Stakeholder integration in service innovation – an exploratory case study in the healthcare industry

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Abstract: This paper explores the integration of internal and external stakeholders in service innovation. Building upon the co-creative paradigm, the resource and knowledge integration of stakeholders in dynamic and complex service systems is gaining importance. This case study analyses the practice of stakeholder integration in a service innovation project at a German provider for medical appliances. We show that stakeholder integration is realised in the modes of reactive integration for the majority of stakeholders, whereas mutual integration is realised with members of the organisation, only. Customers are integrated as reactive resources throughout the innovation process, also informally and indirectly. The evidence from this empirical study suggests that stakeholder integration in service systems creates interdependencies between stakeholders and implicates that indirect ways of stakeholder integration have to be taken into account for project and stakeholder management.

Keywords: service innovation; stakeholder integration; indirect integration; modes of integration; healthcare industry; service systems; case study research.

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1 Introduction

To promote faster and more successful service innovation, the integration of value co-creators embedded throughout the innovation process is promising. Especially in increasingly complex service systems, co-creation for service innovation with stakeholders is gaining importance for the development and design of new services. The integration of customers, suppliers, partners and other external stakeholders is meant to integrate knowledge, to gain a deep understanding of needs or processes and to create optimal solutions that meet the needs of users. Within the organisation, the integration of internal stakeholders in service innovation is seen as essential due to its multi-dimensional and organisation wide impact (Kindström et al., 2012). Research in the area of stakeholder integration is currently developing. Studies investigate, e.g., the suitability of specific customer and user groups for integration in certain stages of the service innovation process (Alam, 2006, 2002; Carbonell et al., 2012; Kristensson et al., 2008; Magnusson et al., 2003; Matthing et al., 2006, 2004; Skiba and Herstatt, 2012), suitable methods and benefits of customer integration in new service development (Martin and Horne, 1993; Melton and Hartline, 2010). Further studies examine inter-organisational innovation (Gottfridsson, 2012) or focus on innovation activities with suppliers as another external source for ideas and expertise (Ngugi et al., 2010). Whilst these research initiatives create valuable insights for specific actors in the service system, research considering the co-existence and the interdependence of external stakeholder integration with the internal innovation management of the organisation (Perks and Riihela, 2004) is still scarce: Perks et al. (2012) as well as Schleimer and Shulman (2011) contribute with work including the co-existence of collaboration with internal and external stakeholders. Nevertheless, more in-depth knowledge on service innovation in practice, and especially on the roles and modes of stakeholder integration throughout the stages of the innovation process, is needed to successfully coordinate knowledge integration and manage different stakeholders along the innovation process. This is relevant in the context of open innovation, promoting open collaboration with external stakeholders (Ollila and Elmquist, 2011), as well as it is relevant for manufacturing firms, who have to develop their innovation processes and stakeholder interfaces for integrated service and product innovation (Carlborg et al., 2013). Building upon the work of Smith and Fischbacher (2002) and Perks et al. (2012), this study aims to describe the integration of internal and external stakeholders for service innovation from the perspective of a large and established organisation. By doing this, an overview of stakeholder integration along the service innovation process should be provided on a micro level. In this paper, we aim to identify which stakeholders from inside and outside the organisation are integrated in service innovation, in which stages of the service innovation process and in which modes stakeholder integration is implemented in practice.
2 Theoretical background

The co-creative paradigm, coined by Norman and Ramirez (1993), Prahalad and Ramaswamy (2004) and Vargo and Lusch, (2004) describes the joint creation of value through exchange of knowledge and resources between the customer and the organisation. The notion that value is always co-created collaboratively in service systems is in the core of the service-dominant logic (SDL) (Lusch and Vargo, 2014). The SDL is a theory-based model of exchange in economies which transferred the focus from the transfer of tangible goods to the process of service exchange (Lusch, 2006). It constitutes that value is always co-created through the resource integration of actors in service systems (Vargo and Lusch, 2004; Lusch and Vargo, 2014). From a SDL perspective, value co-creation is a process between the customer and a resource integrator of the organisation, both embedded in service systems. In the described SDL perspective, it is the role of an organisation in the centre of different networks to align internal resources with customers, but also suppliers and other external partners (Vargo, 2008; Lusch et al., 2009).

Based on the idea of interdependent value co-creation in service systems, scholars propose that the service innovation team should integrate internal and external stakeholders also for service innovation (Edvardsson et al., 2013; Kindström et al., 2012). In SDL, the co-creation of service innovation is defined as the participation of customers and other partners “in the creation of the core offering itself” [Lusch, (2006), p.284].

Just as for value creation, an organisation has to manage the co-creation of service innovation with multiple internal and external stakeholders (Kowalkowski et al., 2012). This stakeholder integration is traditionally seen as a management task; it is defined as the mapping of stakeholders and the decision, which stakeholders will be integrated, and to which degree (Hart, 1995; Mitchell et al., 1997; Smith and Fischbacher, 2005).

2.1 Customer integration

Research on service innovation puts high emphasis on the customer as a stakeholder for service innovation. The needs of the customers and their role in the service are seen as a key issue for service innovation (Bettencourt, 2010; Michel et al., 2007). Only by the integration of their wishes, and latent needs or tacit knowledge, including the satisfaction of the customers’ unmet needs, can be achieved (Bettencourt, 2010; Chesbrough, 2003; von Hippel, 1994; Ramaswamy and Gouillart, 2010). To gain access especially to latent needs, the co-creation of service innovation with the customer as an active collaborator is required (Gustafsson et al., 2012; Kristensson et al., 2008; Prahalad and Ramaswamy, 2004; Witell et al., 2011). This means foremost that customers become part of the service innovation process through personal engagement, by sharing their own experiences with the service of the respective company and also by bringing in their ideas or by evaluating concepts (Alam, 2002; Lee et al., 2012; Ramaswamy and Gouillart, 2010; Vargo and Lusch, 2004). This mutual co-creation for service innovation is characterised by an exchange at eyelevel and a high degree of communication between the two parties (Gustafsson et al., 2012; Kristensson et al., 2008). But whilst the benefits of customer integration, like competitive advantage, higher market fit of ideas, speed-up of time to market and more successful innovations (Carbonell et al., 2012; Kristensson et al., 2002; Schulteß et al., 2010) could be identified, it remains unclear which methods for customer
integration in which of the different stages of the innovation process lead to the optimal results (Witell et al., 2014).

2.2 Integration of internal stakeholders

Comprehensive tacit knowledge about services and their outcomes is not only discussed in the context of customers. Also internal stakeholders like front-line employees and experts from other units possess explicit and tacit knowledge (Schilling and Werr, 2009). Accordingly, employees are the number one source of ideas (Schulteß et al., 2010); their individual and collective knowledge should be integrated and facilitated in service innovation (Leiponen, 2005; Mattsson, 2010; Neyer et al., 2009). Thereby, the core innovation team is often discussed only implicitly in the analysed literature. Johne and Storey (1998) suggest that in most cases, the core innovation team is newly assembled for a new project. Schilling and Werr (2009) and Leiponen (2005) stress that the overall success of a service innovation project is dependent on the core innovation team, the assembly of employees from different functions with the required and helpful knowledge and skills.

The integration of internal stakeholders is motivated by the integration of specific functions or skills, as they can bring in “different knowledge and competences to the innovation process which could facilitate creativity, learning and knowledge development for innovation” [Schilling and Werr, (2009), p.32]. Moreover, top management integration is vital for the success of service innovation projects, as shown by Smith and Fischbacher (2005). The integration of top management influences the strategic importance and legitimation of projects and creates access to other internal stakeholders.

The core innovation team, as the decision maker on integration, has the task to capture a diverse set of skills and capabilities on one hand and on the other hand to offer an organisation-wide platform for internal interaction (Edvardsson et al., 2013; Kindström et al., 2012; Smith and Fischbacher, 2005; Schilling and Werr, 2009). The organisation-wide integration, engagement and mobilisation of internal stakeholders from different departments are promoted in service innovation. This is due to the reason that innovations directly affect the organisational structure, communication networks, working processes and the internal stakeholders’ daily work (Bessant et al., 2010; Stevens and Dimitriadis, 2005). This might be true especially for front-line employees. With their daily customer contact, they are expected to share a deep understanding of the customers’ needs (Alam, 2006; Smith and Fischbacher, 2005). Despite the proven benefits (De Brentani, 2001), present research shows only isolated cases of front-line employee integration in the ideation phase (Gustafsson et al., 1999). Their integration is more likely to be seen in later stages of the innovation process, e.g., in testing or training (Melton and Hartline, 2010). An explanation for scarce implementation in practice might be that it is challenging for managers to set aside time and resources for front-line employees to take part in the service innovation process (Schilling and Werr, 2009), especially in customer services.

2.3 Integration of external stakeholders

Integrated external stakeholders of the service network, like suppliers, partner organisations, outside collaborators or the public, are creating that extra inimitable value for the organisation according to Lee et al. (2012). Research studies on stakeholder
integration for service innovation regard these ‘other external stakeholders’ as relevant groups, but do not investigate them in depth (see, e.g., Johne and Storey, 1998; Rubalcaba et al., 2012; Prahalad and Ramaswamy, 2004). The integration of suppliers has the potential to identify improvements to stay competitive, to bring in wider expertise and to reduce costs and quality problems (Pittaway et al., 2004).

Seen from an organisational point of view, a key challenge of external stakeholder integration is that the management of these additional stakeholders in the service system is potentially taking away resources from the management of internal stakeholders. The integration of customers and other external stakeholders demands human resources, budget, time, and might even bear strategic risks and consequences, such as resource-intensive information processing, the need to articulate an innovation strategy together with suppliers or a short term negative impact on economic performance due to process innovations (Mention and Asikainen, 2012; Weber, 2008).

2.4 Roles of stakeholders in service innovation

Stakeholder integration can vary in intensity and arranges for different roles of the integrated party. Various authors have conceptualised customer integration in the context of service innovation; e.g., Carbonell et al. (2012) introduced their idea of breath (frequency) and depth (intensity) of customer integration. Blazevic and Lieve (2007) and Edvardsson et al. (2010) present models where they distinguish customer integration respective to their passive or active role in service innovation. Alam (2002) developed four ascending levels of customer integration from an organisational perspective: the passive acquisition of input, information and feedback on specific issues, extensive consultation with users and ‘representation’ – the user joining a development team as highest level. In a similar vein, but going beyond customer integration, is the model of ‘5 Co’s’ by Russo-Spena and Mele (2012). In the context of online platforms, they show how stakeholder groups like users, fans, experts and firms can ‘co-innovate’, ‘co-evaluate’, ‘co-design’, ‘co-test’ and ‘co-launch’ in the different stages of the innovation process.

The different aspect of these models are taken up and transferred to an organisational management perspective of stakeholder integration. Figure 1 shows the modes of stakeholder integration rising from low to high: passive, reactive and mutual integration, proactive initiative. In the mode of passive integration, the stakeholder is given the role of a ‘subject of interest’. A typical example for passive integration is observation, e.g., through a test purchase. Mode two, reactive integration, perceives stakeholders as information providers. At this stage they are answering to an impulse, which might be questions in an interview or a request to write a diary. Mutual integration is characterised by stakeholders acting on eye-level, as equitable partners for the discussion and solution of innovation tasks in a predetermined setting.
This mode is called ‘representation’ in Alam’s (2002) concept of customer involvement. A forth mode is the possibility that stakeholders take pro-active initiative and approach the service innovation team with own impulses. From an organisational perspective, this mode is difficult to manage but could be conceptualised via an open platform where proactive stakeholders can come up with their desires and requests. All modes reflect the ‘involvement’ of stakeholders into service innovation, as conceptualised by, e.g., Alam (2002) or Blazevic and Lievens (2007). For this concept, we have taken up all modes of stakeholder integration even though, in a strict interpretation of the SDL, only the modes that include activity of the stakeholder (reactive and mutual integration and proactive stakeholder initiative) would account for co-creation of service innovation. Nevertheless, all modes can be interpreted as ‘participation’ in service innovation (compare Lusch, 2006). The reason to differentiate the modes for stakeholder integration is motivated by findings in various studies, e.g., by Magnusson et al. (2003), Matthing et al. (2004) or Skiba and Herstatt (2012), who have shown in experimental settings that the integration of stakeholders, like lead users and experts, is possible in the mode of mutual integration and beneficial for service innovation outcomes. Accordingly, it is suggested that the different modes of stakeholder integration for service innovation result in different outcomes and effects. Still, the quoted studies might not be able to reflect organisational practice as they are built on experiments with innovation workshop participants that were not recruited and selected under real market conditions and consider only isolated stakeholder groups.

Perks et al. (2012) provide first insights into the reality of stakeholder integration in the natural environment of an organisation, considering both internal and external stakeholder integration. But their empirical study explores a rather unique setting, the case of an insurance start-up in the UK. More research is needed to show the practice of
stakeholder integration in a holistic approach, considering both, internal and external stakeholders (Perks et al., 2012; Perks and Riihela, 2004), especially for large, international organisations (Smith and Fischbacher, 2005).

3 Research method

In order to identify and understand on a micro level, at which phase of the innovation process stakeholder integration is implemented and in which mode this integration is realised, a qualitative, explorative approach has been selected. In-depth knowledge on service innovation practices is best to be achieved by an open approach (Swanborn, 2010). To gain a thorough understanding of innovation practice, a single case study with the analysis of one service innovation project has been chosen.

For the case selection, an organisation had to be found that was willing to interact intensively and to reveal even sensitive data. Whilst some approached companies struggled with the intensity and openness required by the case study approach, the selected German provider of engineering and electronics solutions offered the possibility to access an interesting case: an IT related innovation project. They agreed to cooperate and to provide access to longitudinal data of a healthcare innovation project from the first idea to the current status, just before implementation.

With its setting in a product-centric firm, the setting of the selected case is representative for matrix organisations with multi-dimensional interfaces. These facts and the dynamic environment of IT service development make the selected case a rich and interesting phenomenon to be observed. The analysed case is a project for the development of a remote service as part of a service bundle for a medical appliance.

3.1 Data collection and analysis

The case study is based on a variety of primary and secondary data. In addition to a series of interviews, telephone calls, formal and informal meetings, secondary data were provided by the interviewees in form of internal and public presentations and screenshots of the service innovation process map. Additionally, the illustrations and notes made by the interviewees to clarify their statements during the interviews have been collected and, together with research protocols, served as supportive material during the data analysis. According to Creswell (2012) and Yin (2014), such a usage of various sources and documents in addition to interviews is of importance in order to verify interviews, to confirm information and to find inferences.

Being the major source of information for case studies (Yin, 2014), ten interviews with members of the organisation were conducted, with durations of 30 minutes up to more than two hours. Interviews were prepared by semi-structured interview guidelines, held by two trained researchers. Longer sessions were characterised by narrative elements. Especially, the series of meetings with the project manager (PM) allowed a step-by-step data analysis, providing the possibility to address open questions ongoing, to confirm or correct the understandings of the researcher. The manager of the service innovation project was given a strong role in data collection, since “managers’ beliefs are put into practice” [Edvardsson et al., (2013), p.26] and will accordingly provide insights and deep understanding of the studied phenomenon.
Table 1  Overview on interviews and meetings with background of respondents

<table>
<thead>
<tr>
<th>#</th>
<th>Position and background of interviewee</th>
<th>Data collection</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Product manager new services (PM)</td>
<td>An informal and a formal meeting with interview protocols, each 1:30 h; notes from 2 telephone calls; 2 interviews, 1:30 h and 2 h</td>
</tr>
<tr>
<td></td>
<td>3 years in this position; former product manager for services in a mechanical engineering firm.</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Project manager healthcare (PMH)</td>
<td>Interview, 1:10 h</td>
</tr>
<tr>
<td></td>
<td>Affiliated more than 25 years in different management positions in healthcare.</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Head of business development (HBD)</td>
<td>Interview, 0:33 h</td>
</tr>
<tr>
<td></td>
<td>Affiliated for 10 years, from the studies, in healthcare positions. Responsible for regional service business development.</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Healthcare manager (HM)</td>
<td>Interview, 1:10 h</td>
</tr>
<tr>
<td></td>
<td>Affiliated for about 10 years; IT education and parallel studies the case company, today customer service manager.</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Quality manager (QM)</td>
<td>Interview, 1:20 h</td>
</tr>
<tr>
<td></td>
<td>Affiliated for 9 years; local service engineer and quality manager customer service in local office; QM since 4 years.</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Innovation management (IM)</td>
<td>Formal meeting with protocol, 1:30 h</td>
</tr>
<tr>
<td></td>
<td>Affiliated for 14 years; the past 9 years in consulting for different units, even abroad.</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Product manager external unit (PME)</td>
<td>Formal meeting with protocol, 1:25 h</td>
</tr>
<tr>
<td></td>
<td>18 years at ECH, in marketing, business development and service strategy positions.</td>
<td></td>
</tr>
</tbody>
</table>

Data collection took place during summer 2013, from three different angles simultaneously to be able to contrast and compare the views of different groups of the firm (Gann and Salter, 2000). Central in the matrix project setting, the manager of the remote service innovation project was interviewed four times with feedback loops. Through parallel reputation sampling and snowballing, the team of researchers was able to enrich the case with different or independent viewpoints and stories (Swanborn, 2010). Third, the internal innovation consulting of the company was approached as an internal intermediary to provide independent information about the standard procedures of innovation projects in the organisation. Appendix provides an overview of interviews and meetings conducted for this case study.

For data analysis, all protocols and data were put together and notes were scanned. All interviews were audio-recorded and transcribed verbatim by independent researchers to facilitate the analysis. Data were read carefully for several times and structured regarding descriptive codes for ‘integrated stakeholders’, ‘stage of the innovation process’, ‘mode of integration’ and ‘reason why’, through a sequential analysis as suggested by King and Horrocks (2010). Additional to these deductively developed codes, inductive codes were developed, such as ‘informal integration’ and ‘indirect integration’ (Miles et al., 2013). Data analysis was carried out by a team of two researchers, defining codes independently and comparing codings in the beginning of data analysis, as recommended by King and Horrocks (2010). The overarching analysis
of all data identified 14 representative scenarios of internal and external stakeholder integration.

To ensure the credibility of data analysis (Guba and Lincoln, 1994) respondent feedback was taken in; an early version of the paper was validated by the PM. The triangulation of data sources as well as the methodological triangulation for data collection and comparison such as official documents, interviews, the transcriptions and an additional written stakeholder integration overview, verifies and confirms propositions in the interviews (Creswell, 2012; Yin, 2014) and enhances the validity of the case study (King and Horrocks, 2010).

3.2 Introducing the case ‘remote services for healthcare appliances’

The German provider of engineering and electronics solutions offers remote services for clinical appliances, e.g., X-rays and CTs, with approximately 50,000 employees worldwide. The service offerings consist of infrastructure, remote monitoring and remote maintenance of appliances. The potential of the newly implemented remote service system as well as the pressure deriving from the progress of technology served as a trigger to create new value added services in the field of medical appliances.

At the case organisation, the differentiation from competitors through service offerings was and is still gaining strategic importance. New service development is managed by a highly standardised service engineering process, reflecting the product orientation of the overall organisation. The service engineering process consists of four main phases:

1. finding new ideas (continuous idea generation)
2. define the service (development)
3. realise services (testing)
4. commercialise services (implementation).

This case study is primarily dealing with the first three stages. At the time of the case study conduction, the observed project was just about to enter its implementation in stage four.

The observed organisation is a matrix organisation working with matrix project management. After a project idea is created and has been elaborated to accomplish certain requirements, the PM for the case project is responsible for the establishment and management of a project team consisting of ‘all required functions’. To accomplish this task and all along the upcoming service innovation process, the PM receives consultancy: he is getting accompanied, controlled and consulted by a business and a quality partner.

After an initiative has been defined and approved as a project, the core team resources are assembled as a matrix project team, building upon earlier identified use cases (PM, QM). The respective team members are assigned from the specialised departments, e.g., IT, product management, training, marketing, one after the other as the project is being built up.

With remote services being a strategic topic, the PM, who had only recently joined the organisation, needed to start an innovation process with new ideas. Whilst the service innovation process of the case organisation is clearly regulating tasks and stakeholders
for every step of an innovation project, the PM found that there were no detailed guidelines for the phase of idea generation.

“The process description is so detailed, but ironically the ideation process is or was not depicted at all. [...] A black box.” (PM)

4 Findings

From this starting point, the integration of stakeholders throughout the observed three stages of the service innovation process will be presented and examined in detail. First, an overview of integrated stakeholders will be depicted, followed by a presentation of identified stakeholder integration scenarios along stages of the innovation process.

4.1 Integrated stakeholders and roles of stakeholders

From the data analysis, 11 different types of integrated stakeholders were identified: internal colleagues, top management, external colleagues, support functions, country representatives, customer contact personnel and internal consulting are internal stakeholders of this service innovation project. External stakeholders identified are customers, pilot customers, suppliers and the private network of the PM (see Appendix). The presented stakeholders were integrated throughout the observed stages ‘idea generation’, ‘development’ and ‘testing’.

The empirical results show that internal stakeholders are integrated mutually in the idea generation phase and in the mode of reactive integration during development and testing. Special attention has to be paid to the integration of top management, showing the characteristics of mutual integration even during development. Reactive integration is realised with internal stakeholders during development and testing.

The most prominent external stakeholder group is ‘customers’. Selected customers are integrated reactively during idea generation and development. The reactive integration of pilot customers is observed during testing. These customers are integrated directly and indirectly and are all carefully pre-selected by the country representatives, with the exception of few customers in the idea generation phase. Suppliers are a second external stakeholder group that is getting integrated in a reactive as well as a mutual mode, during development.

The mode of pro-active integration does only appear once in this case, when internal consulting approached the core innovation team to engage in the already planned workshops, to test and implement their tools. The organisation-wide online platform for stakeholders to proactively come up with ideas and concerns was not used as a resource. The online platform is understood as a tool for strategic topics and requires financial resources beyond the budget of the project under study. A second reason could be that employees brought in proactive signals of stakeholders into the process, but perceived and reported them as a reactive mode of integration. They might have been forwarded after someone was asking for feedback. Furthermore, the passive mode of integration only appears at the edge, for customer integration in the idea generation stage. An overview of the modes of stakeholder integration in an aggregated level is provided in Table 2.
Table 2 The modes of stakeholder integration along the stages of the innovation process

<table>
<thead>
<tr>
<th>Idea generation</th>
<th>Development</th>
<th>Testing</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Mutual integration</em> with top management</td>
<td><em>Mutual and reactive</em> integration of top management</td>
<td></td>
</tr>
<tr>
<td><em>Mutual and reactive</em> integration of relevant units from the organisation</td>
<td><em>Reactive integration</em> of relevant units from the organisation</td>
<td><em>Reactive integration</em> of relevant units from the organisation</td>
</tr>
<tr>
<td><em>Passive and reactive</em> integration of customers</td>
<td><em>Reactive integration</em> of customers</td>
<td></td>
</tr>
<tr>
<td></td>
<td><em>Mutual and reactive</em> integration of suppliers</td>
<td></td>
</tr>
</tbody>
</table>

4.2 Reasons and modes of stakeholder integration

The case study identified 14 scenarios of stakeholder integration along the three analysed innovation process stages, as presented in Table 2. The scenarios were based on the 11 types of integrated stakeholders but distinguished by their roles, as well as the reasons and modes of integration. Going more into detail, the practices of mutual and reactive integration will be depicted next.

4.3 Mutual integration of stakeholders

The first scenarios of internal stakeholder integration (1–5), shown in Table 3, are part of the joint ideation initiative which took place as the first step of the innovation project. To come up with new ideas for the given field of innovation and to create awareness of the initiative, the PM started internal joint ideation activities with members from the organisation. The integration of these organisational stakeholders was realised in three outbound waves, from a safe space with close and local colleagues, outwards to close units and groups around the PM (e.g. marketing, product management, steering board) and further to country representatives.

Next, to integrate experts from other units of the organisation, the PM tried to identify suitable candidates through word-of-mouth in different communities. Whilst this procedure was successful for the integration of two external experts from the organisation, the approach was perceived as ‘a bit risky and naive’ retrospectively. The integration of organisational members took place in form of workshops for joint ideation, trend analysis and discussions in personal interaction or as a telephone conference. Internal consulting provided the tools used, amongst others the business model canvas and an innovation scorecard. To evaluate the generated ideas and user stories, online collaboration tools like sharepoint and surveymonkey were implemented. This way, about 50 internal stakeholders were integrated. The internal stakeholders integrated had to set their time free from other tasks to support the project voluntarily:

“Here, you don’t have any resource commitment. Their support is based on best effort or they are just nice with you and they support you. [...] in the analysis phase... you can ask, and if you are lucky, they will answer. But they can also say ‘I’m not interested in that.’” (QM)
Table 3  Overview on stakeholder integration scenarios throughout the projects’ innovation stages

<table>
<thead>
<tr>
<th>Stakeholder</th>
<th>Mode of integration</th>
<th>Stage</th>
<th>Reason why</th>
</tr>
</thead>
<tbody>
<tr>
<td>1  Internal consulting</td>
<td>Pro-active initiative and mutual; joint workshop preparation and implementation, consulting</td>
<td>Idea generation</td>
<td>Implementation and usage of internally developed tools for ideation; motivation of internal colleagues to participate via participation of the ‘star guest’ from internal consulting</td>
</tr>
<tr>
<td>2  Internal colleagues</td>
<td>Mutual: workshops, ICTs, in three stages</td>
<td>Idea generation</td>
<td>Generate ideas, integrate them into innovation processes, joint decision making</td>
</tr>
<tr>
<td>3  Top management</td>
<td>Mutual: workshops, ICTs, in three stages</td>
<td>Idea generation</td>
<td>Generate ideas, integrate them into innovation processes, joint decision making</td>
</tr>
<tr>
<td>4  Country representatives</td>
<td>Mutual: telephone conferences</td>
<td>Idea generation</td>
<td>Integration into processes</td>
</tr>
<tr>
<td>5  External colleagues</td>
<td>Mutual: workshops, ICTs, in three stages</td>
<td>Idea generation</td>
<td>Access to expertise from other organisational units</td>
</tr>
<tr>
<td>6  Country representatives</td>
<td>Reactive: question and answer and discussions</td>
<td>Idea generation</td>
<td>Arrangement of client visits</td>
</tr>
<tr>
<td>7  Private network</td>
<td>Reactive: question and answer; informal</td>
<td>Idea generation</td>
<td>Consulting and arrangement of client visits</td>
</tr>
<tr>
<td>8  Customers and users</td>
<td>Passive and reactive: personal visits, interviews, group discussions, observations</td>
<td>Idea generation</td>
<td>‘Step into the customer’s shoes’: understand pain points; understand situation of usage and receive input from users</td>
</tr>
<tr>
<td>9  Suppliers</td>
<td>Reactive and mutual: telephone calls, personal meetings</td>
<td>Development</td>
<td>Direct problem solving for work packages of the specialised departments</td>
</tr>
<tr>
<td>10 Selected customers</td>
<td>Reactive: question and answer</td>
<td>Development</td>
<td>Feedback on service innovation activities</td>
</tr>
<tr>
<td>11 Support functions</td>
<td>Reactive: question and answer</td>
<td>Development</td>
<td>Problem-solving and advice for specific requests, get interfaces on board</td>
</tr>
<tr>
<td>12 Country representatives</td>
<td>Reactive: question and answer and discussions</td>
<td>Testing</td>
<td>Identification of suitable clients for piloting and according arrangement</td>
</tr>
<tr>
<td>13 Pilot customers</td>
<td>Reactive: question and answer and discussions</td>
<td>Testing</td>
<td>Trial of new products in beta phase</td>
</tr>
<tr>
<td>14 Country representatives</td>
<td>Reactive: sales meetings, informal conversations</td>
<td>Ongoing</td>
<td>Complaints, wishes and customer demands are collected and called up in person</td>
</tr>
</tbody>
</table>

To motivate the stakeholders to participate and to foster their curiosity, a ‘star guest’ from the internal consulting department was invited. This incentive as well as an open innovation culture and the attitude of the internal stakeholders moderated the success of the initiative, according to the perception of the PM.
Next, mutual integration of top management was identified during the stage ‘development’. A group of three top managers supports, advises and coaches the PM throughout the project, before milestone meetings, but even in critical situations, in a reactive and mutual mode. Meetings are, e.g., utilised as a dress rehearsal before milestone presentations, where top management gives feedback and recommendations for improvements. Further, top management supports the PM for problem solving and initiates internal connections.

Suppliers are the only external stakeholder group integrated in the mode of mutual integration. In general, the specialised departments of the core project team coordinate tasks to suppliers according to organisational procurement rules. The PM and his team are usually not interacting with suppliers and would integrate suppliers only reactively. Though in this case, misunderstandings in the communication of requirements with the marketing department and their supplier, a marketing communication agency, lead to the need to solve acute problems in joint workshops, in the mode of mutual integration:

“Our marketing communication department is only a coordinator of suppliers, they don’t do anything by themselves. So I thought I would save some time by working with an agency, but right now, it looks like I have to invest more time. Maybe, but I still have hope that they will find the twist...” (PM)

From this quote of the PM, it can be understood that mutual integration for service innovation with suppliers is happening, but it is neither foreseen in the service innovation process nor a desired mode for supplier integration.

4.4 Reactive integration of stakeholders

The data analysis shows that stakeholder integration is predominantly happening in a reactive mode. Details will be presented for internal stakeholders first, afterwards for customer integration.

4.4.1 Reactive integration of internal stakeholders

The internal stakeholders integrated in a reactive mode in this case are: internal consulting during idea generation, support functions during development, country representatives during idea generation and testing and customer contact personnel throughout the process.

Internal consulting was the first internal stakeholder group to be integrated. As mentioned, they provided tools for internal ideation sessions and accompanied the process of idea generation. The mutual integration started after the PM had already started a workshop and the internal consulting team heard of the initiative. Internal consulting took a proactive approach to be integrated because they aimed to implement and present their workshop methods, and agreed to charge no internal settlement in this case.

During service development, different specialised departments of the organisation were approached by the core innovation team. Examples are, e.g., legal advice, data protection, internal reporting and other business units. They were activated as reactive stakeholders, to solve specific questions, to communicate the new service or to position the service in the product portfolio. The integration happened majorly via internal communication (e-mail, telephone calls) in a formal way.
Since the core innovation team had no contacts to customers through their regular work, the reactive integration of country representatives and customer contact personnel was necessary to get access to customers. In the ideation phase, the local country representatives and customer contact personnel were integrated to establish contact and recommend customers. The customer visits are perceived as an extraordinary approach to find out about the needs of the customer as the usual approach would be the indirect reactive integration through the local service contact personnel. Interviewee QM explains:

“The first way is to contact them [the customers] directly. That means we call them, sit down with them and analyse them. And the second thing is, we use what we have placed out there: regional units, the corresponding markets or countries responsible for their business. So these guys are the ones who have to tell us the end customer requirements. [...] That is wise because they have to translate more or less - and this is not the language - their requirements into a common language technically speaking.” (QM)

The collection of requirements and customer feedback is in the usual case received through the technicians and project service engineers, as so called ‘customer advocates’, during the installation of a new product, service delivery or maintenance (HM, PMH). They and the country organisations are the stakeholders that continuously collect and forward customer needs. A typical scenario to communicate and discuss the experiences and customer requirements with the service innovation managers are training sessions:

“Mainly at the end of training, we are discussing with the service engineers about problems and ideas on how to improve things.” (HM)

This scenario (scenario 10 in Table 2), the exchange of experiences from customer interactions, between customer contact personnel and the core innovation team is not a formalised process, but an informal organisational practice.

For the testing of new services, country representatives are integrated to select customers for piloting and to arrange the testing of the new service offering.

“When you do a pilot in the countries, you discuss with the country organisation and tell them ‘look we have a new service and would like to evaluate it in your country. Are you willing to do so? Do you have customers we can select in your country which would be interested in participating in testing our new service?’”(PMH)

4.4.2 Reactive integration of external stakeholders

The integration of external stakeholders like customers and private networks in a reactive mode emerged to be a strong issue in this case study. As described above, the customer visits in the selected countries have been enabled by country representatives. For the German home market, the selection of customers through the country representatives was enabled by the private network of the PM:

“Unconventionally, I called some friends of mine who studied medicine and established contact myself – because I did not want to go through such a long process or because I wanted to avoid the filter of our sales organisation that provides happy customers only. The same ones as usual...” (PM)
To gain access to customers that are not close to and content with the service provider, the PM chose an unofficial way of customer integration. The private network of the PM was used subsidiary for the country organisations and enabled visits at unknown and more distant customers.

Stakeholder integration with customers is implemented as formal and informal reactive integration throughout the service innovation stages observed. Project management, customer contact personnel and specialised departments are integrating customers to find out about their problems, needs and routines. The special customer integration programme ‘stepping into the customers’ shoes’ started parallel to the presented internal ideation activities to get to know the customers, to understand their routines and to receive feedback on generated ideas. A team of the PM and the local country representatives conducted interviews and group discussions with physicians, medical technicians, hospital managers and IT administrators as well as observations of ‘a live in the day’ at clinics in Germany, Switzerland, Sweden, USA, Canada and Japan.

“The greatest example was at a clinic where I sat together with the CFO, the head of medical equipment and the head of radiology. I had interviewed them individually before and after that had a group interview with a group result. That means, they came to an agreement how they evaluate this and that idea.”

(PM)

In the project team, customer feedback is perceived as the starting point of innovation that distinguishes service from product innovation:

“Here we are just dealing with customers. So we are just dealing with people. [We ask them] ‘What do you want? What do you need? How do you use it? What is easy? What is not easy? What are your needs?’”

(QM)

In retrospect, the visits of the customer are seen as fruitful activities – except the visit with Japanese clients: due to culture and hierarchy barriers, exchange on usage and habits could not take place. The direct reactive customer integration is not only costly and resource intensive, but also demands high effort of multiple stakeholders and preparations in advance.

During development, reactive customer integration is realised by individual employees with customer contact as an informal process. Customer contact personnel in the regions consult selected customers to get feedback during the development in direct conversations, as an informal ad-hoc procedure (HBD, PMH). Nevertheless, this practice of reactive customer integration during development is reported controversially: from the PMs’ perspective, there is no customer integration in the development phase (PME, PM, IC). Interviewees from the central organisation state that the innovation culture is to go out and test new services only after they have been developed into a highly standardised status (PME).

According to the formal service innovation process, the integration of pilot customers is implemented as a task of the country organisations during testing (stage testing and implementation). This customer integration for piloting is indirect: “The customer is involved and approached but not directly through us” (PMH).

Concluding, it has to be added that the organisational practice of reactive customer integration is discussed in the organisation. The internal consulting team criticises the practice of reactive customer integration since it can only give short term input for service innovation the customers’ feedback relies on the current product portfolio only. In their perception, the organisational mind-set to present only ‘perfect products and
services’ to the outside world inhibits mutual integration, so does the fear to face imbalanced or difficult relationships with the customer.

4.5 The organisational perspective on ‘internal’ and ‘external’

Assessing the practice of stakeholder integration predominantly from a central perspective of the organisation, it was often difficult to decide which groups were to be categorised as internal stakeholders or members of the core team. Specialised departments like marketing and IT are formally assigned members of the core team and have yet been referred to as internal stakeholders by interviewees. It was found that the internal perspective regards everyone in a different quality management and reporting system as an external stakeholder within the organisation.

Following the internal perspective that core team members are being internal stakeholders of an innovation project, the number of stakeholders to be managed and integrated from a central project and stakeholder manager increases. Consequently, the task of the PM in this matrix team and matrix organisation could be compared to constant management of a variety of stakeholders. The resources and the benefits on one hand and the challenges of stakeholder integration on the other hand have to be balanced.

5 Discussion

Looking at service innovation as a stakeholder integration process on a micro level, this paper focuses on the different modes of stakeholder integration during ideation, development and testing of a service innovation project. As previous research by Perks et al. (2012) and Smith and Fischbacher (2002), this case presents a broad range of internal and external stakeholders being integrated.

The findings reveal that top management plays a vital part in the innovation process, already for mutual idea generation. This validates first findings by Ginzburg et al. (2007). In the past, the importance of management integration has been emphasised in the development stage (De Brentani and Ragot, 1996; Jonas et al., 2013; Perks and Riihela, 2004; Smith and Fischbacher, 2002). For the observed project, the high intensity of mutual integration with the top management during the development phase showed to be beneficial, since it created new interfaces for problem solving and helped to establish the required internal network. Additionally to the network and the legitimation function, as discussed in an earlier study by Smith and Fischbacher (2005), top management plays a role for idea generation and knowledge contribution. This active role of top management has previously been associated with innovation practices in SMEs, e.g., in a study by Gottfridsson (2011) and might be transferable to the context of large organisations, too.

Customer integration, a central issue in the literature (see Normann and Ramirez, 1993; Prahalad and Ramaswamy, 2004; Vargo and Lusch, 2004), is in this case realised in a reactive mode only: during idea generation and testing. The integration of customers as a bidirectional process for service innovation with frequent and ongoing communication between partners (Grönroos and Gummerus, 2014; Gustafsson et al., 2012) was not realised in the observed setting. Direct reactive integration of customers was only be seen during interviews in the idea generation phase. The access to sticky knowledge of the customers during reactive integration has been discussed by Edvardsson et al. (2013), Matthing et al. (2006) and Gustafsson et al. (2012) with a
consensus that reactive methods can only skin the surface of customer needs, and do not provide access to latent customer needs. Yet, in the present business-to-business environment of the case in view, direct access to customers and the application of methods for co-creative customer integration are prevented by the structures and the culture of the case organisation.

According to the empirical findings, customer contact personnel are not integrated before the stage ‘training’. This practice is in vein with findings by Melton and Hartline (2010) and Smith and Fischbacher (2005). Perks and Riihela (2004) argue that positive interfunctional behaviour in later stages of the innovation process can be fostered through reactive integration, in form of, e.g., short notes sent, from the beginning of the project. From the context of this case it is suggested that the resources for stakeholder integration in this case are too limited too look ahead of the innovation process for such a strategic stakeholder management.

Whilst it is known from research that employees are one of the top sources for ideas (Edvardsson et al., 2013), this study shows that not only the integration of external stakeholders (see Mention and Asikainen, 2012; Weber, 2008) but already the integration of internal stakeholders for idea generation can be a process demanding high effort of project management, budget and struggle for resources. Observing the findings of the case at hand through the lens of value co-creation in networks, it shows that customer integration is always facilitated by a bridge-building third party: only by integrating a responsible agent such as country representatives or an intermediary like a friend from the private network, access to customers was provided. This has effects on the selection of customers for reactive integration – only close and content customers were filtered through the organisational procedure. Because this was perceived as a problem by project management, in this case, close and distant customers were integrated additionally. Though, according to findings by Nicolajsen and Scupola (2011) the readiness to collaborate is higher for trusted, close customers. Moreover, Alam (2002) and Carbonell et al. (2012) showed that the integration of close customers leads to a better speed to market and superior services, since relational closeness and trust leads to a better understanding and more fine-grained information. During development and testing, customer integration is found to be reactive, implemented to adjust to the quality expectations, as the studies by Alam (2002) and Melton and Hartline (2010) show.

The studies on stakeholder integration by Alam (2002), Nicolajsen and Scupola (2011) and Carbonell et al. (2012) implicitly assume that customer integration is a direct process between the core innovation team and the integrated stakeholder. This is valid for customer integration in the idea generation of this case. Though, during development and testing, information is collected at the customer site by customer contact personnel and translated into corporate language to be forwarded through the structures of the organisation. For this indirect customer integration, it remains unclear how well functioning and rich the transfer of customer feedback, wishes and observable needs from the customer contact personnel to the service innovation project management is.

Overall, this case study highlights the multi-dimensionality of service innovation in respect to stakeholder integration. The empirical data exposes that the integration of customers and suppliers as external stakeholders requires the allocation of resources, such as time and budget. The same resources are needed for internal stakeholder integration and have to be balanced in multiple dimensions, as first discussed by Gann and Salter (2000). From the present case, it was even shown that the integration of stakeholders
creates interdependencies between internal stakeholders, between central and local units, and customers and suppliers, at the same time.

6 Implications for theory and management

As an implication for theory, this study contributes to a more complex picture of stakeholder management in service systems: it is shown that indirect and multi-line integration of stakeholders is part of service innovation in service systems. Accordingly, it is suggested from the present findings to revise the model of stakeholder integration in service systems with single direct lines between ‘the organisation’ and ‘the stakeholder’. The explicit communication of multiple connections that change throughout the innovation process should reflect the complexity and multidimensionality of service systems inside and outside the organisation.

Whilst theory in open innovation and the co-creative paradigm proposes that all affected and interested stakeholders should be given a platform for co-creating in service innovation (Lee et al., 2012; Ramaswamy and Gouillart, 2010), in this case, stakeholder integration was limited to pre-selected stakeholders only. Tools that would inform or invite internal and external stakeholders with an interest in the innovation project were not implemented, but could assist to create a direct communication channel between project management and distant stakeholders, as also suggested by Kindström et al. (2012).

For managerial practice, this study implies that the multidimensionality and interdependency of service innovation in service systems should gain better awareness. Interdependencies develop from internal agents that create links to stakeholders or conduct the stakeholder integration on behalf of the PM. They should be managed actively, just as the allocation of resources. Balancing between different internal stakeholders as well as between internal and external stakeholders is a complex task and accordingly demands active management. Apart from the complexity and interdependencies, the findings from this study encourage managers to integrate top management as stakeholder for mutual integration and to aim for direct stakeholder integration for the assessment of critical information.

7 Limitations and directions for further research

The evidence of a single case study cannot be generalised and motivates research in similar settings of product-centric organisations to verify and extend the findings presented. Still, other large and established organisations with a matrix organisation that includes parallel product and service development could possibly make use of the findings from this case study. In this paper, we have chosen an organisational view on service innovation. The context for this case study did allow the analysis of the first three stages of service innovation. The implementation and commercialisation stage of the project are not covered in this case study and should be subject to consecutive research. To fully reflect the co-creative paradigm, the scope of the study could be expanded by the perspective of the stakeholders as in the future. Furthermore, the study is built upon a limited number of data sources. Even though milestone presentations and various other secondary data was utilised to secure the reliability of propositions, a longitudinal
approach or more data sources could possibly have advanced this study. As the stakeholder integration modes ‘proactive initiative’ and ‘passive integration’ were not given strong evidence in this study, more data sources could reveal whether the identified modes are limited by data collection or a feature of the case. Future research could provide insight if this is a common phenomenon in large, established organisations.

Another promising approach would be to follow a suggestion by Kindström and Kowalkowski (2009) to investigate internationalisation aspects and the customer integration processes in the regional, decentralised units of the case company in a micro perspective. Based on the findings of this case study research, future studies could build upon the first indicators for the interdependency of stakeholder integration and investigate interdependencies in innovation projects and their effects on service innovation.

8 Conclusions

This case study analyses stakeholder integration with internal and external stakeholders in practice. It shows that, for the most part, stakeholder integration is implemented in the mode of reactive integration throughout the stages idea generation, implementation and testing. More specifically, it is shown that the integration of customers is happening in a passive or reactive mode, potentially not leveraging full access to tacit customer knowledge. Management and members from different organisational units are integrated in the mode of mutual integration during ideation; this practice requires resources by project management and internal stakeholders, and thus strengthens the role of top management for service innovation. Furthermore, it is shown that service innovation is creating interdependencies between stakeholders in a service system, since stakeholder integration is occurring not only as direct but also indirect integration, the explicit representation of cross-linkages between internal stakeholders and external stakeholders is proposed for the further development of theory on service innovation in service systems.

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References


Stakeholder integration in service innovation


Stakeholder integration in service innovation


**Appendix**

**Table A1** Identified stakeholders in the innovation project

<table>
<thead>
<tr>
<th><strong>Internal stakeholders</strong></th>
<th><strong>Details</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal colleagues</td>
<td>Functional departments with existing regular interfaces with the project manager</td>
</tr>
<tr>
<td>Top management</td>
<td>Steering board and project decision board members that are minimum two steps higher in the hierarchical structure than project manager</td>
</tr>
<tr>
<td>External colleagues</td>
<td>Employees of the organisation working in other business fields</td>
</tr>
<tr>
<td>Support functions</td>
<td>Specialised departments, e.g., legal, data protection, internal reporting and business units of hardware</td>
</tr>
<tr>
<td>Country representatives</td>
<td>Direct correspondents in the countries, responsible for the local service delivery and implementation</td>
</tr>
<tr>
<td>Customer contact personnel</td>
<td>Service engineers in the local branches</td>
</tr>
<tr>
<td>Internal consulting</td>
<td>Department for innovation and technology, research and consulting</td>
</tr>
<tr>
<td>Customers</td>
<td>Physicians, IT administration, medical technicians and hospital managers, working with the technical appliances in a clinic</td>
</tr>
<tr>
<td>Pilot customers</td>
<td>Clients, hand-selected by the country organisations because of their good relationship with the case company</td>
</tr>
<tr>
<td>Suppliers</td>
<td>IT, legal and marketing agencies; specialists and additional resources assigned via the specialised units of the organisation</td>
</tr>
<tr>
<td>Private network</td>
<td>Friends of the project manager</td>
</tr>
</tbody>
</table>