm 2021; Tuli, Kohli, and Bharadwaj 2007). To manage customer uncertainty about the value-in-use potential of the proposed offering, the seller employs value-based selling and pricing techniques while avoiding persuasion and salesperson-initiated actions typical of goods-centric sales (Terho et al. 2012).

Finally, in the post-purchase phase, the focus shifts to maintaining and expanding the relationship by proactively managing the customer’s ability to use the sold offering and derive value-in-use from it (Hochstein et al. 2021), which smart services and connectivity facilitate (Allmendinger and Lombreglia 2005; Boldosova 2020; Khan et al. 2024). Field service personnel can be leveraged as a secondary sales force to highlight value opportunities through cross-selling and upselling, particularly effective in the context of straight or modified rebuys (Berkmann et al. 2024; Classen and Friedli 2022).

Throughout this engagement process, sales management plays an enabling role by recruitment of the right people, their empowerment, and the design of appropriate supporting structures and processes. This enables customer interfacing personnel to engage in the selling of services and solutions within an organizational framework that supports cross-functional collaboration.

Further research

Our systematic literature review identifies several pertinent research priorities at the intersection of servitization and sales management, presenting a cohesive research agenda. This agenda is particularly important given the limited attention this topic has received—only 30 papers in our sample specifically focus on selling and sales management

within servitization. This area is gaining relevance due to the transformative impact of digital technologies—such as artificial intelligence (AI), the Internet of Things (IoT), and platform-mediated service offerings—on selling actors, sales management, and customer engagement across the purchase journey. We categorize these research priorities into four themes, which we outline in the following sections.

Organizing service and solution selling across the customer purchase journey

Tailoring sales strategies to service offerings

Companies may require distinct sales strategies depending on the type of service offered (e.g., SSPs, digital services, or customer solutions). Future research should investigate how to adapt sales approaches based on the complexity of the offering and specific customer needs. For example, should sales strategies and tactics vary significantly for modularized solutions built on predetermined configurations versus fully tailor-made solutions, where customers may struggle to articulate their ideal solutions to productivity challenges? In these cases, the salesperson’s role in understanding customer needs and crafting, implementing, and managing tailored solutions becomes essential (Guenzi and Nijssen 2024; Storey et al. 2016). Additionally, research should consider how the composition of the customer buying center varies by service type and how selling actors may need to engage with these stakeholders differently to address diverse decision-making dynamics effectively.

Subscription services and recurring revenue models

The rise of digital services and subscription models requires ongoing customer engagement. Future research should explore the evolving role of sales within these models, the collaboration between sales and customer success managers, and the skills needed to sustain long-term customer relationships. In subscription-based and other recurring revenue models, the initial sale is only the beginning of the customer

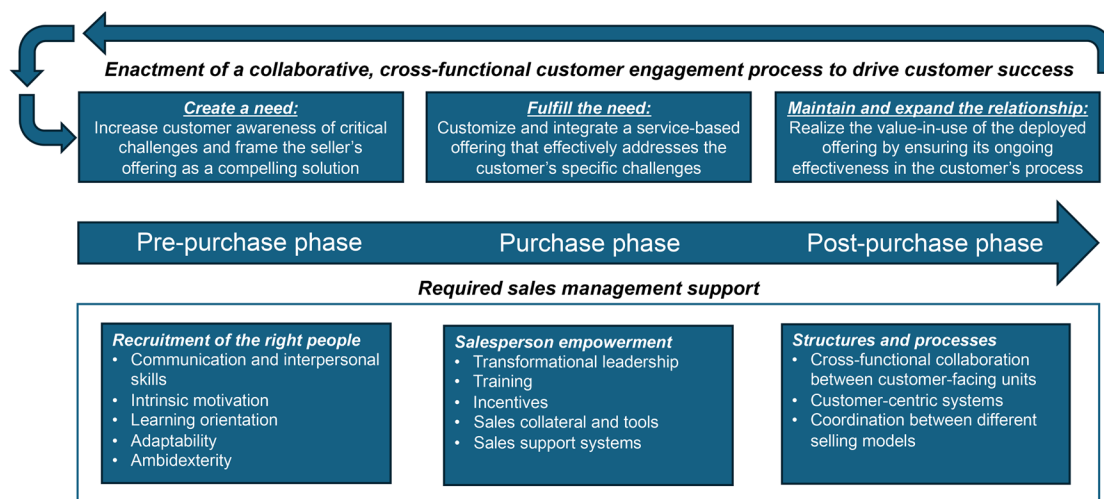


Figure 3. Integrative framework: Selling of advanced services and solutions as a recurring process of customer engagement.

relationship (Kowalkowski and Ulaga 2024), making it essential for sales teams and other selling actors to demonstrate value continually, address evolving customer needs, and prevent churn.

Managing cross-functional collaboration

Organizational silos often hinder the cross-functional collaboration necessary for effectively selling advanced services. For instance, to fully leverage social selling, marketing and sales may need closer collaboration to engage prospects and existing customers across digital and social channels at key touchpoints in the customer purchase journey (Ancillai et al. 2019). Additionally, influencer marketing can be a pivotal touchpoint that moves a potential buyer closer to a purchasing decision (Mero, Vanninen, and Keränen 2023). Future research should examine how companies can dismantle silos, enhance interdepartmental collaboration, and assess the impact on service delivery and customer satisfaction. Promising research avenues include investigating whether established technologies like CRM systems and emerging tools—such as predictive sales analytics, IoT applications, big data analytics, sales and service bots, and other AI-driven tools—facilitate essential cross-functional integration or, conversely, reinforce existing silos or create new ones.

Who manages sales in a collaborative process?

As selling becomes a cross-functional, collaborative process of customer engagement throughout the purchase journey, traditional sales roles may shift. This transition toward a “contingent hierarchy”—where the unit with the greatest expertise in addressing a specific customer need assumes leadership in solution development—highlights the temporary and flexible nature of organizational arrangements for servitization (Tuli, Kohli, and Bharadwaj 2007). These adjustments are situational, driven by customer needs rather than by broad environmental shifts. Future studies should explore how sales responsibilities are distributed in this context, assessing whether sales leadership remains central or becomes more diffused across functions.

Customer success and collective assessment

Customer success in solution selling is judged collectively by members of the customer’s buying and usage centers. Future research could examine how sellers influence this group assessment and demonstrate value across different organizational goals to ensure long-term satisfaction. Novel service-based models may require suppliers and ecosystem partners to engage in market-shaping activities that influence established practices among customers and stakeholders (Salonen, Terho, et al. 2021)—a role extending beyond traditional sales boundaries. Apart from direct customer engagement, indirect customer marketing approaches—where the supplier also considers end-users or customers’ customers—can be invaluable. Embedding “end-user priority” within the organization (Homburg, Theel, and Hohenberg 2020) enables suppliers to co-develop solutions using end-user insights, enhancing client competitiveness. Research could further

explore ways to assign sales responsibility and allocate resources to manage indirect customers effectively, including strategies for integrating end-user insights. This expanded view of sales management positions customer success as a multilayered achievement, requiring a proactive, cross-functional approach to service and solution selling.

Sales management and practices

Separate vs. integrated sales teams

Some companies use dedicated service salesforces, while others integrate sales for products and services. Future research should compare the pros and cons of dual vs. single salesforces, exploring the effectiveness of each approach and identifying gaps in our understanding of how best to structure sales teams for different offerings. Studies could also examine the impact of each structure on sales performance, customer satisfaction, and team collaboration, particularly in complex sales environments where both product knowledge and service expertise are critical. Additionally, insights into how sales team configurations affect cross-functional collaboration and knowledge sharing within the organization would be valuable for optimizing salesforce design.

Managing salesforce transformation into service selling

Transforming a salesforce into service selling requires specific traits, some of which are innate to salespeople (Ulaga and Loveland 2014). Future studies could explore how organizations can manage this transformation, including how to recruit and train salespeople with the necessary characteristics for successful service and solution selling. This is especially important as successful salespeople do not have a uniform profile; rather, they require tailored support that enhances their unique competencies, ultimately boosting their performance in selling advanced services and solutions (Bongers et al. 2025). Additionally, further research could examine how motivation and compensation need to be adapted when different types of offerings are sold.

Role of other frontline actors in selling

Service technicians and other frontline employees often engage in complementary selling activities. Research should investigate when these actors should take an active sales role versus focusing on generating sales leads. Additionally, the role of senior executives in complex systems selling, such as outsourcing or managing critical processes (Hannaford 1976), deserves more attention, given the growing importance of customer solutions. When making decisions that impact the core of the client’s operations and competencies, negotiations typically involve executive board members from both parties. However, we still lack insights into how these high-level negotiations unfold, the dynamics between executive teams, and the strategic considerations that influence decision-making in these high-stakes sales contexts. Understanding these processes could reveal how senior leaders contribute to building long-term, trust-based relationships essential for successful complex solution sales.

Sales channel intermediaries and ecosystem partners

Many manufacturers rely fully or partially on channel intermediaries, such as dealers or distributors, to cover sales territories and expand service sales (Ulaga and Reinartz 2011). They may also rely on dedicated service partners for service activities (Parida and Jovanovic 2022). Channel intermediaries may function as strategic partners, closely integrated with the manufacturer's operations, or operate autonomously, selling multiple brands. For instance, Caterpillar operates through about fifty key dealers, while John Deere has over two thousand in the US alone. When servitizing, the commitment and competence of intermediaries are critical. For digital services and solutions, manufacturers may also need partnerships with specialized software and data management providers (Kowalkowski and Ulaga 2024). Although an ecosystem perspective is increasingly common in servitization research (e.g., Sklyar et al. 2019), there remains a notable gap in understanding the roles of channel intermediaries and other ecosystem actors in the transition to services and solutions. Therefore, we encourage future research to examine the role of external parties in service and solution selling in greater detail.

Digitalization and digital services

Using digital tools, data, and AI to automate and augment service sales

The traditional product-focused salesforce is shifting toward both automation and a customer-focused approach, a dual trend identified early by Sheth and Sharma (2008). This transformation has accelerated with digital technologies, software-based services, and recurring revenue models, prompting a reconfiguration of salesforce structures. As digital services increasingly integrate AI-based functionalities, research is needed to assess the impact of these developments on salesforce structures and the sales function itself. AI and data-driven tools hold significant potential for optimizing service sales by enhancing efficiency, supporting decision-making, and personalizing customer interactions. For instance, research on automated lead nurturing (ALN) shows that it is most effective for new leads, short sales cycles, and lower-value deals. However, its impact diminishes for returning customers and high-ticket purchases, where buyers already possess the necessary information (Habel et al. 2025). These results highlight the need for further research on how different service types and procurement scenarios affect the effectiveness of automation technologies.

Balancing automation and customer centricity

As digitalization continues to reshape service sales, a critical question arises: How can businesses leverage efficiency-driven advancements without compromising meaningful customer relationships? While automation enhances sales processes, over-reliance on it risks diminishing the human-centric elements vital to sales success. Companies—especially in engineering and technology—risk developing a technology-driven myopia, where excessive focus on automation and

feature-driven advancements overshadows customer-centricity. For instance, AI in customer negotiations, while promising, raises concerns about reduced personal contact and customer hesitation toward AI's role in sales interactions. Research should explore how AI and automation can be integrated effectively without eroding customer trust. Identifying best practices will help ensure that technology-driven advancements stay aligned with customer value creation, balancing automation with human-led engagement. Despite salesforce automation, complex service sales still require empathy and adaptive selling—areas where digital sales technologies may remain limited (Alavi and Habel 2021). Thus, future studies should investigate how to best balance AI-driven efficiency with the essential human elements that foster strong customer relationships.

Addressing new complexities with digital services

The rise of digital services introduces additional sales-related challenges. This includes issues such as complexity, privacy concerns, and biased algorithms. Research should investigate how to educate both salesforces and clients on navigating these issues effectively. Additionally, exploring best practices for building trust in AI-driven solutions and ensuring transparency in algorithmic decisions is essential as digital services increasingly intersect with data privacy and security regulations (Wirtz et al. 2023). Another major shift involves the ability to reach new customers, often positioned higher in the value chain. The construction industry illustrates this well. For example, while haulers purchase trucks and conventional after-sales services and parts, digital subscriptions designed to optimize load factors may instead be procured by general contractors overseeing infrastructure or construction projects—entities operating multiple levels above the haulers. As Ulaga and Loveland (2014) highlight, selling advanced services often requires engaging with more senior decision-makers within the customer organization. Similarly, process-oriented digital services may necessitate discussions with entirely new stakeholders—ones with whom manufacturers have no prior business relationships, as they do not purchase their products.

Impact of digitalization on service procurement

Digitalization is transforming how services and solutions are procured (Sjödín et al. 2023). Companies now leverage automated tools to assess vendor qualifications, compare bids, and rank suppliers based on criteria such as price, compliance, and past performance, streamlining the vendor selection process and enabling quicker, data-driven decisions. AI agents increasingly manage repetitive tasks, such as contract renewals and compliance checks, and monitor service level agreements, notifying procurement teams of any breaches. Future studies could explore how these shifts impact the seller's role across stages of the sales process—including pre-engagement, negotiation, and post-sale activities—and identify key challenges and opportunities presented by this digital transformation. Future studies could also investigate the use of online transaction platforms as manufacturer-controlled channels that enable customers to self-order

needed resources in equipment service operations, as prompted by the seller's remote monitoring diagnostics.

Method-related issues

Need for more quantitative, long-term studies

Much of the existing literature we reviewed is based on qualitative research, and studies that employ quantitative methods are mostly cross-sectional (see Table 2). While the growing body of research in the field is encouraging, the dominance of qualitative studies suggests a gap in theoretical development and a need for greater validation. To advance theory, future studies should focus on quantitative methods to measure long-term performance effects using objective metrics, providing a more data-driven understanding of the impact of servitization on sales outcomes, including customer retention and profitability. This will require carefully selecting companies with sufficient data quality and comprehensiveness, as many organizations may lack the robust data needed to support such in-depth quantitative analyses.

Theory testing

In our sample, only 41% of the studies were explicitly grounded in a specific theoretical framework. Furthermore, as shown in Table 3, there is significant fragmentation in the theories and frameworks applied. Future studies in servitization and sales performance should prioritize employing strong theoretical frameworks and focus on theory testing to enhance the rigor and generalizability of findings. A fully mature theory includes precise models that capture hypotheses generated by the same theory; achieving this requires establishing quantitative measures of well-defined constructs and statistically testing them (Edmondson and McManus 2007). By leveraging established theories related to customer engagement and relationship management, researchers can provide a more comprehensive understanding of how servitization influences sales outcomes. Such approaches would allow researchers to examine not only the direct effects of servitization on sales performance but also mediating and moderating factors like organizational adaptability, sales team composition, and digital readiness, that shape these outcomes.

Use of configurational methods

As only three studies applied fuzzy-set qualitative comparative analysis (fsQCA), research should consider using the method to explore complex, configurational relationships in service sales, providing a more systematic approach to analyzing diverse outcomes. More specifically, fsQCA helps identify "different recipes for success" through a configurational logic (Forkmann et al. 2017) while the analytical procedure also enables the uncovering of necessary conditions that must always be present for intended outcomes to occur (Salonen et al. 2021). By doing so, fsQCA combines semantic and syntactic forms of explanation, making it particularly valuable for developing rigorous and managerially relevant

insights into complex phenomena such as servitization (Salonen, Zimmer, et al. 2021) and the salesforce (Bongers et al. 2025).

Summary

This section has highlighted key research priorities at the intersection of servitization and sales management, emphasizing the need for further empirical investigation and method development. As outlined in our research agenda (see Table 4), a rich set of research questions emerges from this analysis, each warranting deeper exploration. Addressing these questions would contribute to refining and expanding our understanding of how evolving service business models, digital transformation, and industry practices shape modern sales strategies and operations. Moreover, the research avenues provide opportunities to explore novel subfields within servitization and sales research, offering insights applicable across industries and sales contexts.

Discussion and conclusions

Theoretical implications

This study contributes to the literature in several ways. First and foremost, this is the first systematic review focused specifically on selling and sales management in servitization. Although servitization has significant implications for sales management and the sales function of B2B firms, previous reviews have overlooked sales-related aspects. This has resulted in fragmented accumulation of knowledge and limited insights into how to successfully sell services and solutions and facilitate the necessary salesforce transformation. Our systematic review provides comprehensive insights through knowledge accumulation and theoretical synthesis, identifying three broad research themes essential to effective service and solution selling: (1) customer engagement throughout the purchase journey; (2) skills and abilities of selling actors; and (3) sales management support.

Second, we contribute to extant knowledge by proposing an integrative framework that aligns with—while extending beyond—Terho and colleagues' (2012) view of value-based selling. This framework illustrates how sales extend well beyond the purchase phase, often requiring the involvement of other selling actors, channel intermediaries, and new ecosystem partners. These actors collaborate in a cross-functional customer engagement process across the different journey stages to drive customer success. Sales management plays a crucial enabling role by recruiting the right talent, empowering them, and designing appropriate support structures and processes.

Third, building on our review, we provide a comprehensive research agenda with directions relevant to both academic and practitioner communities. In so doing, we highlight four themes that address key gaps in current knowledge: (1) organizing service and solution selling across the customer purchase journey; (2) sales management and practices; (3) digitalization and digital services; and (4) method-related

Table 4. Research agenda.

Theme	Research priority	Research implications
Organizing service and solution selling across the customer purchase journey	Tailoring sales strategies to service offerings	1. How should sales strategies be adapted based on the complexity of the service offering, the degree of customization and automation, and specific customer needs?
		2. How does the complexity of a service offering impact customer decision-making processes and sales effectiveness?
		3. Do sales strategies and tactics vary significantly for modularized solutions versus fully tailor-made solutions?
		4. How does the composition of the customer buying center vary by service type, and how should selling actors engage with these stakeholders?
		5. What factors determine when firms should adopt different pricing strategies, such as fixed pricing, fenced pricing, and negotiable pricing, when selling different service offerings?
Subscription services and recurring revenue models		1. What is the evolving role of sales within digital services and subscription models?
		2. What skills are necessary for sales professionals to sustain long-term customer relationships in digital service sales?
		3. How should collaboration between sales, account managers, and customer success managers be structured to optimize customer engagement and retention?
		4. What skills are needed to continually demonstrate value, address evolving customer needs, and prevent churn in recurring revenue models?
		5. How does the shift to recurring revenue models impact the role and responsibilities of sales teams?
Managing cross-functional collaboration		1. How can companies dismantle organizational silos to enhance cross-functional collaboration between sales, marketing, service, and other internal stakeholders in selling advanced services?
		2. To what extent do established technologies and emerging digital tools facilitate or hinder cross-functional integration?
		3. How can firms coordinate and manage all touchpoints across customer journeys, and what should be the role of sales in this process?
		4. How does social selling influence the effectiveness of service sales across different stages of the customer purchase journey?
Who manages sales in a collaborative process?		1. How are sales responsibilities distributed in a cross-functional, collaborative sales process?
		2. How do sales roles shift in a flexible, situational leadership structure where expertise determines decision-making authority?
		3. Does sales leadership remain central or become more diffused across functions in longer and more complex customer journeys?
		4. How do firms balance flexibility and structure in sales leadership while selling advanced service and solutions?
Customer success and collective assessment		1. How can sellers influence the collective expectations on, and assessment of, customer success by the customer's buying and usage centers, and how does this influence future service sales opportunities?
		2. How can sellers better understand the priorities and impact of various stakeholders in a customer firm that influence the decision to buy various services and solutions?
		3. What role do suppliers and ecosystem partners play in shaping customer expectations and satisfaction in service sales?
		4. How can indirect customer marketing approaches enhance customer success and long-term engagement?
		5. How can firms effectively integrate end-user insights into business development to improve service sales outcomes?
Sales management and practices	Separate vs. integrated sales teams	1. What are the tradeoffs between using a dual salesforce versus a single salesforce for product and service sales?
		2. How does the structure of sales teams (integrated vs. dedicated service sales) impact sales performance in servitization?
		3. How does the structure of the sales team influence cross-functional collaboration and knowledge sharing within the organization?
		4. What factors determine the optimal sales team structure for different stages of servitization, and how do these structures evolve over time?
		1. What competencies are most critical for salespeople transitioning from product sales to service and solution selling?
Managing salesforce transformation into service selling		2. How can organizations effectively recruit, train, and retain sales teams for service and solution selling?
		3. How should motivation and compensation structures be adapted for different service and solution sales roles?
		4. To what extent must firms align their sales units across markets and industries when transitioning to service-based business models?
		1. When should service technicians and other frontline employees take an active sales role versus focusing on lead generation?
Role of other frontline actors in selling		2. How can firms effectively integrate frontline employees into the sales process without disrupting their primary service responsibilities?
		3. How do senior executives influence high-stakes negotiations in complex solution sales?
		4. What role do executive-level relationships play in long-term customer engagement for services and solutions?
		1. How do various channel intermediaries (e.g., exclusive or multi-brand dealers) and ecosystem partners influence the success of servitization?
Sales channel intermediaries and ecosystem partners		2. What factors determine the level of commitment and competence required from intermediaries in service sales?
		3. How can sales support their channel partners in selling services and solutions successfully?
		4. How do partnerships with software and data management providers impact the selling of digital services?

(Continued)

Table 4. Continued.

Theme	Research priority	Research implications
Digitalization and digital services	Using digital tools, data, and AI to automate and augment service sales	<ol style="list-style-type: none"> 1. How does digitalization impact salesforce structures and the sales function in service sales? 2. How do AI and intelligent automation impact the role of sales professionals in service sales? 3. How can sellers leverage digital technologies in service sales to effectively respond to customer-side digitalization? 4. Under what conditions does sales automation (e.g., ALN) enhance or hinder value co-creation in service-oriented sales, and how can firms tailor automation strategies to different customer segments and sales contexts?
	Balancing automation and customer centricity	<ol style="list-style-type: none"> 1. How can firms ensure that automation enhances, rather than compromises, customer-centricity in service sales? 2. What best practices help balance technology-driven efficiency with the human adaptability needed for complex sales interactions? 3. How can organizations optimize digital sales tools while preserving the emotional intelligence required for consultative selling? 4. How can firms leverage digital touchpoints to maximize sales effectiveness and customer satisfaction?
	Addressing new complexities with digital services	<ol style="list-style-type: none"> 1. How can organizations educate sales teams and clients on navigating digital service complexities such as privacy concerns and biased algorithms? 2. What best practices and strategies help build trust in AI-driven sales processes and ensure transparency in algorithmic decision-making? 3. How do data privacy and security regulations intersect with the adoption of digital services? 4. How can organizations effectively engage decision-makers in new stakeholder groups when selling process-oriented digital services? 5. What strategies enable firms to navigate multi-tiered value chains and build relationships with indirect buyers who do not purchase their physical products?
	Impact of digitalization on service procurement	<ol style="list-style-type: none"> 1. What challenges and opportunities arise from the digitalization of service procurement? 2. How does the increasing use of AI and automation in procurement impact the role of sales teams? 3. What challenges do sellers face in adapting to automated vendor selection processes and contract management? 4. How does digitalization reshape negotiation and post-sale relationship management in B2B service sales?
Method-related issues	Need for more quantitative, long-term studies	<ol style="list-style-type: none"> 1. What are the long-term performance effects of servitization on sales outcomes, including customer retention and profitability? 2. How can longitudinal studies provide better insights into the evolution of servitization in sales management? 3. What objective metrics can be used to quantify the effectiveness of service-oriented sales strategies? 4. What challenges do companies and researchers face in collecting robust data for in-depth quantitative analyses?
	Theory testing	<ol style="list-style-type: none"> 1. How can established theoretical frameworks be applied to study servitization and its impact on sales? 2. What mediating and moderating factors influence the relationship between servitization and sales performance? 3. How can quantitative measures of well-defined constructs be established and statistically tested to advance theory in this field? 4. How can theory-driven research improve the generalizability of findings in servitization sales studies?
	Use of configurational methods	<ol style="list-style-type: none"> 1. How can fsQCA be leveraged to explore complex, configurational relationships in service and solution sales? 2. What combination of organizational and individual-level factors influences the engagement of selling actors across different types of service and solution selling? 3. How do different combinations of organizational conditions combine to explain a high degree of cross-functional alignment in service selling? 4. How can configurational methods be used to analyze the effectiveness of different market channel structures and dealer networks in selling services and solutions?

issues. For each theme, we highlight several research priorities to encourage further studies in the field of selling and sales management for advanced services and solutions.

Managerial implications

Faced with fast-paced technology transitions and heightened competition, many goods-centric B2B firms are strategically shifting to service-, software-, and digital solution-centric business models. These tectonic shifts present decision-makers, from top management teams to frontline managers, with numerous challenges in navigating change. Servitization fundamentally redefines the nature of customer relationships and how sales organizations engage clients in several ways. For example, salespersons must connect with new stakeholders within—or even beyond—customers' organizations, convey new value propositions, sell rapidly evolving offerings, and demonstrate value in innovative ways. In short, sales

reps are challenged to sell something new to someone new, using new arguments. As market offerings rapidly evolve, customers continuously learn about new value-creation opportunities, challenge suppliers to adapt their sales approaches, and engage with them in new ways. However, many transformation initiatives fail due to a lack of strategic vision and effective managerial implementation, particularly in sales (Alavi et al. 2022; Ulaga and Loveland 2014).

Against this backdrop, our article offers important managerial insights, as sales managers must address change imperatives on different fronts. Specifically, we identify three key areas: (1) within the sales organization; (2) at the interface between sales and related organizational functions within the firm; and (3) in interactions between the company's sales organization and external channel intermediaries and ecosystem partners. In the following paragraphs, we discuss each of these three managerial avenues and provide prescriptive guidance for decision-makers.

First, sales organizations are poised to undergo significant evolution in the coming years to align with the servitization trends and themes outlined in our article. For example, the growing emphasis on digital services and software-defined hybrid offerings often necessitates the creation and leadership of parallel sales forces in the future. Inside sales teams are a good case in point. As digital offerings become more prevalent, decision-makers will need to expand inside sales teams and ensure seamless alignment with traditional sales forces. These changes within sales organizations also demand ongoing efforts in hiring, training, and leadership, along with a thorough assessment of the characteristics and competencies required for salespeople in these distinct teams (e.g., Alavi et al. 2022; Böhm et al. 2020; Guenzi and Nijssen 2024). This is particularly important given the rise of emerging sales approaches that align with digital servitization trends, such as the increasing role of social selling in business markets (Ancillai et al. 2019).

Second, at the interface between sales and related organizational functions, greater coordination is needed between units throughout the entire sales process and across increasingly complex selling centers (Hartmann, Wieland, and Vargo 2018; Plouffe et al. 2016). This need for coordination and integration is especially evident at the marketing-sales interface. In today's digital servitization landscape, top management teams will demand greater and faster returns on investment (ROI), increasing the pressure on sales executives and their teams to align with other well-established functions, such as marketing and service, to drive better business outcomes. As B2B firms' offerings continue to evolve, seamless integration of activities along the marketing and sales funnel is crucial. Managers must increasingly align key performance indicators (KPIs) for marketing and sales teams while accelerating investments in marketing and sales automation. For example, Hochstein et al. (2024) propose implementing "Customer Health" metrics, which combine traditional indicators such as the Net Promoter Score with usage and value assessments. Such comprehensive customer insights enhance relationship diagnostics and provide actionable intelligence across the marketing and sales functions. These comprehensive customer insights improve relationship diagnostics and offer actionable intelligence across marketing and sales functions.

As new sales-related roles and responsibilities emerge and selling centers expand, stronger alignment is also needed between sales and new organizational functions to jointly manage all touchpoints along the customer journey. Consider, for instance, the role of CSM, which is rapidly gaining prominence in business markets (Eggert, Ulaga, and Gehring 2020; Hochstein et al. 2023). In today's evolving servitization landscape, sales teams increasingly rely on CSM experts at every stage of the sales process—from pre-sales engagement to post-sales support, contract renewal, and expansion. As recurring revenue business models gain traction, sales managers face growing pressure to balance customer acquisition, retention, and growth in close collaboration with CSM.

Third, looking beyond the organization, sales executives must critically review established relationships with channel intermediaries and ecosystem partners to master future

servitization growth. Mirroring the imperatives for managing change in B2B companies, intermediaries and partners face their own sales transformation challenges. For instance, even in cases where distributors may have successfully shifted from goods-centric to service-led sales, transitioning to digital services and software-defined offerings presents new challenges similar to those faced by their upstream suppliers. Firms may also need to seek new ecosystem partners to effectively sell their next-generation offers. In their attempt to roll out Direct-to-Customer (D2C) business models—engaging directly with customers through digital services and hybrid offerings—suppliers risk triggering channel conflicts with established intermediaries. Given these challenges, B2B companies must determine whether, and how, to support existing channel intermediaries and ecosystem partners in adapting to this new sales landscape. Which distributors have the right structures, processes, people, and skills? Which partners should the company disengage from? Which new partnerships must be developed? To accelerate servitization growth, managers must address these questions and decide how to evolve their portfolio of sales intermediaries and ecosystem partners over time.

Limitations

As with any literature review, this paper has some limitations. First, the keyword-based research approach and the focus on B2B sales related to servitization and customer solutions may have led to the omission of some relevant studies. For instance, broader studies on technology use in sales that do not focus specifically on servitization or B2B could still be relevant to understanding the theoretical and practical direction of the field. Nevertheless, the literature sample reviewed in our study is extensive enough to provide representative insights into research themes and identify promising research opportunities.

Second, while the systematic review process enhances methodological rigor (Tranfield, Denyer, and Smart 2003), following a rigid, predefined protocol can be limiting in sales research, where research questions often evolve as new insights emerge and multiple factors (e.g., market trends, stakeholder behavior) intersect. Additional insights might be gained through narrative reviews, which may offer more opportunities for critical reflection and subjective interpretation. Narrative reviews are particularly effective for discussing historical trends or the evolution of ideas over time. Researchers can trace the development of concepts or theories and provide a more chronological perspective on the literature, as demonstrated by Hopkinson and Blois (2014) review of work in the marketing channel field based on French and Raven's power-base theory.

Finally, the suggested priorities for future research on servitization were determined based on the research team's evaluation of the significance of various gaps identified within the literature. As with any subjective assessment, it is possible that our expertise, interests, and backgrounds may have influenced our perspective on how the field should progress. This, in turn, could have affected the selection of certain research priorities over others. However, while there might be

disagreements on certain priorities, the study clearly shows that the field of selling and sales management for servitization remains far from fully developed. Despite a significant increase in scholarly attention in recent years, numerous pertinent themes within the domain still require further exploration and development.

Notes

1. Even well-established firms struggle to capitalize on opportunities at the intersection of digital and service domains (Favoretto et al. 2022). This may seem surprising, given decades of investment in digital technologies to support servitization (e.g., Anderson and Narus 1998). However, only recently have these technologies fundamentally transformed B2B firms and industries (Ritter and Pedersen 2020). As digital technology impacts organizational processes and strategies, servitization scholars argue that “digital servitization” should not be treated as a separate subfield but as an integral force shaping all aspects of servitization, including sales (Kowalkowski, Bigdeli, and Baines 2022).
2. This type of servitization has been most common in the computer and IT industries, with companies like IBM frequently used as examples (see Spohrer 2017) for an account of the firm’s service journey). Furthermore, companies may also pursue *deservitization* (Kowalkowski et al. 2017), selling off service assets and businesses, such as when Xerox decided to split into two companies in 2016.
3. The *Journal of Business-to-Business Marketing* was rated as level 2 by AJG in 2021 but was downgraded to level 1 in the October 2024 AJG ranking. Since our review was initially conducted in 2024, based on AJG 2021, and subsequently updated in 2025, we decided to include it in our analysis.
4. The number of publications and frequency of issues varies across journals. For example, both *Industrial Marketing Management* and the *Journal of Business and Industrial Marketing* typically release eight issues per year, while the *Journal of Personal Selling and Sales Management* and *Journal of Business-to-Business Marketing* each publish four issues annually. When interpreting the results, it is important to consider this variation in publication frequency.

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ORCID

Christian Kowalkowski  <http://orcid.org/0000-0002-4081-9737>
 Victoria Kramer  <http://orcid.org/0000-0002-4306-2418>
 Sertan Eravci  <http://orcid.org/0009-0006-6920-8637>
 Anna Salonen  <http://orcid.org/0000-0003-3404-8304>
 Wolfgang Ulaga  <http://orcid.org/0000-0001-6413-6968>

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Appendix A. Glossary of terms

Term	Definition	Adapted from
Buying center	The group of individuals or roles within an organization who participate in the purchasing process and collectively contribute to selecting, implementing, and using offerings, with roles varying based on the organization and the complexity of the purchase.	Johnston and Bonoma (1981); Webster and Wind (1972)
Customer purchase journey	The interconnected, goal-driven process through which multiple decision-makers within an organization evaluate, select, acquire, and use offerings, influenced by the relational context and other interrelated customer journeys.	Purmonen, Jaakkola, and Terho (2023)
Customer solutions	Longitudinal relational processes in which a provider integrates goods, services, and knowledge into customized combinations that address strategically important, customer-specific problems, with compensation tied to the customer's value-in-use.	Storbacka (2011)
Customer success	The degree to which customers perceive they have achieved their desired outcomes through the use of the supplier's offering.	Uлага, Eggert, and Gehring (2020)
Digital servitization	The transformative process, driven by digital technologies, through which a company transitions from a product-centric to a service-centric business model.	Favoretto et al. (2022); Kowalkowski et al. (2017)
Dual business model	The simultaneous operation of two distinct business models within the same market space.	Markides and Charitou (2004); Visnjic, Jovanovic, and Raisch (2022)
Sales orchestration	The process of assembling and managing a network of internal and customer-related stakeholders, resources, and activities—potentially including intermediaries and ecosystem partners—to collectively drive sales outcomes and achieve customer-related goals.	Paquin and Howard-Grenville (2013)
Selling actors	All individuals involved in selling, regardless of their role; this includes salespeople with sales-centric job descriptions as well as a broader set of actors for whom selling is a complementary activity.	Hartmann, Wieland, and Vargo (2018)
Servitization	The transformative process through which a company or business unit transitions from a product-centric to a service-centric business model.	Kowalkowski et al. (2017)
Solution selling	A relational process that involves defining customer requirements, customizing and integrating goods and services, deploying the solution, and providing post-deployment customer support.	Evanschitzky, Wangenheim, and Woisetschläger (2011); Tuli, Kohli, and Bharadwaj (2007)
Subscriptions	Market offerings in which customers and providers engage at various levels to enable access and usage, or to achieve desired outcomes, in exchange for a recurring periodic fee.	Kowalkowski and Uлага (2024)
Systems selling	The integration of products and services designed to meet broader customer needs than traditional product selling, offering a complete function for the buyer.	Hannaford (1976); Mattsson (1973)
Value-based selling	A collaborative approach where the seller works with the buyer to craft a market offering that effectively translates the benefits into monetary terms, grounded in a deep understanding of the customer's business model.	Terho et al. (2012)
Value-in-use	The totality of customer-perceived outcomes—both positive and negative—that result from an offering and either facilitate or hinder the achievement of the customer's goals.	Macdonald, Kleinaltenkamp, and Wilson (2016)

Appendix B. Keywords for the literature search

Keywords for thematic focus		Keywords for sales context		Keywords for B2B context
service development OR industrial services OR product-related services OR product-service system OR serviti* OR service infusion OR service transition OR service transformation OR solution* OR customer solution	AND	sales* OR selling	AND	business-to-business OR b2b OR business to business OR industrial

Appendix C. List of studies included in the systematic literature review

Year	Authors	Title	Journal	Classification
2024	Ritala et al.	Selling and monetizing data in B2B markets: Four data-driven value propositions	Technovation	Peripheral
2024	Guenzi and Nijssen	In search of digital solution sellers: The role of non-monetary motivation and empowering leadership behaviors	Journal of Personal Selling and Sales Management	Core
2024	Kowalkowski and Uлага	Subscription offers in business-to-business markets: Conceptualization, taxonomy, and framework for growth	Industrial Marketing Management	Peripheral
2024	Kolagar, Parida, and Sjödin	Linking digital servitization and industrial sustainability performance: A configurational perspective on smart solution strategies	IEEE Transactions on Engineering Management	Peripheral
2024	Khan et al.	Equipment upgrade service provision in the context of servitization: Drivers, capabilities, and resources	Production Planning and Control	Peripheral

(Continued)

Appendix C. Continued.

Year	Authors	Title	Journal	Classification
2024	Kramer, Krafft, and Storbacka	A configurational approach to understanding relationship characteristics in differing levels of servitization	Industrial Marketing Management	Peripheral
2024	Berkmann et al.	Leveraging B2B field service technicians as a “second sales force”: How service situations affect selling activity and success	Journal of the Academy of Marketing Science	Core
2023	Tienken, Classen, and Friedli	Engaging the sales force in digital solution selling: How sales control systems resolve agency problems to create and capture superior value	European Journal of Marketing	Core
2023	Zolkiewski et al.	Tensions in value spaces: The organizational buying center and advanced services	Industrial Marketing Management	Peripheral
2023	Guenzi and Nijssen	The relationship between digital solution selling and value-based selling: A motivation-opportunity-ability (MOA) perspective	European Journal of Marketing	Core
2023	Momeni et al.	Introducing smart services: requirements and interconnections in multi-actor cooperation	Journal of Business and Industrial Marketing	Peripheral
2023	Mustak et al.	Free-to-Fee transformation of industrial services	Journal of Service Research	Peripheral
2023	Vinhas	Sharing of selling functions in distribution channels and distributor outcomes: The role of solution selling capabilities and uncertainty	Industrial Marketing Management	Peripheral
2022	Stähle and Ahola	Balancing on a tightrope: Coping with concurrent institutional logics in project business	International Journal of Project Management	Core
2022	Pieringer and Totzek	Agency problems in solution selling: How customer perceptions of opportunism and customer characteristics impede their acceptance of outcome-based pricing	Industrial Marketing Management	Peripheral
2022	Krämer et al.	The role of salespeople in industrial servitization: How to manage diminishing profit returns from salespeople’s increasing industrial service shares	International Journal of Research in Marketing	Core
2022	Classen and Friedli	Eight organizational enablers of digital service-sales ambidexterity in industrial firms	Journal of Business and Industrial Marketing	Peripheral
2022	Crecelius et al.	Riding the waves or rocking the boat? Benefits and unintended consequences of customer growth strategies	Industrial Marketing Management	Peripheral
2022	Nijssen, van der Borgh, and Totzek	Dealing with privacy concerns in product-service system selling: Value-based selling as fair treatment practice	Industrial Marketing Management	Peripheral
2022	Alavi et al.	The ambivalent role of monetary sales incentives in service innovation selling	Journal of Product Innovation Management	Core
2021	Liu and Zhao	Successful implementation of value-based selling: A value co-creation and dynamic capabilities perspective	Journal of Business and Industrial Marketing	Peripheral
2021	Hochstein et al.	Proactive value co-creation via structural ambidexterity: Customer success management and the modularization of frontline roles	Journal of Service Research	Core
2021	Schaefers, Ruffer, and Böhm	Outcome-based contracting from the customers’ perspective: A means-end chain analytical exploration	Industrial Marketing Management	Peripheral
2021	Salonen et al.	Engaging a product-focused sales force in solution selling: Interplay of individual- and organizational-level conditions	Journal of the Academy of Marketing Science	Core
2021	Groza, Zmich, and Rajabi	Organizational innovativeness and firm performance: Does sales management matter?	Industrial Marketing Management	Core
2021	Alnakhli, Inyang, and Itani	The role of salespeople in value co-creation and its impact on sales performance	Journal of Business-to-Business Marketing	Peripheral

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Appendix C. Continued.

Year	Authors	Title	Journal	Classification
2020	Raja et al.	Learning to discover value: Value-based pricing and selling capabilities for services and solutions	Journal of Business Research	Peripheral
2020	Kropp and Totzek	How institutional pressures and systems characteristics shape customer acceptance of smart product-service systems	Industrial Marketing Management	Peripheral
2020	Böhm et al.	Drivers and outcomes of salespersons' value opportunity recognition competence in solution selling	Journal of Personal Selling and Sales Management	Core
2020	Boldosova	Telling stories that sell: The role of storytelling and big data analytics in smart service sales	Industrial Marketing Management	Peripheral
2019	Johnson, Matthes, and Friend	Interfacing and customer-facing: Sales and marketing selling centers	Industrial Marketing Management	Peripheral
2019	Momeni and Martinsuo	Integrating services into solution offerings in the sales work of project-based firms	International Journal of Project Management	Core
2019	Koponen, Julkunen, and Asai	Sales communication competence in international B2B solution selling	Industrial Marketing Management	Core
2019	van der Borgh, de Jong, and Nijssen	Balancing frontliners' customer- and coworker-directed behaviors when serving business customers	Journal of Service Research	Core
2019	Kaski, Alamäki, and Pullins	Fostering collaborative mind-sets among customers: A transformative learning approach	Journal of Personal Selling and Sales Management	Core
2018	Kumar, Steward, and Morgan	Delivering a superior customer experience in solutions delivery processes: Seven factors for success	Business Horizons	Peripheral
2018	Ulaga and Kohli	The role of a solutions salesperson: Reducing uncertainty and fostering adaptiveness	Industrial Marketing Management	Core
2018	Kaski, Niemi, and Pullins	Rapport building in authentic B2B sales interaction	Industrial Marketing Management	Core
2018	Schepers and Nijssen	Brand advocacy in the frontline: How does it affect customer satisfaction?	Journal of Service Management	Peripheral
2018	Hasselblatt et al.	Modeling manufacturer's capabilities for the Internet of Things	Journal of Business and Industrial Marketing	Peripheral
2018	Pereira et al.	Internal elements that hinder a better industrial service offering	Journal of Business and Industrial Marketing	Peripheral
2018	Rodríguez et al.	Teleological sales and purchase approaches in complex business relationships – customers' expectations before and perceptions after purchase	Journal of Business and Industrial Marketing	Core
2018	Paesbrugge et al.	Personal selling and the purchasing function: Where do we go from here?	Journal of Personal Selling and Sales Management	Peripheral
2017	Worm et al.	When and why do customer solutions pay off in business markets?	Journal of the Academy of Marketing Science	Peripheral
2017	Kaski et al.	Buyer versus salesperson expectations for an initial B2B sales meeting	Journal of Business and Industrial Marketing	Core
2017	Luotola et al.	Embracing uncertainty in value-based selling by means of design thinking	Industrial Marketing Management	Core
2017	Panagopoulos, Rapp, and Ogilvie	Salesperson solution involvement and sales performance: The contingent role of supplier firm and customer-supplier relationship characteristics	Journal of Marketing	Core
2016	Levihn and Levihn	The transition from product to solution selling: The role and organization of employees engaged in current business	Journal of Business-to-Business Marketing	Core
2015	Kindström, Kowalkowski, and Alejandro	Adding services to product-based portfolios: An exploration of the implications for the sales function	Journal of Service Management	Core
2015	Valtakoski	Initiation of buyer-seller relationships: The impact of intangibility, trust and mitigation strategies	Industrial Marketing Management	Core
2014	Ulaga and Loveland	Transitioning from product to service-led growth in manufacturing firms: Emergent challenges in selecting and managing the industrial sales force	Industrial Marketing Management	Core
2014	La Rocca and Snehota	Value creation and organizational practices at firm boundaries	Management Decision	Peripheral

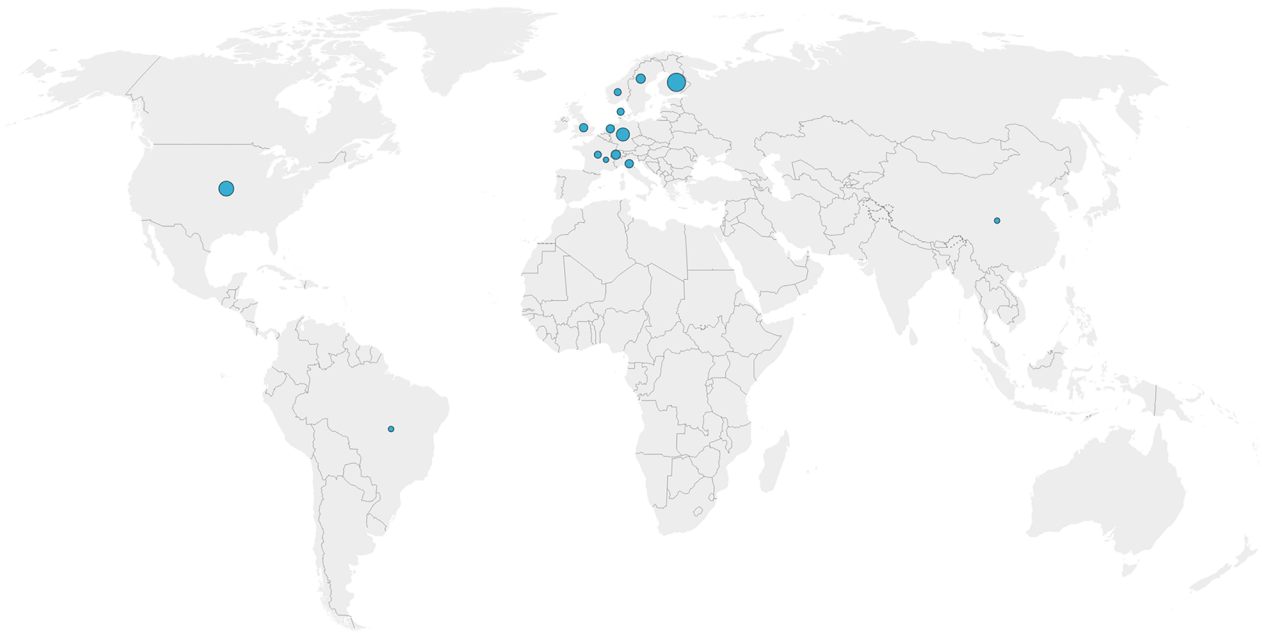
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Appendix C. Continued.

Year	Authors	Title	Journal	Classification
2013	Plötner, Lakotta, and Jacob	Differentiating market offerings using complexity and co-creation: Implications for customer decision-making uncertainty	European Business Review	Peripheral
2012	Paiola, Gebauer, and Edvardsson	Service business development in small to medium-sized equipment manufacturers	Journal of Business-to-Business Marketing	Peripheral
2012	Strandvik, Holmlund, and Edvardsson	Customer needing: A challenge for the seller offering	Journal of Business and Industrial Marketing	Peripheral
2011	Kowalkowski	The service function as a holistic management concept	Journal of Business and Industrial Marketing	Peripheral
2011	Ulaga and Reinartz	Hybrid offerings: How manufacturing firms combine goods and services successfully	Journal of Marketing	Peripheral
2011	Storbacka, Polsa, and Sääksjärvi	Management practices in solution sales-A multilevel and cross-functional framework	Journal of Personal Selling and Sales Management	Core
2011	Salonen	Service transition strategies of industrial manufacturers	Industrial Marketing Management	Peripheral
2011	Le Meunier-FitzHugh et al.	The implications of service-dominant logic and integrated solutions on the sales function	Journal of Marketing Theory and Practice	Core
2010	Raddats and Easingwood	Services growth options for B2B product-centric businesses	Industrial Marketing Management	Peripheral
2009	Storbacka et al.	The changing role of sales: Viewing sales as a strategic, cross-functional process	European Journal of Marketing	Peripheral
2009	Leff Bonney and Williams	From products to solutions: The role of salesperson opportunity recognition	European Journal of Marketing	Core
2008	Helander and Möller	How to become solution provider: System supplier's strategic tools	Journal of Business-to-Business Marketing	Peripheral
2008	Reinartz and Ulaga	How to sell services more profitably	Harvard Business Review	Core
2008	Sheth and Sharma	The impact of the product to service shift in industrial markets and the evolution of the sales organization	Industrial Marketing Management	Core

Appendix D. Geographical distribution of the articles based on the first author's origin

Origin of first author	Frequency
Finland	19
USA	12
Germany	9
Sweden	4
Switzerland	4
United Kingdom	3
Italy	3
Netherlands	3
Denmark	2
France	2
Norway	2
Brazil	1
China	1
Germany/France	1
TOTAL	66



Appendix E. Ten most cited articles included in the review

Authors (date)	Journal	Classification	No. citations ^a	Citations per year ^a
Ulaga and Reinartz (2011)	Journal of Marketing	Peripheral	797	61.3
Reinartz and Ulaga (2008)	Harvard Business Review	Core	222	13.9
Sheth and Sharma (2008)	Industrial Marketing Management	Core	174	10.9
Ulaga and Loveland (2014)	Industrial Marketing Management	Core	164	16.4
Raddats and Easingwood (2010)	Industrial Marketing Management	Peripheral	139	9.9
Salonen (2011)	Industrial Marketing Management	Peripheral	128	9.8
Hasselblatt et al. (2018)	Journal of Business and Industrial Marketing	Peripheral	112	18.7
Storbacka et al. (2009)	European Journal of Marketing	Peripheral	91	6.1
Worm et al. (2017)	Journal of the Academy of Marketing Science	Peripheral	84	12.0
Strandvik, Holmlund, and Edvardsson (2012)	Journal of Business and Industrial Marketing	Peripheral	84	7.0

^aCitations from Scopus (February 6, 2025).