

Guidelines for Service-Dominant Logic: empirical experiences from IT Service Management

Hannes Göbel¹, and Stefan Cronholm¹

¹ University of Borås, Allégatan 1, 501 90 Borås, Sweden
{ hannes.gobel, stefan.cronholm }@hb.se

ABSTRACT

Purpose

No doubt, Service-Dominant (S-D) Logic has had considerable implications for research, practice, and society at large. The overall purpose of S-D Logic is to argue for the adoption of a service-oriented perspective and that service is the fundamental base for exchange. In order to establish a framework for a service-oriented perspective, 11 normative foundational premises have been suggested.

In the IT sector, a service-oriented perspective is encompassed in the widespread field of IT Service Management (ITSM). However, while ITSM practitioners have started to adopt a service-oriented perspective, and to a certain degree are becoming aware of the benefits of S-D Logic, the predominant market view still adheres to Goods-Dominant Logic. Consequently, we argue that the suggested foundational premises of S-D Logic lack embodiment in the context of ITSM. We argue that one reason is the lack of normative and prescriptive guidelines in S-D Logic. Thus, the purpose of this paper is to present normative and prescriptive S-D Logic guidelines for the ITSM context. The purpose of the guidelines is to support ITSM managers to adhere to S-D Logic in order to collaborate around service and new value propositions.

Design/Methodology/approach

In order to fulfil the purpose, researchers and practitioners have jointly applied the Action Design Research (ADR) methodology.

Findings

We present three empirically grounded normative and prescriptive guidelines, derived from three of the foundational premises and evaluated in an ITSM context. The findings show that the investigated foundational premises are valid within an ITSM context, and that they could be extended with normative and prescriptive guidelines.

Research limitations/implications

Although the study is conducted with actors existing in several service ecosystems, our study is limited to the context of ITSM.

Practical implications

The contribution supports ITSM practitioners to adhere to an S-D Logic perspective, and with a fully functional digital tool.

Originality/value

The paper provides prescriptive and normative knowledge by inscribing, applying and analysing FPs in real ITSM contexts, using a digital tool.

Key words: S-D Logic, ITSM, digital tools, service innovation

Paper type: Research paper

1 Introduction

No doubt, Service-Dominant (S-D) Logic has had considerable implications for research, practice, and society at large. One central notion of S-D Logic is operant resources (knowledge and skills) which constitute the primary source of market exchange and strategic benefit. Another central notion is that multiple actors (e.g. service customers and service providers¹) should follow joint resource integration processes in order to co-create value. Since Vargo and Lusch (2004) introduced S-D Logic, a large amount of knowledge has been developed and has enriched S-D Logic. In an attempt to summarise the essence of S-D Logic, Vargo and Lusch (2004, 2008, and 2016) have suggested 11 normative Foundational Premises (FPs). According to Vargo and Lusch (2009, p. 223), a premise is defined as a “...*statement that is assumed to be true and upon which further theory is built...*”. Moreover, “... *one should expect that if the premises are sufficiently rich, they should provide the foundation upon which to derive propositions that can then undergo scientific investigation and empirical testing*” (ibid.). Undoubtedly, the suggested FPs are logically deduced from theory. Different schools of thought, which had an impact on S-D Logic, are described by Vargo and Lusch (2004). However, it seems as if the theoretical grounding of S-D Logic is stronger than the empirical grounding.

In the IT sector, a service oriented perspective is included in the widespread field of IT Service Management (ITSM). ITSM has become a crucial strategy in several organisations and the usage of ITSM best practices (standards and frameworks) has gained increased attention from organisations around the globe (c.f. Marrone and Kolbe, 2011; Cater-Steel, 2009). ITSM is characterised by process- and customer-orientation (c.f. Pollard and Cater-Steel, 2009; Winniford et al., 2009); business-to-business relationships; and the “S” in “ITSM” indicates that the locus of value exchange is considered to be (IT) service. Thus, the field of ITSM should already be aligned with a modern service-oriented approach such as the S-D Logic.

However, while ITSM practitioners have started to adopt a service-oriented perspective and are starting to become aware of the benefits of adopting an S-D Logic perspective, the predominant market view still adheres to Goods-Dominant Logic (Göbel and Cronholm, 2016). This is evident since the most used ITSM frameworks and standards on the market have a strong focus on output and operands which is not in line with S-D Logic. We claim that there are several reasons why ITSM practitioners are struggling to adopt an S-D Logic perspective. One reason is that there is neither a full and adequate understanding of the concept of “service”, nor of the role of service in exchange (Lusch et al., 2007). Another reason is that the FPs are not empirically grounded in ITSM practices and thus they do not provide specific declarative knowledge related to the ITSM context. A third reason is that the FPs do not offer normative and prescriptive guidelines to be used in an ITSM context. These assertions are in line with Lusch et al. (2007), who argue that although the FPs are logically correct, and provide conceptual tools that can offer *insight* into the “how” of S-D Logic, they do not explicitly inform practitioners about the “hows” that support them to co-create value on an operative level. That is, there has been an under usage of existing service knowledge in practice (c.f. Payne et al., 2008; Lamberti & Paladino, 2013; Göbel and Cronholm, 2016). Consequently, we argue that S-D Logic, including the suggested FPs, lack consistent embodiment into the ITSM context, and that there is a need to provide improved normative and prescriptive knowledge guiding ITSM practitioners.

The purpose of this paper is to present normative and prescriptive S-D Logic knowledge in terms of guidelines that illustrate how such knowledge extends the FPs with more operational (normative and prescriptive) knowledge. We define normative knowledge as a statement that concerns questions about “what should be” (e.g. Walls et al., 1992), while a prescriptive statement is defined as “how to do something” (e.g. Gregor & Hevner, 2013, p.339).

¹ Although recognising that S-D Logic uses the term actors we in this paper, use the terms firm/service provider and service customers as two types of actors in a service ecosystem.

Moreover, the purpose is to provide feedback to the S-D Logic knowledge base about how S-D Logic could be applied in an ITSM context. The research question reads: *How could the foundational premises of S-D Logic be extended with normative and prescriptive guidelines to support ITSM practitioners to better adhere to the S-D Logic?* We argue that the knowledge supports actors in ITSM service ecosystems to implement and gain advantage of S-D Logic in order to compete and to collaborate around service innovations, value propositions and value realisations. Finally, the knowledge also contributes to S-D Logic, since it empirically verifies existing FPs in an ITSM context.

2 Kernel Theory and Prior Work

According to Markus et al. (2002), a kernel theory is underlying a design theory, while Kuechler and Vaishnavi (2008, p. 489) add that kernel theories “*frequently are theories from other fields that intend to explain or predict a phenomena [phenomenon] of interest*”. In this paper, we view S-D logic as a kernel theory and the arguments are: 1) it consists of 11 FPs which can be used as a base to develop normative and prescriptive guidelines in the ITSM sector; 2) the FPs of S-D Logic support a structured analysis (c.f. Cronholm and Göbel, 2016); 3) it is well-established in the research community; and, 4) it provides a service perspective that aligns well with the IT sector (e.g. Wittern, 2010; Alter, 2012). In the following section, we briefly describe the FPs and existing normative S-D logic propositions.

2.1 The Normative and Prescriptive Character of Service Dominant Logic

The shift from a Goods-dominant Logic to an S-D entails a view which consists of: firms offer value propositions; actors should focus on knowledge and skills (operant resources); and that it is the service customer (or the beneficiary) who determines value in context (e.g. value in use) (Edvardsson et al., 2011; Vargo and Lusch, 2008a). That is, “*the overall narrative of S-D Logic, at least in its present state, becomes one of (generic) actors co-creating value through the integration of resources and exchange of service, coordinated through actor-engendered institutions in nested and overlapping service ecosystems*” (Vargo and Lusch, 2014, p.241). This view redefines the roles of the service provider, the service customer, other resources, and thus informs innovation differently (compared to the Goods-Dominant view of the market) (Vargo and Lusch, 2008). It also redefines service as “*the application of specialised competences (knowledge and skills) through deeds, processes, and performances for the benefit of another entity or the entity itself*” (Vargo and Lusch, 2004, p. 2). The essence of S-D Logic is represented in 11 FPs (table 1).

Table 1. FPs of S-D Logic (c.f. Vargo and Lusch, 2008; 2015). * = Axiom status

ID	FP	Further explanation
FP1*	Service is the fundamental basis of exchange.	Service, as the application of knowledge and skills (operant resources) is the foundation for exchange.
FP2	Indirect exchange masks the fundamental basis of exchange.	What you see is not always what you get. That is, service is not always clear and obvious since e.g. operands, such as tangible goods, exist in the foreground and hide the processes providing value.
FP3	Goods are a distribution mechanism for service provision.	Operands, sometimes an essential component of a service, need to be put into practice and used by an actor in order to enable value.
FP4	Operant resources are the fundamental source of strategic benefit.	Operant resources are defined in Vargo and Lusch (2004) as knowledge and skills. Without (integrated) knowledge and skills there is no service.
FP5	All economies are service economies.	Singular “service” in contrast to plural “services” reflect the process of using resources for the benefit of an actor.

FP6*	Value is co-created by multiple actors, always including the beneficiary.	“...value obtained in conjunction with market exchanges cannot be created unilaterally but always involves a unique combination of resources” (Lusch et al., 2007, p.8).
FP7	Actors cannot deliver value but can participate in the creation and offering of value propositions.	Stresses “the non-deliverable nature of value and it does not imply that, once value propositions have been embraced by potentially beneficial actors, nothing else can be done by the service-providing actor to contribute to value creation” (Vargo and Lusch, 2016, p.10).
FP8	A service-centred view is inherently beneficiary oriented and relational.	States that no fixed consumer orientation is necessary. Is partly derived from FP6 which argues for co-creation.
FP9*	All social and economic actors are resource integrators.	Not only firms are resource integrators but also individuals and households (Arnould, 2006).
FP10*	Value is always uniquely and phenomenologically determined by the beneficiary.	The value is different for each referent and must be assessed separately (Vargo and Lusch, 2016, p.10).
FP11*	Value co-creation is coordinated through actor-generated institutions and institutional arrangements.	Institutions not only “allow conservation of cognitive resources for optimum utilisation for the purpose of utility maximisation” but also... “institutions represent the humanly-devised integrable resources that are continually assembled and reassembled to provide the structural properties we understand as social context, and thus are fundamental to our understanding of value co-creation processes” (Vargo and Lusch, 2016, p.10).

Although, the FPs could to some extent be argued to be normative, they are not *normative enough* for practitioners (c.f. Göbel and Cronholm, 2016; Lusch et al., 2007). Moreover, they are not prescriptively formulated. However, normative and prescriptive guidelines are important since markets operating without such guidelines will reach imperfection (c.f. Lush and Vargo, 2006b). We have found proposals for normative guidelines (Lusch and Vargo, 2006b) and normative propositions (Lusch et al., 2007). The normative guidelines are (Lusch and Vargo, 2006b, p.415):

- i. *The firm should be transparent and make all information symmetric in the exchange process. Since the customer is someone to collaborate with, anything other than complete truthfulness will not work.*
- ii. *The firm should strive to develop relationships with customers and should take a long-term perspective. Firms should thus always look out for the best interest of the customer and protect the customer’s long-term well-being.*
- iii. *The firm should view goods as transmitters of operant resources (embedded knowledge); they are intermediate “products” that are used by other operant resources (customers) as appliances in value-creation processes. The firm should focus on selling service flows.*
- iv. *The firm should support and make investments in the development of specialised skills and knowledge, that is the fountainhead of economic growth.*

We claim that the guidelines are indeed normative but not prescriptive. We do not claim that these guidelines are wrong or false, but since the publication by Vargo and Lusch (2006b) lacks an explicit description of the research method, we can only assume that the guidelines are logically deduced from theories. That is, we have not found that the guidelines have been empirically validated and thus we view them as theory-grounded hypotheses. According to

Goldkuhl (1999), there is a need for empirical grounding. Empirical evidence provides arguments for specific knowledge and makes actors more confident in using this knowledge (ibid.). The importance of empirical grounding is also supported by Eisenhardt and Graebner (2007) who claim empirical grounding supports transparency of the analysis to readers. That is, we claim that the transparency of the guidelines is weak and we argue that the guidelines need to be tested and evaluated in the contexts in order to be verified. Consequently, we cannot know if the guidelines are relevant and valid within an ITSM context. Finally, there is no strong relationship between FPs and the suggested normative guidelines, and thus the guidelines do not support practitioners to explicitly adhere to the FPs.

As a complement to the normative guidelines, Lusch et al. (2007) present normative insights with respect to how firms can compete better by employing S-D Logic. In that paper, the research method is neither explicitly described, nor does it show empirically grounded evidence of the findings. However, while the scholars present good examples (such as a person assembling IKEA furniture) and life-like and realistic examples from the industry (such as Porsche Clubs) of how the normative guidelines could be used in practice, the “hows” are not part of the propositions. The scholars also present information about how the suggested normative propositions relate to the FPs. The purpose of the relations to the FPs is to support an understanding. The nine normative propositions provided by Lusch et al. (2007, p. 8) are:

1. Competitive advantage is a function of how one firm applies its operant resources to meet the needs of the customer, relative to how another firm applies its operant resources. (Derived from FP1, and FP4)
2. Collaborative competence is a primary determinant of a firm's acquiring the knowledge for competitive advantage. (Derived from FP9, and FP4)
3. The continued ascendance of information technology, with associated decrease in communication and computation costs, provides firms with opportunities for increased competitive advantage through innovative collaboration. (Derived from FP6, and FP8)
4. Firms gain competitive advantage by engaging customers and value network partners in co-creation and co-production activities. (Derived from FP6, and FP9)
5. Understanding how the customer uniquely integrates and experiences service-related resources (both private and public) is a source of competitive advantage through innovation. (Derived from FP6, FP8 and FP9)
6. Providing service co-production opportunities and resources consistent with the customer's desired level of involvement leads to improved competitive advantage through enhanced customer experience. (Derived from FP6, FP8, and FP9)
7. Firms can compete more effectively through the adoption of collaboratively developed, risk-based pricing value propositions. (Relates to FP6, and FP7)
8. a) The value network member that is the prime integrator is in a stronger competitive position. (Derived from FP1, FP4, and FP9)
b) The retailer is generally in the best position to become the prime integrator. (Derived from FP1, FP4, and FP9)
9. Firms that treat their employees as operant resources will be able to develop more innovative knowledge and skills and thus gain competitive advantage. (Derived from FP4)

Furthermore, the normative propositions above are targeting “marketers”² in the context of *retailing*. We view these propositions as a valuable input to develop normative and prescriptive guidelines to be used in the ITSM context.

² We view “marketers” (role) as a person working in the private sector to maintain relationships with customers, which implies that the public sector is out of scope. Marketers usually belong to the marketing or sales department working with strategic tasks (c.f. Gummesson, 1991) but from an S-D Logic view, we argue that all staff are part-time marketers, since they all possess knowledge and skills and constitute resources that could enable value.

2.2 Previous Work on S-D Logic in the ITSM Context

To our knowledge, only a few studies have sought to study and identify normative *and* prescriptive S-D Logic knowledge in the field of ITSM. Göbel and Cronholm (2016) presented three *nascent* normative and prescriptive design principles (i.e. normative and prescriptive guidelines) based on FPs of S-D Logic, which were empirically evaluated in an ITSM context. However, the design principles were based on intermediate results from a research project and they did not follow a strict design principle formula. While the design principles contribute to service marketing and the ITSM domain, they were mainly directed to informing managers about how to develop digital tools, methods and models (i.e. IT artefacts) and thus not explicitly directed to managers (and other roles) about how to manage ITSM organisations. Furthermore, a paper by Göbel et al. (2016) was based on the idea that there is a need to study how S-D Logic could be inscribed into essential ITSM processes in order to leverage value co-creation. However, the contribution mainly provides knowledge for a selected set of processes, and not with generic normative and prescriptive guidelines regardless of ITSM process. Finally, Cronholm and Göbel (2016) examined how the popular ITSM framework ITIL (e.g. Cannon et al., 2011) corresponds to a modern service perspective. The findings show that ITIL corresponds highly to the service perspective in some respects and fails in others. The authors claim that the findings can be considered valuable in future developments of ITIL. However, the authors also view the findings as a base for how S-D Logic can be improved with respect to normative knowledge. In this respect, that study constitutes a basis for this very study. We have not found any other study that has problematized the normative and prescriptive character of S-D logic in an ITSM context.

3 Research Design and Methodology

In order to answer the research question, researchers and ITSM practitioners have jointly applied an empirical research approach, using the Action Design Research (ADR) methodology suggested by Sein et al. (2011). One argument for selecting ADR is that it emphasises the organisational contexts. Another argument is that a main contribution from using ADR is normative and prescriptive knowledge, which is in line with the purpose of this paper. Following ADR, researchers and ITSM practitioners have *jointly* inscribed normative and prescriptive knowledge, based on FP's in a digital tool³ as requirements (functional and non-functional). The tool was then implemented and evaluated in an ITSM context. The arguments for developing normative and prescriptive knowledge in ITSM contexts are: a full 95% of U.S. companies have budgeted for ITSM processes in 2005 (Lynch, 2006); there is a need for awareness of ITSM because of the obvious importance of this new emerging discipline (Galup et al., 2009); practitioners within ITSM are in need of IT-artefacts supporting service innovation (Göbel and Cronholm, 2016); and that the ITSM field has a need for normative and prescriptive service knowledge.

ADR (fig. 1) consists of four stages: problem formulation (see section 3.1); building, intervention and evaluation (see section 3.2); reflection and learning (see section 3.3); and formalisation of learning (see section 3.4). The different phases of ADR were carried out as iterations.

³ The tool used as an operant resource to identify, test, and evaluate normative and prescriptive S-D Logic guidelines in this study is based on the tools presented in the papers Göbel and Cronholm (2016) Göbel et al. (2016) and Pilerot and Göbel (2016).

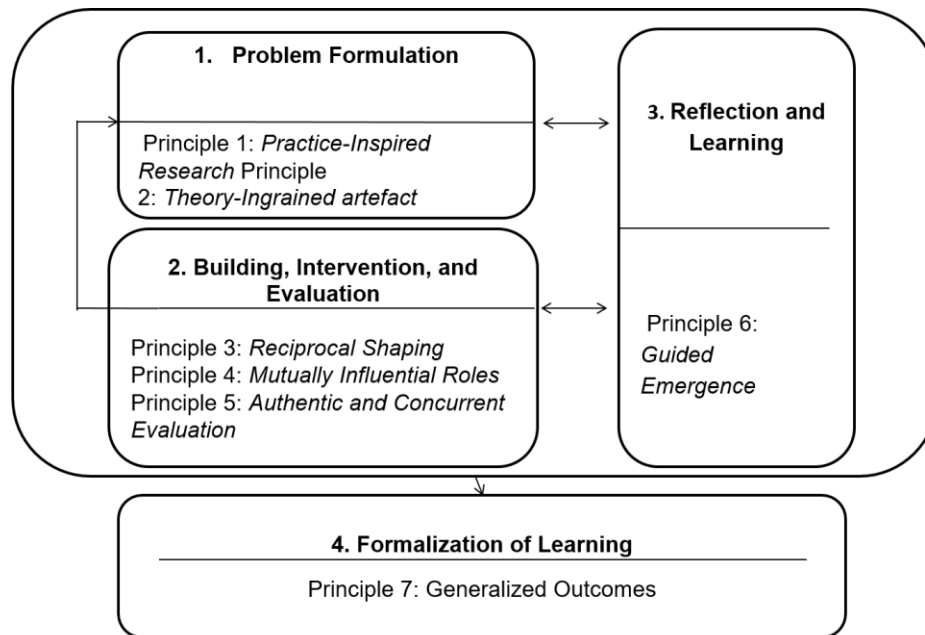


Fig. 1. Stages and principles of ADR (Sein et al., 2011).

3.1 Problem formulation, Research Setting and Solutions Objectives

As mentioned in the introduction, practitioners in the ITSM context lack normative and prescriptive S-D Logic guidelines. The purpose of the digital tool was to facilitate co-creation and knowledge exchange leveraging IT service innovation. To increase possibilities to generalise, we selected organisations belonging to different sectors (public and private), which were of different size (small, medium, and large), and that used different business models within an ITSM context. The choice of several diverse organisational partners was made because we wanted to create good opportunities to formulate a generic problem *and* a generic solution to the problem. One common denominator for the organisations was that they shared the same problem, which is why we consider the problem to be generic. To be able to collect data from a broad empirical setting, we have chosen to study seven dyadic relationships. One relationship consists of one customer and one firm, which means that in total 14 organisations have participated.

3.2 Building, Intervention and Evaluation

In the second ADR stage, we iteratively built and evaluated the digital tool. We designed the digital tool by leaning upon the selected kernel theory and its normative guidelines (see section 2). In addition to the kernel theory, our study is based on practitioners' experiences of using a digital tool that "inscribes" S-D Logic (as requirements), prior work on normative service guidelines within the field of ITSM, and "requirements" that were identified during use and evaluation in context. As part of the kernel theory, we transformed adequate FPs to generic requirements (functional and non-functional) from which we later derived normative and prescriptive guidelines. In order to verify the different results (or collect additional data for a new ADR iteration) we conducted interviews. Semi-structured interviews with each organisation, in combination with group interviews (representatives from all organisations), were conducted (e.g. Patton, 1990). In order to do so, a questionnaire has been used which included a number of predefined evaluation categories. These evaluation categories related to the FPs inscribed in the digital tool and the value of the tool, and were defined as: the rules inscribed in the tool, the embedded method, the tool's relevance in relation to the organisation's purpose, applicability in the ITSM context, understanding of tool content, grouping of content, and the effect of the tool in the ecosystem. Based on the interviews, we have identified and selected examples of empirical quotes (section 5) that verify each presented normative and prescriptive guideline.

3.3 Reflection and Learning

After each empirical evaluation, researchers and ITSM practitioners in a specific dyadic relationship discussed, analysed and refined normative and prescriptive guidelines based on empirical experiences from using the digital tool. When the evaluation in all the dyadic relationships was completed, all researchers and ITSM practitioners also met to jointly reflect upon the evaluation results, to agree upon tool changes and to further refine and generalise the normative and prescriptive guidelines. That is, researchers and ITSM practitioners mapped relevant service-oriented activities to the selected FPs, in order to modify or add new normative and prescriptive guidelines applicable in the ITSM field. In this paper, we elaborate on three of the eleven FPs. The selected FPs are: FP4, FP6 and FP11. The argument for selecting those FPs is that they reflect the overall narrative of S-D Logic (c.f. Vargo and Lusch, 2014).

3.4 Formalisation of Learning

In this final stage, we formalised the normative and prescriptive guidelines into a specific formula. The formula follows a slightly modified version of the suggestion of Van den Akker (1999); *In order to adhere to X (for the purpose Y in context Z), then you are best advised to give that intervention the characteristics A, B, and C (substantive emphasis), and to do that via procedures K, L, and M (procedural emphasis), because of arguments P, Q, and R.* The reason for using a specific formula is that the “rules” of the formula forced us to strengthen the proposed guidelines with specific characteristics and specific arguments. We consider the guidelines to be generic in an ITSM context, since the guidelines are based on empirical evidence from real use of a digital tool. The role of the digital tool has been to mediate the guidelines. In this respect, the digital tool constitutes an operant resource which is integrated in the surrounding service ecosystem, including the seven representative dyadic relationships.

4 Description of the Digital Tool Inscribing S-D Logic Guidelines

The digital tool was composed following five iterative stages: Prepare Round, Service Assessment, Managing Discrepancies, Service Innovation and Decisions (c.f. Göbel and Cronholm, 2016). That is, the tool guided users through the stages for the purpose of leveraging service innovation. The purpose of the first stage was to prepare a “round”. To prepare a round included to: 1) select and describe relevant actors in the dyadic relationship that was going to be evaluated (see section 3); and, 2) to select relevant ITSM processes that constituted the base for knowledge exchange and service innovation (that is, co-creation of a service). The digital tool was designed to include a set of predefined service processes (e.g. service-oriented ITSM processes (c.f. Göbel et al., 2016) that could be changed dynamically to match contextual needs in the ITSM service ecosystem. Each ITSM process consisted of 17-25 statements, mainly derived from S-D Logic. The purpose of these statements was to guide the actors to manage, maintain and improve the service in an efficient way during the service lifetime. When one round had been prepared, a web link directed to the stage Service Assessment was sent by e-mail to the actors involved.

In the stage *Service Assessment*, the representatives from the dyadic actors evaluated, assessed and rated (on a Likert scale) each process statement individually. The evaluation was conducted from an intra-organisational perspective. That is, the evaluation did not span over organisational borders. Next, the dyadic actors met physically to jointly use the tool and in consensus they selected, prioritised and *managed (service) discrepancies* that were identified between the two actors. In the next stage, the actors co-created tentative service innovations based on the identified service discrepancies (i.e. agreed identified problems). The digital tool also allowed the actors to jointly evaluate identified service innovations, to ensure that the most feasible solution to an identified problem was selected. Finally, actors jointly decided which service innovation was the most feasible and implemented it in the service ecosystem. The full iterative service innovation process (all stages in the round) was followed up at least once a year with the same actors in order to compare results and analyse effects of implemented service innovations over time.

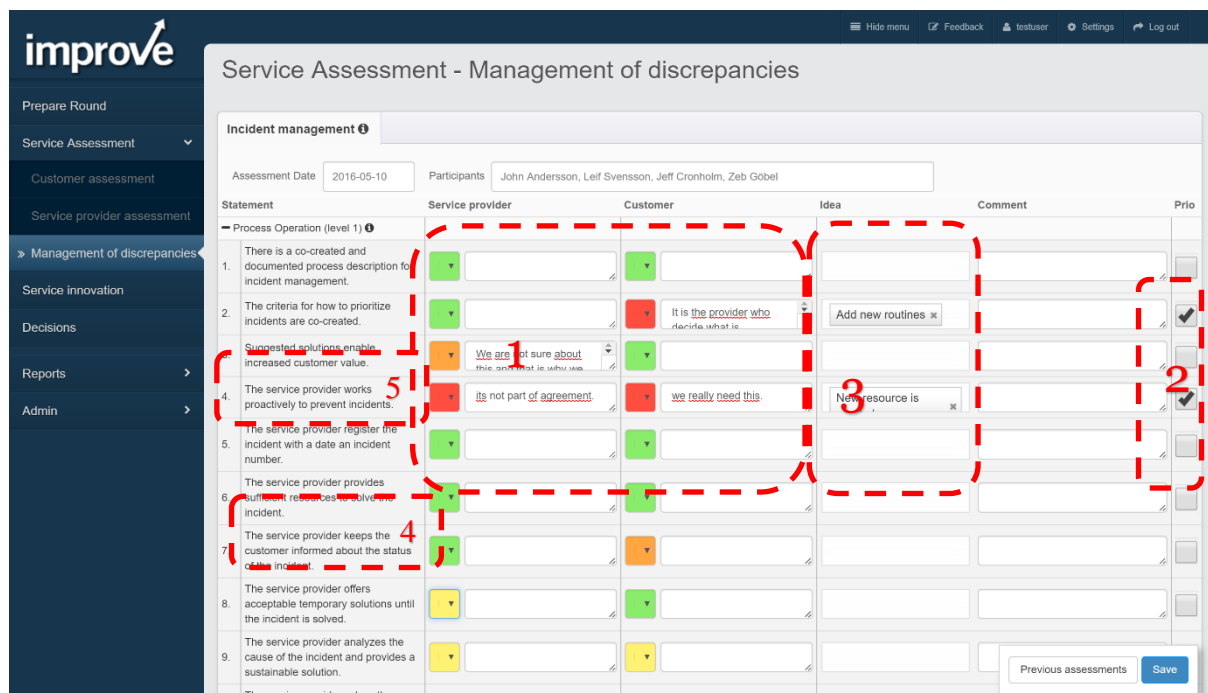


Fig. 2. Illustrates one (of several) views of the digital tool, including dashed areas described in section 5.

5 Normative and Prescriptive S-D Logic Guidelines for ITSM

In this chapter, we present three normative and prescriptive guidelines. Each section below consists of a table describing a guideline title, a formal description of the guideline according to the formula presented in section 3.4, and empirical quotes that verify each individual guideline. Finally, we discuss the guideline in relation to the underpinning FP and previous findings.

5.1 Guideline 1: Shared Problems Should be Solved Together

We argue that the first guideline, presented in table 2, correlates to FP6 since it stresses co-creation and recognises that the beneficiary should be included in the process as one of the actors.

Table 2. A normative and prescriptive guideline related to FP 6.

Title of Guideline	Shared Problems Should be Solved Together
Formal Description	For the purpose of including an S-D Logic perspective in the context of ITSM, then ITSM practitioners are best advised to give that intervention the characteristics of co-creation, and to do that via procedures: jointly identify and agree on shared ITSM-process problems; to jointly identify and agree on solutions to that problem; and, to always include the beneficiary; because of argument(s): the probability of identifying the right problems and solutions improves efficiency and effectiveness in the service innovation process; a shared understanding of problems and solutions provides a foundation for service innovation; value co-creation is leveraged.
Related FP	FP6: "Value is co-created by multiple actors, always including the beneficiary"
Supporting empirical quotes	<ul style="list-style-type: none"> • "The tool [inscribing the guideline] allows a shared understanding of common problems" • "Identifies problems that otherwise would not have been detected"

	<ul style="list-style-type: none"> • “The tool [inscribing the guideline] allows customers and firms to jointly propose ideas [for service innovation].” • “Supports co-creation of service innovations”
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The inscription of the full guideline (see table 2) in the digital tool is partly⁴ visualised in figure 2 (by the dashed areas). Dashed area 1 in figure 2, shows how a firm and service customer jointly have used the tool in order to assess and rate ITSM processes. The outcome of the activity is a shared firm and customer view on service discrepancies. By discussing and comparing the different views, the actors can jointly identify and prioritise accurate and existing problems that reduce and/or hinder value creation (area 2 in figure 2). Moreover, figure 2 (area 3), shows how the firm and service customer collaborate in the service innovation process by suggesting and agreeing on solutions to the identified problems. The digital tool supports dyadic actors to focus on certain aspects of the service and to share knowledge about the service (e.g. experiences of use) that previously had been hidden in a single organisation. Without that shared knowledge, the value proposition and value co-creation could not be improved.

According to Galvagno and Dalli (2014), there is an ongoing debate about the differences between co-creation and co-production. However, in this paper we view co-production as one dimension of the wider term co-creation. That is, ITSM actors can also co-create solutions based on shared problems that improve the value proposition. The value proposition could, when put into practice, enable actors to co-create improved value. Hence, in an ITSM context, the value proposition should be co-created based on identified and shared process problems. Finally, we argue that the proposed guideline clarifies and expands the normative guideline by Lusch et al. (2007 p.8): “firms gain competitive advantage by engaging customers and value network partners in co-creation and co-production activities”.

5.2 Guideline 2: ITSM Processes Should Transparently Span over Institutional Boundaries

The second guideline (table 3) is related to FP11. One argument for that is that the ITSM processes inscribed in the digital tool clearly describe and facilitate how actors should collaborate and share knowledge (as part of the service). Thus the processes including S-D Logic inspired activities, constitute institutional arrangements (FP11). Furthermore, we argue that the guideline correlates to FP11, since it stresses actor-generated institutions. In an ITSM context such institutions often constitute business-to-business relationships in service ecosystems.

Table 3. A normative and prescriptive guideline related to FP11

Title of Guideline	ITSM Processes should Transparently Span over Institutional Boundaries
Formal Description	For the purpose of including an S-D Logic perspective in the context of ITSM, then ITSM actors are best advised to give that intervention the characteristic: institutional arrangements, and to do that via procedures: extend previously internal ITSM processes (e.g. incident management, problem management, and release management etc.) to include activities from both service providers and service customers; and, make the processes transparent to involved actors, because of arguments: shared and transparent ITSM processes enable operant resources to flow across borders fostering service innovation, and thus integrates institutions which could lead to increased opportunities for value co-creation.
Related FP	FP11: “Value co-creation is coordinated through actor-generated institutions and institutional arrangements“

⁴ The tool consists of several views that support all three guidelines but, due to limited space, we cannot present them all in this paper.

Supporting empirical quotes	<ul style="list-style-type: none"> • <i>“The tool [inscribing the guideline] strengthens the relationship and thus integration between customer and firms.”</i> • <i>“...makes ITSM processes visible to customers and suppliers.”</i> • <i>“...contains a suitable selection of ITSM processes that support the parties at the strategic, tactical and operational level.”</i>
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Dashed area 4 in figure 2 shows how activities in an ITSM process are directed to a customer, while there are 5 marks in an activity that is directed to a service provider. That is, the ITSM processes, as an important part of the service proposition, should jointly be extended by the relevant institutions. By integrating activities from diverse partners in a shared process, the actors can support each other with new knowledge improving the value proposition of the service.

Social systems are formed and reformed through the enactment of practices, i.e. routine actions or *“...doings and sayings...”* (Schatzki, 2002, p.87). In an ITSM context, we argue that such a routine action is the ITSM processes. Such ITSM processes constitute the institutional arrangements that are feasible in an ITSM practice⁵. To use such arrangements is important, since they can affect the extent of service innovation and *“if the rules of engagement are clearly specified and the ability to interface is more open...[they] will support a greater degree of resource integration and serve as a venue for more viable systems solutions”* (Lusch and Nambisan, 2015, p.167).

Moreover, the suggested guideline aligns well with the normative guideline suggested by Lusch and Vargo (2006, p.415): *“The firm should be transparent and make all information symmetric in the exchange process”*. It also correlates to the claim by Lusch et al. (2007, p. 12): *“understanding how the customer uniquely integrates and experiences service-related resources . . . is a source of competitive advantage.”* However, we want to add that ITSM processes should be bi-directional, which means that it is not only the customer but also the service provider who must share knowledge about their institution with the customer.

5.3 Guideline 3: ITSM Actors Should Use Operant Resources to Visualise and Improve Service Propositions

The third guideline (table 4) is related to FP4, since it stresses operant resources. Lusch and Nambisan (2015) describe the role of IT as both an operand resource and as an operant resource. IT as an operand resource can play an enabling role. IT, as an operant resource may seek out unique resource integration opportunities by itself, and in the process, engage with other actors (ibid.). Our suggested guideline is represented in the digital tool as both an operand and an operant resource. It is an operand resource since it supports or enables actors to share knowledge. At the same time, it constitutes an operant resource since it visualise information that was previously hidden and it integrates actors in the service ecosystem. Although we recognise the status of an operand resource, we argue that the digital tool as an operant resource provides crucial competitive advantages. Such “new” resources enable actors to re-bundle new knowledge which acts as a base for service innovation in the ITSM context.

Table 4. Normative and prescriptive guideline related to FP4.

Title of Guideline	ITSM Actors Should Use Operant Resources to Visualise and Improve Service Propositions
Formal Description	For the purpose of including a S-D Logic perspective in the context of ITSM, then ITSM actors are best advised to give that intervention the characteristic: digital tools, and to do that via procedure: implement a digital tool as part of the service ecosystem; because of the argu-

⁵ We use Reckwitz’s (2002) definition: “a practice is thus a routinized way in which bodies are moved, objects are handled, subjects are treated, things are described and the world is understood” (p. 250).

	ment(s): it could liquefy resources and let them flow across previously closed borders; it could visualise and improve the value proposition; and, it could leverage communication, relationships, and value co-creation.
Related FP	FP4: “Operant resources are the fundamental source of strategic benefit.”
Supporting empirical quotes	<ul style="list-style-type: none"> • “The tool enables a better understanding of service...” • “The tool enables increased value to both customers and firms.” • “...supports communication and information transfer between customers and suppliers.” • “Because of the tool, there is no escape (one cannot hide or change your own statement as one could do before)”

Although our research study has focused on dyadic relationships between actors, we argue that the technology (the digital tool) has the ability “to mediate, for example, print, speech, images, sound etcetera, and thereby establish time and space-transgressing connections between people” (Pilerot and Göbel, 2016 p.4). The scholars show that the digital tool has been shown to visualise knowledge from absent people, and that it introduces itself to the present dyadic actors. Thus they argue that resources in the service ecosystem which are not immediately and physically present in the co-production process, still make themselves known, i.e. present though the information facilitated by technology (ibid). That is, when using a digital tool, the dyadic setting does not hinder actors viewing themselves as actors in a greater system of other actors, meaning that the technology facilitates actors to integrate resources in a collaborative approach. This is in line with the normative guideline by Lusch et al. (2007 p.8), who suggest that “The continued ascendance of information technology...provides firms with opportunities for increased competitive advantage through innovative collaboration”.

6 Conclusion

In this paper, we have searched to answer: *How could the foundational premises of S-D Logic be extended with normative and prescriptive guidelines to support ITSM practitioners to better adhere to the S-D Logic?* An answer to the research question also provides an answer to Lusch et al. (2007), who call for more normative knowledge concerning S-D Logic. To answer the calls from both the research- and practitioner-communities, we have suggested additional guidelines that clarify and extend existing FPs. We suggest three normative and prescriptive guidelines which are explicitly derived from three FPs out of 11. These guidelines should be seen as a complement to the FPs’ previously-suggested normative guidelines, and previously normative propositions. The guidelines inform researchers and practitioners about *what* should be done, *how* something should be done, and *why* something should be done. We claim that the examples of utterances presented for each individual guideline in section four, provide scientific evidence confirming that the normative and prescriptive guidelines are valid in an ITSM context.

Besides contributing normative and prescriptive guidelines, our study contributes with an empirical grounding of the three FPs within the context of ITSM. Thus, we can conclude that the three FPs highlighted in this study are valid in an ITSM context. In this respect, the results strengthen the generality of the FPs, while it contributes more executable service knowledge to the ITSM context.

Finally, the study contributes a service innovation per se. The service innovation referred to is the designed digital tool. The success of innovation is often defined as the organisation's ability to exploit an innovation for its own performance improvement (e.g. Gopalakrishnan and Damanpur, 1997). Since several organisations use the tool, we argue that it is successful and thus could be classified as a service innovation.

As future research, we suggest the development of normative and prescriptive guidelines for the other FPs that are not part of this study. We also suggest an empirical grounding of the FPs in other contexts which need normative and prescriptive knowledge.

7 References

- Alter, S., 2012. "Challenges for service science." *JITTA: Journal of Information Technology Theory and Application*, 13(2), p 22.
- Arnould, E. J. (2006). Service-dominant Logic and consumer culture theory: Natural allies in an emerging paradigm. *Marketing Theory*, 6(3), 293–298.
- Cannon, D., Wheeldon, D., Lacy, S., and Hanna, A., 2011. *ITIL service strategy*. The Stationery Office.
- Cater-Steel, A., 2009. "IT service departments struggle to adopt a service-oriented philosophy." *International Journal of Information Systems in the Service Sector (IJISSS)*, 1(2), pp 69-77.
- Cronholm, S., and Göbel, H. (2016). *ITIL Compliance with a Service Perspective: a Review Based on Service-Dominant Logic*. Accepted to the 27th Australasian Conference on Information Systems. Wollongong, Australia, Dec 5-7.
- Eisenhardt, K.M. and Graebner M.E., 2007. Theory Building from Cases: Opportunities and Challenges. *Academy of Management Journal*, 50 (1), pp. 25–32.
- Galup, S., Dattero, R., Quan, J. & Conger, S. (2009). An Overview of Information Technology Service Management. *Communications of the ACM*, 52 (5), 124–127.
- Galvagno, M., & Dalli, D. (2014). Theory of value co-creation: A systematic literature review. *Managing Service Quality*, 24(6), 643.
- Goldkuhl, G., 1999. *The grounding of usable knowledge: An inquiry in the epistemology of action knowledge*. CMTO Research Papers, 3. Linköping University, Sweden.
- Gopalakrishnan, S., F. Damanpour. A review of innovation research in economics, sociology, and technology management. *Omega* 25(1) 15–28 (1997).
- Gummesson, E. (1991). "Marketing revisited: the crucial role of the part-time marketer." *European Journal of Marketing*, Vol. 25 No. 2, pp. 60-7.
- Göbel, H. and Cronholm, S., 2016. *Nascent Design Principles Enabling Digital Service Platforms*. In: *Proceedings of 11th Int. Conference, DESRIST 2016, Newfoundland and Labrador, Canada*.
- Göbel, H., Cronholm, S., and Hjalmarsson, A. (2016). *Inscribing Service into Essential ITSM processes*. Accepted to the 27th Australasian Conference on Information Systems. Wollongong, Australia, Dec 5-7.
- Kuechler, W., Vaishnavi, V. On Theory Development in Design Science Research Anatomy of a Research Project, *European Journal of Information Systems* (17), 489-504 (2008).
- Lamberti, L., Paladino, A. (2013). Moving forward with service dominant logic: Exploring the strategic orientations of a service-centred view of the firm. *International Journal of Business Science and Applied Management* 8(1):1-15.
- Lusch, R., Nambisan, S. *Service Innovation: A Service-Dominant Logic Perspective*. *MIS Quarterly* [serial online]. March 2015;39 (1):155-176. Available from: Business Source Premier, Ipswich, MA. Accessed April 1, 2015.
- 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. (2006a). The service-dominant logic of marketing: Reactions, reflections, and refinements. *Marketing Theory*, 6(3), 281–288.
- Lusch, R.F., Vargo, S.L. (2006b). Service-dominant logic as a foundation for a general theory, in Lusch, R.F., Vargo, S.L., Eds. *The Service-Dominant Logic of Marketing: Dialog, Debate, and Directions*, M. E. Shape, Armonk, NY, 2006, 406-420.
- Lynch, C. G. (2006). *Most Companies Adopting ITIL® Practices*. *CIO Magazine*. Retrieved April 13 2012 from <http://www.cio.com/article/17921/>.
- Markus, M. L., Majchrzak, A., and Gasser, L. A Design Theory for Systems That Support Emergent Knowledge Processes, *MIS Quarterly* (26:3), pp. 179-212 (2002).

- Marrone, M., and Kolbe, L. M. (2011). "Uncovering ITIL claims: IT executives' perception on benefits and Business-IT alignment." *Information Systems and e-Business Management*, 9(3), pp. 363-380.
- Patton, M. Q. *Qualitative Evaluation and Research Methods*, second edition, Sage Publications, London (1990).
- 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.
- Pollard, C., Cater-Steel, A., 2009. "Justifications, Strategies, and Critical Success Factors in Successful ITIL Implementations in U.S. and Australian Companies: An Exploratory Study." *Information Systems Management*, 26: 164–175.
- Reckwitz, A. (2002). Toward a theory of social practices: A development in culturalist theorizing. *European Journal of Social Theory*, 5(2), 243–263.
- Sein, M., Henfridsson, O., Purao, S., Rossi, M., Lindgren, R., 2011. "Action Design research," *MIS Quarterly*, Vol. 35, No. 1, pp. 37-56.
- Schatzki, T. R. (2002). *The site of the social. A philosophical account of the constitution of social life and change.* Pennsylvania State University Press.
- Van den Akker, J. *Principles and methods of development research. Design approaches and tools in education and training.* pp. 1–14. Springer (1999).
- Vargo, S L. and R.F. Lusch (2004). "Evolving to a New Dominant Logic for Marketing." *Journal of Marketing*, 68 (1), January: 1-17.
- Vargo, S. L., & Lusch, R. F. (2006). Service-dominant logic: What it is, what it is not, what it might be. In R. F. Lusch, & S. L. Vargo (Eds.). *The service-dominant logic of marketing: Dialog, debate, and directions* (pp. 43–56). Armonk, NY: ME Sharpe.
- Vargo S., R. F. Lusch (2008). *Service-Dominant Logic: Continuing the Evolution.* *Journal of the Academy of Marketing Science* 36(1) 1-10.
- Vargo and Lusch, 2014. *Inversions of service-dominant logic*, *Marketing Theory* 2014, Vol. 14(3) 239–248.
- Vargo, S.L. and Lusch, R.F. (2016). "Institutions and axioms: an extension and update of service-dominant logic." *Journal of the Academy of Marketing Science*.
- Vargo, S.,L., Lusch, R.F. (2009). A service-dominant logic for marketing. In: Maclaran, P., Saren, M., Stern, B., & Tadajewski, M. (eds.). *The Sage handbook of marketing theory.* Sage Publications, Thousand Oaks, 219-234.
- Walls, J.H., Widmeyer, G.R., El Sawy, O.A. Building an Information Systems Design Theory for Vigilant EIS," *Information Systems Research* (3:1), pp. 36-59 (1992).
- Winniford, M., Conger, S., and Erickson-Harris, L. 2009. "Confusion in the Ranks: IT Service Management Practice and Terminology." *Information Systems Management*, 26:2, 153-163.
- Wittern, E., and Zirpins, C., 2010. "On the use of feature models for service design: the case of value representation." In: *Proceedings of European Conference on a Service-Based Internet*, pp. 110-118. Springer Berlin Heidelberg.