The role of shared intentions in the emergence of service ecosystems

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ABSTRACT

With the increased prevalence of ecosystems across sectors, understanding what conditions enable their formation is important for both researchers and managers. Service-dominant logic (S-D logic) focuses on service ecosystems, in which actors are interdependent, and characterizes them as layered and nested within three levels (micro, meso, and macro). To understand their formation, this study draws from work in philosophy and the social sciences to introduce the concept of shared intentionality, an aspect of collective agency whose specific conditions result from and foster interdependence among actors, and to acknowledge the mediating role of the meso level in emergence. With these concepts, this study addresses a research question on how service ecosystems are formed and what role individual and collective agency play in this process. This study contributes to S-D logic research by offering a new understanding of service ecosystem formation as a process of emergence in which the development of shared intentions enables collective agency. To synthesize the contribution, this study uses a case to illustrate a conceptual framework in which the sharing of intentions among interdependent actors drives service ecosystem emergence step-by-step across distinct dynamic levels.

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1. Introduction

Management researchers show increasing interest in the development of new collaborative market structures that invite a re-writing of the very premises of how firms think about value creation (Iansiti & Levien, 2004; Moore, 2013; Williamson & De Meyer, 2012). Service-dominant logic (S-D logic) lies at the forefront of this rethinking with its concept of service ecosystem, defined as "a relatively self-contained, self-adjusting system of resource-integrating actors connected by shared institutional arrangements and mutual value creation through service exchange" (Vargo & Lusch, 2016, p. 10). S-D logic highlights the dynamic nature of service ecosystems and stresses the interdependence between actors who integrate resources through service exchange (Vargo & Akaka, 2012).

Inherent in any analysis of such system dynamics is the agency that individual actors exercise to find solutions and create value for themselves and others in the service ecosystem (Lusch & Vargo, 2014; Ng, Maull, & Yip, 2009). Actors' agency allows them "to take actions that shape the ecosystem that others inhabit" (Lusch & Vargo, 2014, p. 164). Thus, in service ecosystems actors not only exercise their individual agency but also coordinate their actions to improve resource integration and mutual value creation. This coordinated action may result

in social structures, which are both the medium and the outcome of social action (Giddens, 1984) and which may enable and/or constrain the agency of individuals (Bhaskar, 2008a). Therefore, a service ecosystem as a social structure exhibits certain institutional arrangements (i.e., rules and resources that directly influence social activities), which, together with agency, are mutually constitutive entities of that system (Giddens, 1984). Furthermore, service ecosystems are layered and nested within three levels: the micro (individual), the macro (institutionalized), and the intermediary, or meso, levels (Akaka, Vargo, & Schau, 2015; Chandler & Vargo, 2011).

Individual actors (at the micro level) actively strive to collaborate with others to create value, and these collaborations may, under the right conditions, allow service ecosystems to emerge across the meso and macro levels and to remain viable. The term "emergence" is justified in this context: Bhaskar (2008b) defines emergence as the generation (from pre-existing material) of new entities, structures, totalities, and/or concepts that could not have been expected or predicted. In other words, emergence is characterized as a process that results in new properties that are more than the sum of their constituent parts alone. Thus, we can conceptualize service ecosystem formation as an emergent process in which individual and collective agency, together with the institutional arrangements of the social system in which they operate, are mutually constitutive entities of that system.

With the dynamic nature of service ecosystems, scholars as well as managers need to understand the conditions under which individual agency can lead to collective agency and to the emergence of service

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ecosystems. Peters (this issue) raises the broader question of how emergent properties may have consequences over and above the individual actors involved in the resource integration process and calls for further research.

To address this gap, we adopt an interdisciplinary approach. Moving beyond marketing/management studies, we take into account contributions from the social sciences and philosophy to introduce "intentionality," a specific aspect of agency that represents individuals' commitment to undertake actions and reach their goals (Bratman, 1987). We focus in particular on shared intentions, which are an aspect of collective agency whose specific conditions result from and foster interdependence among actors (Bratman, 1999, 2014), enabling the service ecosystem emergence. This interdependence develops at the intermediary or meso level (Sawyer, 2005). The study's research question addresses the development of shared intentions from the agency of individual actors and the emergence of service ecosystems in the context of actors sharing intentions:

> Research question: How do shared intentions develop from individual agency and contribute to the emergence of service ecosystems?

Research conceptualizes service ecosystems in S-D logic as consisting of nested levels (Vargo & Akaka, 2012). The suggested conceptual framework illustrates their dynamic nature by providing a more detailed understanding of the process by which the macro level emerges from the micro and meso levels (i.e., upward movement and causation) and, in turn, how the macro level provides feedback to and influences the micro and meso levels (i.e., downward movement and causation). By breaking down the levels of emergence (Sawyer, 2005) and introducing the dynamics between individual and shared intentionality (Bratman, 2014), the framework details the role of shared intentions in the emergence of service ecosystems. We contribute to the further development of S-D logic by introducing work that reconciles agency–structure frameworks that seem incompatible, particularly Bratman's (1999, 2014) work on shared intentionality and Sawyer's (2005) work on the mediating role of the meso level in emergence.

The structure of this article is as follows: Section 2 introduces the conceptual building blocks of the framework. We begin by discussing how S-D logic accounts for service ecosystem dynamics, then develop the concepts of agency and shared intentionality, and, finally, present the social emergence paradigm. Section 3 present the conceptual framework, which compiles the concepts introduced in Section 2. Section 4 illustrates the development of shared intentions and their effects on the emergence of a new service ecosystem in Latin America. Finally, the article provides theoretical contributions and proposes future research directions and implications for managers.

2. Toward a conceptual framework

2.1. Dynamics of service ecosystems

Firms, customers, suppliers, and other stakeholders constitute service systems that perform value-creating activities by taking on the role of providers, beneficiaries, or partners in the market, to reach desired outcomes (Mele & Polese, 2011). A recent shift in scholarly attention is from single service systems to service ecosystems (Lusch & Spohrer, 2012; Maglio & Spohrer, 2013). This shift reflects the increasing impact of ecosystems across industry sectors, particularly technology (Moore, 2013; Thomas, 2013). Understanding ecosystem dynamics is an ongoing endeavor not only for S-D logic scholars (Lusch & Vargo, 2014; Vargo & Lusch, 2011) but also for management scholars studying ecosystems (e.g. Moore, 1993, 2013; Thomas, 2013). For example, Moore (2013), on examining technologically networked environments, shows that participants with "shared purpose" take on more active and deliberate roles in developing ecosystems. Thomas (2013) uncovers different phases of emergence (i.e., initiation, momentum, and control).

Although both Moore and Thomas recognize some level of agency in the emergence of ecosystems, they examine agency as a strategic rather than an individual or social feature. Conversely, S-D logic views ecosystems as deeply social and as formed and re-formed through actor-to-actor interactions in which actors create value by integrating and exchanging resources.

In its conceptualization of the dynamics of service ecosystems, S-D logic adopts a strong structuration perspective (Giddens, 1984; Stones, 2005): actors create structures through their actions, while structures also enable and constrain the actions of actors (Lusch & Vargo, 2014). This perplexing "paradox of embedded agency" is not unique to S-D logic and is a recurring theme in sociology literature (Battilana & D'Aunno, 2009; Sawyer, 2005; Sewell, 1992).

The research question focuses on bringing clarity to how actors (in exercising their individual agency and interacting in service exchanges) develop collective agency and thus contribute to the emergence of a service ecosystem. S-D logic scholars increasingly recognize actors' agency as one of the features or conditions for the existence of service ecosystems (Vargo & Lusch, 2016). Each actor possesses an original combination of resources and contributes to the service ecosystem in a unique way. This uniqueness arises not only from individual actors' core competences and distinctive resources but also from their ability to create value by matching resources, inserting themselves into the wider service ecosystem, and contributing to its success and evolution by offering individual solutions (Gummesson & Mele, 2010).

Related to the agency–structure relationship and of particular interest to the current work is the S-D logic characterization of the service ecosystem structure as layered and nested within three levels: micro, meso, and macro (Akaka et al., 2015; Chandler & Vargo, 2011). Causal relationships between actors at one level may generate events at another level (Lusch & Vargo, 2014). Processes moving from the micro level to the macro level (and vice versa) occur "in a sea of change, making all the systems inherently dynamic" (Lusch & Vargo, 2014, p. 170) over time and space. The term "system (re-)formation" (Vargo & Akaka, 2012) captures the recursive processes by which these systems form and re-form both dynamically and continuously.

In exploring the role of agency (both individual and collective) in the process of the emergence of service ecosystems, we adopt the term "emergence" instead of "(re-)formation" (Vargo & Akaka, 2012). The concept of emergence appears widely in the literature, not just in systems science (e.g. Gell-Mann, 1994; Kauffman, 1995) and management (Thomas, 2013; Van de Ven & Garud, 1993) but also in the philosophy of science (e.g. Bhaskar, 2008a; Mandelbaum, 1951; Meehl & Sellars, 1956), sociology (e.g. Archer, 1982, Buckley, 1967), psychology (e.g., Davidson, 1999), and linguistics (e.g., Chomsky, 2002). As such, use of the term reflects this study's multidisciplinary approach. More important, we highlight the role of human agency in emergence and provide a central distinction: while the literature on service ecosystems apprehends the micro, meso, and macro levels as static, the current emergence conceptualization adopts a more dynamic analysis of these different levels.

Through the service ecosystem lens, value creation appears in all its complexity and comprises both every individual actor's contribution and the collective role actors perform as they exchange resources in their interactions. However, in accordance with the research question, what remains to be understood is how service ecosystems emerge from human agency and the processes that characterize this emergence. We suggest that the answer to this question begins with shared intentionality, an aspect of collective agency.

2.2. Agency and shared intentionality

As discussed, S-D logic recognizes that as individual actors engage in value-creating interactions, their agency plays a crucial role in shaping service ecosystems. Here, we explore how the concepts of individual