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A service perspective:
Key managerial insights from service-dominant (S-D) logic

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Several hundred years ago, when production began to shift to factories, the firm became a bureaucracy that organized and planned production and its sale. Most production occurred in the cottage or household or in relatively small, crafts-focused shops. The ascendance of the bureaucracy during this period occurred when people, things, and information moved slowly. Network connections between people and organizations were relatively few, short, slow, and at times impossible to develop.

As we entered the Industrial Revolution, few recognized that the transformation was less about manufacturing and mostly about the ascendance of communication and transportation technologies. These developments enabled a revolution in manufacturing and established network connections between people and organizations that increasingly extended to networks connecting things, people and organizations. By the 1950's, most developed countries were moving beyond the industrial era and were entering what some called a "post-industrial", "services", "information," and "network" society. In this era, the revolutions in transportation and communication continued and were joined by a revolution in computation. Soon, the network connections and the transmission of information between people and organizations became many, long, fast, and more easily performed.

During the Industrial Revolution economics was developing as a science, largely based on the pursuit of a Newtonian-like equilibrium model of markets and the economy. At the same time the manufacturing or *goods-dominant (G-D) logic* of management also developed. G-D logic embraced separating the consumer from the firm (producer) in order for the firm to focus on producing large quantities of homogeneous goods with workers performing highly specialized tasks that increased efficiency (lower costs). These produced goods would then be inventoried and transported to customers

when needed and domestic surpluses would be exported to help create the wealth of the nation. The firm focused on the production and sale of homogeneous units of output at prices that allowed it to maximize profits.

G-D can be best described as a logic of separation. Because people, information and things moved slowly, bureaucratic and hierarchical approaches to management provided good solutions for coordinating work within organizations. In the factory and throughout the organization, people performed specialized jobs in order to gain efficiencies through a high division of labor within the factory (e.g., automobiles, steel, brewing). Even when it came to managing the firm, some individuals performed the job of analyzing the exogenous environment while others prepared multi-year plans and still others performed the control function. Because information was scarce and took time to disseminate, the process of analysis, planning, and control also was costly and slow.

Today, the Internet connects workers, suppliers, customers and other stakeholders. We are now beginning to see more clearly the many-to-many networks that characterize business and society. National, regional and global transportation systems have also enabled firms (e.g. Amazon, FedEx, Walmart) to compete across large geographic markets. Firms also compete for talent, some of which can be obtained through knowledge workers using the Internet to collaborate. More and more specialized business processes are now Internet- or Cloud-based and have been implemented to increase collaboration (both with customers and suppliers and within the firm itself), improve service, and strengthen relationships. Examples of such Internet- or Cloud-based processes include data sharing at Phillips, order tracking at Stanley Black & Decker, knowledge sharing and activity updating at Coca-Cola Enterprises, and account tracking at Herman Miller.

Leaders and managers are finding that G-D logic and the management and marketing practices it implies are less and less useful. We maintain that firms are at a critical juncture and a new paradigm is needed. While there have been many changes such as flatter organizations, more empowerment, and greater engagement, the pervasiveness of G-D logic and its focus on economic transactions has limited leaders' views of relationships, interconnections, and networks of interdependencies. We recognize that paradigms are extremely difficult to change but leaders and managers have a choice to make. Either continue relying on G-D logic and run the risk of failure or shift to a new paradigm. We suggest, as the last few decades have unfolded, that leaders of many successful organizations have institutionalized a new mindset that is firmly grounded in service dominant (S-D) logic. We argue that a service perspective can and is being used by all types of organizations, including manufacturing as well as service, and that it facilitates mutual value creation. The purpose of this article is to encourage leaders and other key decision-makers to be more proactive in adopting a service perspective. Our ideas draw upon multiple streams of literature (see bibliography) that are linked to S-D logic.

CONCEPTUAL FRAMEWORK

Today we are witnessing a fading of the popularity of G-D logic, while business and organizations in general are evolving to S-D logic. S-D logic, however, is not specific to "services" businesses, such as healthcare, education, transportation, tourism, entertainment, finance and other businesses. Government accountants and statisticians traditionally classify these as tertiary industries. This goods-services classification system is flawed. Throughout the world virtually all government classifications of industries are based on three broad categories. For example, farming, fishing, forestry, and mining and other extractive industries are viewed as *primary* industries (they are the source of natural resources). Manufacturing industries, which take the output of the primary industries and produce goods, are *secondary*. Essentially everything that remains (the residual) is called *tertiary* and is generally categorized as services. As we will explain, S-D logic offers a transcending perspective that applies to all organizations and economies. In fact S-D logic argues that *all businesses are service businesses*.

In the past, G-D logic was so powerful in the mindset of virtually all business and government leaders that many, if not most, firms adopted G-D logic. These organizations (e.g., Ford, McDonalds, and Sony) focused on a high division of labor, homogeneous outputs, efficiency, and selling units of output at prices to maximize profits. For instance automobile manufacturers focused on the number of cars produced, railroads focused on ton-miles of freight, hotels focused on beds filled, education on credit hours produced, and airlines on seat miles. The central focus was on tangible and/or intangible units of output. Also a distinguishing characteristic of G-D logic is the ability to separate work into micro-activities that could be performed in relative isolation and often in a factory or office setting. This philosophy also motivated the firm to separate itself from the customer who was someone out there to capture once the firm had some output it had to dispose of (sell). G-D logic is thus a logic

of separation of producer from consumer and of employees from each other and from management. Employees and customers are to be managed and controlled for what is in the firm's best interest.

S-D logic, however, has a dramatically different focus from that of G-D logic. (In this exposition we use a few S-D terms to maintain fidelity with the expanding S-D literature along with clarifying explanations.) S-D logic implies interactivity and togetherness between service provider and beneficiary. It embraces a focus on working together (employees, managers, suppliers, customers and other stakeholders) to integrate resources (combining or aligning assets) for mutual value creation (producing benefit for all participants.) The integrative focus of S-D logic can be seen in four axioms on which it is based. These are summarized below:

S-D Logic Axiom 1

The first axiom of S-D logic is that *service is the fundamental basis of exchange*. This is premised on the S-D logic definition of service. *Service is the application of resources (primarily knowledge and skills) for the benefit of another individual or organization (the beneficiary)*. This implies that: (a) goods are appliances for service provision, (b) all businesses are service businesses, and (c) all economies are service economies. From this it follows that, when money is involved in exchange, it represents rights to future service. Furthermore it suggests that society (and what holds it together), is service-for-service exchange among the entities in society. In brief, service exchange and society are inseparable.

S-D Logic Axiom 2

The second axiom is that *the customer is always a co-creator (joint or collaborating contributor) of val*ue. This axiom is in contradiction of G-D logic, which treats the producer as the creator of value and the consumer as the destroyer of value. To the contrary, this axiom states that value is something that is always co-created through the interaction of individuals or firms. Sometimes it occurs directly, other times indirectly through goods, and sometimes both directly and indirectly. Value is thus dependent on use and context. Essentially it is always contingent on resources provided by others, through service, and thus value is dynamic and unfolds over time.

S-D Logic Axiom 3

All economic and social actors (entities) are resource integrators, is the third axiom. A resource is anything an individual or firm can draw upon for support, either tangible or intangible. Resources are of three broad types: (1) private resources including self, friends, and family; (2) market resources obtained through barter or economic exchange; and (3) public resources such as those obtained from communal and governmental sources. In many situations, all of these resource types are simultaneously integrated. Furthermore, value is co-created by economic and social entities through the integration of these resources in an almost infinite number of potential combinations. Moreover, all individuals and firms are resource integrators and exchange service with others. Finally, a network of such resource

integrators comprises a service ecosystem (interacting system of service entities).

S-D Logic Axiom 4

The fourth axiom is that *value is always uniquely and phenomenologically determined by the beneficiary*. Value is experiential. Each individual (or firm) perceives offerings and integrates them with other resources differently. Thus value is uniquely experienced and determined by the beneficiary. Because value is unique and the beneficiary assesses value, it implies that the organization can only make a value proposition (an offer of benefit). A value proposition communicates how an organization's offering will benefit the person or other firm.

The S-D logic definition of service, when embraced, transforms even what is traditionally thought of as a manufacturing firm into a service-oriented firm. As an example, consider KONE, one of the top three firms globally in the manufacture of elevators and escalators, and one of the world's most innovative companies. The company's service philosophy is reflected in its trademark of "People Flow", which refers to its market offerings that move people within and between buildings with elevators, escalators, moving sidewalks, and automated doors. The firm's service philosophy is also reflected in its design, maintenance, and project management services. For example, KONE serves customers by providing traffic planning, tailoring its equipment to unique building features, and by offering alternative approaches for moving people during construction. Consistent with this philosophy, KONE emphasizes a collaborative approach to innovation in a culture characterized by empowerment, openness, and trust. One of the company's competencies is to optimize the flow of people through simulation techniques. The company does not just build elevators and escalators. Instead, through the innovation of its highly skilled workforce, KONE provides an innovative service of optimizing the flow of people through and between buildings for a customer.

Systems Thinking

S-D logic advocates a broader, service-ecosystems perspective than the view provided by G-D logic. *A service ecosystem is a relatively self-contained, self-adjusting system of resource-integrating entities that are connected by shared institutional logics and mutual value creation through service exchange*. These entities can include employees, customers, suppliers, stakeholders, etc. We argue that the entities in such systems are likely to mutually create value through exchange when guided by S-D logic. In contrast, G-D logic focuses on linear and hierarchical chains of suppliers that provide the firm with inputs and marketing channels to reach out to customers to dispose of the output of the firm (e.g., Mattel, Nike, and Samsung). These supply chains and marketing channels are usually defined by relatively rigid boundaries between firms.

With S-D logic, the boundaries between firms are blurred with a resultant transformation similar to the notion of a relatively self-contained and self-adjusting system. No single firm is in charge or controls this ecosystem and thus it cannot be singularly planned or designed. Instead, it is more characterized by emergent properties. The firms in this system are involved in integrating resources that do not exclusively come from within the firm. Instead, resources often arise externally and can include market facing, public, and social resources.

An example of such non-hierarchical, flat collaborative systems or collaborative networked organizations is provided by the Australian-based Technological and Computing Graphics (TCG) Group. The TCG network consists of small companies (nodes) operating in information technology (e.g., hardware, software, and telecommunications) along with firms providing numerous other services (e.g., accounting, contract research, dispute resolution, and sales consultation). In this collaborative network group members (when invited by a lead firm) provide mutually supportive services for innovation projects with much larger customer firms (such as Telstra) and technology partner firms (such as Hitachi). Firms in the system are held together by trust and the perceived value of inter-firm knowledge-sharing.

Another example is Syndicom, a collaborative knowledge-sharing community of spine surgeons that was formed to exchange consultations and insights (services) on challenging cases via anonymous inquiries on the Internet. As the Syndicom community evolved it also developed and patented new orthopedic devices and with collaboration of manufacturers it also began to produce these devices. As with the TCG Group, the Syndicom community adopted common values and shared understandings about collaboration, which is the glue or Velcro that connect these systems, communities, and firms. A third example is provided by the collaborative network Grupo Poligrafico Tiberino (GPT), which is a network of small firms in Italy pursuing greater innovation in printing and packaging (e.g. plastic film and general packaging). GPT represents a variation in that a virtual entity was formed to take on the permanent responsibility for coordinating GPT's response to opportunities, such as identifying the firms to be involved. Organizations such as TCG, Syndicom, and GPT provide the rules, norms, and other mechanisms for coordination as the firms exchange service with one another in pursuit of mutual value creation. Trust and the resolution of conflicting interests are important for holding these networks together.

Service ecosystems are best understood in terms of multi-level structures. Firm-customer or supplier-firm interactions at one level generate micro-level structures, such as specific firm-customer norms. Cumulatively, these micro-level structures develop into meso-level (e.g., industry, brand community) structures such as brand meaning, symbols, and industry standards. In turn, these develop into macro-level (e.g., cultural, societal) structures such as generalized cultural norms, language, and laws.

Exhibit 1 provides an elementary (simplified) map of a micro-level service ecosystem. This map should be viewed from the perspective of a focal entity that is connected to first-tier service providers and beneficiaries (heavy solid lines) that in turn connect to second-tier service providers and beneficiaries (heavy dashed lines). The focal entity is also connected to other stakeholders (fine dashed lines). Both service providers and other stakeholders are connected by shared institutional logics (ovals of double dashed lines). Note that any entities within one of these ovals share an
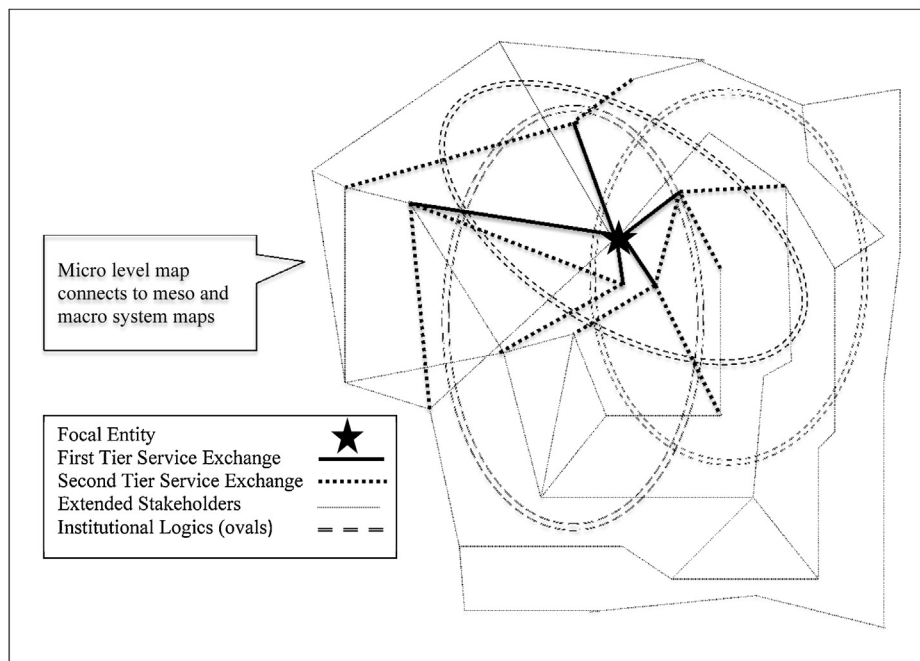
Exhibit 1   Micro-level elementary map of service ecosystem. A service ecosystem is a relatively self-contained, self-adjusting system of resource-integrating entities that are connected by shared institutional logics and mutual value creation through service exchange.

institutional logic. The map in Exhibit 1 may resemble a transit map for a city, showing different roadways and transport lines that allow people to connect to different locations. Although this is a metaphor, it may enable one to envision how a firm is not merely connected to a linear supply chain but, instead, to a network of other entities such as employees and other nearby and distant stakeholders. Of course, this map is simplified in multiple ways. For instance, consider the example of GE or IBM as the focal entity. Within these firms are hundreds of thousands of employees that are connected and interconnected through service exchanges. In turn, each of these employees is usually part of a family that includes other entities that have service exchanges. These employees and family members are held together through shared institutional logics. This simple example illustrates that there are systems within systems and down to the most micro entity. Also the map in Exhibit 1 is simplified because it does not show how the micro level connects to meso (e.g., industry and brand community) and macro (e.g., cultural, societal) structures. In brief, service systems at the micro level are nested in overlapping and nested structures at the meso and macro levels. Importantly Exhibit 1 is also a static snapshot of what should be viewed as a real-time video of an unfolding service ecosystem with emergent properties and also occasional extinctions of some entities in the ecosystem.

To fully understand what is going on at one level requires looking at it from the perspective of other levels. For instance, to make sense of why a customer would pick a higher-priced item over a lower-priced item that has an identical function, except for a brand logo (e.g., a swoosh on a t-shirt), requires understanding the meaning of brand at the meso-level (industry) and the role of brand in communication at the macro-level (societal). This inter-level influence can also be seen in organizations. For example, corporate culture at Amazon or Nike is created through

the interactions of the firms' employees (including management) but it can only be fully understood in the context of industry standards and social and cultural norms. This simultaneous bottom-up and top-down, multi-level influence creates an overall ecosystem that is, somewhat paradoxically, both relatively stable and dynamic, especially over time and situational context.

Scholars and practitioners might argue that the application of systems thinking is not new and, in a sense, that is true. Leaders and managers are routinely required to consider the interconnectedness of different stakeholders and society. Nonetheless, management actions sometimes fail to reflect the degree to which individuals and firms are interdependent. Emphasis on competitive markets and traditional strategic considerations, such as competitive advantage and G-D logic, may have diverted attention away from the importance of the web of interdependency of individuals and organizations. Let us look at some additional insights obtained by embracing the service ecosystem perspective.

Stakeholders

A service ecosystem perspective enables involved decision-makers to zoom out to the larger ecosystem. From this broadened perspective, they are more likely to consider all stakeholder groups as interdependent actors embedded within the network. Such a perspective forces individuals to think of value propositions as not only being for external customers. It allows them to see that they also co-create value propositions to employees, suppliers and other stakeholders. An example is Nordstrom's training initiative for factory workers in China who make its private label products. With a goal of empowering and strengthening relationships with workers, Nordstrom partners with the factories to provide life skills training (in addition to regular training) on topics requested by workers such as financial literacy, parenting skills, and computer skills.

Such training, which is unusual in the garment industry, helps workers become better positioned for long-term careers.

A service ecosystem perspective also helps business leaders and managers recognize that organizational performance is too often a firm-centric concept that captures performance in the eyes of the organization. A broader view is that the organization be should be considered from the perspective of the larger network of stakeholders (firms, individuals, and other entities) that make up the ecosystem. This ecosystem comprises the interdependent network in which the firm is only one node connected by relationships. This broader view provides an important outside-in perspective that enables leaders and managers to see how relevant other stakeholders who are affected by the organization define and perceive its performance and how it delivers on its value proposition and creates mutual value for them.

Managerial competencies reflecting a service perspective can provide collaborative advantage. Shared institutional logics, which hold the service ecosystem together, are formed (in part) by investment in the development and establishment over time of collective identity, social community, and webs of interpersonal connections. These connections are facilitated by common goals. These are important aspects of effective management within a service ecosystem. In fact, one can think of everything the firm offers as a value proposition and part of its brand reputation. The firm needs to connect with a significant number of other entities so that they can engage in service exchange. Collective identity, social community and common goals facilitate this. Alibaba and eBay provide examples of service ecosystems that utilize social community, shared understandings, and brand reputation to facilitate exchange between firms and their suppliers and customers.

Loosely Coupled Systems

Although service ecosystems are relatively self-contained and self-adjusting, they are by their nature flexible and loosely coupled. Sometimes the loosely coupled systems are temporary in nature, which provide the means for adjustment. Individuals or firms can simultaneously be part of one or several loosely coupled systems as well as a part of a more tightly coupled system, such as when they provide service in their traditional role in an organization.

Some implications of loosely coupled systems can be explored by considering the example of cross-functional teams. (While such teams are clearly not unique to S-D logic they can be illustrative of S-D logic.) Cross-functional teams are examples of loosely coupled systems that are used in collaborative networks, e.g. DreamWorks, Electronic Artists. These networks are found in evolving organizational forms that facilitate collaboration. Teams can be cross-functional and draw individuals from within an organization or across organizations. Much like cross-functional teams, a loosely coupled system asks its co-acting entities to identify opportunities or jointly solve problems faced by one (or more) of the collaborating firms. An example of systems drawing contributors from across organizations is provided by NATO's Network Centric Operations. Individual experts from various NATO military organizations collaborate in temporary teams where they share knowledge and develop situational awareness for the benefit of NATO members.

The benefits of a loosely coupled system are often realized when there is an urgent need to address complex and "wicked problems" that are too intractable for resolution through traditional management hierarchies. This is because the ties among entities in the system are not fixed, allowing for some flexibility in how expertise is deployed when complex problems arise. In addition, loosely coupled systems are increasingly being acknowledged for spawning innovation. For instance, P&G has increased its innovation capacity by moving beyond its historic reliance on internal innovation to incorporate open innovation. The company recognized the critical role of teams and the development of a broad network of relationships enabled by teams. The company uses these approaches in collaboration with other companies (e.g. Monosol, Sederma, and Zobele) and individuals to develop new market offerings. For example, P&G has innovation centers throughout the world that engage customers in the development of new customer-centric offerings, such as Swiffer dusters and Febreze air fresheners. P&G instills its views about innovation in its workforce at the Clay Street project in Cincinnati where the company uses a cross-functional team approach emphasizing relationships, openness, and compassion to develop innovation capabilities.

The preceding discussion leads to our first key managerial insight.

> *Key Managerial Insight #1: A service ecosystem perspective enables managers to view their organization in a broader and more enlightening perspective.*

A Service Perspective as Transcending

S-D logic treats "service" as a transcending concept; it is the application of resources (e.g., knowledge and skills) for the benefit of another. This can be accomplished either directly as in a person providing face-to-face service to another or indirectly through a manufactured, tangible good. Companies that are managed with a service perspective, such as Disney, Southwest Airlines, and USAA, have a working-together philosophy. They view customers as active participants in value creation. This moves the organization away from *marketing to* customers and toward *marketing with* customers. Executing on this philosophy includes listening to customers, understanding their problem-solving needs, respecting their interests, and utilizing their talents. This service perspective transcends both goods manufacturing and non-goods enterprises. For example, it includes a focus on serving in a continual and interactive manner. With a service perspective, transactions are viewed as events that occur within relationships instead of as the building blocks of relationships for the creation of mutual value.

Service Exchange

S-D logic maintains that service is the fundamental basis of exchange. In economies and societies, individuals specialize in order to capitalize on their knowledge and skills (talents) and consequently become dependent on others and hence need to exchange with them. Service exchange is particularly relevant in today's global networks of organizations. For example, firms such as IBM (Algorithmics risk assessment), Hilti (fastener solutions), and McCain Foods (sales promotions) provide service

based on extensive exchanges of information with other firms and customers. In addition to the commonality of exchange connecting various individuals and organizations, there is also another important commonality. This was pointed out by the French economist Bastiat when he suggested ''the great economic law is this: *Services are exchanged for services*... It is trivial, very commonplace; it is, nonetheless, the beginning, the middle, and the end of economic science.'' Another way to look at the idea of service exchange is that we all do jobs for one another and no one does anything totally on his or her own. The exchanging of service with one another forms the basis of society. Service exchange, thus, should provide a foundational philosophy for managers.

Even casual observation reveals that we seldom directly exchange with one another because the effort to do so is monumental. This becomes especially true as individuals and firms become more and more specialized. Managers faced with this problem are fairly clever at finding innovative ways to improve their efficiency and effectiveness in exchanging with one another. One indirect mode of exchange of service is through money. Social exchange theory explains that exchange also takes place between individuals within organizations, such as for future unspecified favors. The relationships and the rules or norms are important considerations in social exchange.

Service Exchange and Relationship

Many firms have adopted customer relationship management (CRM) practices and software. This reflects a view of relationship as the outcome of repeated transactions with customers. However, with S-D logic, relationship is more deeply embedded in the interactions between individuals in a community or society, guided either tacitly or explicitly by shared superordinate institutions (such as religious, cultural or polity). From this, such things as norms of exchange and common goals develop. By developing a relationship from an S-D logic perspective, organizations such as American Express, American Airlines, and Nestlé, which conduct business in many different cultural contexts, can learn a lot about the motivation of customers, suppliers, and employees. This is because they begin by understanding the relationship and configurations of institutions that tie them and their offerings together. An implication for management is that when employees see their work as being an element of a service relationship and beneficial to others they may be more inclined to engage in helping behaviors. This can result in high service quality and enhancement of the firm's sustainability. Feedback from customers, when viewed from within an ongoing relationship, is also more likely to have positive implications for service quality as well as motivation.

The prior discussion leads to our second key managerial insight.

> **Key Managerial Insight #2:** *Service and service exchange is transcending and can be used as a unifying and integrative way to manage intra and inter-organizationally.*

Value Co-Creation

Axiom 2 of S-D logic focuses on the customer as always being a co-creator of value. Although there are many related concepts of value, two that are particularly helpful to managers are value-in-exchange and value-in-use. Value-in-exchange is often captured in the exchange of money for a service. G-D logic with its focus on units of output was oriented toward value-in-exchange. The focus on value in exchange can lead to the belief that value is embedded in a thing. In this sense the consumer can be seen as using-up the value embedded in a good and thus diminishing its value. S-D logic argues that this G-D logic of value is too limiting.

Value-in-use arises from an individual or firm experiencing value. From an S-D logic perspective, a firm's output becomes an input in a customer's own value co-creation processes. Co-creation of value is not something that relates only, or even primarily, to tangible resources on which operations are performed. Instead, it also extends to intangible resources and institutions. A service perspective focuses more attention on understanding value-in-use and value co-creation.

A better understanding of the co-creation of value may be obtained with the recognition that everyone is a co-creator of value. This occurs because a beneficiary in the use of a service offering is co-creating value. Often this results in customers modifying the value proposition and integrating the service offering differently from how the firm intended. For instance, aspirin has many uses beyond what branded offerings of aspirin have as their value proposition, as does baking soda and baby oil. It is worth repeating that if any value is to be created, then the co-creation of value is not optional. If the firm views its customer not as a customer *per se* but as a resource-integrating individual (or firm) that is co-creating value, it can obtain insights and take actions that foster more co-creation of value. Using the service-ecosystem perspective previously discussed, second-order effects become apparent. This means that the customers of the firm's direct customers (first order) also need to be understood. In addition it should be recognized that the firm is also a customer of its own suppliers; hence, the firm, along with its suppliers, are also co-creators of value.

Coproduction is a subset of the co-creation of value in which an exchange partner (customer or firm) is actively involved in developing some of a service offering. Coproduction is optional and includes customers assembling a product (such as with Ikea furniture or Lego with toys) or customers being part of a brand community (e.g. Apple, eBay, Harley Davidson, Nike) and using social media to recommend a brand. There is a trend toward collaborative innovation, in which customers and suppliers (e.g. BBC, Disney, and Snap-on) may be involved in various phases such as ideation, actual product development, commercialization, etc., which we will discuss later in more detail.

The transmission of knowledge provides another perspective on value co-creation, as well as interdependency. Much of the knowledge developed in the firm comes from on-going relationships both within the firm and with customers and suppliers. Many of these relationships are focused on episodic events. These events often involve deep collaborations of loosely coupled systems that are used to solve complex problems and or exploit opportunities. Knowledge sharing in these systems is extensive. Firms are likely to develop their collaborative abilities in these relationships. For example, in the coproduction of service such as software design and technical engineering, consulting firms in knowledge-intensive business services sometimes provide collaborative skills training for the client's employees. With on-going relationships and co-creation

of value, there should also be strategic advantage. Tacit or sticky knowledge often stays with the collaborating organizations because of their ongoing customer or supplier relationship. Such tacit knowledge often provides the basis for the firm's strategic advantage since it cannot easily be transferred to other organizations.

The preceding discussion leads to the third key managerial insight.

Key Managerial Insight #3: A service perspective can enhance value co-creation, including coproduction possibilities.

A Service Perspective on Innovation

Organizations are moving away from viewing innovation as a proprietary process that occurs within their organization to innovation as a social process involving a host of individuals from within and across organizations. Consider, for instance, Cargil's open innovation approach that involves collaboration with customers in innovation centers located throughout the world. At its innovation center in Brazil, the company provides laboratories in which the firm's customers collaborate with Cargil technologists to develop new products in categories such as baking and beverages. The facility provides specialized laboratories and testing equipment that enable assessment of product attributes (e.g., flavor and aroma) and the evaluation of ingredients while maintaining customer confidentiality. Customers also have access to other services at the facility to include shelf-life testing and flavor creation.

From the vantage point of S-D logic, all innovation involves some form of service. This is a simple but important insight. Ideas move to invention and then to innovation, however, only at the point of diffusion is a market expanded or a new market created. This is because the innovation provides a service to the customer. People hire service offerings (of all forms) to get a job done. Consequently in the ideation and invention stage of an innovation it is important to constantly ask "What job (service provided) will be performed for the customer?" Collaborative innovation with customers has the inherent advantage of incorporating customer needs at the inception of the innovation process (e.g. Uber car service).

S-D logic also embraces the idea that innovation arises from combining and recombining resources in unique and novel ways. Through such combinatorial processes, new market offerings are developed that enhance the efficiency and effectiveness of existing offerings. The notion of innovation as combinatorial evolution suggests that, rather than there being a fixed quantity of things for humans to invent, the extent to which people exchange service and combine their resources determines the boundaries of innovation. Importantly, as managers or employees discover and innovate they create more possibilities for innovation. (Such combinations and discoveries occur not only within the firm but also in the inter-related web of firms, customers and individuals.) This is because the combined and integrated resources can serve as a module that can then can be combined and integrated with other resources to create another innovation (e.g. combining solar panels, tracking modules, submersible pumps, and sensors to provide the service of automated, remote water supplies). Innovation is thus unbounded. A major role of management is finding ways to integrate resources (e.g. bundle, reconfigure modules) and capitalize on this unbounded innovation frontier, which advances the human condition and also the performance of the organization.

More Open Innovation

S-D logic, with its service-ecosystem lens, sets the stage for more open innovation. This comes at a time in which our understanding of innovation is evolving from a closed proprietary process limited to research and development (R&D) staff to a more open and social process where individuals or firms across the service ecosystem collaborate on innovation. Despite claims by business journalists and other observers of innovation, the innovation process will likely never be totally open or does S-D logic advocate this. One only needs to witness the continued emphasis on protecting intellectual property through legal institutions and otherwise. Nonetheless, on a relative basis innovation is becoming more open.

The expanding reliance on more open innovation involves increased inflows and outflows of knowledge through permeable or fuzzy organizational boundaries. A more open approach to innovation takes place through collaborative and extended relationships, some of which involve collaboration with customers, lead users, and suppliers. In such collaborative initiatives information exchange is critical for successful outcomes. For information exchange to occur, organizations must play a role in establishing trust. When organizations are connected to employees, customers, suppliers, and other stakeholders, there is reason to be trusting or trustworthy. The Acer Group federation and the Blade.org organization, as well as the P&G Advisory on-line community, provide examples of such shared institutions and trust. S-D logic emphasizes the relational nature of the exchange of service.

Knowledge Sharing and Integration

There are several well-known obstacles to knowledge sharing, such as structural barriers, communication structure, physical distance, and managerial biases. We argue that a service perspective enables one to deal with these challenges because there is a focus on helping or assisting. An extreme example of knowledge sharing may be seen in knowledge communities that develop and disseminate collective knowledge. Whereas examples of such service-oriented communities are most easily seen in scientific or academic communities e.g., American Chemical Society (ACS), American Society of Mechanical Engineers (ASME), Institute of Electrical and Electronics Engineers (IEEE), corporations also rely on external knowledge communities or collaborative communities for innovation. (Blade.org, which was established by IBM and a few other companies, provides an example of such knowledge-sharing communities.) We argue that a service perspective can enhance such knowledge sharing. First, when individuals or firms share knowledge this can be viewed as a form of service exchange. Recall that service is the application of resources (primarily knowledge and skills) for the benefit of another (the beneficiary). To share knowledge (not just information) involves an exchange between actors in which the knowledge is the application of a resource for the benefit of another actor. The relational nature of service exchange, discussed previously along with shared institutions, enables knowledge sharing that stimulates innovation. These relationships and

institutions also lessen the likelihood of resistance to collaborative innovation with customers. (An example of such resistance is the not invented here syndrome.)

The preceding discussion leads to our fourth key managerial insight.

Key Managerial Insight #4: A service perspective is conducive to and fostering of innovation (of all types).

Strategic Advantage

A service perspective views markets as dynamic. In such markets, firms continually integrate existing and new resources to serve customers. In this type of setting, traditional strategic planning and associated control systems are unlikely to be effective. Traditional strategic planning is often focused on gaining competitive advantage in existing markets and not from envisioning service offerings to help customers. With the use of S-D logic and the service perspective it affords, strategy becomes more emergent, incremental, and demand-oriented. With S-D logic, strategy emerges as the firm uses its dynamic resources, draws upon its relationships to other firms, and develops processes and capabilities to re-shape and sometimes develop new value propositions. With S-D logic, strategic planning is iterative as the firm takes actions to create markets and the future. Control is focused on gathering feedback to monitor success (as well as markets) and on making incremental adjustments to better serve the customer and hence enhance firm performance.

Airflow, a multinational firm that produces and distributes gas, provides an example of a company that incorporates S-D logic into its strategic planning. More specifically, the firm takes a service approach (with an undifferentiated product) by providing technical and engineering solutions for use of gas in its customers' production processes. Airflow follows a strategy of providing these boundary-crossing services in Europe and Japan where it establishes long-term relationships with its customers and has gas service contracts lasting up to ten years. The firm's strategic planning is differentiated as it does not follow the same strategy in the U.S., where customers are solely focused on price and have viewed such collaborative services as an intrusion to their internal processes. Airflow's relationship with its customer, Precision Devices, reflects an iterative approach. It relies on the development of intimate knowledge of its customer's manufacturing processes and the establishment of a long-term relationship. The firm's strategy reflects a more evolved S-D logic and a greater focus on relationships in Europe and Japan while its strategy in the U.S. is based on more traditional transaction-oriented G-D logic.

A service perspective informed by S-D logic does not view resources as fixed but rather a function of human appraisal. Resources are anything that can be drawn upon to support a company's mission. *Resources are not, they become*. It is in the knowing what to do with neutral or unharnessed potential resources and integrating them with other resources that allows for *sustainable* strategic advantage. Resources go well beyond what appear on a firm's balance sheet. They can include the resources of suppliers and even competitors, public resources, and also customer resources. Finding ways to bundle (or unbundle) such resources to better serve customers also unleashes a more munificent resource environment.

What then is the role of management and especially senior executives in creating strategic advantage? They must deeply understand institutions, relationships, and the context(s) that the organization operates within and must navigate through. An understanding is required of how customers co-create value and how the firm can make value propositions that engage customers, employees, suppliers and other stakeholders in a collaborative role to integrate the resources for mutual value creation.

The prior discussion leads to our fifth key managerial insight.

Key Managerial Insight #5: A service perspective moves the firm away from an emphasis on competitive advantage and toward a focus on strategic advantage and emergent strategy.

IMPLICATIONS OF A SERVICE PERSPECTIVE

The adoption of a service philosophy provides business leaders with a telescoping lens that enables and encourages a comprehensive systems perspective of flows of services across organizational boundaries. This perspective helps leaders and managers understand the interrelated nature of the entities (and individuals) making up the service ecosystem. A service perspective facilitates the co-creation of processes, structures, and innovation that lead to mutual value creation. At the macro-level of interconnected firms, a service-orientation mindset helps decision-makers see beyond transactions. Instead, the emphasis shifts toward the expanded horizons of co-creation and collaborative innovation. Over time the relational nature of the service perspective should strengthen trust among other entities and open up expanded opportunities for mutual value creation. At the micro-level, leaders and managers within the firm will come to appreciate that it is not just employees who perform jobs. Instead, they will benefit from an enlightened outlook that a firm's internal stakeholders are collaborators and co-producers of work products, which should guide their interactions toward respect, reciprocation, partnership, and status minimization.

The result should be a dynamic and changing approach toward innovation. Such innovation creates expanded and unbounded opportunities for organizations to perform well in the eyes of not only customers and employees but all stakeholders through the offering and fulfilment of compelling value propositions. Opportunities arise from the application of S-D logic, which provides a unique perspective that can potentially enhance our understanding of organizations and the role that communities of individuals play in them. With the view that organizations are structures for enabling people to exchange service, the nature of relationships with employees is subject to a different interpretation. When employees and customers are viewed as partners in service exchanges, relationships become more critical and the role of bonding and community become more important. This same rationale applies to exchanges with other organizations. For instance, suppliers provide service both directly and through tangible goods, or service appliances, and distributors do likewise. When considering organizations and

economically developed society we are all employees — even managers are hired hands or should we say hired sources of applied knowledge and skills.

An understanding that co-creation and innovation take place within the web of interdependency of individuals and firms exchanging services should enable leaders to realize the importance of relationships, such as reflected in transformational approaches and inspiration toward a higher purpose. Also, our understanding of innovation is improved through recognition that innovation results from knowledge integration and operant rather than only operand resources. Co-creating and coproducing individuals, often working in loosely coupled systems, engage in knowledge sharing exchanges to create innovations. These loosely coupled systems are both within the organization and beyond the typical organizational boundaries. These extend to the company's suppliers, customers and other stakeholders. The continuity of service exchange depends on the firm's ability to make value propositions to all stakeholders including those inside the firm as well as those outside. Reciprocity is critical to continuing exchange and sustainable service relationships require a service-oriented approach by the firm toward its employees, suppliers, and customers as well.

CONCLUSION

Management thought and theory has had a long and proud history. However, as the management discipline grew, many sub-disciplines emerged to attend to specific problems or issues that general management was not addressing. We have argued that management thought and theory have largely ignored the service revolution and specifically S-D logic. This is at a time in which the practice of management is occurring in a more knowledge intensive world. We hope our plea for service as an organizing perspective for management is considered and that others will join us in developing management practice and theory in this direction.

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