



Advancing service-dominant logic with systems thinking

1. Introduction

Service-dominant (S-D) logic, introduced by Vargo and Lusch (2004), set in motion a potential paradigm shift (Brodie, Lobler, & Ferher, 2019) in marketing in which the focus is on value cocreation through resource integration and service exchange, as opposed to the exchange of goods for goods or goods for money. Since its inception, S-D logic has continually evolved, refining and expanding its foundational premises (Vargo & Lusch, 2006, 2008), later distilled into more efficient set of 5 axioms (Vargo & Lusch, 2016). Recent contributions highlight the centrality of institutions (ibid.) and importance of the interplay of emergence and institutionalization (Vargo et al., 2023). This ongoing evolution has resulted in a more comprehensive understanding of the systemic, institutional, and emergent aspects of value co-creation.

During the past 20 years, S-D logic has evolved into a metatheoretical framework that transcends and unifies traditional marketing sub-disciplines and various theories (Koskela-Huotari & Vargo, 2018). It offers a holistic view of markets and marketing, highlighting the interconnectedness of various aspects within these fields. S-D logic enables the exploration of marketing phenomena across various levels of aggregation (Chandler & Vargo, 2011), and supports theory-building efforts at meta-theoretical, midrange, and micro-theoretical levels (Vargo & Lusch, 2017). Over the years, the influence of S-D logic has extended also beyond marketing (see Vargo & Lusch, 2017), impacting a wide range of disciplines and integrating with other theoretical frameworks. Arguably, S-D logic is approaching a positive, *general theory of markets* that focuses on how and why markets function across all levels of abstraction (Akaka et al., 2021; Kotler et al., 2021; Sheth et al., 2022). It thus has the possibility of providing the foundation for a more profound, relevant *normative theory of marketing*.

The purpose of this editorial is to offer a brief update on the developments of S-D logic, and to introduce the eight articles¹ published in the *Journal of Business Research* Special Issue “*Advancing Service-Dominant Logic: Institutions, Service Ecosystems and Emergence*”. The Special Issue is associated with the *Forum of Markets and Marketing* conference held in 2020, reflecting contributions by the community of scholars focused on S-D logic. In this editorial, we first briefly present the core narrative of S-D logic and different pathways to advance it. The subsequent section discusses emerging topics in S-D logic, especially focusing on reinforcing the role of systems thinking at its core. Systems thinking emphasizes a holistic approach, focusing on relationships and processes over individual entities and structures. It inherently integrates socio-materiality in value cocreation in service ecosystems,

acknowledging the continuous interaction among non-human entities, and human actors in shaping phenomena. As a general theory of markets needs to be able to grasp complex, processual phenomena, we highlight areas for future research that can facilitate such a goal. In the end, we introduce the eight articles, representing a range of ways to apply and develop S-D logic.

2. Development of service-dominant logic

2.1. The core narrative of S-D logic

S-D logic captures a shift from thinking about exchange in terms of tangible units of output (the so-called “goods-dominant logic”) to thinking economic activity, and value creation more broadly, in terms of service-for-service exchange (Vargo & Lusch, 2004). Since 2004, this view has developed into a relatively cohesive narrative in which *resource-integrating actors cocreate value through service exchange in service ecosystems that are coordinated by actor-generated institutions* (Vargo & Lusch, 2016).

As indicated, S-D logic views exchange, economic activity, and value cocreation in terms of service-for-service exchange. Hence, *service* (singular) is what is exchanged in value cocreation. Deviating from the traditional view of services (plural) as intangible outputs, service is defined as the application of resources by an actor for the benefit of another or the actor itself (Lusch & Vargo, 2014). This places the activity of resource integration at the core of value cocreation, yet recognizes that service can be provided and exchanged either directly, for example through interpersonal interactions, or indirectly, for example through a good.

S-D logic considers all *actors as fundamentally, functionally similar*: they integrate resources and engage in service exchange to create value for themselves and others (Vargo & Lusch, 2011). Thus, S-D logic does away with conventional actor designations as ‘producers’ and ‘consumers’, and more broadly, integrates the common distinctions between B2B, B2C, and C2C under a general “actor-to-actor” (A2A) view. This allows S-D logic to serve as the basis for a more general theoretical framework within which the ideas of different sub-disciplines can inform each other.

While all actors are similar in their engagement in value cocreation, their experience of value is unique and contextual (Akaka et al., 2015). Thus, *value* is uniquely and phenomenologically determined by each actor, capturing the contextual, holistic and experiential nature of value (Vargo & Lusch, 2008). At the same time, S-D logic recognizes that value

¹ <https://www.sciencedirect.com/journal/journal-of-business-research/special-issue/101CNJBQT5H>.

is always cocreated by multiple actors, including the beneficiary. This points to a systems-oriented view in which multiple actors contribute to each other's well-being, and the viability of the broader system, by engaging in resource integration and service exchange (Lusch & Vargo, 2018). In this systems-oriented view, value cocreation is governed by *institutions*, which refer to actor-generated rules, norms, values, and meanings that make value cocreation possible by enabling and constraining human action (Vargo & Lusch, 2016). Institutions exist as part of more comprehensive *institutional arrangements*, providing coordination mechanisms for resource integration and service exchange.

Finally, the previously highlighted foundational ideas—of multi-actor value cocreation through resource integration and service exchange coordinated by institutions—are implied in S-D logic's service ecosystems perspective. *Service ecosystem* is defined as a “relatively self-contained, self-adjusting system of resource integrating actors connected by shared institutional arrangements and mutual value creation through service exchange” (Vargo & Lusch, 2016, pp. 10–11). The service ecosystems perspective enables looking at value cocreation at different levels of aggregation and abstraction (Vargo & Lusch, 2017), providing an analytical scaffolding with which to zoom in and out between levels of aggregation to understand how phenomena at any level are contextualized by what is going on at a level below and above (Chandler & Vargo, 2011).

2.2. Pathways to apply and advance S-D logic

Arguably, one of the reasons for the spread of S-D logic is its transcending and converging nature, as noted. That is, it provides a framework and a worldview that captures complexity but at the same time reduces it by transcending many traditional, conceptual dichotomies associated with key phenomena present in traditional discussions of markets, actors, and value (Koskela-Huotari & Vargo, 2018). S-D logic is intended to be applicable to different levels of aggregation: macro (e.g., societal), meso (e.g., markets), or micro (e.g., dyadic exchange) as well as across all levels of theoretical abstraction (e.g., metatheoretical, midrange, or micro-foundational) (Vargo et al., 2023b). Thus, it has informed research conducted at various levels, but at the same time has become informed by applications across levels.

Over the course of its 20 years of existence, S-D logic has developed through multiple pathways. Three interrelated and iterative processes can be identified: metatheoretical, midrange theoretical, and evidence-based research. Thus far, the framers of S-D logic have primarily focused on its *metatheoretical* development, as the development of meaningful midrange theory warranted grounding in a coherent and cohesive theoretical framework (Vargo, 2018a). This has meant synthesizing and incorporating a broad set of theories from within and outside the marketing discipline to address particular elements of the S-D logic narrative. For example, a greater advancement of theorizing on service ecosystems was aided by frameworks from institutional theory, systems theory, and complexity theory (Vargo & Lusch, 2017). This work has resulted in the development of the metatheoretical lens and lexicon described in Section 2.1.

S-D logic has also been informed by a range of *midrange theories* and frameworks, such as resource-based theories of the firm, relationship marketing, social exchange theory, and network theories (Vargo & Lusch, 2004). Recently, more midrange theoretical development and applications of S-D logic have been called for to enable its further development through empirical research (Vargo & Lusch, 2017). Midrange theories can connect a metatheory, such as S-D logic, and empirical research (Brodie et al., 2011) as they feature a lower level of abstraction than metatheories. Midrange theories provide more context-specific concepts and explanations and can infer (causal) mechanisms and dynamics of empirical phenomena, thereby providing a basis for empirical investigations (Brodie et al., 2011). As a metatheoretical lens, S-D logic has offered researchers a coherent general structure and paradigmatic lens to view emerging market and marketing phenomena.

This has enabled scholars from different areas of business research and beyond to draw from S-D logic to find novel perspectives on existing concepts, or provide a better explanation of existing phenomena—examples include research on customer encounters (Payne et al., 2008), experiences (Akaka et al., 2015), actor engagement (Alexander et al., 2018; Storbacka et al., 2016), sales (Hartmann et al., 2018), innovation (Koskela-Huotari et al., 2016), design (Vink et al., 2021), and business models (Wieland et al., 2017).

Midrange theories enable operationalizing S-D logic -relevant concepts to conduct *evidence-based research*. For example, the axiom “value is cocreated by multiple actors, always including the beneficiary” represents a general statement of how value is created, which is difficult to operationalize directly. Instead, the idea of value cocreation can inform the development of midrange concepts and measurable constructs that explain certain aspects of value cocreation as a multi-actor process, such as the degree and valence of value created or differences in the experienced value for different actors (e.g., Becker et al., 2023). Empirical findings confirm or contest midrange theories and in turn, may be consolidated on a more abstract level to refine S-D logic (Brodie et al., 2011; Jaakkola et al., 2018).

3. Emerging topics in S-D logic

The diversity of articles in this special issue highlights the significance of S-D logic for analyzing various empirical settings and theorizing different aspects of value cocreation through S-D logic's service ecosystems lens. At the same time, the ongoing exploration of S-D logic's key concepts across empirical settings, and efforts to extend and consolidate S-D logic's theoretical understanding of systemic value cocreation, calls for further attention to the basic concepts and abstractions that are used to understand and interpret phenomena associated with systemic value cocreation (Vargo et al., 2017). Thus, an important area for S-D logic's further development is to extend and articulate its *systems perspective* on value cocreation to provide firmer ontological and theoretical grounds for its metatheory and mid-range applications. The systems perspective underlines the prioritization of relations and processes over isolated entities and static structures (Vargo et al., 2017), continuing naturally from the prior emerging themes of S-D logic (Pohlmann & Kaartemo, 2017). As noted by Vargo et al. (2023a), the systems perspective suggests portraying markets and marketing phenomena as relational, dynamic, and emergent, that is, arising from processes that give rise to properties at a higher level that the properties of constituent elements alone cannot explain (see also Clayton, 2006). Subsequently, we explore potential emerging topics related to ontological considerations, new analytical tools and concepts, as well as epistemological and methodological advances.

First, *ontological questions* arise in S-D logic, particularly with respect to the shifts in orientations introduced by systems thinking: (1) from parts to wholes, (2) from objects to relationships, (3) from structures to processes, and (4) from measuring quantities to mapping qualities (Capra & Luisi, 2014). While these shifts are already reflected in several ways in S-D logic's systemic and institutional view of value cocreation (Vargo et al., 2017), consolidating the ontological foundation can enable the integration of varied theoretical ideas and has additional implications for theory building. For example, further exploring relational and processual ontologies can introduce new ways for understanding and theorizing service ecosystems, and offer new vantage points for (re-) thinking human and non-human actors as arising from their co-constitutive relations (DeLanda, 2006; Vargo et al., 2023a).

The multi-level view of service ecosystems (Vargo & Lusch, 2017) represents an area where dialogue on ontological perspectives can aid in the evolution of S-D logic. On the one hand, the multi-level view opens the opportunity to consider value cocreation at multiple levels of aggregation and abstraction and to zoom in and out between levels to understand how higher-level structures emerge from relational interactions at a lower level and then serve as the context for lower-level

relational interactions (Chandler & Vargo, 2011; Lusch & Vargo, 2014). On the other hand, inspirations from relational theories, such as actor-network theory (e.g., Latour, 2005) have informed a ‘flat-world’ perspective on value cocreation (Vargo & Lusch, 2017). From this viewpoint, different levels have no ontological status or meaning but rather have only epistemological and analytical value in deepening understanding of systemic phenomena (Vargo & Lusch, 2017). As several articles in this special issue further elaborate, the multi-level view has analytical value for zooming in on the micro-level processes that underpin higher-level concepts, for example institutional reconciliation (Lee & Hsieh, 2023) and self-adjustment (Mele et al., 2023), as well as for tracing the emergence of new institutional arrangements from interactions at a lower level (Thompson-Whiteside et al., 2023; see also Vargo et al., 2023a). All in all, this special issue features papers that encourage us to rethink our ontological assumptions underpinning how we understand and approach service ecosystems ranging from neo-animism (Helkkula & Arnould, 2022) to coordination mechanisms interweaving the space–time–culture (Hörger & Ward, 2023). These papers advocate a relational and processual view, which highlights how the entangled elements of the sociomaterial world co-constitute the contexts of value cocreation.

The systems thinking and the associated ontological considerations call for further attention on *sociomaterial reality*, advancing research on the nature of technology as well as the inherent inseparability of human and non-human actors in value cocreation (Orlikowski & Scott, 2008; Akaka et al., 2014). Thus far, these questions have been explored within the framework of S-D logic, particularly by acknowledging that technologies are socially constructed and, therefore, inseparable from the institutions and social practices that bring them into being (Vargo et al., 2015). Thus, sociomateriality influences the unfolding and institutionalization of value cocreation practices and constitutes these entities within the assemblages of socio-material relations (e.g., Law, 2008; Orlikowski & Scott, 2008). As technologies are embedded in a vast array of ongoing and simultaneous actions and interactions, which take place within wider sociomaterial and natural environments, we need further research on the interconnectedness of technologies with the social, material, and ecological aspects of their surroundings. This can also open new avenues for exploring the governance of technologies within service ecosystems.

Beyond ontological considerations, advancing systems thinking in S-D logic calls for *new analytical tools and concepts* that allow us to deal with complex phenomena. As noted in recent studies, theories such as complexity theory, emergence, and evolutionary theory can be used to further inform S-D logic at the *meta-theoretical* level (Vargo & Lusch, 2017; Vargo, 2018a; Vargo et al., 2023a). Examples of such efforts already exist in previous research (Ng et al., 2012; Taillard et al., 2016), but a further examination of concepts such as feedback loops, emergence and its interplay with institutionalization, self-organization and self-adjustment, and adaptation remain a fertile area for further research.

Several papers in this special issue create new insights on dynamic, interrelated service ecosystems. They approach the theme from various angles treating individuals, collectives, and institutions differently. The multi-level approaches vary from studying how practices shape value creation in service ecosystems (Hörger & Ward, 2023) to the effects of institutional complexity on individuals (Lee & Hsieh, 2023) and collaboration in multi-actor service ecosystems on actor-level performance (Lindsey Hall et al., 2022). Further, there are studies that focus on how actors shape service ecosystems and boundaries (Thompson-Whiteside et al., 2023; Razmdoost et al., 2023) as well as papers that theorize on self-adjustment in service ecosystems (Mele et al., 2023). Altogether, these papers showcase a versatility of approaches to deal with complex phenomena and advance S-D logic with new analytical tools and concepts.

Finally, extending the systems thinking in S-D logic continues to call for *epistemological and methodological advances*. As noted by Vargo et al. (2017), conventional reductionist approaches seek to identify individual

parts of a phenomenon and stitch them together to create theories with predictive validity (see also Vargo, 2018a). This, however, stands in contradiction with systems thinking, which emphasizes the mapping of qualities over measuring quantities (Capra & Luisi, 2014). For example, emergence cannot be fully understood through reductionist approaches; it requires alternative epistemic perspectives and methodologies to capture the complex interplay between parts of a system. Furthermore, systems thinking raises questions about the role of the researcher in shaping the phenomenon that is studied, recognizing the dissolution of the boundary between the observer and the observed (Barad, 2007; Capra & Luisi, 2014).

Thus, further advances with the epistemological and methodological questions are needed to explore ways to represent and analyze service ecosystems. For example, the deeply-rooted view of value creation as unfolding in a dyadic relationship between a provider and customer cannot support systems-oriented analysis, and needs to be replaced with new analytical units that capture the complex relationships among value cocreating actors (Siltaloppi & Vargo, 2017). Furthermore, new ways for mapping and analyzing complex relationships and feedback loops in service ecosystems are needed to understand system-level dynamics (Vargo et al., 2017), as exemplified by Koskela-Huotari et al. (2023) in the context of retailing value chains and food waste.

Methodologically, the prevalence of qualitative methods—in this special issue and in service ecosystems research more broadly—reflects their utility for investigating and theorizing such complex phenomena. However, quantitative methods are also needed. As outlined by Kozłowski et al. (2013), quantitative approaches can probe phenomena such as emergence in two ways: (1) Indirect methods like multilevel analysis, which concentrate on emergent structures. In these methods, the actual process of emergence is deduced rather than directly observed. (2) Direct methods, exemplified by techniques like agent-based modeling (ABM), which are geared towards the direct examination of emergent phenomena (Fujita et al., 2018). Furthermore, methodological development is needed to support mid-range theory building. For instance, in this special issue, Becker et al. (2023) advocate for new methods and questions to study collective experiences, extending beyond individual-level theorization, as experiences arise for both individual and collective actors.

We contend that introducing diverse and alternative perspectives is paramount to studying the emergent, complex phenomena of interest. In our assessment, S-D logic can be advanced by expanding its methodological breadth, thereby infusing greater diversity and plurality into contemporary research. We accept McGrath’s (1981) position that no research method is without its flaws or gaps. As a result, it is not meaningful to study phenomena or develop a field relying on a single research method.

4. Overview of articles published in this special issue

Altogether, eight articles were accepted to the Special Issue, following a rigorous review process. These articles advance insights on concepts core to S-D logic: ecosystems, institutions and value cocreation, and also represent various ways that S-D logic can inform the examination of topics such as supply chain collaboration, innovation, sustainability, technology, and experience. The accepted papers represent both conceptual and empirical research approaches with versatile methodologies and conceptual backgrounds.

In four articles, the primary goal is to inform S-D logic with other theories or empirical insights. Helkkula and Arnould (2022) analyze some of the constraints inherent in dominant marketing ontologies for reaching Sustainable Development Goals (SDGs), especially related to the way we currently perceive actors. The authors highlight human-centricity as a foundational constraint in the dominant market ontology. Their study bridges a neo-animist approach to resource integration and value cocreation in service-dominant logic, continuing and extending S-D logic’s view on the range of beneficiaries of value

cocreating eco-economic systems (e.g., Vargo, 2018b; Vargo & Lusch, 2017).

Razmdoost, Alinaghian, Chandler, and Mele (2023) contribute towards understanding service ecosystem change through the concepts of ecosystem boundary and boundary work. The authors define a service ecosystem boundary as a set of symbolic or social boundaries that enable the functioning of an ecosystem by identifying and authorizing actors, and recognizing, legitimizing, and protecting resources. They suggest that three types of boundary work manifest in service ecosystems: competitive, collaborative, and configurational, and elaborate on their role in institutional changes between service ecosystems.

Högerger and Ward (2023) provide new insights into the coordination mechanisms that shape value cocreation in service ecosystems. The authors apply the concepts of taskscape and the dwelling perspective as midrange conceptual tools in studying a rich qualitative case of Britain's milk doorstep-delivery service, to analyze the institutions that are central to value cocreation. They find that interactive dwelling activities, reliable rhythms, and contextual romanticization are the central coordination mechanisms in this iconic service, shaping micro-, meso- and macro-level interactions. The study provides a holistic perspective on the role of institutions and institutional arrangements in value cocreation and promotes the further extension of S-D logic through cross-disciplinary efforts.

Thompson-Whiteside, Fletcher-Brown, Middleton, and Turnbull (2023) apply the concept of emergence, recently explored through S-D logic (Vargo et al., 2023a), to understand severe disruption to existing ecosystems. Their article explores how emergence unfolds by employing a netnographic study of an online network formed to address the deficiencies of service ecosystems disrupted by COVID-19. The authors observe how previously unconnected actors form a new network at speed, resulting in the emergence of a proto-institution in the form of new practices as actors seek to stabilize this network. This study enriches recent conceptual examinations of emergence with empirical insights and highlights the relevance of understanding emergent phenomena under conditions of uncertainty.

Three articles represent midrange theoretical applications that primarily employ S-D logic as a lens, or method theory (Jaakkola, 2020), to advance other concepts or theories. Lindsey Hall, Qi, Richey, and Patil (2022) employ S-D logic as a theoretical lens to examine how feedback and resource investments in supply chain management and logistics-based partnerships influence inter-firm collaboration, and ultimately, service performance. The authors develop a two-stage collaboration model grounded in S-D logic and test it with quantitative data from supply chain managers. Building on core S-D logic concepts such as value cocreation and operant/operand resources, the study offers new insights for supply chain management and logistics and service strategy literatures by demonstrating how various partnership investments in and dialogical exchanges with partners enhance collaborative, value cocreation processes resulting in mutually-beneficial strategic advantages.

Lee and Hsieh (2023) advance understanding of market innovation by employing S-D logic's institutional view. The authors investigate how the reconciliation of institutional complexity at the individual level affects market innovation. The article reports a multiple case study on product introductions, analyzing how actors maintain, change, and create institutional arrangements. The results suggest that actors undergo an institutional reconciliation process comprising three stages: engaging in reflexivity, mobilizing resources, and normalizing practices. The study affirms that the contextual source, surrounding institutional arrangements, and the process through which actors reconcile themselves with incompatible institutional arrangements have important impacts on market innovation. The individual-level perspective complements existing research that takes a macro perspective on service ecosystem innovation.

Mele, Tuominen, Edvardsson, and Reynoso (2023) draw on S-D logic and routine dynamics theory to study how self-adjustment triggered by

smart sensing technology affects value cocreation routines, employing an extensive qualitative case study of an elderly care home. Their study creates new insight in the adoption of digital technologies as well as service system adaptation to changing conditions to remain viable or improve the system's viability. The study contributes to the wider systemic turn of S-D logic by focusing on the dynamic nature of self-adjustment in service systems. The authors argue that routine dynamics contribute to self-adjustment by initiating processes whereby the involved actors' schemas, resources, and value cocreation performances become integrated and aligned after the technological change.

Finally, the article by Becker, Karpen, Kleinaltenkamp, Jaakkola, Helkkula, and Nuutinen (2023) employs S-D logic as a lens to develop a midrange theoretical concept but, at the same time, contributes to S-D logic by elaborating on one of its core tenets, the experiential view on value. The authors explore how the inherently individual-focused concept of experience can be expanded to capture collective experiences by actors that comprise multiple individuals. They draw on S-D logic and phenomenology to conceptualize actor experience as encompassing individual and collective experiences, advancing existing experience research. Furthermore, they discuss the implications of the actor experience concept on two types of determination of value: value experience and value attribution, which provides new insight into S-D logic as a metatheory.

5. Conclusion and moving forward

This special issue showcases the versatility of S-D logic in inspiring the examination of timely marketing and business topics and the ongoing development of the metatheoretical lens. The research comprising this issue broadens the scope of S-D logic research, both in terms of entering new empirical domains and expanding its interdisciplinary boundaries. S-D logic continues to offer a basis for further conceptual and empirical work to develop a general theoretical understanding of the market and, more broadly, value cocreation (Vargo & Lusch, 2017; Vargo, 2018a). This is demonstrated in the publications of this special issue. To continue to advance S-D logic in these directions, future research is needed to further develop the *meta*-theory of the market and value cocreation and the incorporation and development of midrange theoretical frameworks and concepts to support additional empirical investigation and practical application. We encourage the expansion of the scope of research to both new empirical domains and across disciplinary boundaries.

We expect that S-D logic continues its systems turn (Vargo, 2018a; Koskela-Huotari & Vink, 2022) as an analytical approach that focuses on the dynamics and relations within service ecosystems, emphasizing the integrated and evolving interactions among social, technological, and natural elements to understand complex phenomena. To advance the development of S-D logic, we advocate for ontological clarity, new analytical tools and concepts, and methodological plurality. We see future research in these emerging topics as a necessary step to address the complex, uncertain phenomena that are of interest in advancing S-D logic as a general theory of markets.

CRedit authorship contribution statement

Elina Jaakkola: Conceptualization, Writing – original draft, Writing – review & editing. **Valtteri Kaartemo:** Conceptualization, Writing – original draft, Writing – review & editing. **Jaakko Siltaloppi:** Conceptualization, Writing – original draft, Writing – review & editing. **Stephen L. Vargo:** Conceptualization, Writing – original draft, Writing – review & editing.

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