Evolution of Service-Dominant Logic: Towards a Paradigm and Metatheory of the Market and Value Cocreation?

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Abstract

We explore S-D logic's development in the direction of a unifying paradigm that can provide the foundations for a general theory of the market and value cocreation. The evolution of S-D logic can be grouped into three periods: a formative period, spanning 2004 to 2007, that provided an alternative perspective of markets and marketing; a refinement period from 2008 to 2011, that clarified and broadened S-D logic's narrative; and an advancement period (2012 onwards), which has seen the emergence of S-D logic's paradigmatic status. Drawing on three categories of conditions (metaphysical, sociological and artefacts), we analyze the extent to which S-D logic meets the conditions of a paradigm. Our findings indicate that while S-D logic aligns with most of the metaphysical and sociological conditions for a paradigm, further development is needed for S-D logic to meet the conditions for an artefact. S-D logic references many different theories and methodologies, a situation that implicitly assumes different philosophical perspectives or orientations, notably objective, subjective and inter-subjective. To further develop S-D logic we offer a variety of ontological, epistemological and methodological questions. We also outline research directions that have the potential to move S-D logic towards a unifying paradigm.

1. Introduction

The groundbreaking article *Evolving to a New Dominant Logic for Marketing* by Stephen Vargo and Robert Lusch (2004a) prompted a paradigmatic shift in the marketing discipline. The authors' service-dominant logic (S-D logic) provides a view of markets and marketing that was broader and more integrated than that offered by previously held views because it was based on social and economic processes wherein service is exchanged for service. This new perspective challenged the traditional goods-centric mindset in which tangible output is the ideal form of exchange and where value is produced and embedded in goods during firm-controlled manufacturing processes and then distributed through the market to "value-destroying" consumers.

While this broader view continues to be relevant, we consider exploration of its utility in relation to recent phenomena, such as the collaborative economy, where increasing connectivity and sociality among actors is disrupting existing markets, particularly interesting. Such exploration facilitates understanding of the emerging platform business models that leverage networks, allowing various actors to engage with one another (Fehrer, Woratschek, & Brodie, 2018). The collaborative economy and platform business models reflect changes in our economy and society that are embedded in what economist Klaus Schwab coined the Fourth Industrial Revolution (Schwab, 2016). This rapidly progressing change has also transformed the current B2B marketing paradigm because in challenging established conventions, such as the division between B2B and B2C markets (Aarikka-Stenroos & Ritala, 2017), it is creating further shifts in how we understand markets and marketing.

S-D logic has thus allowed us to rethink the nature of markets and societies and to direct study towards networks and interdependencies between versatile actors (Vargo & Lusch, 2016). It provides us with a "perspective," "logic," "lens" or "mindset" from which to examine collaborative market structures encompassing social and economic actors (Vargo & Lusch, 2008b). All these terms indicate a paradigmatic understanding of S-D logic. While Vargo and Lusch (2017) do not claim a general theory status for S-D logic – positive or normative – they suggest, given its market foundations, that it's developing in that direction: "Increasingly, numerous scholars have suggested that they felt that the

current S-D logic narrative is beginning to move the status of S-D logic from an orientation and perspective toward a theory" (Vargo, 2018, p. 735).

Since publication of Vargo and Lusch's seminal S-D logic article in 2004, there has been a rapid diffusion of this new logic. Scopus, for example, records over 700 articles that have S-D logic in their title, abstract or keywords and have been written by authors from across the globe, especially Europe, North America, South America, Asia, and Australasia. During the earlier periods of discussion on and dissemination of thinking about S-D logic, the most important contributions on it came from articles published in service and B2B journals. However, several mainstream US marketing journals, including the *Journal of the Academy of Marketing Science* (JAMS) also contributed to this topic. *Industrial Marketing Management* (IMM), in particular, has played a major role in developing S-D logic during those early periods and continues to do so (see Pohlmann &Kaartemo, 2017). Google Scholar analysis reveals 12 IMM articles referring to the work of Vargo and Lusch during the *formative period* of S-D logic development (2004–2007), 73 IMM articles during *the refinement period* (2008–2011) and 199 IMM articles during the *advancement period* (2012 onwards). The two most highly cited IMM articles are by Vargo and Lusch, with the first, *From Goods to Service(s): Divergences and Convergences of Logics*, published in 2008a, and the second, *It's all B2B… and Beyond: Toward a Systems Perspective of the Market*, published in 2011. Both made significant contributions by clarifying and broadening understanding of S-D logic.

While most articles on S-D logic have been published in journals in the areas of marketing and service and information systems, articles on it have recently begun appearing in a broader range of business and management journals and even in non-business journals (about 20 per cent of all such papers have been published in the latter). A question that has arisen in relation to this recent further expansion in S-D logic research concerns the paradigmatic status of S-D logic, namely, does it have the potential to provide *a unifying paradigm and metatheory*, not only for the marketing and service disciplines but also, and more broadly, for business and management (Vargo & Lusch, 2017)?

Our overall objective in this paper is to explore the evolution of S-D logic and the role of IMM and other marketing journals in this development. We do this in the interests of gaining understanding of whether and how S-D logic is moving towards a unifying

paradigm that could provide a foundation for a general theory of the market and value cocreation. In keeping with this objective, we also outline the challenges associated with developing such a theory and endeavour to identify future research directions relevant to it for B2B researchers and the broader service, marketing and management research community.

Our paper has four sections additional to this introduction. In section 2, we overview the evolution of S-D logic and examine the role IMM has played in this process. In section 3, we discuss the conditions conducive to development of a paradigm and metatheory and relate these conditions to the current development stages of S-D logic and G-D (goods-dominant) logic. In section 4, we explore key issues associated with moving S-D logic towards a unifying paradigm that could provide the foundation for a general theory of the market and value cocreation. In the final section, we draw conclusions about the extent to which our paper meets our overall objective.

2. Evolution of S-D logic

From 1980 onwards, the marketing and management discipline began developing research streams with a greater emphasis on social and economic processes (Vargo & Lusch, 2004a). These streams included (i) market orientation (Kohli & Jaworski, 1990; Narver & Slater, 1990); (ii) services marketing (Zeithaml, Parasuraman, & Berry, 1985); (iii) relationship marketing (Berry, 1983; Grönroos, 1994a; Gummesson, 1994); (iv) quality management (Hauser & Clausing, 1988; Parasuraman, Zeithaml, & Berry, 1988); (v) value and supply management (Normann & Ramirez, 1993; Srivastava, Shervani, & Fahey, 1999); and (vi) resource management and competitive advantage (Constantin & Lusch, 1994; Dickson, 1992; Hunt & Morgan, 1995).

One of Vargo and Lusch's (2004a) motivations for developing S-D logic was to provide an *integrative perspective* on these divergent strands of thinking that had been occurring in the marketing discipline since the 1980s, and, from there, build an *open source knowledge platform* for academics to further develop this thinking (Pohlmann & Kaartemo, 2017). Vargo and Lusch's conceptualization of S-D logic therefore drew on theoretical foundations of social and economic processes and was informed by systems-thinking (e.g., Alderson, 1957) and by strategic thinking about markets (Barney, 1991; Teece, 2007) in
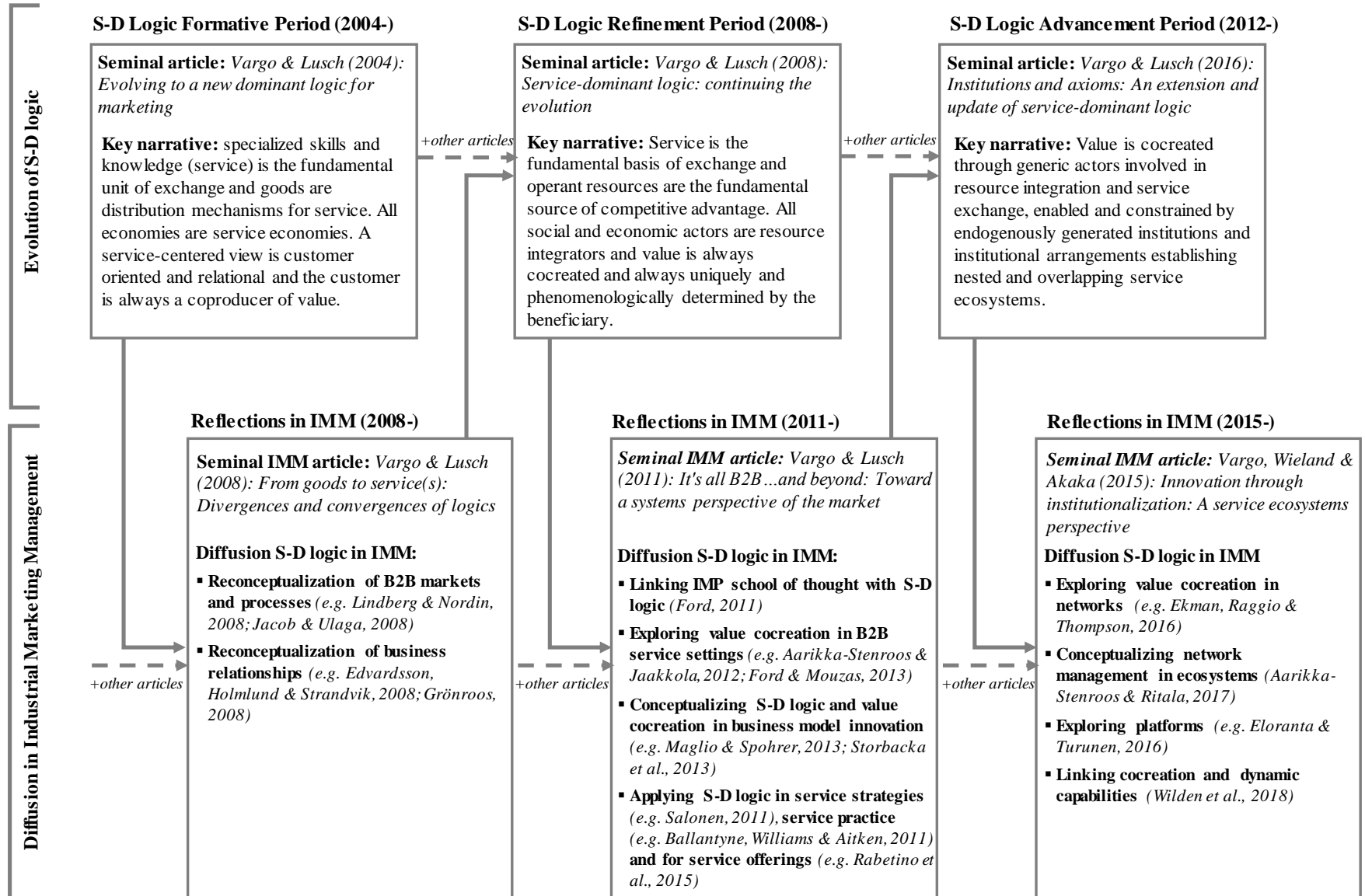
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particular. The theoretical foundation for developing S-D logic´s narrative of value cocreation refers to work on collaborative value creation (Normann & Ramirez, 1993; Prahalad & Ramaswamy, 2004).

Central to S-D logic are the foundational premises (FPs) that characterize the evolving metatheoretical perspective. S-D logic's development can be grouped into three periods (Pohlmann & Kaartemo, 2017; Wilden et al., 2017), which are influenced by Vargo and Lusch's seminal articles:

- Formative Period (2004-2007): Vargo and Lusch, (2004a) initiated this period by providing an alternative perspective of markets and marketing and thus challenged the traditional product-centric Goods Dominant (G-D) logic. S-D logic, at this stage, articulated eight foundational premises. Academic articles, published in this period debated and clarified what was meant by S-D logic.

- Refinement Period (2008-2011): Vargo and Lusch (2008b) extended S-D logic to 10 foundational premises. The published articles in this period refined, clarified and broadened the S-D logic narrative and the number of authors and journals referring to S-D logic increased significantly.

- Advancement Period (2012 onwards): In this period, Vargo and Lusch, (2016) introduced one new foundational premise and assigned the now eleven premises to five axioms. The number of authors further expanded, and the range of articles in marketing and service journals and other disciplines exponentially increased. The published work in this period broadened the S-D logic discourse and the contexts it was applied in. Further, initial empirical investigations shaped and verified its conceptual understanding.

Figure 1 illustrates the evolution of S-D logic and shows how the three periods have been reflected in IMM and how IMM has shaped the key narratives in S-D logic. This interative cross-fertilization process has drawn on research from various fields, including health care, computer science, sports management, innovation studies, tourism, and design (Vargo & Lusch, 2017). However, due to its strong network-centred perspective, industrial marketing has a strong influence on the diffusion and adoption of S-D logic in marketing.

Figure 1: *Evolution of S-D logic and its diffusion in IMM*

Evolution of S-D logic

S-D Logic Formative Period (2004-)

Seminal article: *Vargo & Lusch (2004): Evolving to a new dominant logic for marketing*

Key narrative: specialized skills and knowledge (service) is the fundamental unit of exchange and goods are distribution mechanisms for service. All economies are service economies. A service-centered view is customer oriented and relational and the customer is always a coproducer of value.

S-D Logic Refinement Period (2008-)

Seminal article: *Vargo & Lusch (2008): Service-dominant logic: continuing the evolution*

Key narrative: Service is the fundamental basis of exchange and operant resources are the fundamental source of competitive advantage. All social and economic actors are resource integrators and value is always cocreated and always uniquely and phenomenologically determined by the beneficiary.

S-D Logic Advancement Period (2012-)

Seminal article: *Vargo & Lusch (2016): Institutions and axioms: An extension and update of service-dominant logic*

Key narrative: Value is cocreated through generic actors involved in resource integration and service exchange, enabled and constrained by endogenously generated institutions and institutional arrangements establishing nested and overlapping service ecosystems.

+other articles

Diffusion in Industrial Marketing Management

Reflections in IMM (2008-)

Seminal IMM article: *Vargo & Lusch (2008): From goods to service(s): Divergences and convergences of logics*

Diffusion S-D logic in IMM:
- **Reconceptualization of B2B markets and processes** *(e.g. Lindberg & Nordin, 2008; Jacob & Ulaga, 2008)*
- **Reconceptualization of business relationships** *(e.g. Edvardsson, Holmlund & Strandvik, 2008; Grönroos, 2008)*

Reflections in IMM (2011-)

Seminal IMM article: Vargo & Lusch (2011): It's all B2B...and beyond: Toward a systems perspective of the market

Diffusion S-D logic in IMM:
- **Linking IMP school of thought with S-D logic** *(Ford, 2011)*
- **Exploring value cocreation in B2B service settings** *(e.g. Aarikka-Stenroos & Jaakkola, 2012; Ford & Mouzas, 2013)*
- **Conceptualizing S-D logic and value cocreation in business model innovation** *(e.g. Maglio & Spohrer, 2013; Storbacka et al., 2013)*
- **Applying S-D logic in service strategies** *(e.g. Salonen, 2011),* **service practice** *(e.g. Ballantyne, Williams & Aitken, 2011)* **and for service offerings** *(e.g. Rabetino et al., 2015)*

Reflections in IMM (2015-)

Seminal IMM article: Vargo, Wieland & Akaka (2015): Innovation through institutionalization: A service ecosystems perspective

Diffusion S-D logic in IMM
- **Exploring value cocreation in networks** *(e.g. Ekman, Raggio & Thompson, 2016)*
- **Conceptualizing network management in ecosystems** *(Aarikka-Stenroos & Ritala, 2017)*
- **Exploring platforms** *(e.g. Eloranta & Turunen, 2016)*
- **Linking cocreation and dynamic capabilities** *(Wilden et al., 2018)*

+other articles

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2.1 The Formative Period (2004–2007)

Initiated by Vargo and Lusch's (2004a) paper *Evolving to a New Dominant Logic for Marketing,* which provides an alternative perspective of markets and marketing centred on social and economic processes, this period challenged traditional product-centric G-D logic. In proposing service as the basis of all exchange, the two authors turned the focus to intangible resources, cocreation of value, and relationships. Their thinking offered a more comprehensive and inclusive logic and a rich new foundation for the development of marketing thought and practice. To articulate this new perspective, Vargo and Lusch (2004a) developed eight foundational premises (FPs).

- FP1 identified specialized skills and knowledge as the fundamental unit of exchange;
- FP2 defined indirect exchange as fundamental;
- FP3 described goods as distribution mechanisms for service provision;
- FP4 emphasized knowledge as the fundamental source of competitive advantage;
- FP5 characterized all economies as service economies;
- FP6 positioned the customer as always being the co-producer;
- FP7: maintained that enterprise can only make value propositions;
- FP8: presented the service-centered view as customer oriented and relational.

Although Vargo and Lusch (2004a) did not mention the term "operant resource" in their initial foundational premises, it is there through implication. Whereas G-D logic focuses on operand resources and end-products, S-D logic views goods as transmitters of operant resources (embedded knowledge). Products are used by other operant resources (e.g., knowledge) as appliances in value-creation processes. This focus on operant resources in S-D logic thus changed understandings about the primary unit of exchange, the role of the customer, the determination and meaning of value, the nature of the firm–customer interaction, and the source of economic growth.

Ongoing important work by Vargo and Lusch during the formative period was published in the following papers:

- *The Four Service Marketing Myths: Remnants of a Goods-Based, Manufacturing Model* (Vargo & Lusch, 2004b). Here, the authors looked at production from a S-D logic perspective.

- *Service-Dominant Logic: Reactions, Reflections, and Refinements* (Lusch & Vargo, 2006a). The authors updated their discussion on S-D logic in this paper.
- *Competing Through Service: Insights from Service-Dominant Logic* (Lusch, Vargo, & O'Brien, 2007). The authors highlighted operant resources as competitive advantages.

In 2006, Lusch and Vargo also edited and published a book titled *The Service-Dominant Logic of Marketing: Dialog, Debate, and Directions* (Lusch & Vargo, 2006b). Its 32 invited chapters by 50 leading marketing academics made an essential contribution during this formative period. Also instrumental at this time were two forums that provided opportunity for influential thinkers to discuss and share their research and ideas. The first of these, held at the University of Otago in 2006, led to a special issue of *Marketing Theory* later that year. The second forum, held as part of the December 2006 Australia and New Zealand Marketing Academy Conference, resulted in another special issue, this time of the *Australasian Marketing Journal*. The authors of the book chapters and the two special issues challenged and clarified the new perspective provided by S-D logic and provided a basis from which to refine the S-D logic framework.

The first diffusion of Vargo and Lusch's new perspective (Vargo & Lusch, 2004a) took place in business marketing discourse. Four years after the seminal publication, IMM published the article by Vargo and Lusch (2008b) titled *From Goods to Service(s): Divergences and Convergences of Logics*. In it, the authors considered service as a process in which actors use their resources for the benefit of and in conjunction with those of another party. This, Vargo and Lusch contended, is the fundamental purpose of economic exchange, and their thinking in this regard implied the need for a revised, service-driven framework not only for industrial marketing but also for various other marketing fields. The paper further shaped the shift in thinking on economic exchange from a production process to a value-creation process and from dyads to networks. At the same time, other authors were reflecting on the impact of S-D logic on B2B marketing. Lindberg and Nordin (2008) and Jacob and Ulaga (2008), for example, showed how S-D logic could broaden the understanding of B2B markets and the way B2B processes, such as procurement, work, while Edvardsson, Holmlund, and Strandvik (2008) and Grönroos (2011) reconceptualized business relationships in light of a service logic.

2.3 The Refinement Period (2008–2011)

This period began with the special issue of the *Journal of the Academy of Marketing Science* (2008) that explored an extensive range of S-D logic-related issues. This issue was particularly important because it was the first mainstream US-based marketing journal to focus on S-D logic, and hence, expose S-D logic to the large US-based academic community. One of the articles in this issue was Vargo and Lusch's (2008a) *Service-Dominant Logic: Continuing the Evolution*. In it, the authors clarified some of their original eight foundational premises and added two more.

- FP1 now maintained that "Service is the fundamental basis of exchange."
- FP4 was modified to "Operant resources are the fundamental source of competitive advantage."
- FP6 was changed to "The customer is always a co-creator of value."
- FP7 was refined to "The enterprise cannot deliver value, but only offer value propositions."

The two new FPs (9 and 10) maintained, respectively, that "All social and economic actors are resource integrators" and "Value is always uniquely and phenomenologically determined by the beneficiary." FP9 thus recognized the context of value creation in networks while FP10 positioned value as idiosyncratic, experiential, contextual, and meaning-laden.

As had occurred during the formative period, forums leading to special issues in marketing and service research journals played a major role in refining S-D logic by expanding the academic community and fostering the academic debate. The special issue of the *Journal of the Academy of Marketing Science* (2008) was followed by special issues of such journals as the *European Journal of Marketing* (2011), the *Journal of Macromarketing* (2011) and the *Australasian Marketing Journal* (2011). Each invited a bigger network of scholars to contribute to and refine understanding of S-D logic.

IMM played a significant role during this period. Its first special issue in 2008 contributed to explanations of network structures and the new role of versatile actors (not just the customer) in these networks, while its 2011 special issue advanced understanding of the place of network structures within the S-D logic framework. The 2011 issue responded to the refinements in S-D logic that Vargo and Lusch had made in their 2008a

and 2008b articles, and its content was framed by the article that Vargo and Lusch included in it. Titled *It's all B2B… and Beyond: Toward a Systems Perspective of the Market*, the article broadened the perspective on exchange and value creation within S-D logic and implied that all social and economic actors engage in exchange (e.g., firms, customers, etc.). Because actors, customers included, are service-providing, value-creating enterprises, all exchange can be considered as B2B.

Vargo and Lusch's article in IMM's 2011 special issue proved to be a cornerstone of how B2B marketing could be understood and could inform mainstream marketing and management fields. The article introduced a generic, actor-to-actor (A2A) orientation, pointed towards a dynamic, networked, systems orientation of value creation, and was the first to discuss S-D logic explicitly as a systems-oriented framework. It also elaborated the steps necessary for developing S-D logic into a metatheory informed by various subfields of marketing.

In response to the three important papers from Vargo and Lusch (2008a, 2008b, 2011), a broad group of researchers began investigating business marketing phenomena from an S-D logic (Ford, 2011, for example, linked the IMP school of thought to S-D logic), while discourse on value cocreation in B2B service settings became widespread (see, for example, Aarikka-Stenroos & Jaakkola, 2012; Ford & Mouzas, 2013; and Rönnberg et al., 2016). Another interesting link between cocreation and business models and business model innovation was established through the work of such researchers as Maglio and Spohrer (2013) and Storbacka et al. (2013). In addition, various researchers began applying S-D logic in service strategies (e.g., Salonen, 2011) and service practice (e.g., Ballantyne, Williams, & Aitken, 2011) and for service offerings (e.g., Rabetino et al., 2015).

2.3 The Advancement Period (2012 onwards)

Since 2012, S-D logic research has seen a further expansion in the number of authors engaging with S-D logic and the appearance of articles referencing this framework in a broader range of journals. This expansion has been evident both within and outside the marketing and service disciplines. Scopus analysis shows a steady stream of over 80 S-D logic-related articles (i.e., the term S-D logic appears in the title, abstract or keywords)

published per year. Also, while forums leading to special issues have continued to provide important input, other contributions are now playing a more dominant role.

This period has also seen publication of a second book by Vargo and Lusch (2014). Titled *Service-Dominant Logic: Premises, Perspectives*, *Possibilities*, it consolidated knowledge about S-D logic. Building on the book and their other seminal articles, Vargo and Lusch (2016) went on to rework some of their 10 FPs to and to expand that number by one. The changes read as follows:

- FP4: "Operant resources are the fundamental source of strategic benefit."
- FP6: "Value is cocreated by multiple actors, always including the beneficiary."
- FP7: "Actors cannot deliver value but can participate in the creation and offering of value propositions."
- FP8: "A service-centered view is inherently beneficiary oriented and relational."

FP11 was introduced as "Value cocreation is coordinated through actor-generated institutions and institutional arrangements."

The revised FPs specified more clearly the mechanisms of coordination and cooperation involved in the cocreation of value through markets, and more broadly through society, while the newly introduced FP11 focused on institutions and institutional arrangements and their role in value cocreation in service ecosystems. Literature from outside the discipline of marketing has since provided support for this FP and clarified the nature of the institutional arrangements. Notably, it has built on North's (1991) work on institutions. Vargo and Lusch now saw five of their FPs (FP1, FP6, FP9, FP10, and FP11) as essentially fundamental, leading them to articulate a more parsimonious expression of S-D logic and then to label these premises not just as FPs but also as the five *axioms* of S-D logic. Together, the 11 FPs and five axioms formed the basis for a narrative – a lexicon that fundamentally differs from the lexicon of the G-D logic discourse. In its most parsimonious form, the S-D logic narrative can be positioned as a process of value cocreation where actors are involved in resource integration and service exchange; enabled and constrained by endogenously generated institutions and institutional arrangements; establishing nested and interlocking service ecosystems.

During the advancement period of S-D logic IMM publications developed in the direction of a broader systemic perspective. A central and highly cited IMM article in this

phase is Vargo, Wieland, and Akaka's (2015) *Innovation through Institutionalization: A Service Ecosystems Perspective*, which explores the role of institutions in innovation from a service-ecosystems perspective. Also, while value cocreation became a central theme in IMM during the refinement period, from 2016 onwards the articles in the journal on this matter have shown more explicit investigation from a multi-actor and network perspective (see, for example, Ekman, Raggio, & Thompson, 2016). In addition, network management is now being discussed in the context of broader (service) ecosystems (Aarikka-Stenroos & Ritala, 2017), while dynamic capabilities (Wilden et al., 2018) and platforms (Eloranta &Turunen, 2016) have become topics in the journal's broader discourse on S-D logic.

As S-D logic continues to develop through iterative and participative knowledge growth, it's likely that its developmental stage will be determined by the scientific community's degree of consensus regarding its theoretical structures and the methodological approaches employed to explore them (Kuhn, 2012; Pohlmann & Kaartemo, 2017). Brodie and Löbler (2018) argue that S-D logic and S-D logic's lexicon are still at a developmental stage and that the infusion of the community is still ongoing. The phases depicted in Figure 1 are thus exemplary rather than finite and represent an evolution of a newly introduced logic. In the next section, we evaluate the extent to which the evolution of S-D logic to date corresponds with the evolution of a paradigm that can inform future research directions.

3. Paradigmatic Status of S-D Logic

3.1 Emergence of a Paradigm

During their early development of S-D logic, Vargo and Lusch advised that "S-D logic might be a candidate for the foundation of a paradigmatic shift" (Lusch & Vargo, 2006b, p. 52). However, the considerable refinement of this framework since that time led to Vargo and Lusch (2017, p, 46) stating: "During the last decade, service-dominant (S-D) logic (1) has taken a series of significant theoretical turns, (2) has had foundational premises modified and added and (3) has been consolidated into a smaller set of core axioms. S-D logic can continue to advance over the next decade by moving toward further development of a general theory of the market and, even more broadly, to a general theory

of value cocreation." Before exploring the implications of this statement in this section, we consider it useful to discuss the paradigmatic status of S-D logic and to build on work by Brodie and Löbler (2018) as we do so.

The notion of a paradigm, as it is used today in marketing and other social sciences, draws on the pioneering work of Kuhn (1962, 1982, 1990) and interpretations by Lakatos, (1982), Masterman (1982), Feyerabend (1982) and others. According to Kuhn (1962), paradigms "provide models from which spring particular coherent traditions of scientific research" (p. 10). Paradigms, therefore, are not theories because they do not allow researchers to advance testable propositions and law-like generalizations. Instead, we need to view paradigms as the foundations of theory – or a metatheory – because they give theory building within a field of study direction and meaning. Bates (2005) defined a metatheory as "the philosophy behind the theory, the fundamental set of ideas about how phenomena of interest in a particular field should be thought about and researched" (p. 2). She also argued that there is considerable overlap between a metatheory and a paradigm. For Musa (2013), "Paradigms are broad foundational assumptions about nature that are traditionally accepted by the scientific community … [whereas] meta-theories are broader conceptual understandings of situations than theories, and are less expansive than paradigms" (p. 45). A paradigm is thus an accepted perspective of a particular discipline at a given time, and it provides the basis of philosophical beliefs about the nature of the world and the phenomena under investigation.

Back in the 1960s, Kuhn (1962) proposed that once a paradigm becomes established in a discipline, it serves as a basis for "normal science", where new knowledge is generated with well-known procedures, and where the majority of the researchers in that discipline no longer have to concern themselves with the legitimacy of the paradigm. However, as time passes, anomalies arise for which the normal science fails to provide adequate answers. When such anomalies build up divergences, researchers attempt to accommodate the anomalies, a situation that eventually exerts pressure for a paradigmatic shift that may, in turn, lead to convergence within a new paradigm.

Within the marketing discipline, various researchers have used the notion of a paradigmatic shift to discuss emerging new perspectives. Grönroos (1994b, 1997), Brodie, Coviello, Brookes, and Little (1997) and Gummesson (1997), for example, reviewed the

shift from the traditional managerial "marketing-mix" perspective to a "relationship-marketing" perspective. More recently, the rapidly progressing disruption caused by the collaborative economy (Belk, 2014) has challenged the current "B2B marketing paradigm", where conventions such as the division between B2B and B2C markets have been established (Aarikka-Stenroos & Ritala, 2017). The notion of a paradigmatic shift has also been central to discussion on S-D logic because it has shifted the focus from one centred on goods (G-D logic) to one centred on service (S-D logic). However, as occurs with any emerging paradigm, there are those who challenge the legitimacy of the new metatheoretical perspective and, in particular, the assumptions upon which it is based (see, for example, Hietanen, Andéhn, & Bradshaw, 2017).

3.2 Conditions Needed for S-D Logic to Reach Paradigmatic Status

To examine whether S-D logic has reached the development stage of a fully-fledged paradigm, we used Masterman's (1982, p. 61) grouping of Kuhn's (1962) 21 different "senses" (conditions indicative of a paradigm) into three categories – metaphysical, sociological and artefact. When discussing the first of these categories, the metaphysical, Masterman (1982) claimed that it reflects the notion that a paradigm "has got to exist before the theory" (p. 69). In other words, theorizing and theory building is based on lenses specifically focused on the concerns of respective disciplines. Masterman listed these lenses as myths, sets of beliefs, whole traditions, successful metaphysical speculations, standards, organizing principles governing perceptions itself, general epistemological viewpoints, new ways of seeing, and something that defines a broad sweep of reality. S-D logic provides one such lens.

Vargo and Lusch's (2016) presentation of S-D logic as a narrative that helps us generate insights and stories aligns with Masterman's myths, sets of beliefs, and metaphysical speculations. Both S-D logic and G-D logic are underpinned by sets of beliefs and myths about the fundamental entities that marketing encompasses (Hopkins, 1998; Morris, Brunyee, & Page, 1998; Vargo & Lusch, 2004). Whereas the fundamental entities of exchange within G-D logic are goods and services, the fundamental entities within S-D logic are service-for-service exchanges. More specifically, the sets of beliefs within S-D logic are Vargo and Lusch's precisely formulated FPs and axioms. No such parsimonious

expression exists within G-D logic. However, both S-D logic and G-D logic are clear on what constitutes their respective fundamental entities of exchange.

S-D logic, after only a decade and a half of existence, does not operate as *a whole tradition*. In contrast, G-D logic has established a strong tradition over half a century. While G-D logic has served as *a standard* during several decades and represents the basis for many textbooks and the foundation for empirical investigation with falsifiable hypotheses, S-D logic is still in a development phase with the potential to establish such standards in the future. Vargo and Lusch (2017) have only recently called for the development of a midrange theory that can form a bridge between the abstract S-D logic narrative and empirical investigation (Brodie & Löbler, 2018).

Unlike the situation with G-D logic, which describes different *epistemological viewpoints*, S-D logic has so far paid minimal attention to its epistemological foundations. Only a few articles, such as one by Pohlmann and Kaartemo (2017), have considered this issue explicitly, and it is only relatively recently that researchers such as Löbler (2011) and Peters et al. (2014) have explored avenues by which to further develop S-D logic's epistemological viewpoints. Both G-D logic and S-D logic provide *organizing principles* that serve as prerequisites for perception, but S-D logic provides a lens that allows us to perceive and understand reality in a way that differs substantially from the perspective afforded by G-D logic (Vargo & Lusch, 2004a). What is not in doubt is that S-D logic has provided us with a new way of seeing the reality.

Masterman's (1982) second category of paradigmatic senses, the *sociological*, encompasses universally recognized scientific achievements or other aspects of scientific achievements, accepted devices in common law, and sets of political institutions. These inclusions align with Eckberg and Hill's (1979) description of a paradigm as "made of the consensual beliefs of a self-contained community" (p. 928). Academic communities are a case in point, and one way to assess the nature and impact of a particular such community, its corpus of academic work and the citation patterns and impact of that work (Wilden et al., 2017). Our Google Scholar analysis found 256 articles mentioning S-D logic during the formative period (2004–2007) and 4,580 during the refinement period (2004-2007), making for an average of 1527 per year across this second period. The 15,200 articles featuring S-D logic during the advancement period (2012–2017) has meant an average of

2,171 such articles per year. According to Google Scholar, Vargo and Lusch's (2004a) article had been cited over 12,000 times by the end of 2017. These figures tell us that S-D logic is resonating widely in an emerging academic community.

This community is now working to develop the "meta-idea" of S-D logic, an idea centred on beliefs about the S-D logic FPs and axioms. Today, S-D logic is attracting researchers from academic disciplines other than marketing and from a range of applied areas, including tourism (Shaw, Bailey, & Williams, 2011), health care (Joiner & Lusch, 2016) and sports management (Woratschek, Horbel, & Popp, 2014). S-D logic seems to have become a shared view in a community that is defined by this common view. However, as we pointed out in our discussion on the first category of paradigms, S-D logic has only begun to build up *identifiable scientific achievement* based on empirical research, whereas G-D logic is a widely recognized scientific achievement that has produced empirical generalizations and offered model problems and solutions.

Within the third category of Masterman's (1962) paradigmatic senses, *artefacts*, G-D logic artefacts can be seen as textbooks and mechanisms that lead to practical applications. The content on G-D logic in textbooks used for introductory courses in marketing fulfills this paradigmatic function. S-D logic, despite gaining strong traction within the scientific community, has only recently started to consolidate this knowledge in textbooks (Lusch & Vargo, 2014) and managerial publications (Bettencourt, Lusch, & Vargo, 2014) and thereby made it accessible to and applicable for audiences beyond the scientific community.

In summary, when considered within the context of the three categories of conditions for a paradigm – metaphysical, sociological and artefact (Kuhn, 1962; Masterman, 1982) – we can see that S-D logic is developing towards a paradigmatic level. Metaphysically, it reflects many of Kuhn's understandings of paradigm. Sociologically, it has a well-established academic community and thus fulfills most of Kuhn's conditions of paradigm. However, from an artefact perspective, it has yet to meet Kuhn's understanding of a paradigm. Also, although in terms of Kuhn's (1962) lexicon, S-D logic is identifying anomalies, these have yet to reach the point at which S-D logic becomes the "normal science" and replaces the existing paradigmatic views associated with G-D logic. In the

next section, we explore how S-D logic can continue to advance its paradigmatic status and further develop towards a potential general theory of the market and value cocreation.

4. Future Developments in S-D Logic

4.1 Higher-Order Themes and Lexicon

In keeping with Kuhn's (1990) assertion that every scientific paradigm needs an idiosyncratic structured lexicon, Vargo and Lusch (2016) identified five of their 11 foundational premises as fundamental to the conceptual framework of S-D logic and positioned them as axioms. A number of researchers agree that in providing us with a narrative and a new lexicon, the axioms form metatheoretical foundations from which we can develop midrange theory (Brodie, Saren, & Pels, 2011; Brodie & Löbler, 2018). Pohlmann and Kaartermo (2017) have gone a step further by identifying an agglomeration of themes that need to be evident within S-D logic lexicon if it is to develop into a metatheory. The most important of these are systems, value creation, innovation, service, engagement, business models, and value propositions. Markets, resources, institutions, actors, and networks are also vital components of the meta-theoretical perspective. Wilden et al. (2017) have identified similar strategic themes for the future development of S-D logic and further highlighted the need to integrate understandings from a broader corpus of literature, such as strategic management, into the S-D framework so as to advance S-D logic and emphasize the need for deeper theorizing on the sociocultural systems that drive value creation.

Pohlmann and Kaartemo (2017) concluded their article by discussing several higher order themes that emphasize the importance of systems based on institutionalization practices because "S-D Logic proposes oscillation between different levels of aggregation to gain a more informed understanding of economic exchange and value creation in the whole service ecosystem" (p. 65). As we discussed earlier, a paradigm is an accepted perspective of a particular discipline at a given time. Thus, these higher order themes, namely, complex and fractal phenomena (e.g., modern global business environments), generic conceptualizations (e.g., context, markets, and resources trajectories) and technological innovation and democratization processes (e.g., digitalization and virtualization producing increasing system complexity), are central to S-D logic's

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idiosyncratic structured lexicon. However, to provide the grounds for a normal science, we need to be aware that the philosophical assumptions underpinning S-D logic need to be more explicit in terms of their ontological, epistemological and methodological standpoints (see, in this regard, Musa, 2013, p. 42).

4.2 Ontological, Epistemological, and Methodological Assumptions

To guide the development of S-D logic in the direction of normal science, we examined S-D logic's philosophical assumptions as (i) a general theory of the market and (ii) value cocreation. We adopted an abridged version of Löbler's (2011) typology, which builds on work by Burrell and Morgan (1979) and Tadajewski (2004) and distinguishes between three philosophical perspectives or "orientations" (the term that Burrell et al. use).

- *The objective orientation* assumes that reality is independent from the researcher and from the theories explaining and describing objective reality.
- *The subjective orientation* assumes that reality is inseparable from the researcher's experiences and that researchers interpret their experience accordingly.
- *The inter-subjective orientation* assumes that reality is construed via discourses that help researchers establish common understandings.

Peters et al. (2014) note that the objective orientation is representative of realism, positivism, early critical rationalism and empiricism. In contrast, the subjective orientation is representative of constructivism, interpretivism, and relativism, while the inter-subjective orientation is representative of social constructionism, conventionalism, and para-critical rationalism.

Table 1 shows how we used these orientations (perspectives) to develop ontological, epistemological and methodological questions about S-D logic in the interests of advancing a metatheory of the market and cocreation of value. The inter-subjective orientation, with its assumptions that *markets emerge through the social interaction of actors and through social or institutional arrangements* and that *value is co-created by actors in social and or institutional arrangements*, clearly resonate with S-D logic. However, we think that both the objective orientation, which assumes that *markets and value can be objectively identified*, and the subjective orientation, which assumes that *markets and value are created subjectively by individual actors and are experienced subjectively* also drive S-D logic's

ontological, epistemological and methodological development. By contrasting the three different philosophical orientations, Table 1 also provides an informed awareness of the respective contributions to knowledge generated by each view. In making the assumptions explicit, we avoid the potential "fragmentation, disagreement and differentiation" that can occur from implicitly assuming the presence of certain philosophical perspectives in the S-D logic framework (Peters et al., 2013, p. 337).

Table 1: *Ontological, epistemological and methodological perspectives to further develop S-D logic.*

S-D logic Orientation	Objective Orientation	Subjective Orientation	Inter-subjective Orientation
Towards a theory of the market	**Main assumption:** Markets are given and can be objectively identified.	**Main assumption:** Markets are subjectively created by individual actors. and are subjectively experienced.	**Main assumption:** Markets emerge through the social interaction of actors in and through social or institutional arrangements.
	Ontological questions: What are the characteristics of markets? What are the boundaries of markets?	**Ontological questions:** What do actors experience in markets? Under which conditions do actors experience a certain environment as a market?	**Ontological questions:** In which (institutional) contexts do actors experience and interact? What are the boundaries and linkages of a service ecosystem? What interactions and practices represent and create markets?
	Epistemological questions: How can markets be identified? What are the characteristics (e.g. plasticity, location, fragmentation, regulation) of a market? How can we know, if a market is emerging well?	**Epistemological questions:** How do these experiences emerge? How are these experiences connected to other experiences?	**Epistemological questions:** How are markets represented and created through practices? How are specific (sub-)cultures connected to the social construction of markets?
	Methodological question: How can the characteristics of markets be defined and measured?	**Methodological questions:** What are the appropriate methods to measure, interpret and describe 'market experiences'?	**Methodological question:** What inter-subjective methods measure the emergence of markets through social and institutional arrangements?
Towards a theory of value co-creation	**Main assumption:** Value is given and can be identified objectively.	**Main assumption:** Value is created and experienced subjectively (phenomenologically).	**Main assumption:** Value is cocreated by actors in social and or institutional arrangements.
	Ontological questions: What is value? What mechanisms create and capture value?	**Ontological questions:** What do actors experience with respect to value?	**Ontological questions:** What kind of interactions cocreate value? In which (institutional) context do actors create value?
	Epistemological questions: How can value be identified? What are the most effective ways to create and capture value? What are the definitions, forms and limits of value and value cocreation?	**Epistemological questions** How do actors experience value? How is their phenomenological value connected to other actors' experience of value?	**Epistemological questions:** How do actors describe value and the process of value cocreation? How do the processes of value cocreation differ in specific (sub-)cultures?
	Methodological questions: How can value be operationalized and measured? How can we measure or operationalize context?	**Methodological questions:** What methods most appropriately measure, interpret and describe experiences leading to value?	**Methodological question:** How can we reach agreement on which of the social constructions of value identified, described and explored are the most appropriate?

Pohlmann and Kaartemo's (2017) guiding questions helped us identify the different contributions from multiple philosophical perspectives. For example, the questions, "What are the boundaries of a market?" and "What is value?" are based on an objective orientation, which maintains that both markets and value can be objectively identified. However, because markets, viewed from subjective and inter-subjective perspectives may not exist, they need to be consciously (re-)constructed (Araujo, 2007; Geiger, Kjellberg, & Spencer, 2012; Kjellberg & Helgesson, 2006; Mele, Pels, & Storbacka, 2015; Storbacka & Nenonen, 2011). The following questions, which hint at the absence of commonly agreed definitions of markets and ecosystems, and consequently assume the presence of boundaries will be fuzzy (depending on social interaction and experience), align with subjective or inter-subjective perspective: "In which (institutional) contexts do actors experience and interact?"; "What are the boundaries and linkages of a service ecosystem?"; "What are the interactions and practices representing and creating markets?"; and "Under which conditions do actors experience a certain environment as a market?"

Measurement from epistemological and methodological standpoints can be seen as "the assignment of numbers to aspects of objects or events according to one or another rule or convention" (Pedhazur & Schmelkin, 2013, p. 16). This definition is not restricted to a specific philosophy of science. It aligns directly with an objective orientation; however, the *assignment* of *rules or conventions* can also refer to subjective and inter-subjective orientations. Pohlmann and Kaartemo (2017) identified several questions related to measurement from an objective orientation, including, "What are the characteristics (e.g., plasticity, location, and fragmentation) of a market?" (p. 66). Plasticity, location and fragmentation are aspects of markets; other aspects such as regulation can be added. Questions asked from an inter-subjective orientation also become relevant. Examples include "How are markets represented and created through practices?" and "What inter-subjective methods measure the emergence of markets through social and institutional arrangements?"

During their reflections on the epistemology and methodology of value creation, Pohlmann and Kaartemo (2017) asked an important question: "What are the definitions, forms, and limits of value and value co-creation?" (p. 66). Because this question concerns aspects of value cocreation, it relates directly to the ontology of S-D logic inquiry.

However, it also draws in epistemological issues, such as different ways of identifying the forms and limits of value cocreation. All three philosophical perspectives address forms of value, evident in another question posed by Pohlmann and Kaartemo (2017, p. 66): "What are the different characteristics (e.g., social, cyber and physical layers, dynamically reconfigurable, contextually aware) of value proposition?" This consideration again raises methodological and epistemological questions aligned with all three philosophical orientations.

Another of Pohlmann and Kaartemo's (2017) questions – "How can we measure value?" – is central to S-D logic's narrative of value cocreation. For example, Helkkula, Kelleher and Pihlstrom (2012) argue that "While studies on customers' subjective value experiences in a specific lifeworld context will not provide generalizable findings for researchers and practitioners they capture subjective value experiences in the social context" (p. 70). This statement indicates the challenges of measuring value and further underlines the importance of researchers maintaining a clear position regarding ontological, epistemological and methodological standpoints when measuring central concepts anchored on the parsimonious lexicon of S-D logic. For us, all three philosophical perspectives resonate with and inform S-D logic as a paradigm.

4.3 Towards a Unifying Paradigm and Metatheory

So *is* S-D logic developing towards a unifying paradigm and metatheory? The answer depends firstly on what should or can be unified and secondly on what is meant by unifying. First, a paradigm and metatheory can unite overarching themes relevant for a discipline. As indicated above, S-D logic unifies many different themes. Because the terminology associated with S-D logic is more abstract than the terminology evident in discourse on "mainstream marketing" and other specific disciplines, it offers a broader lexicon and broader themes, which can be tackled from different philosophical orientations. Thus, mainstream marketing concepts can have a place in S-D logic. As Vargo and Koskela-Huotari (2018) have recently argued, G-D logic can be considered as a special case within the unifying paradigm of S-D logic.

Second, a paradigm and metatheory can unify a philosophical belief. As we demonstrated in the previous section, S-D logic allows for multi-philosophical approaches

(Gioia & Pitre, 1990) and thereby offers the possibility of creating multifaceted insights. Starting from different assumptions may allow for consideration and inclusion of different facets of market and societal phenomena and thus produce different and uniquely informative theoretical perspectives of the events under study (Gioia & Pitre, 1990). This approach does, however, raise the problem of incommensurability, which represents an emerging issue given the absence of empirically common meanings between different theoretical assumptions (Peters et al., 2013). Some researchers associated with a multi-philosophical approach, such as Davies and Fitchett (2005), have nevertheless argued that the problem of incommensurability is overstated.

We consider that philosophical perspectives on S-D logic need to be more explicit for S-D logic to be developed as a metatheory. S-D logic draws on many different theories, including, for example, system theory and complexity theory. The methodologies related to these theories implicitly assume different philosophical perspectives. Systems theory, for example, offers different epistemological orientations. Luhmann's (1995, 2008) social systems theory relies on a self-referential, social constructivist epistemology, whereas the viable system theory proposed by Barile and Polese (2010) and Polese and Di Nauta (2013) relates to a more managerial, objective-oriented epistemology. Thus, it is essential when developing S-D logic in the direction of empirical investigations that we make the respective philosophical perspective – objective, subjective, inter-subjective – explicit so that we create multifaceted insights regarding contemporary market phenomena.

Finally, a paradigm and metatheory can unify a scientific community. Whether S-D logic can unite the marketing communities, including industrial marketing, consumer behaviour, strategic marketing, service marketing or even the broader marketing and management communities, has yet to be determined. Should, at this point, several communities or "schools of thought" remain, we will also need to ensure that their different philosophical beliefs remain explicitly or implicitly part of their respective metatheories. We are nonetheless confident that S-D logic can morph into a metatheory or paradigm. Drawing on Pohlmann and Kaartemo (2017), we agree that S-D logic is *unifying* with respect to the themes involved. With this paper, we also stress the need for researchers and theorists to be explicit about the ontology, epistemology, and methodology evident in S-D

logic in order to clarify the extent to which it does unify (or complement) the different philosophical approaches.

5. Conclusion

The paper makes two substantial contributions. The first comes from our systematic development of foundations upon which to achieve paradigmatic status for S-D logic. During this development phase, we built on the recent work by Brodie and Löbler (2018), Pohlmann and Kaartemo (2017), Vargo and Lusch (2017) and Wilden et al (2017) to explore if S-D logic is indeed evolving towards a unifying paradigm that will provide a metatheory of the market and value cocreation. The second contribution comes from our exploration of the role that IMM has played in developing and diffusing S-D logic. In the remainder of this last section of our paper, we provide a summative account of it and draw conclusions.

First, S-D logic is evolving, as evident in the three periods of development thus far. During the formative period (2004–2007), the focus was on providing a perspective of markets and marketing that was an alternative to the traditional product-centric perspective. The refinement period (2008–2011) clarified and broadened S-D logic's narrative, while the advancement period (2012 onwards) has seen S-D logic begin to take on paradigmatic status. In regard to that status, our analysis revealed that, metaphysically, S-D logic reflects many of Kuhn's (1962) understandings of a paradigm. Sociologically, it has a well-established academic community and thus fulfills another condition of Kuhn's conception. However, from an artefact perspective, it presently does not meet Kuhn's understanding of a paradigm, and therefor has yet to provide full grounds for a paradigmatic shift in the marketing discipline.

Because a paradigm is an accepted perspective of a particular discipline at a given time, it serves as a basis for normal science. S-D logic's axioms, narrative and higher order themes, including its complex and fractal phenomena, generic conceptualizations and resonance with technological innovation and democratization processes (Pohlmann & Kaartemo, 2017) are central to its paradigmatic status. However, if S-D logic is to fully provide the grounds for normal science, those of us engaged in analyzing and researching it need to pay more explicit attention to alternative philosophical perspectives (i.e., the

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objective, subjective and inter-subjective orientations) and associated assumptions. This heed will avoid fragmentation, disagreement and differentiation within the academic community. While the assumptions of an inter-subjective orientation closely align with S-D logic, other philosophical perspectives have the advantage of offering further, multifaceted insights into market and societal phenomena. We caution a more explicit examination of the ontology, epistemology and methodology of S-D logic because it is these features that will best aid understanding of the degree to which S-D logic *is* unifying and *what* it's unifying.

As to the question of whether S-D logic can develop into a unifying paradigm and metatheory of the market and value cocreation, we consider that it can and will do this because it unifies a broad field of themes. With respect to the scientific community, it has become a shared view attracting researchers from academic disciplines other than marketing and from a range of applied areas, including tourism, health care and sports management. The growing number of academic publications in a broad range of different fields tell us that S-D logic is resonating widely in an emerging academic community.

We concur with Vargo and Lusch's (2017, p. 64) recent claim that "S-D logic is still in its infancy." As with all metatheoretical frameworks, a unifying paradigm and metatheory of S-D logic will probably never be complete. Rather, future developments of S-D logic are likely to follow an iterative process involving the refinement and expansion of the metatheory, with that process informed by midrange theory and evidence-based research. By paying explicit attention to alternative philosophical perspectives and the ontological, epistemological and methodological assumptions, we should find S-D logic well equipped to provide further guidance on developing a "more specific, empirically testable and practically applicable, midrange theory" (Vargo & Lusch, 2017, p. 64).

In regard to the future role IMM will have in developing S-D logic, we are confident that this journal and other marketing and service research periodicals will continue to have an important influence on advancing S-D logic towards a unifying paradigm and metatheory. As we've shown, IMM has played a leading role in the development and diffusion process of S-D logic during all three periods of S-D logic evolution, with that role centrally evident during the refinement period. Particularly interesting has been the diffusion of S-D logic into journals outside the marketing and service disciplines at the end

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of the refinement period and on into the advancement period. As Vargo and Lusch (2017) point out, S-D logic has informed and been theorized in many disciplines and research streams outside of the traditional boundaries of service research and marketing. These include engineering, information systems, entrepreneurship, tourism, management, health, arts and the creative industries, philosophy, innovation studies, public policy and administration, and education. This development points towards a broader cross-disciplinary development of S-D logic, which aligns with contemporary business that is cross-fertilized by multiple disciplines.

Despite this diffusion outside the traditional boundaries, we think IMM will also serve the advancement of a unifying paradigm and metatheory by encouraging research in cross-disciplinary fields. However, concurrent explicit attention will still need to be given to the development of a midrange theory that will empirically ground S-D logic. Finally, we see strong potential in further linking the IMP school of thought, in particular its insights on network structures (Möller & Halinen 2018), with S-D logic so as to further inform midrange theory and develop S-D logic towards normal science.

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