

# Service-dominant Logic and Business Model Concepts: Fostering a Shotgun Wedding

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## ABSTRACT

*How does an increased focus on service influence a company's business model? In our paper, we examine this question by employing service-dominant logic and analyzing its influence on business model design. Changes in the business environment force companies to change their business logic from a goods-oriented to a service-oriented logic. An increased focus on service provision goes along with a changing perspective on how value propositions are made as well as how value is created and captured. These key aspects of service-dominant thinking also reflect the main layers of business models. Therefore, an adaption of the business model becomes necessary. To analyze the extent of these adjustments, we determine the elements of service-dominant logic and business models and examine their interrelationship. As a result we develop a set of causal assumptions which reflect the influence of a firm's service-dominant orientation on each business model layer. Our research shows that a fundamental re-design of the business model is necessary to successfully implement service-dominant logic as the transition of the business logic affects all elements of a company's business model.*

**Keywords:** service-dominant logic, business model innovation, customer integration

## 1 Introduction

In the 21<sup>st</sup> century value chains have already undergone and still undergo a considerable change. Due to the integration of national markets, shorter product-lifecycles and a need to coevally deal with peculiarities of local customers as well as standardization needs companies are forced to re-organize value chain activities in order to become simultaneously efficient and adaptable. This trend is further supported by increased customer power – a development that is triggered by an extensive availability of information and communication technology (ICT). Customers are nowadays able to access and share information more easily. This enhances the transparency of product and service offerings and therefore affects customer behavior (Teece, 2010; Prahalad & Ramaswami, 2002). Following, efficient production and differentiation based on product diversification is no longer sufficient for companies to be competitive. A dependable advantage requires the capacity for reinventing the business model before before being forced by external circumstances (Hamel & Välikangas, 2003).

To gain a broader scope of action and to enhance flexibility, many companies focus on service based strategies to extend their portfolio and ensure customer retention (Neu &

Brown, 2006; Gebauer, Fleisch, & Friedli, 2005; Oliva & Kallenberg, 2003). Changing the business logic from being a product provider to being a service provider goes along with a growing importance of customer-oriented thinking (Kowalkowski, 2011). The traditional orientation of firms is a logic of separation between the producer who is knowledgeable, experienced and innovative and a passive inexperienced consumer who acts as a destroyer of value (Ramirez, 1999; Vargo & Lusch, 2004). As a consequence, the traditional industrial logic that focuses on production has to be re-defined as it does not allow for an integration of a customer perspective in the process of value creation.

In contrast, the service-dominant logic (SDL) concept (Vargo & Lusch, 2004; Lusch, Vargo, & O'Brien, 2007; Vargo & Lusch, 2008a) provides a framework for analyzing value creating activities from a new perspective as it overcomes the narrow goods focused understanding of value creation and allows for integrating a customer perspective in value creation activities. The concept highlights that value creation processes are not only linked to the company level but are influenced by external value creation networks. According to this linkage, it seems to be reasonable that successful value creation becomes more and more value co-creation.

However, only few companies aim at exploiting the profit potential of enhanced, more service-focused value creation networks (Oliva & Kallenberg, 2003; Gebauer, Fleisch, & Friedli, 2005). This is not surprising as the transition from a product-oriented to a service-oriented business model not only requires re-evaluating the value propositions, but also to think about how to design adequate processes for service co-creation and resource integration between the firm and its consumers. . Thus, a holistic, system-based analysis of the value-creating space, namely the company's business model (Ng & Briscoe, 2012) is required. Without adapting the business model to the employed business logic, a company either fails to

make adequate value propositions, or to capture value from customer-directed offerings (Teece, 2010).

Until now, no systematic concept that integrates the holistic view on a company's business model and the premises of SDL has been developed. As changes in a firm's extant business model can be regarded as a prerequisite for a successful adaptation of service-dominant strategies (Karpen, Bove, & Lukas, 2012), we address this striking research gap and provide a concept that combines the business model concept and SDL thinking. Against this background, we aim at answering the following research questions:

- 1) *Does a transition from a goods-dominant logic to a service-dominant logic trigger a necessity to adjust the design of business models?*
- 2) *Assuming that a change of the business model is necessary: which business model elements have to be re-designed to support the implementation of a service-oriented business logic?*

## **2 Conceptual Background**

To be able to discuss layers of SDL influenced business models, a clarification of basic concepts is necessary. Therefore, we provide insights into SDL by explaining the main elements of this train of thoughts and give information on our basic understanding of business models and business model innovation.

### **Service-dominant Logic**

Practitioners as well as researchers are well aware of the increasing strategic importance of services and the management literature emphasizes the need to refocus company activities to a more service-oriented perspective (Gebauer, Fleisch, & Friedli, 2004; Oliva & Kallenberg

2003). Coevally, the SDL introduced by Vargo & Lusch (2004) received increasing attention within the marketing literature. SDL agrees upon the importance of an increased service-focus. However the underlying, still goods-centered rationale to approach and analyze the above mentioned transition process is scrutinized (Vargo & Lusch, 2008b). According to SDL reasoning, service-orientation is much more than an increased emphasis on services. Competing in the field of service forces companies to abandon the old industrial or '*goods-dominant*' logic (GDL) and to employ a new service-oriented paradigm to its strategic logic (Lusch, Vargo, & O'Brien, 2007). Therefore, SDL requires an entirely different way of doing business.

GDL focuses on the value-chain concept and assumes that products or services are endowed with value during the manufacturing process. After completing the production at the very end of the value chain, the contact with the customer is limited to the scope of a single transaction (Vargo & Lusch, 2004). After the customer is in possession of the good, its value inevitably decreases through wear and tear. Hence the aim of the internal value creation process is to be as efficient as possible in order to maximize profits or to sustain competitive positions by price reductions. Transitional concepts such as integrating services to core products (c.f. the product service continuum by Oliva & Kallenberg, 2003) or more customer-centered perspectives which aim at offering solutions instead of tangible products (Matthysen & Vandembemt, 2008; Galbraith, 2002) still view customers as an exogenous variable of the value creation process (Vargo & Lusch, 2008b; Lusch, Vargo, & O'Brien, 2007). Services are usually defined as intangible units of outputs. They remain to be mere add-ons to core products (Kowalkowski, 2010).

Based on ten foundational premises (FPs) (see table 1), *service-dominant logic* not only represents a shift in the type of basic company offering, but also determines a completely different mindset compared to GDL (Vargo & Lusch, 2008b).

<b>Service-dominant Thinking: Values Focus</b>	<b>Value Driver: Value-in-context</b>	<b>Focus on Operant Resources</b>	<b>Central Role of Networks</b>
<ul style="list-style-type: none"> <li>• service as fundamental basis of exchange (FP1)</li> <li>• goods as distribution mechanisms (platforms) for service provision (FP3)</li> <li>• all economies are service economies (FP5)</li> </ul>	<ul style="list-style-type: none"> <li>• indirect exchange masks the fundamental basis of exchange (FP2)</li> <li>• companies cannot deliver value but only offer value propositions (FP7)</li> <li>• value is always uniquely and phenomenologically determined by the beneficiary (FP10)</li> </ul>	<ul style="list-style-type: none"> <li>• services are defined as the application of operant resources (knowledge and skills)</li> <li>• operant resources are the fundamental source of competitive advantage (FP4)</li> <li>• all social and economic actors are resource integrators (FP9)</li> </ul>	<ul style="list-style-type: none"> <li>• customers are always co-creators of value (FP6)</li> <li>• service-centered view is inherently customer oriented and relational (FP8)</li> <li>• context of value creation is a network of networks (implied by FP9)</li> </ul>

**Table 1:** Main elements and FPs of SDL

**Source:** Own illustration adapted from Vargo & Lusch, 2008a: 7

The FPs reflect the basic elements of SDL thinking, which can be subsumed in four interrelated and recurring categories. First of all, service (singular) is seen as the fundamental basis of exchange and defined as ‘...*the application of specialized competences [...] through deeds, processes, and performances for the benefit of another entity or the entity itself.*’ (Vargo & Lusch, 2004: 2). In this context, SDL does not focus on the differences between goods and services as units of output, but considers their relationship, whereas goods derive their value through the service they provide (cf. FP 1, 3, 5; Lusch & Vargo, 2008a; 2004).

Second, companies cannot create value during the manufacturing process, but only offer value propositions, which are evaluated exclusively by the customer. As a consequence, exchange processes and following competence and service development processes are viewed in a unique way by each actor (Chandler & Vargo, 2011). For this reason, the concept of value-in-use was recently revised to the concept of *value-in-context* (Vargo, Lusch, Akaka, & He, 2010; Vargo, 2009;), to show that value-co-creation is bound to the context within which it arises (cf. FP 2, 7, 10). Hence, firms are required to offer value propositions according to the context of interaction as compared to traditional customer segmentation.

Next, companies and customers are always resource integrators. This implies that value is jointly created by and for both parties. Especially *operant resources*, which are based on skills and capabilities are necessary to create adequate value propositions and thus can be a fundamental source of competitive advantage. In contrast, operand resources, meaning mainly tangible resources on which an operation or act is performed to produce an effect, decrease in importance (cf. FP 4, 9; Vargo & Lusch, 2004; Constantin & Lusch, 1994).

Against this background, the fourth main element is related to the *network perspective* of SDL, as individual value for customers and companies can only be co-created in close collaboration of companies' and customers' service systems (Grönroos, 2011; Maglio, Vargo, Caswell, & Spohrer, 2009). Hence, the customer base represents a new source of competences for companies (Prahalad & Ramaswamy, 2000). Moreover, the integration of a customer's network base guarantees not only a continuous flow of information, but also helps a company in developing necessary service competences (cf. FP 6, 8). As operant resources are interchanged, SDL sets new requirements about the intensity and scope of customer interaction. In line with Karpen, Bove, and Lukas (2012), therefore firms need to establish new capabilities and structures in order to interact with their customers.

All in all, the main purpose of value as defined by SDL is not an increase of wealth for the company, but increasing adaptability, survivability and system wellbeing of the whole beneficiary system (Vargo, Maglio, & Akaka, 2008). This shows that the firms perspective on capturing value changes from short term financial returns to the long-term value creation potential over the lifetime of the interaction relationship (Payne, Storbacka, & Frow, 2008).

**Basic Understanding of Business Models**As employing SDL changes the underlying logic how a business works, fundamental changes of the company's extant activity system are required (Ng, Parry, Smith, Maull, & Briscoe, 2012). Value co-creation cannot be assumed to take place automatically (Grönroos, 2011); companies have to take strategic actions and adjust their basic idea of doing business to be able to match the need for developing service competences and to facilitate value co-creation. Furthermore, they need to establish adequate support structures to facilitate customer value co-creation (Maglio & Akaka, 2008; Payne, Storbacka, & Frow, 2008). Specifically, a service-dominant orientation requires the development of several company level capabilities (Karpen, Bove, & Lukas, 2012). To analyze the transition of a company from being a goods provider to being a service provider and especially the consequent changes of the activity system, a company's business model is an adequate unit of analysis (Zott, Amit, & Massa, 2011).

Furthermore, research on new business models already covers aspects of the firms' interaction with its environment. Studies especially cover the development of open business models (Casadesus-Masanell & Llanes 2011; Chanal & Caron-Fasan 2010; Chesbrough 2007), customer value co-creation (Nenonen & Storbacka 2010; Plé et al. 2010) or the role of networks within new business models (Calia, Guerrini & Moura 2007)

In order to understand, how parameters of the business model should be aligned to the rationals of SDL, a congruent understanding of the business model concept is needed. Since the 1990s, the concept of business models has gained increasing attention from scientific research. Business model concepts have been rather independently developed by different management disciplines such as e-business, strategy, innovation and technology management or different streams of organizational research (George & Bock, 2011; Zott, Amit, & Massa, 2011). Therefore, linkages between the proposed business model concepts remain up to now sparse and to date no general accepted definition of the term can be found.

Morris, Schindehutte and Allen (2005) categorize definitions into economic, operational and strategic definitions of business models, whereas economic definitions focus on profit generation, operational definitions are related to the architecture of internal processes and activities which aim at the generating value and strategic definitions refer to market positioning, interactions across organizational boundaries or growth.

For the aim of this paper, definitions combining economic, operational and strategic aspects are of interest:

*'A business model articulates the logic and provides data and other evidence that demonstrates how a business creates and delivers value to customers. It also outlines the architecture of revenues, costs, and profits associated with the business enterprise delivering that value.'* (Teece, 2010: 173)

*'We define a business model as a representation of a firm's underlying core logic and strategic choices for creating and capturing value within a value network'* (Shafer, Smith, & Linder, 2005: 202)

*A business model is '...an architecture for the product, service and information flows, including a description of the various business actors and their roles; and a description of the potential benefits for the various business actors; and a description of the sources of revenues.'* (Timmers, 1998: 4)

Although the definitions differ slightly, the adopted perspective on business models focuses on the strategic logic and on company centric activities related to a company's value

proposition model, value creation model and value capture model as well as on the boundary spanning and networked nature of business models. Therefore, the business model as a unit of analysis offers a systemic perspective on how to do business (Zott, Amit, & Massa, 2011). It consists of subsystems that have been designed to maximize the value for all stakeholders (Zott & Amit, 2009). In this context, a business model consists of an activity system among internal and external actors in order to co-create and capture value. In line with the SDL this system comprises activities conducted by the company and the company's network partners to jointly create value for all involved actors. Hence it is in line with the scope of this study to take the definition of Zott and Amit (2008, 5) who define the business model as „ ... *a structural template of how a focal firm transacts with customers, partners, and vendors*“. The aim of designing a business model should be to define, link and monitor activities of co-creating actors to compete successfully in a market (Zott & Amit, 2010). Therefore, an analysis of the business model from an SDL perspective should rely primarily on an interaction based conceptualization compared to the more common value based conceptualizations of the business model (e.g. Johnson 2010, Osterwalder & Pigneur, 2010). Therefore we subdivide business models in line with Amit & Zott (2001) into the dimensions of *transaction content*, *transaction structure* and *transaction governance* (see table 2), which are all directed to maximize the joint value creation potential of internal and external network.

Transaction Content	Transaction Structure	Transaction Governance
<ul style="list-style-type: none"> <li>• information and goods that are being exchanged</li> <li>• resources and capabilities required to enable exchange</li> </ul>	<ul style="list-style-type: none"> <li>• network size</li> <li>• ways in which parties are linked and exchanges are executed</li> <li>• order and timing of exchanges</li> <li>• flexibility and adaptability of transaction structure</li> </ul>	<ul style="list-style-type: none"> <li>• locus of control of flows of information, goods, and finances</li> <li>• nature of control mechanism (e.g. trust, incentives)</li> </ul>

**Table 2:** Sources of value addressed by business model construct  
**Source:** Own illustration based on Amit & Zott, 2001: 514.

Moreover, customer integration can be conceptualized at all three business model layers, because the authors adopt – amongst other things – ideas from strategic network theory for this conceptualization. Hence, they link a company’s network configuration to its value creation processes, indicating that value is (co-)created by the network rather than by the company alone (Amit & Zott, 2001). Of course, the transactional and the activity perspective can be seen as ‘two sides of the same coin’ (Zott & Amit, 2010). However, by employing the transactional perspective, we emphasize the interaction between a company and its network partners.

Linking the elements of a business model in a differentiated, efficient and effective way can be a source of competitive advantage. By taking premises of SDL as a guidelines for business model design or the transition between an old (GDL) and a new (SDL) business offers a valuable approach to create business model innovation (Osterwalder, Pigneur, & Tucci, 2005). As shown, business model innovations can be of crucial relevance to a well established industry or market (Teece, 2010; Margretta, 2002). Business model innovation can be a suitable alternative to innovating products and processes, especially since the latter are often expensive and time-consuming (Amit & Zott, 2012). By defining ways to change the above

mentioned dimensions according to SDL, a structured approach to business model innovation can be developed: *'in the context of the business model, innovation refers not only to products, production processes, distribution channels, and markets, but also to exchange mechanisms and transaction architectures'* (Amit & Zott 2001: 511). Additionally, we state that business model innovation is a transition process from an old business model to a new one

### **3 Business Model Innovation Needs Triggered by Service-dominant Logic**

To be able to analyze possible influences of SDL thinking on the design of business models, factors which influence business model innovations have to be highlighted. In this context we need to emphasize that business model innovation is not always a structured process, but very often related to experiments (Chesbrough, 2010) and organizational learning (Sosna, Trevinyo-Rodriguez, & Velamuri, 2010). Managers have to consider certain barriers to accomplish a successful transition to a new business model. For example, an early failure could stop the learning process causing a lock-in in the existing model (Sosna, Trevinyo-Rodriguez, & Velamuri, 2010). Furthermore, Chesbrough (2010) identified cognitive barriers due to the fact that established business models – and thus the related ‘dominant logic’ (Prahalad & Bettis, 1995) – strongly influence managers’ information search and information filtering processes. Especially the transition from a GDL to a SDL represents – as the name implies – a change of a company’s dominant logic, which affects the whole company (Grönroos, 2006). All business activities need to be revised to open internal, mainly deeply routinized company processes up for customer integration. We state that a company cannot fulfill a service-dominant value proposition if its internal processes remain standardized.

From a practical perspective, the link between a change in a company’s dominant logic and the employed business model becomes evident. In recent years, prominent service-related

business models have been developed. At least seven out of twenty business model types proposed by Johnson (2010) can easily be related to the SDL. Many of these business model types encompass service-propositions directed to the long-term maximization of the value-in-context. In these models individual goods and services are mainly understood as a kind of platform that allows for establishing value co-creation. The diffusion of these newly developed, highly service-related business models can especially be viewed in B-2-B settings where many companies shifted to new business models like e.g. full service contracting or leasing (Freiling, Wassermann, & Laudien, 2012). Ng et al. (2012) analyze the transition of Rolls Royce airline business. While traditionally the companies' value proposition has been goods-dominant (engines were sold to the aircraft manufacturers), nowadays service provisions are directed to the maximization of customer utility (leasing contracts with airlines are concluded to ensure the long-term efficiency of airplanes). Other examples in the B-2-B context would be IBM or GE, but companies in the B-2-C market – for example Apple – employ service business models as well (Vargo & Lusch, 2008).

To examine the transition from GDL to SDL, the business model is a suitable unit of analysis, as the overall objective of a company's business model – to create value for the customer as well as for the focal company (Zott & Amit, 2010) – is in line with the main notion of SDL: value co-creation and thus the exchange of services for mutual wellbeing (Vargo & Lusch, 2011). Therefore, we assume that the transition process is reflected in business model innovation. However, even if numerous examples of successful transitions from GDL to SDL business models exist, it is difficult to derive managerial implications from the case examples. Furthermore, to enable proactive business model innovations companies need a more structured approach in order to recognize opportunities and to avoid possible barriers. Mapping the underlying processes and elements of a specific business model, identifying their interrelationships and lastly changing each one of them, is one possible way of facilitating

business model innovation (Scott-Kemmis, 2012; Osterwalder, 2004). Although previous studies have addressed service innovations or even the transition from product- to service-based business models (Kindström, 2010; Neely, 2008; Bessant & Davies, 2007), an integration of SDL thinking and the business model concept is yet to be established. Therefore the influence of SDL thinking on each layer of a business model has to be analyzed in detail.

First of all, the *transaction content* has to be considered, which relates to the information and goods being exchanged as well as to resources and capabilities enabling this exchange. Adopting SDL, especially its specific value focus and the value-in-context perspective have to be taken into account. The reciprocal *provision of service* supersedes the production and distribution of (either tangible or intangible) ‘units of outputs’ (Vargo & Lusch, 2008b). Against this background, a focus on interactions instead of exchange is needed (Grönroos, 2006). Furthermore, specific resources and capabilities are necessary to facilitate value co-creation. On the one hand, suppliers have to be equipped with specific collaborative competences and a variety of interaction competences (Karpen, Lukas, & Bove, 2012; Lusch, Vargo, & O’Brien 2007). On the other hand, interactions with the customer can be actively used as a source of operant resources, providing knowledge necessary for the value creation process (Grönroos, 2006).

Causal assumption 1a: *Implementing SDL causes a need to re-define the basic understanding of transactions. The transaction partners no longer exchange goods/services and money but value-in-context.*

Causal assumption 1b: *To enable a successful exchange of value, both transaction partners have to develop specific collaborative competences.*

Inevitably, changes of the transaction content entail a modification of the *transaction structure*. The traditional value chain is replaced by a network perspective (Lusch, Vargo, & Wessels, 2008). In this context, service systems, defined ‘...as an open system (1) capable of improving the state of another system through sharing or applying its resources [...], and (2) capable of improving its own state by acquiring external resources...’ (Maglio, Vargo, Caswell, & Spohrer, 2009: 403) and value networks, meaning ‘...spontaneously sensing and responding spatial and temporal structure of largely loosely coupled value proposing social and economic actors interacting through institutions and technology, to: (1) co-produce service offerings, (2) exchange service offerings, and (3) co-create value...’ (Lusch, Vargo, & Tanniru, 2010: 20), play a central role. Furthermore, value co-creation affects not only two, but multiple internal and external stakeholders (Gummesson, 2007). As a consequence, a company has to consider not only its direct network partners, but also the service systems of the customer, expanding the *size of the network*, and thus the company’s addressable knowledge base, tremendously.

Causal assumption 2a: *By implementing SDL, companies are confronted with the challenge to handle multi-dimensional value creation activities that take place in a combined network of different service systems.*

GDL’s concept of a value chain implies a hierarchical perspective on suppliers and customers with superior suppliers and customers, which are regarded as targets in a market. However, during the value co-creation process customers are not only integrated in a company’s value creation system (as for example in the case of co-production or mass-customization), but a company also interferes in the customer’s own value system. This *multidirectional linkage* leads to a temporary cooperation between the involved value systems (Grönroos, 2011). As a consequence, the exchange is based on a more heterarchic relationship with the supplier and

the customer being at eye level with each other. Concerning the structure of the interaction, companies need to support value co-creation for their customers (Grönroos, 2008). If interactions are not established yet, suppliers need to actively create them (Grönroos & Ravald, 2011) – for example by providing customers with specific tools or establishing common standards and protocols, which enhance the exchange of information and facilitating value co-creation (Briscoe, Keränen, & Parry, 2012; Lusch, Vargo, & Tanniru, 2010).

*Causal assumption 2b: To implement SDL successfully, suppliers are required to provide an environment that enables a trustful integration of customers in value-creation processes.*

Related to this new perspective of multidirectional interactions in each other's value systems, customers are no longer operand resources to be acted upon, but operant resources contributing to the value creation process. To replace the traditional 'monologue' (e.g. one-sided promotion), suppliers and customers have to enter into a dialogue (Lusch, Vargo, & Wessels, 2008). In this context, a company has to specify the type of dialogue. In a B-to-B setting, this could be a one-to-one dialogue, but especially in B-to-C markets a many-to-many (Gummesson, 2004) scenario (again facilitated by ICT) is possible. Most importantly, this dialogue is not based on an indirect transfer of information (action-reaction), or in other words feedback learning through the market, but rather represents a conversation or discussion, in which suppliers and customers communicate directly. Hence, this influences the *timing* of the information exchange process and thus the value creation process.

*Causal assumption 2c: SDL enhances the speed of information exchange between supplier and customer and calls for a development of new information exchange structures.*

SDL aims at meeting customers' needs in a complex and dynamic environment. As a consequence, it is impossible for companies to remain static. On the contrary, they need to adapt to changing requirements and continuously develop well fitted value propositions, i.e. service offerings (Lusch, Vargo, & O'Brien, 2007). In this context, companies can take advantage of the value networks and the conversation with their customers. Value networks are open systems, which are constantly learning, evolving and adapting to the changing environment (Lusch, Vargo, Tanniru, 2010). To exploit the potential benefits of SDL thinking, companies have to establish *flexible structures*, which enable to recognize, assimilate and apply and external information. Therefore, absorptive capacity (Zahra & George, 2002; Cohen & Levinthal, 1990) and adaptive competences play a major role (Lusch, Vargo, & O'Brien, 2007).

Causal assumption 2d: *Suppliers need to implement structures that enable a continuous exchange of information with the business environment as precondition for a flexible reaction to customer needs.*

Last but not least, the transaction governance mechanisms have to be analyzed, which refer to the flow of resources and goods and the related control mechanisms (Amit & Zott, 2001). First of all, value networks are not owned by a specific company, but consist of a variety of different service systems. However, the *architecture of value networks* can be designed actively and thus companies can aim at becoming the 'value network architect' (Lusch, Vargo, & Tanniru, 2010) or a value network's 'prime integrator', who is – as proposed by Lusch, Vargo, & O'Brien (2007) – in a stronger competitive position. In this context, the concept of a 'customer as a strategic choice' (Lusch & Webster, 2011) has to be emphasized. Companies should match their resources and capabilities with the needs and preferences of their customers and other stakeholders. The ability to provide adequate value propositions

depends to a certain degree upon the choosing of ‘good’ customers, who value the company’s service propositions and are willing to provide reciprocal service as well.

Causal assumption 3a: *To control the flow of information within the value creation network a company needs to assign specific roles to network partners to strengthen its network position.*

Within the traditional GDL, customers and suppliers pursue their own individual goals (e.g. profit maximization) and therefore can be regarded as competitors. In contrast, considering SDL’s definition of service (using one’s resources for the benefit of another), the main objective is the joint creation value and thus ‘increasing the pie’ for all actors instead of ‘claiming the largest possible piece’. The exchange of operant resources, implicating effective relationship learning (Selnes & Sallis, 2003), can contribute to increase the benefits for the whole value network. Against the background of SDL, withholding knowledge to gain private benefits in the knowledge exchange process displays an inferior strategy because the tension between cooperation and competition, which affects the behavior within alliances (Khanna, Gulati, & Nohria, 1998), is less extensive in SDL-related value networks than in alliances applying a GDL.

Nevertheless, companies need to manage the relationships within the network. First of all, the organizational culture needs to be compatible with the general elements of SDL and support the objectives of the other service systems (Kingman-Brundage, George, & Bowen, 1995). Second, members of the value network need to be motivated to participate and actively share operant resources. The case study by Dyer and Nobeoka (2000), analyzing Toyota’s knowledge-sharing network, provides valuable insights on how to shape such networks. The case shows that the creation of coordinating principles is essential to ensure effective

knowledge management. To do so, the ‘network architect’ must (1) create and maintain a strong identity for the network, (2) provide the infrastructure that supports the network (which influences the transaction structure) and (3) implement clear coordination rules. Therefore, *informal* as well as *formal governance mechanisms* need to be established. In the context of business model innovation, companies must decide on composition of the value network and define specific service systems which need to be included in a network structure with strong multilateral ties, while other service systems might be managed through weaker ties. Hence, key customers, providing the company with crucial operant resources should be integrated more closely.

Causal assumption 3b: *To enable effective value co-creation within the value network it is necessary to develop a framework of formal and informal rules that determines processes and boundaries of collaboration.*

Table 3 sums up SDL-triggered needs business model adjustment:

<b>Business Model Construct</b>	<b>Key Issues</b>
<b>Transaction Content</b>	
<i>information and goods that are being exchanged</i>	<ul style="list-style-type: none"> <li>• providing service instead of producing goods/services</li> <li>• sense and response instead of make and sell</li> <li>• value-in-context instead of value-in-exchange</li> </ul>
<i>resources and capabilities required to enable exchange</i>	<ul style="list-style-type: none"> <li>• operant instead of operant resources</li> <li>• development of collaborative and interaction competences</li> </ul>
<b>Transaction Structure</b>	
<i>network size</i>	<ul style="list-style-type: none"> <li>• value network instead of value chain</li> <li>• collaboration of numerous service systems within the value network (network of networks)</li> <li>• stakeholder perspective (including several internal and external stakeholders)</li> </ul>
<i>ways in which parties are linked and exchanges are executed</i>	<ul style="list-style-type: none"> <li>• interactions instead of exchange</li> <li>• multidirectional linkages of numerous network partners instead of supplier-customer relationship</li> <li>• heterarchic relationships instead of hierarchy</li> </ul>

	<ul style="list-style-type: none"> <li>• enabling customers to interact (infrastructure, appropriate environment, etc.)</li> </ul>
<i>order and timing of exchanges</i>	<ul style="list-style-type: none"> <li>• value co-creation instead of added value</li> <li>• conversation instead of monologue</li> <li>• direct communication instead of action-reaction (increase of speed of information)</li> <li>• establishing adequate information exchange structures</li> </ul>
<i>flexibility and adaptability of transaction structure</i>	<ul style="list-style-type: none"> <li>• continuous exchange of information</li> <li>• constant adaption to changing customer needs</li> <li>• value networks as open systems</li> <li>• development of absorptive capacity and adaptive competences</li> </ul>
<b>Transaction Governance</b>	
<i>locus of control of flows of information, goods, and finances</i>	<ul style="list-style-type: none"> <li>• positioning the company within the value network</li> <li>• proactive selection of network partners</li> <li>• assigning roles to network partners</li> <li>• matching own resources and competences with those of other service systems in the value network</li> </ul>
<i>nature of control mechanism (e.g. trust, incentives)</i>	<ul style="list-style-type: none"> <li>• mutual wellbeing instead of profit maximization</li> <li>• cooperation instead of competition</li> <li>• relationship learning</li> <li>• proactive management of the value network (determine processes and boundaries of the network)</li> <li>• establishing informal and formal rules to align the objectives of different network partners and to monitor the network's activities</li> </ul>

**Table 3:** Specific adjustment needs of business models in case of implementing SDL  
**Source:** Own illustration.

#### 4 Conclusion, Limitations, Outlook

Our paper analyzes the impact of the transition from a goods-oriented to a service-oriented business logic on the business model of a company. We argue that – in the context of SDL – the change of a company's underlying business logic triggers the necessity to adjust the design of the business model. By applying Amit and Zott's (2001) definition of business models and business model innovation, we provide evidence that the implementation of SDL thinking requires a re-design of all three layers of a business model, namely the transaction content, the transaction structure and the transaction governance. Our causal assumptions

reflect the influence of SDL thinking on each individual element of a business model. Furthermore, they represent a first step to identify specific business model parameters which need to be adjusted in order to proactively shape business models according to recent market needs. Additionally, by employing a transactional perspective on business models, our research shows that a successful implementation of SDL requires changes in the mental model of the business partners as well. A common understanding of the value (co-)creation processes and collaborative behavior of all network partners are a precondition to exploit the potentials of a service-dominant business logic.

Since SDL is mainly criticized because of its limited managerial implications (Achrol & Kotler, 2006; Ballantyne & Varey, 2006), a complete integration of SDL thinking and the business model concept is highly eligible. However, we are aware that due to the conceptual nature of the paper, our research is affected by certain limitations. First, SDL has not reached the state of a paradigm yet and likewise the concept of business models is not entirely theoretically founded. The basic elements of both research streams need to be defined more clearly. Hence, managerial implications are still vague. Nevertheless, the newness and complexity of the research question gave reason for a more exploratory approach. We wanted to identify the main elements of SDL influenced business model. In doing so, we provide a base for further, more detailed research.

We believe that future research should continue where we left off. We perceive a need for empirical work. However, we suggest focusing on qualitative research before conducting quantitative studies in order to further analyze the interdependency of business models and a changing dominant logic and to define elements of SDL and business model more precisely. In spite of the mentioned limitations, we feel confident that applying the business model

concept to analyze SDL can foster academic research and provide useful insights for managerial practice.

## References

- Achrol, R.S., Kotler, P. 2006. A service-dominant logic for marketing: a critique. In Vargo, S.L., Lusch, R.F. (Eds.), *The service-dominant logic of marketing: dialog, debate, and directions*. Boston: M E Sharp: 320-334.
- Amit, R., Zott, C. 2001. Value creation in e-business. *Strategic Management Journal*, **22**(6-7): 493-520.
- Amit, R., Zott, C. 2012. Creating value through business model innovation. *MIT Sloan Management Review*, **53**(3): 41-49.
- Ballantyne, D., Varey, R.J. 2006. Introducing a Dialogical Orientation to the Service-Dominant Logic of Marketing. In Vargo, S.L., Lusch, R.F. (Eds.), *The service-dominant logic of marketing: dialog, debate, and directions*. Boston: M E Sharp: 224-235.
- Bessant, J., Davies, A. 2007. Managing service innovation. In *Innovation in Services* (DTI Occasional Paper No. 9). Department of Trade and Industry: London: 61-96.
- Briscoe, G., Keränen, K., Parry, G. 2012. Understanding complex service systems through different lenses: an overview. *European Management Journal*, **30**(5): 418-426.
- Calia, R. C., Guerrini, F. M., & Moura, G. L. (2007). Innovation networks: from technological development to business model reconfiguration. *Technovation*, **27**(8): 426-432.
- Casadesus-Masanell, R., & Llanes, G. (2011). Mixed source. *Management Science*, **57**(7): 1212-1230.
- Chanal, V., & Caron-Fasan, M. L. (2010). The difficulties involved in developing Business Models open to innovation communities: the case of a crowdsourcing platform. *M@ n@ gement*, **13**(4): 318-340.
- Chandler, J.D., Vargo, S.L. 2011. Contextualization and value-in-context: how context frames exchange. *Marketing Theory*, **11**(1): 35-49.
- Chesbrough, H. (2007). Business model innovation: it's not just about technology anymore. *Strategy & leadership*, **35**(6): 12-17.
- Chesbrough, H. 2010. Business model innovation: opportunities and barriers. *Long Range Planning*, **43**(2-3): 354-363.
- Cohen, W.M., Levinthal, D.A. 1990. Absorptive capacity: a new perspective on learning and innovation. *Administrative Science Quarterly*, **35**(1): 128-152.
- Constantin, J.A., Lusch, R.F. 1994. *Understanding resource management: How to deploy your people, products, and processes for maximum productivity*. Oxford, OH: The Planning Forum.
- Dyer, J.H., Nobeoka, K. 2000. Creating and managing a high-performance knowledge-sharing network: the Toyota case. *Strategic Management Journal*, **21**(3): 345-367.
- Freiling, J., Wassermann, R., Laudien, S.M. 2012. The broken product chain: rapid paths of service internationalization in terms of the service-dominant logic. *The Service Industries Journal*, **32**(10), 1623-1635.
- Galbraith, J.R. 2002. Organizing to deliver solutions. *Organizational Dynamics*, **31**(2): 194-207.
- Gebauer, H., Fleisch, E., Friedli, T. 2005. Overcoming the service paradox in manufacturing companies. *European Management Journal*, **23**(1): 14-26.
- George, G., Bock, A.J. 2011. The business model in practice and its implications for entrepreneurship research. *Entrepreneurship Theory and Practice*, **35**(1): 83-111.
- Grönroos, C. 2006. Adopting a service logic for marketing. *Marketing Theory*, **6**(3): 317-333.
- Grönroos, C. 2008. Service logic revisited: who creates value? And who co-creates? *European Business Review*, **20**(4): 298-314.
- Grönroos, C. 2011. Value co-creation in service logic: a critical analysis. *Marketing Theory*, **11**(3): 279-301.

- Grönroos, C., Ravald, A. 2011. Service as business logic: implications for value creation and marketing. *Journal of Service Management*, **22**(1): 5-22.
- Gummesson, E. 2004. From one-to-one to many-to-many marketing. *Service Excellence in Management: Interdisciplinary Contributions*, Proceedings from the QUIS 9 Symposium, Karlstad: 16-25.
- Gummesson, E. 2007. Exit services marketing – enter service marketing. *The Journal of Customer Behaviour*, **6**(2): 113-141.
- Hamel, G., & Valikangas, L. (2003). The quest for resilience. *Harvard business review*, **81**(9): 52-65.
- Johnson, M.W. 2010. *Seizing the white space: business model innovation for growth and renewal*. Boston, MA: Harvard Business Press.
- Johnson, M.W., Christensen, C.C., Kagermann, H. 2008. Reinventing your business model. *Harvard Business Review*, **86**(12): 50-59.
- Karpen, I.O., Bove, L.L., Lukas, B.A. 2012. Linking service-dominant logic and strategic business practice: a conceptual model of service-dominant orientation. *Journal of Service Research*, **15**(1): 21-38.
- Khanna, T., Gulati, R., Nohria, N. 1998. The dynamics of learning alliances: competition, cooperation, and relative scope. *Strategic Management Journal*, **19**(3): 193-210.
- Kindström, D. 2010. Towards a service-based business model – key aspects for future competitive advantage. *European Management Journal*, **28**(6): 479-490.
- Kingman-Brundage, J., George, W.R, Bowen, D.E. 1995. „Service logic“: achieving service system integration. *International Journal of Service Industry Management*, **6**(4): 20-39.
- Kowalkowski, C. 2010. What does a service-dominant logic really mean for manufacturing firms? *CIRP Journal of Manufacturing Science and Technology*, **3**(4): 285-292.
- Loïc, P. L. É. (2010). Customer-integrated business models: a theoretical framework. *M@n@gement*, **13**(4): 226-265.
- Lusch, R.F., Vargo, S.L., O'Brien, M. 2007. Competing through service: insights from service-dominant logic. *Journal of Retailing*, **83**(1): 5-18.
- Lusch, R.F., Vargo, S.L., Tanniru, M. 2010. Service, value networks and learning. *Journal of the Academy of Marketing Science*, **38**(1): 19-31.
- Lusch, R.F., Vargo, S.L., Wessels, G. 2008. Toward a conceptual foundation for service science: Contributions from service-dominant logic. *IBM Systems Journal*, **47**(1): 5-14.
- Lusch, R.F., Webster, F.E. 2011. A stakeholder-unifying, co-creation philosophy for marketing. *Journal of Macromarketing*, **31**(2): 129-134.
- Maglio, P.P., Vargo, S.L., Caswell, N., Spohrer, J. 2009. The service system is the basic abstraction of service science. *Information Systems & e-Business Management*, **7**(4): 395-406.
- Margretta, J. 2002. Why business models matter. *Harvard Business Review*, **80**(5): 86-92.
- Matthyssens, P., Vandenbempt, K. 2008. Moving from basic offerings to value-added solutions: strategies, barriers and alignment. *Industrial Marketing Management*, **37**(3): 316-328.
- Morris, M., Schindehutte, M., Allen, J. 2005. The entrepreneur's business model: toward a unified perspective. *Journal of Business Research*, **58**(6): 726-735.
- Neely, A. 2008. Exploring the financial consequences of the servitization of manufacturing. *Operations Management Research*, **1**(2): 103-118.
- Nenonen, S., & Storbacka, K. (2010). Business model design: conceptualizing networked value co-creation. *International Journal of Quality and Service Sciences*, **2**(1): 43-59.
- Neu, W.A., Brown, S.W. 2005. Forming successful business-to-business services in goods-dominant firms. *Journal of Service Research*, **8**(1): 3-17.

- Ng, I., Briscoe, G. 2012. Value, variety and viability: new business models for co-creation in outcome-based contracts. *International Journal of Service Science, Management, Engineering, and Technology*, **3**(3): 26-48.
- Ng, I., Parry, G., Smith, L., Maull, R., Briscoe, G. 2012. Transitioning from a goods-dominant to a service-dominant logic: visualizing the value proposition of Rolls-Royce. *Journal of Service Management*, **23**(3): 416-439.
- Oliva, R., Kallenberg, R. 2003. Managing the transformation from products to services. *International Journal of Service Industry Management*, **14**(2) 160-72.
- Osterwalder, A. 2004. *The business model ontology: a proposition in the design science approach*. Dissertation, University of Lausanne.
- Osterwalder, A., Pigneur, Y. 2010. *Business model generation: a handbook for visionaries, game changers, and challengers*. Hoboken (NJ): John Wiley & Sons.
- Osterwalder, A., Pigneur, Y., Tucci, C.L. 2005. Clarifying business models: origins, present and future of the concept. *Communications of the Association for Information Science (CAIS)*, **16**(-): 1-25.
- Payne, A.F., Storbacka, K., Frow, P. 2008. Managing the co-creation of value. *Journal of the Academy of Marketing Science*, **36**(1): 83-96.
- Prahalad C. K., Bettis, R. 1995. The dominant logic: retrospective and extension. *Strategic Management Journal*, **16**(1): 5-14.
- Prahalad, C.K., Ramaswamy, V. 2000. Co-opting customer competence. *Harvard Business Review*, **78**(1): 79-87.
- Prahalad, C.K., Ramaswamy, V. 2002. The co-creation connection. *Strategy+Business*, **2**(27): 1-12.
- Ramirez, R. 1999. Value co-production: intellectual origins and implications for practice and research. *Strategic Management Journal*, **20**(1): 49-65.
- Scott-Kemmis, D. 2012. *Responding to change and pursuing growth: exploring the potential of business model innovation in Australia*. Sydney: Australian Business Foundation.
- Selnes, F., Sallis, J. 2003. Promoting relationship learning. *Journal of Marketing*. **67**(3): 80-95.
- Shafer, S., Smith, H., Linder, J. 2005. The power of business models. *Business Horizons*, **48**(3): 199-207.
- Sosna, M., Trevinyo-Rodríguez, R.N., Velamuri, S.R. 2010. Business model innovation through trial-and-error learning: the Naturhouse case. *Long Range Planning*, **43**(2-3): 383-407.
- Teece, D.J. 2010. Business models, business strategy and innovation. *Long Range Planning*, **43**(2-3): 172-194.
- Timmers, P. 1998. Business models for electronic markets. *Electronic Markets*, **8**(2): 3-8.
- Vargo, S.L. 2009. Toward a transcending conceptualization of relationship: a service-dominant logic perspective. *Journal of Business & Industrial Marketing*, **24**(5/6): 373-379.
- 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., 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., Lusch, R.F. 2008a. Service-dominant logic: continuing the evolution. *Journal of the Academy of Marketing Science*, **36**(1): 1-10.
- Vargo, S.L., Lusch, R.F. 2008b. From goods to service(s): divergences and convergences of logics. *Industrial Marketing Management*, **37**(3): 254-259.
- 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., Akaka, M.A., He, Y. 2010. Service-dominant logic: a review and assessment. In N.K. Malhotra (Ed.), *Review of Marketing Research*, Emerald Group Publishing: 125-167.
- 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.
- Venkatraman, N., Henderson, J.C. 2008. Four vectors of business model innovation: value capture in a network era. In Pantaleo, D., Pal, N. (Ed.), *From strategy to execution*, Berlin Heidelberg: Springer-Verlag: 259-280.
- Zahra, S.A., George, G. 2002. Absorptive capacity: a review, reconceptualization, and extension. *Academy of Management Review*, **27**(2): 185-203.
- Zott, C., & Amit, R. (2008). The fit between product market strategy and business model: implications for firm performance. *Strategic Management Journal*, **29**(1): 1-26.
- Zott, C., Amit, R. 2009. Business model innovation: creating value in times of change. *Universia Business Review* (23): 108-121.
- Zott, C., Amit, R. 2010. Business model design: an activity system perspective. *Long Range Planning*, **43**(2-3): 216-226.
- Zott, C., Amit, R., Massa, L. 2011. The business model: recent developments and future research. *Journal of Management*, **37**(4): 1019-1042.