



# Formalizing service-dominant logic as a general theory of markets: taking stock and moving forward

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## Abstract

Advancement of the marketing discipline requires a marketing-based, general theory of markets. However, most academic marketing is developed from normative theories of economics and direct application of psychological and sociological theories. Indigenous marketing theories about markets are rare but can increase the relevance of marketing scholarship. Although theories are never fully finalized, theoretical formalizing processes can establish a general framework for theory development on markets. The aim of this paper is to provide a conceptual base for a general theory of markets by explicating the ongoing progression toward formalization of service-dominant (S-D) logic. We outline a recursive, cocreative process of theory formalization to take stock of the status of S-D logic's development so far—what has been done and what we know and don't know about markets. We propose specific areas of inquiry and research directions for moving forward in developing a general theory of markets that is indigenous to marketing.

**Keywords** Markets · Marketing · General theory · Service ecosystem · Institutions · Indigenous theorizing

*[A] new theory implies a change in the rules governing the prior practice of normal science. Inevitably, therefore, it reflects upon much scientific work they have already successfully completed. That is why a new theory, however special its range of application, is seldom or never just an increment to what is already known. Its assimilation requires the reconstruction of prior theory and the re-evaluation of prior fact, an intrinsically revolutionary process that is seldom completed by a single [person] and never overnight. No wonder historians have had difficulty in dating precisely this extended process that their vocabulary impels them to view as an isolated event.*

(Kuhn, 1962, p. 7)

## Introduction

Marketing is at a crossroad. Follow one path and marketing will continue down the road of normal science, incrementally building off foreign theories and testing their applicability in the marketing field (Moorman et al., 2019a). Follow another path and marketing can develop its own novel theories based on a unique understanding of markets—their forms, functions, and processes, as well as contributions to value creation (Hunt, 2020a). Although current marketing theories provide an understanding of many psychological, sociological and economic phenomena, they lack a market focus. In other words, what is needed is a clearer understanding of what markets are and how they function from a marketing-centric point of view.

The need for marketing-born theory is a growing concern. According to Moorman et al. (2019a, p. 2), marketing scholars must “beat down the forces of Kuhn’s (1962) normal science” to avoid being “absorbed—or eaten—by other disciplines that are increasingly focused on important marketing issues, such as computer science, economics, psychology, and strategy.” It is evident that normative theories developed to solve “marketing problems” are fueled by the advancement of the “normal science” (Kuhn, 1962) of marketing, which focuses on testing and verifying existing theories (many borrowed from other disciplines, Hunt,

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2020a), rather than developing new theories to solve emerging and evolving market-based, marketing problems. The continuation of theory building on normative foundations of economic science and borrowed theories from a variety of disciplines (e.g., psychology, economics, sociology) limits marketing's ability to develop indigenous theories and muddles its identity as a discipline.

Indigenous theory development (Hunt, 2020a)—theorization that originates within a discipline rather than imported in from other disciplines—is crucial for addressing phenomena of particular interest for a discipline. Although several theories of markets exist outside of marketing (e.g., Abolafia, 1998; Dickens & Lang, 1988; Palacios-Huerta & Santos, 2004), the study of markets in academic marketing, arguably, should be rooted in a marketing-born general theory of markets to ensure its relevance for, and ability to advance, the scientific field. To theorize about markets from a marketing view, scholars must consider “the activity, set of institutions, and processes for creating, communicating, delivering, and exchanging offerings that have value for customers, clients, partners, and society at large” (marketing definition approved by the American Marketing Association, 2017). At the heart of marketing scholarship is the need to understand and explain how value is jointly created by and for multiple actors, and their ongoing interactions, through dynamic systems of exchange. Recent discussions in marketing underscore the importance of developing an indigenous, to marketing, general theory of markets (e.g., Hunt, 2002, 2020b; Vargo, 2007) and how this type of theoretical germination is needed to advance the marketing field (e.g., Hunt, 2020a; Moorman et al., 2019b; Zeithaml et al., 2020).

In their early efforts to develop marketing-based theories, Alderson and Cox (1948, p. 151) argued “Marketing theory will not provide an adequate approach if it ignores [the] interaction between the system and the processes which take place within it.” Furthermore, they identified weaknesses in the neoclassical economic roots of marketing thought, by stating “Whether economic theory can dispense with such considerations is another question.” Vargo (2007) extended this view, noting that the science of marketing is built on economic science, which is itself built on a normative science of wealth creation (i.e., Smith, 1776/1904). In other words, much of marketing literature lacks a positive theoretical foundation (e.g., what markets are and how they function), from which normative theories (e.g., what firms should do in markets) can be formed (see e.g., Hunt, 2010). These observations also highlight the need for a *general theory of markets*, before a *general theory of marketing* can be meaningfully developed (Vargo, 2007).

We agree with calls for developing marketing-based theories of markets (Alderson, 1957; Hunt, 2020a; Vargo et al.,

2017a, 2017b; Wilkie & Moore, 2006) and arguments that an indigenous, systems-oriented, general theory of markets is needed to ensure the future prosperity and relevance of the marketing field. Furthermore, we suggest a marketing-based general theory of markets can provide important insights for advancing better marketing for a better world (BMBW) by providing a theoretical foundation for understanding “the use of marketing activities and ideas to impact outcomes beyond just what is good for the financial performance of firms: BMBW emphasizes marketing's role in enhancing the welfare of the world's other stakeholders and institutions” (Chandy et al., 2021, p. 1). Along these lines, a marketing-based general theory of markets can advance a broader understanding of markets and marketing.

Although systems-oriented social theories recognize the embedded nature of social interactions and highlight the need to examine market phenomena from multiple, aggregated (micro, meso and macro) perspectives (Vargo et al., 2017a, 2017b), an underlying paradigm shift in marketing (Kuhn, 1962) is needed that moves away from a focus on nominal marketing outcomes, toward an understanding of the fundamental basis of exchange, embedded within broader dynamic social systems. The presence of such a paradigm shift was identified by Vargo and Lusch (2004) and their recognition of marketing's movement toward conceptualizing and studying ‘service’—the application of resources for the benefit of others—as the basis of exchange and value creation. The authors termed this alternative view service-dominant (S-D) logic (Lusch & Vargo, 2006; Vargo & Lusch, 2008) and proposed a set of foundational premises that began formalizing this shift in thinking about how value is created in and through markets.

Since its introduction, much theoretical progress has been made with S-D logic, including capturing the essence of this metatheoretical understanding of value cocreation as an institutional and systemic phenomenon (Vargo & Lusch, 2011, 2016). Development of this alternative view on markets has been propelled by the support of a multitude of scholars across a variety of market-related disciplines (see Pohlmann & Kaartemo, 2017; Vargo & Lusch, 2017; Wilden et al., 2017). However, formalization of S-D logic can only occur by continuing a cocreative process that involves the contributions of multiple scholars and practitioners. This is because theories are never fully finalized; they are formalized through collective efforts of exploring, testing, and learning (Hunt, 2002). Thus, formalizing theory does not lead to a final outcome; rather theory formalization can establish an underlying framework from which multiple theories can be developed. However, these theories feedback into the framework itself. To support the movement toward a general theory of markets, we apply Hunt's (2002) formalization approach to consider a theoretical framework for markets, rooted in a particular paradigmatic shift in marketing.

The purpose of this paper is to contribute to the development of an indigenous, general theory of markets by tracing the progress towards theoretical formalization of a marketing-born S-D logic and outlining potential pathways forward. The article is organized as follows. First, we overview the potential of S-D logic as a foundational framework for a general theory of markets. Next, we provide an overview of Hunt's (2002) process of formalization that underpins theory development. Based on this, we take stock of the evolution of S-D logic and unpack its potential as a marketing-based, service-centered foundation for theorizing about markets—what has been done and what we know and don't know. We find that although progress has been made to formalize S-D logic toward a general theory of markets, more work is needed. Specifically, marketing scholars need to increase conceptual and empirical investigation of particular market-based phenomena from a marketing-centric, service-based lens. Tracing S-D logic's formalization process, we find research is needed to link an axiomatized theoretical system with observable real-life entities and events with rules of interpretation. To move the progress toward formalization forward, we identify avenues of inquiry and suggest that more empirical work and mid-range theory (Brodie et al., 2011; Vargo & Lusch, 2017) are needed to make this connection. Finally, we encourage marketing academics to collaborate with practitioners to cocreate a positive (as opposite of normative) marketing-based theoretical foundation for a general theory of markets, and elevate the future of marketing scholarship and practice.

## A service-dominant logic for markets and marketing

Hunt (2020b) argues that marketing continues to lack a mainstream, central focus of the discipline as a whole, and the institutionalization of the field requires (1) a specific body of specialized knowledge, (2) a particular language to speak about the knowledge, and (3) indigenous frameworks and concepts to structure and organize the knowledge. As El-Ansary et al. (2018) suggest, marketing's exploration of an array of specialized subdisciplines lacks a sufficient theoretical foundation, which has limited the discipline's ability to understand and explain, fundamentally, what marketing is and why it matters. The authors argue that a general theory of marketing has been hampered by the divide between the "technology of marketing" and marketing as a "social science," and that this split has been aggravated by "paradigmatic ambiguities," characterized in terms of the historical, "traditional," "macro-to-micro," and "broadening/generic expansion" paradigms or perspectives of marketing. To overcome this divide a "marketing systems" paradigm is proposed (see also Alderson, 1965; Layton, 2011).

A systems perspective on markets is implicitly or explicitly present in many recent efforts to theorize about markets (Mele et al., 2014; Vargo et al., 2017a, 2017b). Furthermore, the dynamics of markets revealed in recent studies of market innovation (Sprong et al., 2021), market plasticity (Nenonen et al., 2014), market shaping (Nenonen et al., 2019), and market systems (Giesler & Fischer, 2017) contrasts earlier economic assumptions of markets as transaction-based, static, and pre-existing (Radner, 1970; Vargo & Lusch, 2004; White, 1981). Underpinning many of these recent efforts is the use of S-D logic (Vargo & Lusch, 2004, 2011, 2017) as a theoretical lens and a dynamic and ecosystemic point of view.

S-D logic (Vargo & Lusch, 2004, 2011, 2016) represents a marketing-born metatheoretical framework that can potentially provide a foundation and pathway needed for developing a comprehensive, general theory of markets. Recently, Kotler et al. (2021) highlight S-D logic's roots in and impact on the marketing field by claiming, "*Service-Dominant* logic is considered as the 'grand theory' for marketing" (p. 37, italics in original). This service-centered view of markets and marketing is based on service-for-service (rather than the more restricted goods-for-money) exchange and establishes an alternative understanding of value creation that, rather than being linear and firm-centric, emphasizes the systemic and institutional nature of value cocreation. In other words, S-D logic is a theoretical foundation for studying how and why value is collectively created through interactions among a variety of market-facing and non-market-facing actors who share rules, norms and other institutions (Vargo & Lusch, 2016), that enable and constrain their actions. Almost from its inception, S-D logic's value cocreation narrative has been posited as "a generalizable mindset from which a general theory of the market can be developed" (Vargo & Lusch, 2008, p. 3). In other words, the aim of S-D logic has never been so much to provide directly a normative theory of marketing, but rather to enable the development of a positive theory of markets (Vargo, 2007), from which robust normative theory can be derived.

While S-D logic originates from theorization within the marketing discipline, over the years it has been advanced through integration with and application of other systems and sociological views (see Vargo & Lusch, 2017). Through a growing body of literature (Wilden et al., 2017), S-D logic now holds even more promise to provide a foundation for theorizing about markets. Furthermore, the S-D logic value cocreation framework is *metatheoretical* in nature, meaning that it is developed at a relatively high level of abstraction and is applicable to all levels of aggregation (from firm-customer, to communities, industries, and societies; see Vargo & Lusch, 2017). Thus, insights from S-D logic are generalizable to various market contexts and *accommodative* of a wide range of diverse market phenomena. Recent S-D

logic-based studies draw attention to the systemic nature of markets and the embeddedness of markets with other lower- and higher-level social structures (Vargo et al., 2020a, 2020b, 2017a, 2017b). This multi-level perspective is *transcending* and *unifying* (Koskela-Huotari & Vargo, 2018), which provides fertile soil for developing a general theory of markets.

Further development of a service-based, systems-oriented theory of markets can, potentially bring together various views on markets to provide a more robust and indigenous understanding of what a market is, how it works, and why it matters. Drawing on prior studies of markets within S-D logic and the emphasis of markets as “institutionalized solutions” (Lusch & Vargo, 2014; Vargo et al., 2015), we define a market as an *institutional arrangement, shared by a set of actors, that defines a class of common problems and the value cocreation practices for dealing with them through service-for-service exchange*. In that regard, markets represent a subset of broader service ecosystems (Vargo et al., 2015). We offer this understanding of markets as a launchpad for theorization because we believe without an integrative, cocreative, and relational consideration of markets, marketing scholarship will continue to struggle with issues of managerial relevance (Jaworski, 2011; Vargo, 2018), lack of conscientiousness (Webster & Lusch, 2013), limited scope (Moorman et al., 2019a), and absence of a collective identity (El-Ansary et al., 2018).

However, the full formalization of a systems-based general theory of markets requires further consideration. In addition to the inclusion of the viewpoints and empirical investigations of a multitude of researchers, a systems theory needs to consider the evolutionary nature of social phenomena and it must be developed at a level of abstraction that can account for multiple (micro, meso, and macro) levels of aggregation and the relationships among them. We posit that a “fully formalized theoretical system” (Hunt, 2002, p. 198) involves an iterative process that continually accounts for paradigmatic shifts in thinking, language construction, and mid-range theory application. However, we also recognize that theories are never actually finalized, and the process is ongoing as offspring theories are continually

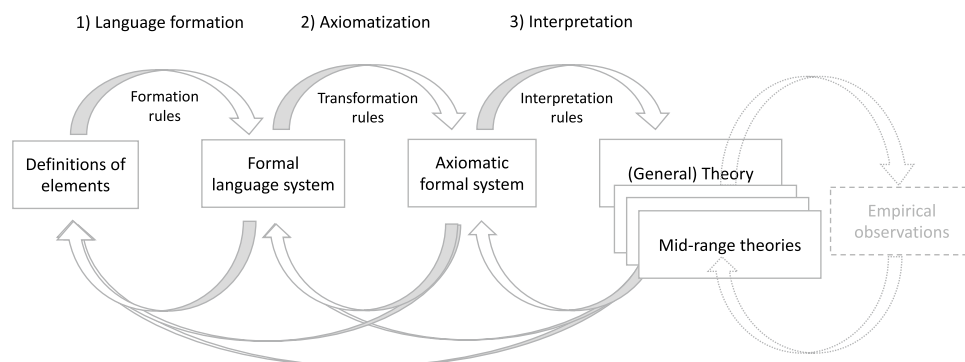
proposed, tested, enanced, and extended. The remainder of the paper utilizes Hunt’s (2002) theory formalization approach to outline a recursive, cocreative process of theory development and identify specific areas of inquiry needed to advance a marketing-born, S-D logic to become a general theory of markets.

## Toward a general theory of markets

Hunt (2010, p. 175, emphasis in the original) argues that a theory is composed of “systematically related sets of statements in order to increase the *scientific understanding* of a phenomenon.” In order to more systematically consider the theoretical development of S-D logic, we rely on a general process representing Hunt’s (2002) theory formalization framework, which comprises three iterative sub-processes (see Fig. 1). The first process, language formation, encompasses the emergence of a formal language system through a set of formation rules that require researchers to identify and define meanings of elements of a paradigmatic shift that are distinct and often used differently from natural or common language. Following initial language formation, the process of axiomatization can begin.

In axiomatization, transformation rules are used to guide researchers in their efforts to combine the individual elements of the language into statements to establish axioms from which other statements can be deduced. Such axioms are assumed to be true for analytical purposes only and not meant for empirical testing directly. These first two processes continually feed back and forth to each other as conceptual work and establishes a paradigmatic foundation for an alternative worldview. Within the third process of interpretation, the axiomatic formal system is linked to observable entities and events in the real word through interpretation rules that will allow for empirical exploration (and testing) of the explanatory power of the theoretical system. Although Hunt’s (2010) framework emphasizes the need for bridging meta theory with empirical exploration, it does not explicate the pathway for doing so. To aid in this regard, we highlight different levels of theoretical abstraction to explore

**Fig. 1** Framework of theory formalization (adapted from Hunt, 2002, 2010)





and explain dynamic social phenomena by recognizing that phenomena of interest are nested. We draw attention to the importance of mid-range theory (Brodie et al., 2011; Vargo & Lusch, 2017) to explore and explain phenomena situated between metatheoretical lenses (such as value creation) and contextually specific settings (such as a particular service encounter). This simplifies the application and testing of meta-level theory regarding markets.

All three formalization processes (language formation, axiomatization, and interpretation) are required for a theory to become formalized in such a way that it can provide an adequate theoretical foundation for fulfilling all the criteria for being systematically related (Hunt, 2010). Even then, a theory is never fully finalized because as environmental shifts and sociotechnical evolution occurs, changes in theory regarding new social phenomena are needed. Thus, as theories are developed through empirical exploration and observation, they continually feed back into its axiomatic formal system, formal language system, definitions of central elements.

We apply Hunt's (2002, p. 198) theory formalization framework to take stock of the theoretical progress and formalization of S-D logic, centered on studying and understanding value cocreation through service-based exchange. To consider what we know about S-D logic and its potential as a foundation for a general theory of markets, we draw on recent articulations of S-D logic and advancement of a service ecosystem perspective by the founders of the field. Reviews of S-D logic research highlight the important contributions of a wide community of scholars (see e.g., Pohlmann & Kaartemo, 2017; Wilden et al., 2017) in developing the metatheoretical framework of S-D logic. However, Vargo and Lusch (2018) have consolidated and integrated contributions from the field and progress of S-D logic theorization in the *SAGE Handbook of Service-Dominant Logic*. This overview presents updated versions of the language and axioms of S-D logic, recognizes the efforts of a community of scholars continuing the advancement of a service ecosystems view, and highlights the ongoing efforts to establish S-D logic as a foundation for a general theory of markets. Their introductory chapter specifies the current language and axioms and summarizes how the overall metatheoretical framework has evolved into a narrative that explains value cocreation within institutionally governed exchange systems identified as service ecosystems (Lusch & Vargo, 2018).

In the sections that follow, we first present S-D logic's evolution as we trace its language formation, axiomatization and interpretation within Hunt's (2002) theory formalization framework. We present what is "known" by detailing the lexicon and axioms of S-D logic and how they relate to the study of markets, nested within service ecosystems. We highlight what is yet to be learned (what is not known well) about markets from an S-D logic, service-ecosystems perspective by presenting avenues for investigation to further

the interpretation effort and continue the formalization process. We provide research directions for moving this effort further forward and arguing for the need to explore, both conceptually and empirically, the entanglement of markets within other social, economic, ecological, biological and technological systems. We also stress the need for more mid-range marketing-based theories about markets, based on this complex service-ecosystems perspective. We then highlight a theories-in-use approach (Zeithaml et al., 2020) to provide recommendations for empirically developing theory through collaboration and integration of multiple market-based perspectives.

## Taking stock: ongoing formalization of a S-D logic for markets

The first process in theory formalization, formation of a formal language system, often emerges through a shift in worldview (Kuhn, 1962), as is the case with the S-D logic and its service-ecosystems perspective. Hunt (2010) argues that a formal language system needs to be differentiated from natural language systems (e.g., English) and it should include a list of all the primitive elements from which non-primitive elements can be derived. Thus, a marketing-based, general theory of markets requires a specific language with unique definitions for describing value creation. According to Lusch and Vargo (2018), the core elements of S-D logic and its view on value cocreation are service, actors, resources, value, institutions, and service ecosystems which, together, establish the language for talking about markets as nested institutional arrangements that drive service-for-service exchange within service ecosystems. In addition to these five core concepts, S-D logic's full lexicon also includes several derivatives of each that help to flesh out the service-ecosystems perspective.

The second process in Hunt's (2002) theory formalization framework is the axiomatization of the formal language system, which requires the selection of appropriate fundamental statements or axioms from which other statements can be derived or deduced. These should be 1) free from contradiction, 2) independent, 3) sufficient, and 4) necessary. The third process in theory formalization is interpretation, in which the axiomatic formal system is linked to observable entities and events in the real world through interpretation rules in a manner that will allow for empirical exploration. We view mid-range theory development as an important part of this process and a bridge from metatheoretical to practice. Hence, the analysis moves from just syntactic to both syntactic and semantic in its nature (see Hunt, 2002, 2010). This critical stage in theory formalization may result in a set of systematically related statements that draw on underlying assumptions and provide empirical support for a

theory, which Hunt (2010) considers as (partially) formalized theory. However, theories can only temporarily hold in dynamic environments and must be reformalized as service ecosystem changes occur.

### Language development and axiomatization

S-D logic has a specialized language for talking about value cocreation in a scientific manner, which is an important part of the first process of theory formalization. The axiomatization of S-D logic has occurred over time through dialogue and debate with the growing community of scholars as the original eight foundational premises (FPs) were refined and then expanded to 10 (Vargo & Lusch, 2008). With the increasing systems orientation and the introduction of the service ecosystem concept (Chandler & Vargo, 2011; Vargo & Akaka, 2012; Vargo & Lusch, 2011), the 10 FPs were further refined and an eleventh premise added, focusing on the role of institutions and institutional arrangements as coordination mechanisms within service ecosystems (Vargo & Lusch, 2016). Also, aligned with Hunt's (2002) description of the axiomatization process, five of the 11 FPs were identified as core premises and given the status of axioms from which other FPs could be derived (Lusch & Vargo, 2014; Vargo & Lusch, 2016). Like premises in all theoretical frameworks, these five axioms (described below) are assumed true and are not intended to be empirically tested for their truth content (see Hunt, 2010).

The language formation and axiomatization processes are closely linked because as specific words are used (and new ones sometimes created) to describe particular phenomena they need to be reified and elaborated. As this occurs, axiomatic statements are made. These statements feed back into the language and this recursive process continues as formalization advances. Table 1 lists the core elements (language) of S-D logic's metatheoretical framework (Vargo & Lusch, 2018, p. 740). Details regarding each concept and its related axioms (and additional foundational premises) are presented below.

**Service.** S-D logic uses the concept of *service* to capture a fundamental shift in understanding the underlying logic of exchange. In *service-for-service exchange* actors apply their competencies and other resources for others benefit, and receive a similar kind of service (others' applied resources) in return. This *direct service* exchange is often masked by *indirect service* exchange (Vargo & Lusch, 2004), which occurs when service is not provided in person, but through a good (i.e., vehicle for service provision) or money (i.e., *service rights* or economic currency that provide rights to access service) (Vargo et al., 2020a, 2020b). *Service* and its associated terms sits at the heart of S-D logic and grounds Axiom 1, "service is the fundamental basis of exchange," and a supporting FP that states "all economies are service economies."

**Actors.** Building on the processual and reciprocal conceptualization of exchange, S-D logic's underlying view is that all actors (e.g., individuals, firms, customers, families, organizations, etc.) are fundamentally doing the same thing: integrating resources to become *beneficiaries* of service. As such, S-D logic defines an *actor* as "An entity capable of acting on potential resources to cocreate value, either positively or negatively valenced" (Lusch & Vargo, 2014, p. 740). This generic *actor-to-actor* (A2A) orientation obviates the need for separate business-to-business (B2B), business-to-consumer (B2C), consumer-to-consumer (C2C), and similarly siloed literatures when theorizing about markets (Vargo & Lusch, 2011). By not pre-defining roles (Akaka & Chandler, 2011), this networked "actor" interaction is incorporated in Axiom 2, "value is cocreated by multiple actors, always including the beneficiary."

**Resources.** S-D logic defines *resources* broadly as "Anything an actor can draw on for support" (Vargo & Lusch, 2018, p. 740). A distinction between *operand* and *operant* resources is often made and, although primacy is given to *operant* resources (Vargo & Lusch, 2004), value is created through *resource integration* of both types of resources and the value of any resource is determined through its use, in a particular context. Thus, the *resourcefulness*, or derived value of a potential resource (Lusch & Vargo, 2014), is a critical to value cocreation. Following S-D logic's broad resource conceptualization, exchange stimulated through a variety of individual and organizational actors (e.g., public, private and not-for-profit) can be understood as resource-integrating actors applying resources for each other's benefit. This insight, together with the generic actor conceptualization, is incorporated in Axiom 3, "All social and economic actors are resource integrators."

**Value.** Value in S-D logic is defined as "An emergent, positively or negatively valenced change in the well-being or viability of a particular system/actor" (Vargo & Lusch, 2018, p. 740). S-D logic argues for the existence of more complex and dynamic exchange systems within which *value cocreation* occurs through actions and interactions of providers, beneficiaries, and other actors (Vargo & Lusch, 2011). Whereas *value-in-exchange* is the focus of traditional marketing approaches, *value-in-use* reflects value derived through use of a resource (Vargo et al., 2008). Further, *value-in-context* (Akaka et al., 2013a, 2013b) underscores how value is phenomenologically experienced and determined by each actor in a (social) context (Chandler & Vargo, 2011; Edvardsson et al., 2011; Vargo & Lusch, 2008). This emphasis on value-in-use, in-context means that firms contribute to value creation primarily through a *value proposition*—a cocreated understanding of value—because value is experienced by diverse actors in varying contexts. An S-D logic view of value is captured in Axiom 4, "value is always uniquely and phenomenologically determined by the

**Table 1** S-D Logic Lexicon

Element	Definition
<b>Service</b>	The application of resources for the benefit of another actor or oneself
Service-for-service Exchange	A reciprocal act of two or more actors applying resources for another's direct or indirect benefit
Direct Service	The process of an actor directly applying its resources for the benefit of another actor—that is, not through a good or monetary instrument
Indirect Service	The process of an actor indirectly applying its resources for the benefit of another, such as through a good or money (service rights) obtained by providing service for a third actor
Service rights	Economic currency (i.e., money or its equivalent) that provides a right or option for future service
<b>Actor</b>	An entity capable of acting on potential resources to cocreate value, either positively or negatively valenced
Actor-to-actor (A2A) orientation	The view that all actors fundamentally do the same thing; integrate resources and exchange service that can result in cocreated value
Beneficiary	A focal actor that is experiencing value (positive or negative) in a particular context
<b>Resource</b>	Anything an actor can draw on for support
Operand resources	(Potential) resources requiring other resources to act on them for value to be realized
Operant resources	Resources capable of acting on other (potential) resources to (co)create value
Resource integration	The process of amalgamating resources to create new resources with value-creating potential
Resourceness	The ability of a (potential) resource to facilitate the accomplishment of something desirable
<b>Value</b>	An emergent, positively or negatively valenced change in the well-being or viability of a particular system/actor
Value cocreation	The process through which multiple actors, often unaware of each other, jointly contribute to an actor's well-being. In living systems, an (ontological) statement of how value is always created
Value-in-exchange	Value or worth, as measured in units of economic currency (e.g., money), associated with a market exchange—often employed as a surrogate of value-in-use, from which it is a derivative
Value-in-use	The perceived increase in benefit in relation to a focal actor, resulting from either direct or indirect service provision
Value-in-context	Essentially the same as value-in-use, with the explicit recognition that value is always a partial function of context
Value proposition	The co-developed understanding of potential value, or benefit, associated with a service provision—often articulated in the form of an implied or explicit promise and expectation
<b>Institutions</b>	Humanly devised coordinating mechanisms, such as rules, norms, symbols, etc., that enable and constrain value-cocreating actions
Institutional arrangements	Assemblages of interrelated institutions, which can contain technological, sociological, cultural, and economic structures
<b>Service Ecosystem</b>	A relatively self-contained, self-adjusting system of resource-integrating actors connected by shared institutional arrangements and mutual value creation through service exchange

beneficiary” and also supported by the FP, “actors cannot deliver value but can participate in the creation and offering of value propositions.”

*Institutions.* Recent developments within S-D logic involve the inclusion of the sociological concept of *institutions* to articulate more clearly the mechanisms that enable and constrain the often massive-scale coordination involved in value cocreation (Vargo & Lusch, 2016). Institutions typically exist as part of more comprehensive assemblages of inter-related institutions called *institutional arrangements* (Vargo & Lusch, 2016), which are integrated as resources that guide actors' actions and interactions. The concept of institutions as used in S-D logic should not be confused with the more everyday use of the word ‘institutions,’ which refer to firms, governmental agencies, or similar organizations. The introduction of this concept to the S-D logic lexicon led to the

development of Axiom 5, “value cocreation is coordinated through actor generated institutions and institutional arrangements.”

*Service Ecosystems.* The inclusion of institutions as a core concept is part of and central to the conceptualization of a *service ecosystems* (Vargo & Lusch, 2011, 2017). This metatheoretical lens relies on several other core elements that are part of S-D logic's formal language system (above). Furthermore, service ecosystems reflect the dynamic and reciprocal nature of all social systems and their relationships with other natural systems (Vargo & Lusch, 2016). They have multiple levels and multiple views on value. Although the introduction and development of the concept of service ecosystems is relatively recent (Vargo & Lusch, 2011, 2016), it has opened the doors for broadening the reach of S-D logic and the landscape for interpretation, that is, making connections between metatheoretical aspects of the terms

listed above and observations of the interconnectedness of people, service, and markets. It provides more than a bridge, it establishes a platform for interpreting and moving S-D logic closer to theoretical formalization.

### Interpretation of a service-ecosystems perspective for markets

S-D logic's axiomatic assumptions have resulted in a continual narrative of how value cocreation unfolds over time as generic actors integrate resources through reciprocal service exchanges in nested and overlapping service ecosystems, governed and evaluated through their institutional arrangements (Lusch & Vargo, 2018; Vargo & Lusch, 2016). This narrative provides an underlying foundation for conceptualizing markets as dynamic, emerging, and evolving social structures, that are continually performed (Kjellberg & Helgesson, 2006) through interaction among multiple actors and ongoing efforts to cocreate value (Vargo et al., 2017a, 2017b). Language development and axiomatization processes are critical for formalization (Hunt, 2002) and required for establishing a theoretical foundation. S-D logic's lexicon and axioms provide a service-ecosystems framework from which a general theory of markets can potentially be built. However, scaffolding a general theory of markets requires interpretation of service ecosystems as they relate to markets specifically. This work is underway.

S-D logic's axioms inform the study of markets by reframing the basis of exchange as a service provision process in which specialized competences are shared among numerous actors. This significant shift reveals the strength of the lexicon presented above and the importance of specialized definitions for elements that constitute an S-D logic view. The elements and definitions root the axioms in rethinking, from a service ecosystems lens, the basic activity done within markets. The transformation of axioms (which occurred over time and through multiple iterations) reframes the purpose of market from profit generation to cocreation of value through interactions among a multitude of beneficiaries who might all perceive this outcome differently depending on their unique context. This bears significant implications in thinking about the relationship between service ecosystems and markets as the former becomes the enabler of the latter.

The processual understanding of exchange, coupled with the move to an A2A orientation, has also portended an additional shift to a system orientation within S-D logic's conceptualization of markets. This is aligned with Bagozzi (1974, p.78), who, in writing about marketing as an organized behavioral system of exchange, defined the exchange system as a "set of social actors, their relationships to each other, and the endogenous and exogenous variables affecting the behavior of the social actors in those relationships." The conceptualization of a service ecosystem emphasizes that

value creation does not just take place through the activities of a single actor or between two actors (such as a firm and its customers), but that value unfolds over time among a whole host of actors; in markets, value is always cocreated.

Within the value cocreation narrative of S-D logic, institutions take on an expanded role and provide the building blocks for the increasingly complex and interrelated resource-integration activities in nested and overlapping ecosystems organized around shared purposes (Vargo & Lusch, 2016). Hence, institutions are integrated as resources in markets because actors are influenced by the institutional arrangements guiding actors' in deciding what resources to integrate, when, how and why. This view on value draws on the studies viewing value as an experience (Prahalad & Ramaswamy, 2004), but extends the understanding of the context of experience to consider the contributions and influence of multiple actors and other resources involved in deriving and determining value (Akaka et al., 2013a, 2013b). Markets as shared institutional arrangements not only coordinate the process of value cocreation among multiple actors, but also provide criteria for value determination (see e.g., Friedland & Alford, 1991). As such S-D logic's conceptualization of value (in-context) enables the reconciliation of different views within market theorizations because it provides the means for considering how various aspects of value are informed by institutional arrangements (Vargo et al., 2017a, 2017b).

Prior work on S-D logic conceptualizes markets as *institutionalized solutions* or shared and relatively enduring value cocreation practices that fuel service-for-service exchange (e.g., Lusch & Vargo, 2014; Vargo & Lusch, 2016). This conceptualization of markets helps to zoom out from the preoccupation of most market definitions with a single resource (e.g., a product) or a single role typification of actors (e.g., consumers). However, this abstract lens makes it more challenging to narrow the scope of a market in such a way that it can be empirically delineated from alternative institutions and specifically studied.

Consolidating prior research, Mele et al. (2014) propose underlying dimensions for conceptualizing the complexity of the term market. The authors propose a conceptualization of markets that uncovers two underlying market dimensions: market-as-noun and market-as-verb. This work recognizes four distinct themes that explain what markets are and how they function: *market entities* (which actors are involved), *market representation* (how markets are signified), *market performing* (what actions are carried out), and *market sense-making* (how markets emerge and evolve). Dynamic conceptualizations of markets highlight the centrality of studying service ecosystems to understand nested nature of markets because "by considering all actors and mutual service providers the S-D logic goes beyond the buyer-seller dyad to include all the actors in the *ecosystem* (Vargo &



Lusch, 2011)” (Mele et al., 2014, p. 104). Along these lines, we suggest that a general theory of markets should be grounded on understanding what a market is and how it is (re)formed within service ecosystems.

In our effort to establish a positive foundation for developing a general theory of markets, we prioritize the study of market as a noun, while recognizing its performative nature (Kjellberg & Helgesson, 2006). The “performativist” tradition aligns with S-D logic’s emphasis on institutions and suggests that markets are determined by individuals “working” in markets (Kjellberg & Helgesson, 2007). This view draws on economic sociology and suggests that various actors shape markets in direct and indirect ways, which perform institutions and, thereby, organize markets. Considering the noun versus verb conceptualization, a performativity view of markets suggests that various actors act or interact more or less in shaping the norms, meanings and symbols that situate an activity, like riding a bike, dressing, cooking, and communicating. In this way, markets as shared institutional arrangements by a set of actors are continually being performed through the actions and interactions among those actors. In other words, without *practices* (normalizing, representational and exchange according to Kjellberg & Helgesson, 2007) markets will cease to exist. This “markets-as-practices” framework has contributed to the development of S-D logic (Vargo & Akaka, 2012) and supports the interpretation stage of formalization, connecting service ecosystems to emerging theories about markets more specifically.

S-D logic views service ecosystems as nested and overlapping. Thus, while adopting an ontological understanding of a ‘flat’, one-level world, S-D logic also maintains an epistemological, multi-level perspective for analytical purposes (Vargo & Lusch, 2017). This means that service ecosystems can be examined at various levels of aggregation (Vargo & Lusch, 2017), labeled ‘micro,’ ‘meso,’ and ‘macro’ (Chandler & Vargo, 2011). Previous S-D logic research tends to place individual and dyadic structures and activities at the micro-level; structures and activities, such as markets, industries and brand communities at the meso-level; and broader structures and activities, such as nations, at the macro-level (e.g., Chandler & Vargo, 2011; Lusch & Vargo, 2014). The main point, however, is not to be able to assign phenomena to different levels (this will always be somewhat arbitrary), but to stress that a phenomenon studied at one level can only be adequately understood by accounting for the influence of other levels as well (Chandler & Vargo, 2011; Vargo & Lusch, 2016). In other words, the multiple levels of aggregation within the service ecosystems perspective reveal additional structural details that are not apparent from a more dyadic, micro-level view; but which, at the same time, make the micro-level phenomena more understandable (Chandler & Vargo, 2011). By conceptualizing markets as a (relative) meso-level structure within a service ecosystem, our work

allows the delineation of a market more specifically and helps to make sense of how markets are shaped by phenomena at lower and higher-levels of service ecosystems.

## Moving forward: Continuing the formalization of S-D logic

Our assessment of the knowledge base of S-D logic indicates that a formal language has been developed that is distinct from “natural” language used to speak on a daily basis. However, in order for S-D logic to be formalized as a general theory of markets this language must be used to further the interpretation from S-D logic as a meta-theory to applied studies of the nature and dynamics, as well as the value inputs and outcomes, of markets. To aid in the ongoing formalization of S-D logic as a general theory of markets, we identify several critical pathways forward: empirically explore emerging areas of inquiry, develop marketing-based, mid-range theories on markets, and cocreate theory with diverse market actors.

### Empirically explore emerging areas of inquiry

Although prior research applies a service-ecosystems perspective to the study of markets (e.g., Mele et al., 2014; Vargo, 2007; Vargo et al., 2017a, 2017b), empirical investigations are less prevalent. Thus, additional work is needed in the interpretation stage to further examine the feasibility and viability of S-D logic as a foundation for a general theory of markets. However, to rush the process of theory formalization can potentially limit the fulfillment of S-D logic’s promise because new theories do not emerge overnight (Kuhn, 1962). As Hunt (2002, p. 202) argues, “The formalization of theory is *ex post*. That is, the process of formalization customarily begins in earnest only after the theory has been proposed...some writers warn against the premature formalization of theories on the ground that formalization may actually inhibit scientific creativity.” S-D logic has been proposed as a potential foundation for a general theory of markets. As we ask ourselves, “How do we formalize a service-based, systems oriented general theory of markets?” we need to remember that theory development is iterative and collaborative and consider, “How can we ensure the work marketing scholars are doing today will lead to a deeper, more comprehensive understanding of marketing that is needed to solve critical marketing problems in today’s rapidly changing world?”

To aid in the interpretation of a service-ecosystems-perspective of markets, we offer several more specific areas of inquiry that make direct connections with S-D logic’s lexicon and axioms and its suitability for studying markets specifically. Table 2 outlines each area of potential empirical inquiry and its related research proposition and questions.

These highlight specific topics at the intersection of S-D logic and theorizing about markets.

The first two areas of inquiry focus on better understanding how value is created in markets through a service ecosystem lens. The first area of empirical inquiry is to study *market exchange as a special case of service exchange* (see e.g., Koskela-Huotari & Vargo, 2018). In this way, service becomes the fundamental basis of all exchange, providing a common framework for understanding exchange and human interaction both in the ‘economic’ and ‘social’ spheres of life. This is important for the conceptualization of markets, as it represents a novel way to theorize about the centrality of service in markets and how the exchange of service underpins an enduring form of value creation for individuals, organizations and society at large. The second area of inquiry highlights S-D logic’s emphasis studying *phenomenological market experiences*, which is centered on the importance of context in value cocreation (Akaka et al., 2013a, 2013b) and importance of roles and role change (Akaka & Chandler, 2011). A deeper understanding of how different roles shape experiences can provide important insights into how new solutions are developed through markets and value is cocreated for both individual and collectives within dynamic service ecosystems.

The other three areas of inquiry push for building knowledge about markets from a marketing-based view. For example, the third area of inquiry, is based on S-D logic and its service-ecosystems-perspective that requires a *multi-level of analysis of markets* (e.g., Chandler & Vargo, 2011). As institutional arrangements shared by a set of actors, markets are situated within service ecosystems at a meso level of analysis—a relative (not fixed) perspective that researchers can study with consideration of lower micro- and higher macro-level phenomena that feed into and derive value from markets. Thus, S-D logic elevates the importance of markets but also underscores the complexity of the relationship between (meso-level) markets and (macro-level) societies. The fourth area draws attention to a growing number of marketing researchers expanding the understanding about the *evolution of markets* through studies regarding the dynamic nature of market systems (Giesler & Fischer, 2017), market emergence (Martin & Schouten, 2014) and evolution (Humphreys, 2010). Future research should continue to empirically study markets as dynamic, meso-level institutional structures (see e.g., Vargo et al., 2015; Vargo et al., 2017a, 2017b) within service ecosystems that emerge, evolve, and cease to exist over time to understanding the processes and mechanisms behind such market evolution. The fifth and final emerging area of empirical inquiry is the study of *intentional market interventions*, which highlights the importance of theorizing about markets to better inform marketing practice. Previous S-D logic research applying the service-ecosystem-perspective to innovation and design

implies that markets as institutional arrangements within service ecosystems can be shaped through intentional and collective (strategic) efforts of organizations and individuals (see e.g., Vargo et al., 2015; Vink et al., 2021). There is also a thriving research stream on market shaping that is well-aligned with the service-ecosystem-perspective and can contribute to this line of inquiry (see e.g., Nenonen et al., 2019) and offer practical implications for organizations as well.

The above areas of inquiry point to opportunities for interpretation–exploration and empirical investigation—that can help S-D logic move forward in its formalization process and potentially lead to a general theory of markets. However, many scholars and multiple perspectives are needed to bridge the metatheoretical framework with empirical observations, and increasing mid-range theory development can help accomplish this important task.

### Develop marketing-based, mid-range theories on markets

Because “axioms of a theory are assumed to be true for analytical purposes only,” and not for empirical testing (Hunt, 2002, p. 200), we also need mid-range theory to empirically explore and test such statements (see Vargo & Lusch, 2018 for specific guidance). The prior work in marketing that has been done to explore markets supports the development of a service-based, systems oriented and symbolically laden general theory of markets. Thus, we argue, S-D logic’s consideration of phenomenological views on value and emphasis on sociocultural contexts (Akaka et al., 2013a, 2013b) provide an appropriate foundation for a theory of markets (Vargo, 2007) that has the theoretical capability of bringing together these mid-range studies on markets. However, its fulfillment of formalized theory status, particularly a general theory of markets, is dependent upon a community of scholars committed to this effort. Moreover, because markets are socially constructed (and become institutionalized) through the actions and interactions of multiple actors (e.g., customers, firms, policy makers, end users), theoretical formalization of a general theory of markets requires participation from various actors (e.g., Giesler & Fischer, 2017; Kjellberg & Helgesson, 2007, Vargo et al., 2015).

A number of scholars have already begun exploring particular aspects of markets aligned with S-D logic (e.g., practices, institutions, and systems) that initiated the development of mid-range theories to explain how markets work and contribute to value creation. Mid-range theory is a critical step in the development of a general theory (Vargo & Lusch, 2017) because it fuels the process of bridging empirical studies of particular phenomena with the overarching field of analysis—in this case, markets. According to Brodie et al., (2011, p. 77), “Middle range theory provides a theoretical bridge between empirical findings and general theory, providing

**Table 2** Developing Theories about Markets

Area of Inquiry	Proposition	Possible Research Questions
Market Exchange as a Special Case of Exchange	<i>Market exchange is a special case of service-for-service exchange</i>	How is market exchange distinguished from other forms of service exchange? How market exchanges influence and are influenced by the other forms of service exchange?
Phenomenological Market Experiences	<i>Market experiences influence value cocreation (positively and negatively) and impact individual and collective wellbeing</i>	What are the contextual aspects of markets on human experiences? How are different experiences and views on value reconciled through the development of novel solutions? How do market experiences influence wellbeing of individuals and of collectives?
Multi-level Market Analysis	<i>Markets are institutional arrangements at a meso level of aggregation, which are nested between micro and macro levels</i>	How are markets connected to the phenomena residing on other levels of service ecosystems (e.g., households, organizations, societies)? How do actions of individual actors (micro-level phenomena) organize to produce markets (meso-level phenomena)? How are markets entangled with societies and vice versa?
Evolution of Markets	<i>Markets are dynamic phenomena that emerge, evolve and cease to exist over time</i>	How do market emerge? How are markets diffused and institutionalized? What causes markets to change or stay the same over time? How does market change occur? How do markets cease to exist?
Intentional Market Interventions	<i>Markets can be shaped through intentional and collective (strategic) efforts of organizations and individuals</i>	What enables actors to intentionally shape markets? How/why do actors take on different roles (service providers/beneficiaries) in market shaping? How do the shaping efforts of multiple actors interact with one another?

a stronger foundation for theory development by showing explicit links between the process of theory formulation and verification.” Thus, the outcome of a service-based, systems-oriented general theory of markets will heavily depend on the development of mid-range theories that explain what markets are, why they matter, and how they emerge, evolve, and dissolve.

Prior research on markets in the marketing field align with the foci of S-D logic on both systems and social views. As discussed, Venkatesh et al. (2006) identified the need for studying markets in general and, more specifically, they proposed a pathway for considering markets as sign systems. They suggest, “signs are viewed as more fundamental units for the necessities of life, with marketing taking a role, in conjunction with consumers, in constituting social needs and desires” (Venkatesh et al., 2006, p. 257). The authors argue that signs (or representations) are central to daily life and the role of the market is to bring together multiple actors in a systemic way to jointly cocreate meanings for those signs. Arguably, this focus on sign systems extended the original foundational premises of S-D logic by emphasizing the symbolic and systemic nature of exchange and drawing attention to the need to study markets as a foundation for developing more relevant and impactful marketing theory. These sign systems are embedded meanings within service ecosystems, but are worth studying as distinct systems of symbolic meaning that interact with material objects and practices as well as other social, technological and economic systems.

Prior market research that conceptualizes market as a noun aligns with S-D logic’s lexicon and axioms by focusing on *systems* and *institutional* views of interaction and exchange. For example, Humphreys (2010) draws on institutional theory to unpack the concept of legitimation, particularly as it relates to market formation. She portrays markets as “concrete exchange structures between producers and consumers” and argues that for a market to be created, some type of social structure or infrastructure is needed. In Humphreys’ view, a shared understanding must bind the views of varying producers and consumers and consider a multitude of additional elements in a living ecosystem. More recently, Giesler and Fischer (2017) draw attention to a systems view of markets and marketing and highlight concerns with a new and ubiquitous digital area. Following the movement of exploring and understanding markets, these authors have revived the systems view in a more dynamic and socially embedded light.

Additional features of systems action have been recognized in prior marketing-based, market mid-range theory. For example, Nenonen et al. (2014) assert neoclassical economics is focused on “objective, detached, and deterministic” markets, but creativity in markets change the state and trajectory of these trends. A lot of this depends on the plasticity or fluidity of the system itself. Recently, Nenonen et al. (2019) provide a classification of capabilities that contribute

to market-shaping as well as a conceptual framework that describes potential outcomes. The complexity of the term “market” fuels the fire of curiosity. The development of mid-range theories can support the trajectory and progress for many theoretical innovations to occur.

### Cocreate theory with diverse market actors

It is clear that the formalization of S-D logic thus far has involved consideration of various methods and unique collaborations (Wilden et al., 2019). Vargo and Lusch (2017) point to the need for leveraging different approaches to empirical research in order to develop a systems-oriented, service-based perspective. Some of the work on theorizing about markets has begun to leverage collaborations with organizations as well as managerial perspectives for theorizing about markets (Kjellberg & Helgesson, 2006; Nenonen et al., 2019). Along these lines, Zeithaml et al., (2020, p. 32) recognize the value of unique and in-depth methods and collaborations between academia and practice. They suggest that to develop new indigenous theories, marketing academics need to leave “the comfortable confines of our faculty offices to explore, identify and define new marketing concepts in their natural habitat.” The authors propose a theory-in-use (TIU) approach that relies on the mental models of market actors outside of academic settings to develop new theories. They argue “All stakeholders in marketing—among them managers, customers, employees, and public policy makers—have mental models that can be elicited by TIU research to surface interesting, novel theories and concepts that can advance both marketing practice and scholarship” (p. 33). Because all stakeholders in marketing contribute to performing markets (Kjellberg & Helgesson, 2007), the development of a general theory of markets will require additional collaborations with actors who respond to market-related challenges regularly and contribute to the institutionalization of solutions. Although marketing researchers have extensively studied managers, customers and consumers (end users), TIU invites the various market actors (e.g., managers and customers) to participate in the theorizing process by questioning the mental models they use to understand the world and make decisions. This approach highlights the importance of collaboration in developing a theory of markets that are socially constructed and performed by those same actors.

As mentioned, the consideration of markets-as-practice (Kjellberg & Helgesson, 2007) suggests that markets are performed through the enactment of particular practices—i.e., normalizing, representation and exchange—of a variety of market-based actors. We draw on the work of Kjellberg and Helgesson (2007, p. 141, emphasis in original) who “define *market practice* broadly as all *activities that contribute to constitute markets*.” We argue that in order to advance



formalization of S-D logic an understanding of a variety of market participants performing market practices are needed. For example, exchange practices are “concrete activities related to the consummation of individual economic exchanges (cf. Alderson & Cox, 1948).” This means the actors enacting these practices, including a variety of firms as well as customers, contribute to performing markets (institutionalized solutions). Thus, entities and individuals that are integrating resources to create value for themselves and for others are also included in this notion of market performance, not only those that are engaging in economic exchange. As evidenced by the work of Kjellberg and Helgesson (2007), since managers participate in performing markets, it would be wise to include them in theory development as well.

Thus, if we want to build a marketing-based general theory of markets, with the aim of doing better marketing, we need to increase our involvement of practitioners (those who perform the profession) in the theory building process. We may need to move beyond managers as informants and include them in the theorization process more specifically. We believe one of the most effective bridges to connect representational, normative and exchange or integrative practices is through marketing education in general, and in higher education in particular. This is because higher education in many universities provides a gateway to take the knowledge developed through academic marketing studies and those who seek to learn about the world. Stronger ties between academics, practitioners and students are needed in theory building efforts to explore relevant market problems and test assumptions across different stakeholder groups. In marketing, students are seeking to learn about making better market-related decisions. However, currently, most marketing curricula are based on a normative approach that centers on creating monetary wealth for businesses. We are not suggesting that is wrong, only that what is taught in class often lacks connection between marketing decisions with the broader service ecosystems in which those students, businesses, and markets are embedded.

Integrating theory development across multiple dimensions of higher education is also important because, as Hunt (2002, p. 59) argues, “we have a duty to turn out graduates who are technically competent to take their places in their chosen profession, marketing. Technical competence produces productive citizens, and it is the productivity of a society’s citizens that determines its standard of living. But technical competence is not enough.” We agree. We believe the formalization of a theory of markets requires marketing education to present theoretical advancements to students while they are in progress and provide avenues for connecting students, academics and practitioners in the theoretical conversation. This will give students the opportunity to think critically about the field of study and their own pathways ahead. Thus, in addition to increasing

empirical exploration and leveraging mid-range theory, a marketing-based theory of markets requires a shift in education. According to Hunt (2002, p. 59), “marketing academics owe the kind of education that will prepare [students] for entry, middle, and upper-level positions in marketing,” however “as marketing professionals, [students] should be capable of recognizing their own responsibilities to society and responding to them.”

## Discussion and conclusion

For over a decade, Vargo and Lusch (2004, 2008, 2011, 2016) founded and fostered the development of S-D logic with a central aim of providing a lens to explore and theorize about how value is cocreated through dynamic ecosystems of service-for-service exchange. S-D logic has been recognized as a potential foundation for a general theory of markets because of (1) its *metatheoretical perspective*, which affords it the ability to transcend more restricted market phenomena and conceptualizations, (2) its *inclusive* nature in relation to subdisciplines is accommodative of more (existing and new) midrange theoretical frameworks, and (3) its *systemic*, social and processual orientation in relation to value creation in society. Although S-D logic and its service ecosystem perspective has been proposed as a foundation for a general theory of markets (Vargo & Lusch, 2017), advancement toward formalization is needed.

Direct connections have been made between efforts to advance S-D logic and the development of a general theory of markets (Vargo, 2007). Although attention toward markets is growing in marketing scholarship (e.g., Humphreys, 2010; Kjellberg & Helgesson, 2006; Mele et al., 2014; Nenonen et al., 2019), work is needed to formalize a framework suitable for supporting an indigenous and transcending general theory of markets from which a general theory of marketing can be built. The pathway proposed can potentially extend and develop marketing-based theories of markets. Hunt (2020b, p. 193) argues that along the way “...marketing has lost a major requirement for continuing institutionalization as an academic discipline: It no longer has a mainstream, central focus. This absence portends the potential de-institutionalization of the marketing discipline.” He calls for “reinstitutionalizing the marketing discipline” because “Literally, the discipline’s future depends on it” (p. 197).

We address concerns that marketing’s theoretical framework is built upside down (Vargo, 2007). That is, the development of normative theory preceded positive theory, rather than, more appropriately, first developing positive theory and using it foundationally for developing more normative theories (see e.g., Hunt, 2010). We have proposed the service-ecosystems perspective as exception to many marketing frameworks as it is not only grounded in the positive

metatheoretical foundations of S-D logic, but also represents a marketing-based systems-oriented understanding of markets. As evidenced above, the journey to developing a general theory of markets based on S-D logic has progressed since Vargo and Lusch's (2004) initial recognition of a new service-centered dominant logic for marketing (Vargo & Lusch, 2008, 2011, 2017). However, as Kuhn (1962) recognizes, the development of a new theory cannot be done in isolation, particularly one that grounds an entire discipline. Thus, this progress has only been made with the contributions of numerous scholars, working to explore and explain service-based phenomena that support the cocreation of value in marketing and markets (Wilden et al., 2017).

Importantly, we do not believe that there is a need to start from scratch in building a marketing-based general theory of markets (Hunt, 2020b) because marketing researchers have already begun to investigate the dynamic and evolutionary nature of markets. Rather, we argue that continued theoretical formalization of S-D logic and a service-ecosystems framework for markets can provide common ground to connect these studies, expand the scope of markets and, ultimately further advance the understanding of marketing phenomena. In doing so, we hope to highlight a collaborative pathway for cocreating indigenous marketing-based theories of markets and marketing that can have important and impactful social and economic outcomes.

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## Declarations

**Conflict of interest** The authors declare that they have no conflict of interest.

## References

- Abolafia, M. Y. (1998). Markets as cultures: An ethnographic approach. *The Sociological Review*, 46(1), 69–85.
- Akaka, M. A., & Chandler, J. D. (2011). Roles as resources: A social roles perspective of change in value networks. *Marketing Theory*, 11(3), 243–260.
- Akaka, M. A., Schau, H. J., & Vargo, S. L. (2013a). The co-creation of value-in-cultural-context. In R. W. Belk, L. Price, & L. Peñaloza (Eds.), *Consumer Culture Theory - Research in Consumer Behavior* (pp. 265–284). Emerald Group Publishing Limited.
- Akaka, M. A., Vargo, S. L., & Lusch, R. F. (2013b). The complexity of context: A service ecosystems approach for international marketing. *Journal of International Marketing*, 21(4), 1–20.
- Alderson, W. (1957). *Marketing behavior and executive action: A functionalist approach to marketing theory*. Richard D. Irwin.
- Alderson, W. (1965). *Dynamic marketing behavior: A functionalist theory of marketing*. Richard D. Irwin.
- Alderson, W., & Cox, R. (1948). Towards a Theory of Marketing. *Journal of Marketing*, 13(2), 137–152.
- American Marketing Association. (2017). Definition of Marketing. <https://www.ama.org/the-definition-of-marketing-what-is-marketing/>
- Bagozzi, R. P. (1974). Marketing as an Organized Behavioral System of Exchange: a comprehensive and analytic structure for interpreting behavior in marketing relationships. *Journal of Marketing*, 38(4), 77–81.
- Brodie, R. J., Saren, M., & Pels, J. (2011). Theorizing about the service dominant logic: The bridging role of middle range theory. *Marketing Theory*, 11(1), 75–91.
- Chandler, J. D., & Vargo, S. L. (2011). Contextualization and value-in-context: How context frames exchange. *Marketing Theory*, 11(1), 35–49.
- Chandy, R. K., Johar, G. V., Moorman, C., & Roberts, J. H. (2021). Better Marketing for a Better World.
- Dickens, W. T., & Lang, K. (1988). The reemergence of segmented labor market theory. *The American Economic Review*, 78(2), 129–134.
- Edvardsson, B., Tronvoll, B., & Gruber, T. (2011). Expanding understanding of service exchange and value co-creation: A social construction approach. *Journal of the Academy of Marketing Science*, 39(2), 327–339.
- El-Ansary, A., Shaw, E. H., & Lazer, W. (2018). Marketing's identity crisis: Insights from the history of marketing thought. *AMS Review*, 8(1), 5–17.
- Friedland, R., & Alford, R. R. (1991). Bringing society back in: Symbols, practices and institutional contradictions. In W. W. Powell & P. J. Dimaggio (Eds.), *The new institutionalism in organizational analysis* (pp. 232–263). Chicago: The University of Chicago Press.
- Giesler, M., & Fischer, E. (2017). *Market System Dynamics. Marketing Theory*, 17(1), 3–8.
- Humphreys, A. (2010). Megamarketing: The creation of markets as a social process. *Journal of Marketing*, 74(2), 1–19.
- Hunt, S. D. (2002). *Foundations of Marketing Theory: Toward a General Theory of Marketing*. Armonk, New York: M.E. Sharpe.
- Hunt, S. D. (2010). *Marketing theory: Foundations, controversy, strategy, resource-advantage theory*. M. E. Sharpe Inc.
- Hunt, S. D. (2020a). Indigenous theory development in marketing: The foundational premises approach. *AMS Review*, 10(1–2), 8–17.
- Hunt, S. D. (2020b). For re-institutionalizing the marketing discipline in Era V. *AMS Review*, 10(3–4), 189–198.
- Jaworski, B. J. (2011). On managerial relevance. *Journal of Marketing*, 75(4), 211–224.
- Kjellberg, H., & Helgesson, C.-F. (2006). Multiple versions of markets: Multiplicity and performativity in market practice. *Industrial Marketing Management*, 35(7), 839–855.
- Kjellberg, H., & Helgesson, C.-F. (2007). On the nature of markets and their practices. *Marketing Theory*, 7(2), 137–162.
- Koskela-Huotari, K., & Vargo, S. L. (2018). Why Service-Dominant Logic? In R. F. Lusch & S. L. Vargo (Eds.), *The SAGE Handbook of Service-Dominant Logic* (pp. 40–57).
- Kotler, P., Pfoertsch, W., & Sponholz, U. (2021). *H2H Marketing: The Genesis of Human-to-Human-Marketing*, Cham, Switzerland: Springer.
- Kuhn, T. S. (1962). *The structure of scientific revolutions*. University of Chicago press.
- Layton, R. A. (2011). Towards a theory of marketing systems. *European Journal of Marketing*, 45(1/2), 259–276.
- Lusch, R. F., & Vargo, S. L. (2006). Service-dominant logic: reactions, reflections and refinements. *Marketing Theory*, 6(3), 281–288.
- Lusch, R. F., & Vargo, S. L. (2014). *Service-dominant logic: Premises, perspectives, possibilities*. Cambridge University Press.
- Lusch, R. F., & Vargo, S. L. (2018). An Overview of Service-Dominant Logic. In S. L. Vargo & R. F. Lusch (Eds.), *The SAGE Handbook of Service-Dominant Logic* (pp. 3–21). SAGE Publications Inc.

- Martin, D. M., & Schouten, J. W. (2014). Consumption-driven market emergence. *Journal of Consumer Research*, 40(5), 855–870.
- Mele, C., Pels, J., & Storbacka, K. (2014). A holistic market conceptualization. *Journal of the Academy of Marketing Science*, 43(1), 100–114.
- Moorman, C., van Heerde, H. J., Moreau, C. P., & Palmatier, R. W. (2019a). Challenging the boundaries of marketing. *Journal of Marketing*, 83(5), 1–4.
- Moorman, C., van Heerde, H. J., Moreau, C. P., & Palmatier, R. W. (2019b). JM as a Marketplace of Ideas. *Journal of Marketing*, 83(1), 1–7.
- Nenonen, S., Kjellberg, H., Pels, J., Cheung, L., Lindeman, S., Mele, C., & Storbacka, K. (2014). A new perspective on market dynamics: Market plasticity and the stability–fluidity dialectics. *Marketing Theory*, 14(3), 269–289.
- Nenonen, S., Storbacka, K., & Windahl, C. (2019). Capabilities for market-shaping: Triggering and facilitating increased value creation. *Journal of the Academy of Marketing Science*, 47, 617–639.
- Palacios-Huerta, I., & Santos, T. J. (2004). A theory of markets, institutions, and endogenous preferences. *Journal of Public Economics*, 88(3–4), 601–627.
- Pohlmann, A., & Kaartemo, V. (2017). Research trajectories of Service-Dominant Logic: Emergent themes of a unifying paradigm in business and management. *Industrial Marketing Management*, 63(May), 53–68.
- Prahalad, C. K., & Ramaswamy, V. (2004). Co-creation experiences: The next practice in value creation. *Journal of Interactive Marketing*, 18(3), 5–14. <https://doi.org/10.1002/dir.20015>
- Radner, R. (1970). Problems in the theory of markets under uncertainty. *The American Economic Review*, 60(2), 454–460.
- Smith, A. (1776/1904). *An Inquiry into the Nature and Causes of the Wealth of Nations*. In E. Cannan (Ed.). Retrieved from <http://www.econlib.org/library/Smith/smWN.html>
- Sprong, N., Driessen, P. H., Hillebrand, B., & Molner, S. (2021). Market innovation: A literature review and new research directions. *Journal of Business Research*, 123, 450–462.
- Vargo, S. L. (2007). On a theory of markets and marketing: From positively normative to normatively positive. *Australasian Marketing Journal*, 15(1), 53–60.
- Vargo, S. L. (2018). Marketing Relevance Through Market Theory. *Brazilian Journal of Marketing*, 17(5), 730–737.
- Vargo, S. L., & Akaka, M. A. (2012). Value Cocreation and Service Systems (Re)Formation: A Service Ecosystems View. *Service Science*, 4(3), 207–217.
- Vargo, S. L., Akaka, M. A., & Vaughan, C. M. (2017a). Conceptualizing Value: A Service-ecosystem View. *Journal of Creating Value*, 3(2), 1–8.
- Vargo, S. L., Akaka, M. A., & Wieland, H. (2020a). Rethinking the process of diffusion in innovation: A service-ecosystems and institutional perspective. *Journal of Business Research*, 16, 526–534.
- Vargo, S. L., Koskela-Huotari, K., Baron, S., Edvardsson, B., Reynoso, J., & Colurcio, M. (2017b). A systems perspective on markets—Toward a research agenda. *Journal of Business Research*, 79(October), 260–268.
- Vargo, S. L., Koskela-Huotari, K., & Vink, J. (2020b). Service-Dominant Logic: Foundations and Applications. In E. Bridges & K. Fowler (Eds.), *The Routledge Handbook of Service Research Insights and Ideas* (pp. 3–23). Routledge.
- Vargo, S. L., & Lusch, R. F. (2004). Evolving to a new dominant logic for marketing. *Journal of Marketing*, 68(1), 1–17.
- Vargo, S. L., & Lusch, R. F. (2008). Service-dominant logic: Continuing the evolution. *Journal of the Academy of Marketing Science*, 36(1), 1–10.
- Vargo, S. L., & Lusch, R. F. (2011). It's all B2B...and beyond: Toward a systems perspective of the market. *Industrial Marketing Management*, 40(2), 181–187.
- Vargo, S. L., & Lusch, R. F. (2016). Institutions and axioms: An extension and update of service-dominant logic. *Journal of the Academy of Marketing Science*, 44(4), 5–23.
- Vargo, S. L., & Lusch, R. F. (2017). Service-dominant logic 2025. *International Journal of Research in Marketing*, 34(1), 46–67.
- Vargo, S. L., & Lusch, R. F. (Eds.). (2018). *The SAGE Handbook of Service-Dominant Logic*. SAGE Publications Inc.
- Vargo, S. L., Maglio, P. P., & Akaka, M. A. (2008). On value and value co-creation: A service systems and service logic perspective. *European Management Journal*, 26(3), 145–152.
- Vargo, S. L., Wieland, H., & Akaka, M. A. (2015). Innovation through institutionalization: A service ecosystems perspective. *Industrial Marketing Management*, 44, 63–72.
- Venkatesh, A., Penalzoza, L., & Firat, A. F. (2006). The market as a sign system and the logic of the market. In R. F. Lusch & S. L. Vargo (Eds.), *The service-dominant logic of marketing: Dialog, debate, and directions* (pp. 251–265). Armonk, New York: ME Sharpe.
- Vink, J., Koskela-Huotari, K., Tronvoll, B., Edvardsson, B., & Wetter-Edman, K. (2021). Service Ecosystem Design: Propositions, Process Model, and Future Research Agenda. *Journal of Service Research*, 24(2), 168–186.
- Webster, F. E., & Lusch, R. F. (2013). Elevating marketing: Marketing is dead! Long live marketing! *Journal of the Academy of Marketing Science*, 41(4), 389–399.
- White, H. C. (1981). Where do markets come from. *Advances in Strategic Management*, 17(2), 323–350.
- Wilden, R., Akaka, M. A., Karpen, I. O., & Hohberger, J. (2017). The Evolution and Prospects of Service-Dominant Logic: An Investigation of Past, Present, and Future Research. *Journal of Service Research*, 20(4), 345–361.
- Wilden, R., Gudergan, S., Akaka, M. A., Averdung, A., & Teichert, T. (2019). The role of cocreation and dynamic capabilities in service provision and performance: a configurational study. *Industrial Marketing Management*, 78, 43–57.
- Wilkie, W. L., & Moore, E. S. (2006). Macromarketing as a pillar of marketing thought. *Journal of Macromarketing*, 26(2), 224–232.
- Zeithaml, V. A., Jaworski, B. J., Kohli, A. K., Tuli, K. R., Ulaga, W., & Zaltman, G. (2020). A theories-in-use approach to building marketing theory. *Journal of Marketing*, 84(1), 32–51.