Transforming from service providers to solution providers: implications for provider-customer relationships and customer-induced solution innovation

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Abstract: There is a rich body of literature investigating the integration of customers into innovation processes. The various strands of this literature converge on the notion that integrating customers creates access to use-related knowledge that is needed to better target future customers. In a similar vein, solution selling has emerged as a means to provide solutions that fulfill customers’ demands as an alternative to selling products and services to an unknown, anonymous customer. Here, most research adopts a producer-centric view. Yet, little research exists that: 1) combines customer integration and solution selling; 2) considers service companies. Thus, the authors’ aim was to investigate whether and how a transformation from being a service provider to being a solution provider influences the provider’s relationship with the customer, affects customer-induced service and solution innovation, and shapes the provider’s absorptive capacity. The authors employ a case study design and investigate a German medium-sized IT consulting firm. The main result is the identification of testable propositions stemming from expert interviews and additional company data. At the end of the article, the authors discuss theoretical and managerial implications.

Keywords: solution selling; solution innovation; service innovation; absorptive capacity; customer-provider relationship; customer-induced innovation.

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1 Introduction

The importance of selling solutions as an alternative to selling pure goods or services has grown in recent years, especially in business-to-business areas (Cova and Salle, 2007). According to Evanschitzky et al. (2011), solutions are defined as individualised offers for complex customer problems that are interactively designed with customers and may comprise components from different vendors. The value created is greater than that of related services or goods alone. Many industrial firms have exploited the opportunity to offer additional product-related services and begun to provide customer solutions to solidify their positions in increasingly competitive markets (Jacob and Ulaga, 2008; Velamuri et al., 2013). Relatedly, many researchers submit that margins can be higher in services and that solutions may increase customer loyalty (e.g., Eggert et al., 2011; Oliva and Kallenberg, 2003; Sawhney, 2006).

Recent research also centres on the transition processes a firm must undergo when it shifts from offering products towards being a solution seller (e.g., Oliva and Kallenberg, 2003; Sheth and Sharma, 2008). For example, extant studies address the internal changes in organisational structures (Davies et al., 2006), the change in firms’ business models (Velamuri et al., 2013), and the acquisition of specific knowledge and capabilities (Paiola et al., 2013). However, while these challenges have been consolidated in respective frameworks (e.g., Storbacka, 2011), thus far, no equivalent exists for the transformation from being a service provider to a solution provider. This lack in our understanding may be traced back to the fact that, in contrast to industrial and product-oriented firms, few
Transforming from service providers to solution providers

Rationalities exist for service firms to evolve into solution providers because developing goods-related capabilities may be costly for service firms. However, even service firms might experience an increase in their customers’ loyalty through solution selling. For example, Amazon began as a pure retailer of books, thus, as a service provider. At present, Amazon successfully combines the delivery of digital content with the sales of associated hardware such as Fire TV, Kindle, or Fire Phone and thus constitutes a solution seller (Stone and Brustein, 2014).

To the best of our knowledge, no study exists that addresses the shift from a pure service provider to a solution provider (cf., Jacob and Ulaga, 2008). Such a shift requires obtaining necessary goods-development capabilities and goods-selling capabilities that service firms do not typically possess and that are costly to acquire (Ulaga and Reinartz, 2011). With respect to advantages, transforming from a service provider to a solution provider may entail increased access to understanding customer problems and needs, as from the customer’s perspective – the intangible service is just one component of the overall value that the customer seeks (Eades, 2004; Sharma et al., 2008). Thus, such a transition would have to affect a provider’s absorptive capacity, as incoming goods-related knowledge that was of limited interest to the service firm may now provide significant value for designing future solutions. Again, research pertaining to companies’ absorptive capacity in light of solution selling is rare.

In sum, as the current literature is anaemic regarding the implications of the transition from a service provider to a solution provider, this study attempts to ascertain whether and how a firm’s transformation from a service provider into a solution provider

1 influences provider-customer relationships
2 affects customer-induced service and solution innovation
3 changes the nature of providers’ absorptive capacity.

To address these research questions, we rely on a single case study approach and investigate a medium-sized information technology (IT) consultancy in Germany that recently announced its strategic goal to become more solution-oriented.

With this study, we contribute to important research areas that have been somewhat ignored to date in research pertaining to solutions. First, we heed the call of Evanschitzky et al. (2011) in that we focus on neglected aspects such as how the shift to solution selling changes provider-customer relationships and how to innovate solutions consisting of interrelated goods and services. Second, we complement the overall picture of solution selling by considering the second possible direction – the transition from service provider to solution provider.

The paper is structured as follows: first, we provide additional information on this study’s context, that is, solution selling. Next, we introduce this study’s conceptual background and review related literature concerning customer-provider relationships, solution selling as a source of innovation, and absorptive capacity. Subsequently, a description of our research methodology and the empirical setting is offered. In the next sections, we focus on the data collection and data analysis, followed by the results, which we provide as testable research propositions. We conclude by providing a discussion of the theoretical and managerial implications and the limitations of this study.
2 Context: solution selling

While the alignment of products and services have been discussed under different labels such as hybrid offerings (Ulaga and Reinartz, 2011), the term ‘solution’ refers to more than merely combining products with services (Nordin and Kowalkowski, 2010). In particular, solutions provide value to the customer that may stem from the offerings of more than one vendor (Frankenberger et al., 2013) and create more value than buying stand-alone products (Galbraith, 2002). Examples involve tangible goods that are complemented by specific services (e.g., smartphones with app-worlds) and multiple goods and services that are combined to better satisfy customer needs. For example, Schmitz Cargobull, a German manufacturer of truck trailers, offers financial services, individualisation services, and telematics systems – in addition to the trailer as such (Ahlert et al., 2009).

In line with Wise and Baumgartner (1999), we treat solution offering as a special form of the customer-provider relationship in business markets. Moreover, we build upon the work of Davies et al. (2007), who distinguish two major business models for selling solutions. In the first business model, system sellers offer complete packages consisting of vertically integrated products and services to the customer. This concept follows a single-vendor approach to the design and development of necessary components. In contrast, so-called system integrators coordinate the customisation and integration of externally supplied components into a solution. Combinations of these two business models, that is, hybrid forms with elements of system sellers and system integrators, constitute an emerging business model for selling solutions. In this study, we predominantly focus on the transformation from service companies to system integrators.

The strategic decision to become a solution seller confronts companies with several challenges. Cova and Salle (2007) identify four major challenges for organisations during their transformation into solution sellers – primarily from a goods-centric company’s perspective. First, to offer more customer-focused solutions or to become a more customer-centric company, a change in the firm’s orientation is required. In other words, the move towards integrated solutions provision implies a change of emphasis (Brady et al., 2005), which “requires a real reorganization around the customer” (Cova and Salle, 2007) and a “change in mind set, conceptual approach, capabilities and organization” [Sharma and Molloy, (1999), p.1]. As a second challenge, there is a clear need for new capabilities (e.g., system integration or business consulting capabilities) and new skills (e.g., key account management, information and innovation management). Relatedly, Brady et al. (2005) suggest that both service and product firms need to develop new capabilities during the move towards solution provision. These are systems integration capabilities to design and integrate hardware, software and service components, operational service capabilities to support the operational life cycle, business consulting capabilities to provide customers with advice on business plans and systems and financing capabilities to help the customer in purchasing costly products. A third challenge concerns the transformation of the structure and processes within the organisation (see also Martinez et al., 2010). Fourth, the risk of failing when entering the solutions market is occasionally underestimated because solutions often cost more to develop, sales cycles are longer and firms require a deep understanding of their customers’ businesses. What types of capabilities are needed to transition from service provision to solution provision, however, is far from understood (cf. Paiola et al., 2013).
3 Conceptual background

Our research is grounded in the solution life cycle. Following Brady et al. (2005), the solution life cycle can be divided into a strategic engagement and value proposition phase, the systems integration phase and the operational services phase. This partitioning of the solution life cycle forms the basis for this study’s conceptual framework (see Figure 1). We will briefly discuss the framework as such, followed by a description of its relevance for this study.

**Figure 1** Solution selling-oriented conceptual framework

During the **strategic engagement and value proposition phase**, representatives of the provider (e.g., commercial and bid managers) enter discussions with customers to understand their strategic needs, priorities and potentials to enhance existing business operations. In this initial stage, called the ‘front-end’ of solution selling, the business consultants involved need to tailor product and service offerings to solve specific problems for the customers (Brady et al., 2005). Second, during the **systems integration phase**, project management and development skills and capabilities are indispensable for executing the project and delivering the solution within budget, on time and in accordance with the specifications. Important steps during this ‘back-end’ of solution selling involve the conceptualisation, development and integration of the solution into the customer’s environment (Cova and Salle, 2007). The third phase entails operational services, which involves upholding customers’ levels of perceived value.

In this study, we assume that the solution-selling life cycle corresponds to our three main research questions relating to customer-provider relationships, customer input as a source of service and solution innovation, and absorptive capacity. While the relationship between customer and provider is important in each of the three phases, it is in phase 1 where the provider and new customer form the basis of the quality of their relationship for subsequent interactions. In phase 2, where the solution is actually designed, the provider obtains access to problem-related, in-depth customer knowledge, which can serve as input for new service and solution development. For example, Den Hertog (2000) introduces the term ‘client-interface innovations’ and maintains that “the way the service provider interacts with the client can itself be a source of innovation” [Den Hertog, (2000), p.496]. This is in line with the service innovation literature, which
suggests that firms involve customers in the idea generation phase and to a lesser extent in later phases of the new service development process (e.g., Carbonell et al., 2012; Melton and Hartline, 2010). Finally, over time, the provider assimilates complementing goods-related knowledge from interactions with the customer (Foss et al., 2011). This knowledge adds to the existing, more service-centric knowledge base and thus increases providers’ prior knowledge for future solution-selling projects (Todorova and Durisin, 2007). We discuss the emerging fields of study in detail in the following.

3.1 Customer-provider relationships

The study of customer-provider relationships has been the focus of research for decades (Cannon and Perreault, 1999; Spekman and Carraway, 2006; Zablah et al., 2004). Consequently, many schemes for the classification of inter-company relations have been developed (e.g., Dwyer et al., 1987; Gundlach and Murphy, 1993; Ojanen and Hallikas, 2009). We focus on the constructs that are employed most frequently in the pertinent literature to analyse customer-provider relationships: trust between parties, parties’ commitment to the relationship, and the level of interaction between parties. Trust is a multidimensional concept that may be differentiated at the personal and the organisational level (Ganesan, 1994) and constitutes a prerequisite for effective transactions between customers and providers (Mayer et al., 1995; Morgan and Hunt, 1994). We adapted an approach by Zaheer et al. (1998), who characterise trust as being based on the components’ reliability and predictability.

Commitment is the second element that characterises interorganisational relationships and can be considered an essential part of successful long-term relationships (Gundlach et al., 1995). “Commitment involves the perception of dependence that one party perceives they have on the other, and the amount of investment in time and resources that the organization makes in the relationship” [Rinehart et al., (2004), p.32]. Finally, “success in a supplier-customer relationship is partly based on how frequently the parties interact concerning business activities and the volume of business transacted” [Rinehart et al., (2004), p.31]. Interaction frequency may also be divided into a personal and an organisational level. In accordance with Heide and Miner (1992), interaction frequency on a personal level is primarily defined in terms of how much time one spends communicating with the other party. At an organisational level, the amount of business transacted between a seller and a buyer is considered a key indicator of interaction frequency. In summary, as core constituents of relationship marketing, we consider trust, commitment, and interaction frequency to be key for analysing changes in relationships during firms’ transition from service to solution providers.

3.2 Solution selling as a source of innovation

Solution selling is one way to innovate the business model of a company (Frankenberger et al., 2013; Sawhney et al., 2006), which is why it receives considerable interest in many business-to-business contexts. Selling solutions enables supplier firms to obtain greater access to customer knowledge, which makes it a promising source of future service and solution innovations. The service components of a solution in particular are considered to function as a facilitator, carrier or source of innovation (Den Hertog, 2000). More precisely, by providing their, often technical, need knowledge, customers conduct development tasks in the individualisation of new solution development – in contrast to
highly standarised offerings for which the producers are responsible for all aspects of product design and implementation (Payne et al., 2008; Schaarschmidt and Kilian, 2014). Thus, as customers support the solution-selling process by occupying diverse roles such as idea generators, co-creators, and users (Nambisan, 2002), they share knowledge regarding their often industry-specific needs in an interactive process (Aarikka-Stenroos and Jaakkola, 2012; Schaarschmidt et al., 2015).

Taken together, the related literature acknowledges the importance of customer knowledge as a means to access use-related knowledge that is otherwise costly to extract (Alam, 2002). However, detailed studies of the importance of solution selling to the firm’s service and solution innovation management remain rare. This observation is in line with Evanschitzky et al. (2011, p.659) who maintain that “an important aspect which needs additional attention is how to innovate solutions”.

3.3 Solution selling and absorptive capacity

As outlined in previous paragraphs, solution selling is related to interaction with customers, which, in turn, may provide use-related knowledge. To make use of this knowledge, it must be properly absorbed by the provider. Thus, a firm’s absorptive capacity is crucial for the successful exploitation of external knowledge (Lichtenthaler and Lichtenthaler, 2009) and for ensuring continuous innovation (Soosay and Hyland, 2008). According to the process-oriented view of absorptive capacity, three distinct learning capabilities complement one another: explorative learning, transformative learning, and exploitative learning (Lane et al., 2006). Explorative learning relates to the process of identifying and acquiring external knowledge. Exploitative learning mirrors the firm’s capacity to make use of acquired knowledge. Finally, transformative learning combines the other learning strategies and is associated with properly retaining and storing knowledge (Cohen and Levinthal, 1990; Easterby-Smith and Prieto, 2008; Ritala and Hurmeilinna-Laukkanen, 2013).

A firm’s absorptive capacity is further known to be a function of prior related knowledge (Todorova and Durisin, 2007; Zahra and George, 2002). Thus, a firm is only capable of identifying and acquiring useful external knowledge to the degree that the firm can perceive its value. Furthermore, recent studies have highlighted that the nature of external knowledge might affect whether knowledge will ultimately be absorbed, as incoming knowledge must conform to the cognitive structure of the absorbing organisation (Mangematin and Nesta, 1999; Schaarschmidt and Kilian, 2014; Todorova and Durisin, 2007). According to this line of reasoning, the transformation from being a service provider to being a solution seller enables access to goods-related knowledge terrains that might not be utilised through a service-oriented absorptive capacity. Thus, a former service company has to develop goods-related capabilities to be able to identify useful external knowledge that they could access by turning to selling solutions (cf. Paiola et al., 2013). However, whether and how transforming into a solution seller affects the way in which a firm absorbs knowledge is far from understood.

Taken together, the transformation from being a service provider to being a solution provider involves a change in the customer-provider relationship, potentially affects customer-induced service and solution innovation, and requires an advancement of the solution seller’s product-related absorptive capacity to arrive at a solution-oriented
absorptive capacity. These interrelations between the identified core aspects are depicted in Figure 2 and guide our empirical investigation that follows.

Figure 2  Initial research framework

4 Method

4.1 Research methodology

Investigating how the transformation from being a service provider to being a solution provider shapes aspects of customer-provider relationships, service and solution innovation, and absorptive capacity is a complex organisational issue. This complexity is reflected in related studies holding that “integrated solutions are complex and unique configurations, making them best studied through case research” [Brax and Jonsson, (2009), p.143]. Thus, in line with previous research (e.g., Gebauer et al., 2012; Frankenberger et al., 2013; Paiola et al., 2013), we use an exploratory, qualitative research approach (Miles and Huberman, 1984). The study is designed as a single case study (Yin, 2009) with one object of investigation: a service firm that is in the process of transforming into a solution provider. As sources of information, we predominantly rely on interviews with customer-contact employees who exhibit substantial expertise in sales. The interviewees share insights on their concrete work environments and their experience in developing solutions in collaboration with customers. These insights were complemented by additional company documents (e.g., PowerPoint presentations, aggregated sales figures, mission statements). In contrast to research that adopts a grounded theory approach, we begin our investigation with the framework depicted in Figure 1 in mind.
This study is positioned between deductive and inductive research, and it should be understood as a contribution to theory building (Miles and Huberman, 1984). As with other qualitative work (e.g., Gebauer et al., 2012), the intended conclusions are not generally transferrable to other environments. The setting permits a generalisation against theory on conceptual grounds, but it is not representative of the population (Lee and Baskerville, 2003) or other contexts without additional surveys. We conclude by presenting quotations that offer interesting insights with respect to the research questions. In addition, we formulate testable propositions resulting from the case analysis through different qualitative methods. To achieve rigor in our qualitative research, we consider the quality criteria of credibility (i.e., triangulation of data), transferability (i.e., comparison with previous findings), and dependability (i.e., focused interviews with contacts with in-depth understanding of the phenomenon) (Shenton, 2004).

4.2 Empirical setting

We followed the suggestion for case selection by Seawright and Gerring (2008) and searched for firms that deviate from the well-studied ‘manufacturer moves into services’ phenomenon (e.g., Jacob and Ulaga, 2008). We ultimately identified a leading IT consulting firm in Germany that serves several business markets with a total of approximately 3,000 employees. We chose this firm because

1. the IT sector was one of the first areas to offer integrated solutions, and therefore, a high level of experience exists (Cerasale and Stone, 2004)

2. because an independent subsidiary of this IT consultancy with approximately 150 employees explicitly announced a strategic repositioning from being a service provider to a solution provider in 2012.

As a central part of its value chain activities, the consultancy offers consulting services and, to a lesser degree, software solutions consisting of different software artefacts from different software suppliers to their customers. In addition to the customisation and implementation of new software products, they offer services such as monitoring, performance management, maintenance, asset management, and in-house training. In 2012, the consultancy decided to increase their level of third-party software offerings and to offer software-related hardware to better develop individualised solutions. By default, the offered solutions now consist of software and hardware modules combined with services to support the customers’ business needs. They combine knowledge from several industries (aerospace, defence, automotive, financial services, life science, telecommunications, public administration, and power engineering) with their experience in application development, change and project management. In terms of their own innovation activities, they internally develop software components but integrate externally developed hardware.

In this study, we focus on employees from two groups as our main informants: consultants and managers. Consultants are in close contact with customers and gather considerable knowledge regarding the customer’s environment and business, new requirements, and market-specific regulations on a daily basis. Managers are responsible for the project being executed on time and on budget. They interact with their clients or external stakeholders less frequently, and those interactions concern aspects related to contract and legal issues.
4.3 Data collection

Semi-structured interviews based on an interview guide were conducted to gather the required data. On average, the respondents were 36 years old (min. 26 years, max. 45 years) and their tenure at the company was approximately 5.2 years (min. 8 months, max. 12 years). In our study, we interviewed two women and nine men. Six participants held a position in middle management and five worked as consultants. They held industry knowledge in the telecommunications, military, aviation, health, public administration, power engineering and other fields. Table 1 provides a list of the interviewees.

Table 1: List of interviewees

<table>
<thead>
<tr>
<th>Identifier</th>
<th>Tenure</th>
<th>Position</th>
<th>Age</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interviewee 1</td>
<td>More than 11 years</td>
<td>Senior Manager</td>
<td>-</td>
</tr>
<tr>
<td>Interviewee 2</td>
<td>More than 2 years</td>
<td>Consultant</td>
<td>29</td>
</tr>
<tr>
<td>Interviewee 3</td>
<td>10 years</td>
<td>Managing Consultant</td>
<td>40</td>
</tr>
<tr>
<td>Interviewee 4</td>
<td>12 years</td>
<td>Senior Consultant</td>
<td>45</td>
</tr>
<tr>
<td>Interviewee 5</td>
<td>More than 9 years</td>
<td>Delivery Manager</td>
<td>39</td>
</tr>
<tr>
<td>Interviewee 6</td>
<td>2 years</td>
<td>Consultant</td>
<td>26</td>
</tr>
<tr>
<td>Interviewee 7</td>
<td>5 years</td>
<td>Lead Consultant</td>
<td>31</td>
</tr>
<tr>
<td>Interviewee 8</td>
<td>Less than 1 year</td>
<td>Practices Manager</td>
<td>42</td>
</tr>
<tr>
<td>Interviewee 9</td>
<td>Less than 1 year</td>
<td>Business Manager</td>
<td>30</td>
</tr>
<tr>
<td>Interviewee 10</td>
<td>More than 1 year</td>
<td>Manager</td>
<td>43</td>
</tr>
<tr>
<td>Interviewee 11</td>
<td>2 years</td>
<td>Business Manager</td>
<td>33</td>
</tr>
</tbody>
</table>

We systematically asked respondents about aspects of ‘solution selling’ and ‘solution selling as a source of information’ and about dependencies in the selected firm. To achieve this goal, we designed an interview guide and a preliminary agenda. We assessed the interview guide in several pre-tests with colleagues familiar with solution selling to achieve the required outcome quality. The interview guide is separated into four blocks, each consisting of nearly exclusively open questions. First, we asked the interviewee to provide information on his/her personal situation in the firm. Second, we asked the participants to report how they access customer knowledge in their projects. The next block was dedicated to solution selling and how it changed customer-provider relationships. In the last section, the interviewees responded to questions regarding the interdependence between solution selling and gathering solution-related customer knowledge in their context (see Appendix A).

Before beginning the interview, the participants were asked to provide their consent to audio recording. This material could be used in different subareas of the analysis process to identify special terms or statements. During the sessions, we established a neutral and uncommitted atmosphere in familiar surroundings to ensure that the participants were under minimal external influence (e.g., Myers and Newman, 2007). Another important aim was to create an asymmetric communication environment, in which the conversation partner enjoyed greater time to absorb the maximum amount of important data in episodic interviews. Each interview lasted between one and two hours. After each interview, we transcribed the row data with a result of approximately 90 single-lined pages of documentation in total. Participants could review the transcription
and provide feedback. In addition to the insights gained from the interviews, we also used company documents (e.g., presentations) and press articles (e.g., product announcements) for data analysis. We also had the opportunity to participate in two workshops concerning solution selling.

4.4 Data analysis

Followed by the transcription of the interview material, we began the data analysis using the framework depicted in Figure 2. Our first step involved a detailed content analysis of each interview (item) in accordance with Flick (2009) to extract the essential aspects. Interesting cutouts were highlighted, and then core statements were fixed using MAXQDA software. Prior conversations with firm representatives in conjunction with the framework and the firm’s mission statement functioned as a first, but rather broad, coding scheme (Saldaña, 2012). Furthermore, we developed a characterisation of each interview. As is common in qualitative work, we adopted the perspective of the informants, thus the solution seller. We used an intensity analysis as one type of qualitative data analysis to develop statements concerning changes in the categories and to compare the situations described in each interview. During this step, we followed important quality criteria, for example, documenting every phase, writing analytical memos and argumentative motivation for every interpretation. Over two coding cycles, we allocated the essential aspects of the interviews to the main categories of ‘solution provider and customer knowledge’, ‘service and solution innovation’, ‘relationship with external stakeholders’ and ‘change in customer-provider relationship’, as well as to subcategories such as trust, interaction frequency and commitment.

In a next step, we concentrated on the full interview material as such instead of an isolated analysis of a single interview. The aim was to identify tendencies and to support them with appropriate statements. In addition, we illustrated the main topics mentioned by the conversational partner during the interviews in a matrix (i.e., a combination of the first and second code cycles) (see Appendix B). As a result, we were able to compare the frequencies of occurrences in our material with secondary company data. Together, the two different analysis methods (content analysis and topic-based analysis) ensure the reliability of the qualitative analysis.

5 Results

The purpose of this study was to understand whether and how a transformation from being a service to being a solution provider

1 influences provider-customer relationships

2 affects customer-induced service and solution innovation

3 changes the nature of providers’ absorptive capacity.

The presentation of the results is based on our initial research framework depicted in Figure 2 and is divided into the following sections:
5.1 Change in the customer-provider relationship

A collaborative development process between customer and provider is a key characteristic of selling solutions (Paiola et al., 2013). Overall, we identify a positive change in the relationship between the parties involved when a service provider transforms into a solution provider. By positive, we refer to a relationship that is better in terms of trust, commitment and interaction frequency. This is an important insight, as service firms – compared to manufacturers – already have close relationships with customers. First, the majority of the interviewees mentioned the effect of increased mutual trust when evolving into a solution provider. The following quotes illustrate this notion:

“A change in relationships with external stakeholders when offering solutions depends on the risks and responsibilities transferred to the provider. Much is based on trust, and I think that the relationship among external stakeholders, the customers and us as providers is getting more intense because it is based even more on trust than it had been before.” (Interviewee 11)

“Well, we are more integrated in customer processes. We work more closely together because we have to work together from the very beginning. On the other hand, they include us to a greater extent. According to my experiences, customers are more open and reveal more information than before.” (Interviewee 7)

“The relationship can become more intensive because customers are integrated into our organisation and we inform them about our own processes, e.g., the R&D process or the behaviour and mind-set of our employees. Similarly, customers and other involved stakeholders have to disclose their processes and other aspects of their individual environment, e.g., knowledge gained about the other parties.” (Interviewee 9)

This perception is consistent across different interviews and appears to be independent of the industry that the solution provider serves in the project. The interviewees did not explicitly differentiate between possible types of trust such as competence trust or benevolence trust (Garbarino and Johnson, 1999). Thus, with the data at hand, it is not possible to draw conclusions concerning specific sub-facets of trust. However, it is interesting to note that even for service firms that typically work closely with customers, solution selling affects the level of mutual trust.

Second, a change in the relationship can also be recognised in an upward trend in the interaction frequency. Interaction frequency was formulated in various ways concerning the shift from service to solution provider such as additional customer touch points, more customer visits, and more customer-driven phone calls. This is also due to increased
coordination with third-party suppliers, a situation that causes more information exchange among the customer, solution provider (i.e., a system integrator in this case), and supplier (e.g., hardware or software supplier). In addition, interaction frequency is regarded as a possible antecedent of trust.

“Solution provisioning raises the intensity of the relationship by blurring the boundaries of both companies during cooperation […], and in the end, a strong network and strong trust between the customers and our staff arises.” (Interviewee 9)

“As we jointly seek solutions together with our customers, it is more of a partnership than a pure form of service provision.” (Interviewee 3)

In the literature review, we highlighted that at the organisational level, interaction frequency is primarily defined by the volume of business transactions between a seller and buyer. Apart from interaction frequency in terms of an increased number of customer contacts, we observe a tendency for the number of organisational level interactions to increase when selling solutions to a customer:

“The relationship with our customers becomes closer during solution-selling projects and by offering results to a specific customer problem. After delivering the solution and finishing the project, there is a chance to acquire follow-up projects and address new problems to a greater extent than with services offerings alone. […] Therefore, the probability of getting a new contract is much higher in case of frequent interactions through solution selling.” (Interviewee 8)

Third, we identify different degrees of emotional and cognitive attachments, and thus commitment, between the provider and its customers. Interviewees reported situations in which the personal affection between the employees of both parties becomes stronger. In this particular case, elements that characterise commitment are, for example, a give-and-take basis and close agreements and can be found in different text passages, such as the following:

“I think that nowadays, a company that opens itself to the outside world and has a presence, for example, on the Internet, has better chances. The relationship with stakeholders and working with customers then contains symbiotic features on a give-and-take basis. I think that both sides can benefit.” (Interviewee 4)

In summary, although service providers usually maintain close relationships with their customers, especially in business-to-business markets, the transition from being a service provider to being a solution provider appears to affect important aspects of customer-provider relationships such as trust, interaction frequency, and commitment. The results thus far lead us to the first proposition:

Proposition 1a The bond of trust and commitment between a service provider and customers becomes stronger as a result of selling solutions.

Proposition 1b The frequencies of individual and organisational interaction between service providers and customers increase as a result of selling solutions.
5.2 Solution selling as source of customer induced-innovation

This section is devoted to exploring how solution selling might support the discovery of ideas that might become future solutions. As discussed in the literature, clients’ demands for solutions often serve as impulses that drive service and solution innovation on the provider side.

We identified a tendency for individuals to foster discussions with greater openness. For example, interviewee 1 noted:

“The exchange has become much more open and lively because the involved parties do not aim to differentiate themselves from others. They see openness as opportunity for risk minimisation. This has fundamentally changed.” (Interviewee 1)

This tendencies are in line with Brady et al. (2005, p.364) who report that in the context of solutions, “the partners share information in a more open, consultative, and informal way”. Typically, the concrete reasons for this involve:

1. the necessity of defining common requirements
2. the need to understand customers’ business processes
3. the requirement to customise new solutions to the given (often complex) problem situation
4. long-term cooperation between buyer and seller.

The parties often desire to achieve a two-sided minimisation of risk and financial losses, for example, through joint investments. The following interview excerpts underline the importance of solution selling for innovation creation.

“Through an open exchange and integration of customers, solutions can be aligned to the needs of the environment. Positive effects are shorter development periods, reduced effort, more success and a long-term business relationship.” (Interviewee 2)

“The information exchange and inter-firm relationship is more intensive and simply necessary. […] You have to know the customer and his environment in a better way to be able to understand what would be the best solution. […] The information exchange is based on the conversations with customers and this all is more intense now, yes.” (Interviewee 11)

“We also conjointly develop innovations. So there are projects where the customer and we as solution provider invest in something that lies in the middle, that is, solutions. Yes, this type of collaboration has increased.” (Interviewee 1)

It becomes apparent that solution selling fosters collaboration between the provider and the customer, and this causes an intensive exchange of experiences, information and knowledge. Therefore, both sides gather new inspirations and raw ideas during the process that can be used to

1. improve the fit and quality of the solution itself
2. develop potential that can be enhanced as further innovations inside the producer firm.
“In solution-selling projects, providers and customers tried to find the answer that best fits a given problem situation, and this is a boost for innovation. Conversely, innovations can help to improve the quality of our solutions.” (Interviewee 7)

Many of the interviewed employees stated that the development of the solution itself occasionally has the potential to become an innovation, although solutions are primarily developed for the customers.

“That means that innovations are very important, and we have one unit in our firm specialised in innovation management. They collect new ideas across different branches and solutions. In exchange with our customers, they try to find their most important topics and trends. We develop solutions that are new, innovative and forward-looking. In this way, I’m sure that our company is leading.” (Interviewee 1)

“Well, if we develop a solution with our customer, then it is our aim in terms of productivity to offer this solution to other customers – as long as we do not violate any contract. In that sense, the solution is the innovation.” [Emphasis added] (Interviewee 4)

In summary, customer knowledge is important for developing best-fitting solutions, which, in turn, provide novel inspirations with a high potential for future service and solution innovation. In addition, customers may often discuss trends and the future of emerging markets or customer needs. Among the most frequently used instruments to obtain customer knowledge are

1 requirements definition workshops
2 informal observations of customers’ opinions regarding certain products and services
3 information sessions in collaboration with customers, for example, concerning new technologies.

In turn, in situations with a high level of trust, the customers may even mention additional internal information, for instance, the intention to innovate their own business model (cf., Frankenberger et al., 2013). However, this information is often not be immediately in an existing solution-selling project but is applicable to future innovation projects. In certain cases, both the customer and the provider conjointly invest in the development of new solutions – a situation that rarely transpires with pure service provision. Thus, we propose:

Proposition 2 Increased customer interaction through solution selling leads to practical, solution-oriented insights concerning customer needs and future market trends and serves as source of important inspiration for future solution innovations on the producer side.

5.3 Change in solution seller’s absorptive capacity

In the previous sections, we noted that solution selling changes the relationship between the parties involved, when service exchange is transformed into solution offering. What we have neglected thus far is the difference among service-related, goods-related, and solution-related knowledge. While the first relates to operating efficiency and knowledge pertaining to service delivery, the second is concerned with technical and manufacturing
knowledge. Finally, solution-related knowledge relates to knowledge of how to orchestrate different services and goods to produce a combined offering. From a system integrator firm’s perspective, this involves the knowledge necessary to identify appropriate suppliers and manufacturers.

However, these different knowledge types are likely to determine a solution provider’s absorptive capacity. In line with Todorova and Durisin (2007), new inspirations can only lead to innovation and therefore to competitive advantages when the firm improves its absorptive capacities, especially to ‘recognise the value’ and to ‘explore’ new external knowledge. In reporting our findings, we rely on the three-step learning model that involves exploratory, transformational, and exploitative learning and relate it to different types of knowledge.

First, respondents implicitly assume a process-oriented and rather specific form of absorptive capacity.

“Regarding technology-oriented topics, emerging trends are immediately picked up and developed further. In a next step, we check if the solution could be offered to the market and if our company could process other projects to develop the innovation. However, our firm is not a research organisation. While we are capable to identify trends in software, we cannot do this for hardware.”

(Interviewee 3)

The case company, as a former technology consultancy, possesses software-related prior knowledge that helps in identifying trends and technological developments. However, this knowledge does not extend to components of third-party suppliers, a fact that underlines the necessity for distinguishing different types of absorptive capacity.

After recognising the value of external knowledge, an exploration and a combination of internal knowledge and novel knowledge is important for innovation development. Here, the use of the knowledge held in employees’ minds can generate value for the firm when used skilfully. In our study, the integration of customers into the research and development processes of the provider firms and a transformation of own processes can be recognised:

“We also connect external knowledge. Through solution selling, you collect more external knowledge. In our firm, some units are specialised to collect and coordinate knowledge. There is a continuous increase in knowledge when striving for innovation. This is what we do.”

(Interviewee 7)

However, the interviewees stated that there might be room for improvement in terms of absorbing solution-related customer knowledge – a fact that was also apparent in the workshop discussions. The company began as a service firm with substantial technical (i.e., software) knowledge and then decided to transform into a systems integrator. While this strategy advances customer loyalty through offering individualised solutions and increases access to customer knowledge, the company’s internal structure has yet to be adequately designed to absorb more goods-related knowledge.

“We see room for improvement in organising catch-up knowledge from outside and start to enter into an active dialog and try to exploit the labour of our outside world, e.g., through approvals of information and knowledge.”

(Interviewee 4)

“Well, currently we have a project concerning indoor navigation. No company is able to offer the full solution, so we are the ones who invite several players such as manufacturers to come together and discuss. So we have a bunch of companies, branches and technologies, and we are the intermediary and build
the consortium. However, I would not go so far as to say that we understand everything, especially what hardware manufacturers can deliver.” (Interviewee 9)

In line with prior literature that is concerned with different facets of absorptive capacity, the case company possesses service-related technological knowledge but is currently in the process of building solution-related knowledge. From the interviews and several informal discussions with employees, it seems as if the company does not intend to increase its level of goods-related knowledge, as this is too costly to acquire and would not fit the firm’s strategy. However, close interaction with customers and discussions with suppliers and manufacturers increases the firm’s solution-related knowledge base. In particular, the firm is capable of accessing knowledge regarding the orchestration of the various components that comprise goods, technical knowledge, and services. Thus, although the firm is not able to understand the technical aspects of goods supplied by manufacturers, it does possess sufficient knowledge of interfaces and customer needs – which stems from prior solution-selling projects.

Proposition 3 Transforming into a solution provider increases a service company’s overall absorptive capacity, but this increase is dependent on an upfront development of solution-related knowledge.

6 Discussion

6.1 Theoretical implications

The purpose of this study was to understand whether and how the transformation from being a service to being a solution provider

1 influences provider-customer relationships
2 affects customer-induced service and solution innovation
3 changes the nature of providers’ absorptive capacity.

In attempting to answer these questions, we make several contributions. First, we take up the call by Evanschitzky et al. (2011) to devote attention to how the shift to solution selling changes customer relationships and how to innovate solutions consisting of interrelated goods and services. In the related literature, the characteristics of trust, interaction frequency and commitment are often mentioned to describe the customer-provider relationship in the business-to-business sector. We found evidence that these elements are also relevant and may even be advanced when transforming from being a service provider to being a solution seller. In addition, during the interviews, our informants addressed many situations in which they recognised new triggers for innovation. We find support for the fact that the transition towards becoming a solution seller leads to a more frequent occurrence of new inspirations and raw ideas (cf., Jacob et al., 2014). These aspects are captured in Propositions 1 and 2. However, we note that we were not able to provide a definition of solution innovation as an orchestration of several goods and service components based upon the material at hand.
Our second contribution pertains to the role of absorptive capacity. First, on an organisational level, we found that firms require greater – or at least other – absorptive capacities to exploit the integration of customers into solution delivery. When we began the analysis, we assumed that a goods-related absorptive capacity is crucial to succeed in the solutions business. This supposition was natural, as many researchers suggest that manufacturing firms that begin to sell solutions should have a service-oriented knowledge base (Paiola et al., 2013). However, while such a goods-related capability might be advantageous, it is not the focus during the first steps of the transformation from being a service provider to being a solution provider. First, acquiring relevant capacities is too expensive (e.g., purchasing a manufacturer, hiring technical personnel) – even for system integrators – and second, it is more important to develop a solution-oriented absorptive capacity, that is, a capacity to recognise the value of combining multiple services and goods into what might be termed a solution. The firm studied remains in the early phases of its transformation process, which limits the possibility of studying whether a more goods-oriented absorptive capacity will be more relevant in subsequent phases. A strengthened goods-related absorptive capacity, in turn, might lead to a greater overall absorptive capacity for solution providers that were formerly service firms.

Thus, this research contributes to the ongoing discussion pertaining to capabilities in the context of solution selling (Ulaga and Reinartz, 2011). In addition, this research joins the discussion on specific forms of the rather broadly defined concept of absorptive capacity (Gebauer et al., 2012). Todorova and Durisin (2007) maintain that in the event that a company has recognised the value of external knowledge, it will be acquired. This phase is followed by either an assimilation of the external knowledge or by a transformation. Here, transformation implies that the firm has to change its cognitive structure before external knowledge can be exploited. However, Todorova and Durisin (2007) fail to account for the complexity that arises from selling solutions. As service-related, goods-related, and solution-related knowledge might be absorbed, it is important to be aware of the underlying cognitive structures of each knowledge type. When transforming from a service company into a solution provider, service-related knowledge can be assimilated, as it maps with the firm’s cognitive structure. Solution-related knowledge must be transformed, as the firm does not typically initially possess the cognitive structures needed to assimilate this knowledge. Finally, goods-related knowledge might not even be recognised. In the focal case, the company had technical knowledge concerning software products but not concerning hardware. Thus, to date, the firm is not capable of identifying relevant goods-related knowledge (e.g., advancements that pertain to supplied components). This finding is in no way representative, but it reveals that future research should more precisely account for the various forms of external knowledge that stem from solution selling.

Thus, our research provides valuable avenues for further research into the longitudinal aspects of firms’ absorptive capacities under the consideration of the differences among goods-, services-, and solution-related knowledge (Stock, 2011) and changing business models (Spithoven et al., 2011).

6.2 Managerial implications

Our study leads to some clear implications for practitioners. First, we can confirm that the customer-provider relationship, solution selling as a source of customer-induced innovation and the advancement of the suppliers’ absorptive capacity are important areas
Transforming from service providers to solution providers

in solution-selling projects that should be considered by managers. In addition, we would like to stress that the considered criteria for customer-provider relationships (trust, interaction frequency and commitment) are success factors and should be facilitated. These criteria can help solution providers to strengthen long-lasting business relationships with their customers. Thus, although counterintuitive, service firms can also benefit from transitioning into the solution business. However, interaction frequency in particular might not always be beneficial. As recent research highlights, the link from interaction frequency to innovation-related outcomes is not linear (e.g., Homburg and Kuehnl, 2014; Schaarschmidt et al., 2015). This implies that after a certain optimum, increased interaction with the customer might have detrimental effects. Managers could identify key performance indicators that should trigger an alarm when certain levels of customer interaction are exceeded. Second, managers should be open-minded and sensitised to any new innovation triggers that occur in the environment of solution-development projects with customers because the process of transforming into a solution seller leads to the more frequent occurrence of new inspirations and raw ideas. Furthermore, managers can also sensitise the staff to be aware of new triggers and actively address them through existing channels. Third, communication channels should be defined, communicated and actively managed such that new ideas can be collected and utilised within the company. This involves a major restructuring of current knowledge-management practices to create a greater solution-related absorptive capacity. Managers should determine whether there is any room for improvement in managing this information and knowledge flow.

Finally, to fully appropriate external knowledge, managers of firms that are in the process of transforming from service to solution providers should strengthen their solution-related internal knowledge before turning to goods-related knowledge. This also involves training research and development staff and, particularly, salespeople.

6.3 Limitations of the study

A single case study approach appeared best suited to reach our research aim. Nevertheless, the case study approach has some characteristic limitations, such as a limited power of generalisation to a population. In addition, other procedural limitations are worth mentioning. We discuss both types of limitations together.

First, we primarily used semi-structured interviews and company documents to gather the required data. In this type of empirical social research, personal influences on the part of the interviewees can never be fully eliminated. We attempted to minimise these effects by creating a familiar environment for the interviewee and a double-verification principle for the analysis. Second, this research was not intended to provide generalisability, and it is in no way representative of all firms transforming from service providers into solution providers. Case studies of other consultancy firms within this sector or other types of professional services could be conducted to further substantiate our propositions. Third, although we used trust, commitment, and interaction frequency as components of a theoretical lens, we did not acknowledge their full dimensionality. Future research could more deeply investigate the effects of the focal transformation on specific forms of trust, commitment, and interaction frequency. Fourth, our research focuses on new triggers for service and solution innovations and not strategic innovation, which is closely related to the shift of business models towards solution selling (Gebauer et al., 2012). Comparing
the effects of solution and service innovation with the effects of business model innovation could be a fruitful subject for further investigations. Fifth, the focus of this study was on the changing nature of relationships and implications for innovation generation and absorptive capacity. However, there might be other relevant capabilities, such as a solution-selling capability, which were not taken into account (Ulaga and Reinartz, 2011).

Finally, using the interview guide at hand, it was not possible to investigate the way in which the exploitation of knowledge is affected by transforming into solution providers – an issue that could also be addressed by future research.

Acknowledgements

We thank Irina Schroeter for helping collecting and analysing interview data as well as the two reviewers for their helpful comments.

References


Transforming from service providers to solution providers


Appendix A

Interview guide

Opening
- Introduction/purpose: name, university, topic.
- Selection process: nomination of participants.
- Discussion of the aim.
- Authorisation: for the interview and permission to record.

Interview questions

Part 1  Personal information (gender, age, tenure, position, function, industries).

Part 2  Innovation and access to customer knowledge
- How do you define innovation in your context?
- Which innovation strategies exist in your company?
- Do you see any room for improvement relating to innovation management in your company?
- Can you share your understanding of gaining access to customer knowledge? Can you give any examples?
- How far did you personally get in touch with innovation activities in your firm?

Part 3  Solution selling
- How do you define solution?
- Which opportunities and risks do you see for your company during solution selling?
- Did you actively contribute to solution selling processes in your firm? What was your main function?
- How is solution development in your company organised – compared to times in which primarily services were offered?
- Which impact does solution selling have on the knowledge management in your firm?

Part 4  Solution selling and customer knowledge
- Which relationships do you see between solution selling and access to customer knowledge?
- To what extent does providing solutions influence the relationship to external stakeholders?
- To what extent does providing solutions influence the relationship to the customers of the firm?
- Do you recognise the change from a service provider to a solution seller in your firm?
Closing

- Thanks for your participation, transcription will be provided, permission to contact again.

Appendix B

Results of the content analysis – mentioned topics

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Note: The list of topics was simplified slightly for the purpose of this article.
Results of the content analysis – mentioned topics (continued)

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<th>Topic/interview no.</th>
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<td>Innovation is about building something ‘new’</td>
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<td>Pushing innovations on the customer side</td>
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<td><strong>Interaction between solutions and innovation</strong></td>
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<td><strong>Absorptive capacity</strong></td>
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