Understanding Service Design practices and contributions to New Service Development

This thesis is submitted
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Declaration of Authorship

I, Eun Yu, do certify that this thesis has been written by me and that all the information resources that I have consulted are indicated in this thesis. I also certify that this work has not previously been submitted for the award of any other degree.

Signed:

February 2016

Abstract

Since two decades ago, Service Design as a design-led approach to service development and innovation has expanded its scope of interventions and contributions. It has been repositioning itself from a rendering activity for supporting the development of service concepts and structures to a human-centred and holistic approach to service development. However, this expanding conceptualization of Service Design has not drawn much attention from wider service research communities. It may be partly because Service Design has had weak connections to other service disciplines while remaining as a design-centred description of knowledge and practice within the boundary of Design. To address this issue, this thesis paid attention to New Service Development (NSD) theory as a frame of reference for studying Service Design. Relating Service Design to NSD theory may be helpful in enhancing the legitimacy of Service Design by demonstrating how the 'designerly' approach could contribute to organizational NSD practices and processes. Yet, Service Design has seldom been investigated systematically in relation to NSD theory.

This thesis aimed to understand how Service Design practice is involved alongside the NSD process in terms of its interventions, characteristics, outcomes, and what are the contributions and implications for NSD theory. The literature review and expert interviews were conducted to build a theoretical relationship between Service Design and NSD theory as a foundation for studying Service Design in the context of NSD theory. Also, 10 case studies were undertaken to explore Service Design approaches and contributions to the service development process and practices. As a result, four Service Design intervention areas: INFORMING; SPECIFYING; ACTIVATING; and SUSTAINING were identified with associated key design activities. The intervention areas and design activities were then positioned into the existing NSD process literature to identify Service Design contributions to NSD theory, and they were interpreted through the lens of the Service Logic. The Service Logic served as a useful framework through which to articulate how Service Design practice can operationalize the user-centred perspective and approach in NSD.

Moreover, the case studies indicated that different designer-client relationships can influence the quality of Service Design practices and can have different degrees of transformative impacts on the client's service development and operations. The design practices in the 'Delivering' relationship stayed at a peripheral level, just providing the client with user-centred reference data. The designer's activities in the 'Assisting' relationship motivated the client to design and realize user-centred service experiences. In the 'Facilitating' relationship, the design practices transformed the client to become a main agent for sustainable user-centred service innovation.

This finding, on the one hand, can help organizations to recognize the potential contributions of service designers while encouraging them to be more receptive to the Service Design approach to reap the full benefits of it. On the other hand, the finding suggests that service designers need to learn more about organizations to better implement the design outcomes and affect organizational NSD practices and processes. Also, it implies the needs for developing more specialized Service Design strategies and approaches geared toward different project purposes and different organizational contexts.

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1. Introduction

Service Design[1] as a field of design practice and research has begun to take form during the last two decades (Blomkvist et al., 2010; Meroni & Sangiorgi, 2011; Wetter Edman et al., 2014). Since its initial intervention in designing for service interfaces and interactions (Pacenti, 1998), Service Design has experienced evolution in terms of its contribution and impact, thereby reformulating its concept and domain (Wetter Edman & Johansson, 2011). However, the expanding role and contribution of Service Design have not drawn much attention from the wider service research communities. It is partly because Service Design has had little connection so far to other service research disciplines although there are recent calls for multidisciplinary and collaborative efforts to contribute to service innovation (Fisk & Grove, 2010; Ostrom et al., 2010; Ostrom et al., 2015). As an exception, Service Design adopted concepts and methods such as service encounter (Shostack, 1985), service blueprint (Bitner et al., 2008), and servicescape (Bitner, 1992) from Service Marketing and Service Management. Also, a few scholars began to seek some relations of Service Design to Service Management (Wetter Edman & Johansson, 2011), and contemporary Marketing concept such as the Service Dominant Logic (Kimbell, 2009a; Sangiorgi et al., 2012; Wetter Edman, 2009) and the Service Logic (Wetter Edman et al., 2014). Despite these studies, Service Design knowledge and practice still tend to stay somewhat isolated, requiring more relations to other service disciplines (Fisk & Grove, 2010; Meroni & Sangiorgi, 2011; Ostrom et al., 2010).

The point of departure for this thesis is twofold: firstly, the need of investigating the legitimacy and contributions of Service Design as a holistic approach to service development, and secondly, the need of relating Service Design to other service fields. As a way of addressing the two agendas, this thesis relates New Service Development (NSD) as a body of knowledge for service development to Service Design. In fact, NSD can offer knowledge for understanding organizational practice and processes for service development (Edvardsson et al., 2000; Fitzsimmons & Fitzsimmons, 1999). Also, NSD theory may help to understand service designers' perspectives, competences, and skills in the context of an organization's practice and processes beyond the boundary of Design. As the first step of research, this chapter introduces the background of this thesis, and establishes research objectives and research questions of it.

[1] The term 'service design' has been used in different meanings across different contexts (see section 1.1.2, what is Service Design?). To clarify the context, in this thesis 'Service Design' as *a designerly approach to service innovation* is used in capital letters.

In section 1.1, concept definitions of service and Service Design are introduced. Next, a research background is introduced in section 1.2, and research objectives and research questions are formulated in section 1.3. In section 1.4, the thesis structure is outlined in a way to describe key components of the research and the flow of them in a holistic manner. In section 1.5, the whole ten chapters are summarized to give an overview of this thesis.

1.1 Concept definition

This section provides an overview of the definitions that have been developed for service and Service Design. Similarly to service, which has been considered difficult to define, Service Design has been also given several different meanings within the wide service research community.

1.1.1 What is service?

Alongside the growing economic role of the service sector in the developed countries, the need of studies and discussions on the conceptualization of services began to be recognized among several disciplines such as Service Marketing and Service Management (Shostack, 1977). A variety of definitions of a service has been developed by scholars in subtly different ways as summarized in Table 1.1.

Table 1.1 Different definitions of service (Han, 2010, p. 9)

Author	Definition of service
Palmer & Cole (1995)	The production of an essentially intangible benefit, either in its own right or as a significant element of a tangible product, which through some form of exchange satisfies an identified need.
Kotler et al. (1996)	A service is an activity or benefit that one party can offer to another that is essentially intangible and does not result in the ownership of anything. Its production may or may not be tied to a physical product.
Zeithaml & Bitner (1996)	Services are deeds, processes, and performances.
Normann (1999)	The ‘service economy’ consists of ‘service activities’ which are brought to bear on physical objects, human subjects, information or institutional entities in such a way that these are somehow influenced without being physically transformed; or where the focus is on the use and functioning of the objects which are subject to the activities rather than the physical transformation of them.
Hollins & Hollins (1991)	Results generated by activities at the interface between the supplier and the customer and by supplier internal activities, to meet customer needs.
Grönroos (2000)	A service is a process consisting of a series of more or less intangible activities that normally, but not necessarily always, take place in interactions between the customer and service employees and/or physical resources or goods and/or systems of the service provider, which are provided as solutions to customer problems.

These different accounts of service suggest that there is no agreed-on definition of service in service research communities. Against this plurality of conceptualizations of service, Edvardsson et al. (2005) captured key perspectives underpinning the service notions and service characteristics through literature studies and expert interviews. According to their research, there exist mainly two different perspectives on service: one is "service as a category of market offerings" and the other is "service as a perspective on value creation" (Edvardsson et al., 2005, p. 118). From the perspective on service as a category of offerings, services are considered as a different type of products because of their characteristics, i.e., intangibility, inseparability, heterogeneity and perishability (Zeithaml et al., 1985). In this perspective, services tend to be described as "performance, activities, processes, and interactions" that can be exchanged in the market (Edvardsson et al., 2005, p. 118). This view on services is in line with the Goods Dominant Logic as declared by Vargo et al. (2008). The Goods Dominant Logic is associated with the thought that value is created and embedded in the offerings by the providers, and delivered to the customers.

On the other hand, from the view on service as a perspective on value creation, the focus shifts from the distinction between goods and services into value creation from the perspective of customers (Edvardsson et al., 2005). According to Gummesson (1995), customers do not purchase goods or services, but they instead buy offerings which render services that create value. As widely discussed concepts for service research, the Service Logic (Grönroos, 2006) and the Service Dominant Logic (Vargo & Lusch, 2008a) are in line with the view of service as a perspective on value creation or business. In the Service Logic, it is argued that service is a perspective on business, while service activities and goods serve as processes and resources provided by the company to support customers' own value-creating processes (Grönroos, 2008). The Service Dominant Logic is based on the thought that 'everything is service', which goes beyond the dichotomy between products and services (Lusch & Vargo, 2006). It considers service as a superordinate concept in that it views service as a process of applying knowledge and skills for the benefit of another party and considers it as a fundamental basis of economic exchange (Vargo & Lusch, 2008a). This logic can be applied to all marketing offerings including tangible goods, supported by the rationale that goods serve as a vehicle of service provision. In the Service Dominant Logic, it is argued that the providers propose potential value, and the customers realize the value while they are using the service. Thus, both of the Service Logic and Service Dominant Logic share the service-oriented perspective, stressing value creation from the perspective of the customers. However, they have also substantial differences mainly in the concept of value co-creation and the roles of providers and customers (Grönroos & Gummerus, 2014). Whereas the Service Logic argues that value is created by customers, and a provider can become a co-creator of value through interactions with the customers, the Service

Dominant Logic declares that a provider is always a value co-creator while at the same time it only offers value propositions, and customers are always a value co-creator.

1.1.2 What is Service Design?

Service design[2] is not a term that is used exclusively in design literature. It is also used in publications from other service disciplines such as Service Marketing and Management literature (Kimbell, 2011), but the meanings are different. Therefore, despite its increasing usage over recent years, service design can be often regarded as an ambiguous notion due to its different meanings and usage across different service research communities. Through the review of service research mainly from Design, Marketing, and Operations Management, three different contexts behind service design have been identified by the author.

First, service design as a subset of NSD has been often associated with a narrow phase of NSD processes (Goldstein et al., 2002; Johnson et al., 2000; Scheuing & Johnson, 1989; Zeithaml & Bitner, 1996). While NSD is the entire process of developing service offerings, service design is concerned with 'rendering activities' using dedicated tools and techniques (e.g., drawing and flowcharts) to concretize service concepts (Gummesson, 1991) and specify the structure and infrastructure of a service (Edvardsson, 1997; Johnson et al., 2000). The nature of service design in this context seems to resonate with the view of services as a kind of market offering, which considers services as intangible and invisible products that need to be visualized and tangibilized (Tatikonda & Zeithaml, 2002).

Second, service design is often considered as a broad cross-disciplinary activity that multiple service disciplines can contribute to (Fitzsimmons & Fitzsimmons, 1999; Hill et al., 2002; Ostrom et al., 2010; Ostrom et al., 2015). Here, Design can be one of the multiple disciplines for service design. In Ostrom et al. (2010, p. 17), service design is described as "a collaborative, cross-disciplinary activity that, at times, crosses marketing, human resources, operations, organizational structure, and technology disciplines." Service design in this context is not necessarily restricted to certain phases of NSD as described in "service design sits at the intersection of service strategy, service innovation, and service implementation" (Ostrom et al., 2010, p. 17). Rather, it is discussed as a similar term to NSD, which can complement the limitation of NSD (Verma et al., 2002). For example, Patrício et al. (2011, p. 180) define (multi-level) service design as "a new interdisciplinary method for designing complex service systems." They suggested a new way of designing complex service from the system perspective, overcoming the limitation of NSD, by integrating different concepts such as service concept,

[2] Against the plurality of the definitions of service design, this thesis will use 'Service Design' in capitals when it refers to designing for service from the designerly approach whilst 'service design' will be used in the other contexts.

value constellation, service encounters, blueprinting, human activity modelling, and touch-points from multiple disciplines (Service Management, Interaction Design, Software Engineering, and Design).

Third, Service Design is used as a 'designerly' contribution to service innovation that is mainly underpinned in the human-centred perspective and creative methods (Mager, 2008; Meroni & Sangiorgi, 2011; Wetter Edman et al., 2014). It might seem similar to the second service design concept in that Service Design acknowledges the needs of collaborative efforts not only from sub-categories of Design (e.g., Graphic Design, Industrial Design, Interaction Design, and etc.) but also from other service disciplines (e.g., Service Marketing and Management) (Stickdorn & Schneider, 2010). However, it can be distinguished from the second conceptualization in that Service Design in this context is more grounded in a designerly approach while being underpinned in the human-centred perspective and creative methods/tools (Holmlid, 2007). In other words, Service Design 'can' integrate concepts, languages, or methods from other domains with design thinking (Sangiorgi & Junginger, 2015), but it is basically "Design-based approaches for service innovation" (Wetter Edman et al., 2014, p. 109). Therefore, it seeks to contribute distinctive and creative approaches based on design skills and competences to service innovation that 'other disciplines may not.'

These three contexts around service design that are found in service research are visualized in Figure 1.1. Among these different service design concepts, this thesis focuses on Service Design in the third context as the research aim is concerned with exploring the practices and contributions of the design approach to new service development. Hence, in this thesis, Service Design is used as *a designerly perspective and approach to service development and service innovation.*

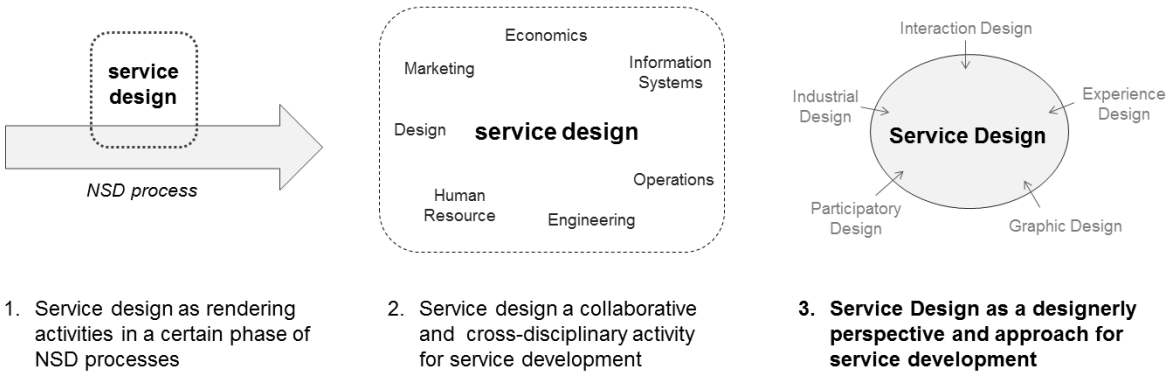


Figure 1.1 Three contexts around service design

1.2 Research background

1.2.1 The evolution of Service Design

Along with the growing role of service in the economy and society, the needs for studies and discussions of service began to be recognized among several disciplines such as Marketing and Management (Heskett, 1987; Shostack, 1977). Since about two decades ago, design communities have been developing perspectives and approaches for service development and innovation, while growing Service Design as a field of practice and academic inquiry. Service Design grounded in the human-centred approach and creative tools seeks to contribute unique approaches based on design skills and competences to service innovation. (Meroni & Sangiorgi, 2011). It has been fed and enriched by concepts, languages, or methods from other domains inside and outside the Design discipline (Moriz, 2005; Sangiorgi & Junginger, 2015; Stickdorn & Schneider, 2010). For example, the human-centred perspective of Service Design has benefited from other design areas such as empathic design (Mattelmäki et al., 2014), participatory design (Holmlid, 2009), co-design (Sanders & Stappers, 2008), contextual design (Visser et al., 2005), and co-experience design (Battarbee & Koskinen, 2005) to name a few. Service Design in design communities has aimed to establish a unique position and contribution for service innovation.

As a young academic area, Service Design has been experiencing evolution in terms of its boundaries of intervention for and degree of impact on service innovation, thereby reformulating its concept. Sangiorgi (2009) proposed three directions of Service Design: interaction, complexity, and transformation. Also, Meroni & Sangiorgi (2011) positioned contemporary Service Design practice in four main areas: interaction and experience, system and organization, collaborative service models, and future directions for service systems. As seen in these frameworks of Service Design research, interaction and experience have been the primary focus of Service Design (Mager, 2008; Pacenti, 1998). But, Service Design has also extended its boundaries of intervention into service contexts (Morelli, 2002), service systems (Morelli, 2009), stakeholders (Han, 2010), and organizations (Junginger & Sangiorgi, 2009; Pinheiro et al., 2012). Alongside this evolving nature, Service Design is increasingly considered as a holistic approach that can be applied to a variety of agendas and practices during service development aiming at value creation (Kimbell, 2011; Meroni & Sangiorgi, 2011; Polaine et al., 2013).

However, this expanding nature and recent conceptualization of Service Design have seldom been considered in relation to the NSD processes (Clatworthy, 2013). Within the Service Design community, there are some normative descriptions on how design activities and tools may support the service development process from planning to implementation (Curedale, 2013;

Stickdorn & Schneider, 2010; Technology Strategy Board & Design Council, 2015). However, the actual design practices and contributions associated with phases of NSD processes do not seem to be articulated except for some empirical studies on design tools for the fuzzy front end (Clatworthy, 2011). Outside the Service Design community, there are some publications in Design Thinking (Brown, 2008; Kumar, 2009) and Design Management (Acklin, 2010) that discuss applying the 'designerly' approach including the human-centred perspective and design tools to innovation processes. But, these studies tend to broadly describe design-led innovation processes at a conceptual level while not necessarily illustrating how the design practice engages with and impacts on the organization's practice for service development, and how the design process framework can be intertwined with the organization's traditional NSD process.

Furthermore, despite the alleged contribution of the design approach to the innovation process, whether the design approach actually affects the full spectrum of the innovation process remains uncertain. While there are numerous publications to demonstrate the benefit of applying the design approach to enriching the early phases of innovation processes (Ojasalo et al., 2015), there exist doubts about designers' competences and skills in matching their creative ideas with service implementation; their ideas are said to stay "on the drawing board" due to the "lack of attention to economics–ensuring that ideas are cost effective–and lack of attention to organizational issues and cultures" (Mulgan, 2014, p. 4). Similarly, Yu & Sangiorgi (2014) suggested that more research should be conducted into how the design approach could be applied to implementing the defined service concept, and embedding the service in the organization. Thus, the legitimacy of Service Design as a holistic approach for service development has not been sufficiently justified in terms of its philosophy, practice, and contribution for a wide range of issues constituting overall NSD processes.

1.2.2 Service Design and New Service Development

NSD studies were initiated from the efforts of scholars who aimed to develop systematic approaches to service innovation by investigating prerequisites (Edvardsson & Olsson, 1996) and principles for successful service development (Zomerdijk & Voss, 2011). A structured and systematic NSD process consisting of main procedures and rules governing the NSD process has been regarded as one of the key factors for successful service (Zomerdijk & Voss, 2011). Early NSD research was based on New Product Development (NPD), treating a service as a different kind of product to be designed and managed like goods from the firm's perspective (Barrett et al., 2015). The scholars' perception on the different nature of service is encapsulated in the traditional IHIP framework as specified by Zeithaml et al. (1985): Intangibility, Heterogeneity, Inseparability, and Perishability. Therefore, the intangible services needed to be visualized for developments and communications (Tatikonda & Zeithaml, 2002) by the design function. The main role of design was thus to visualize the service concept (Gummesson, 1991)

and to render the service structure and infrastructure (Edvardsson, 1997; Johnson et al., 2000) using dedicated tools and techniques (e.g., drawing and flowcharts). Therefore, designing service was associated with a narrow phase of NSD process (Goldstein et al., 2002; Johnson et al., 2000; Scheuing & Johnson, 1989; Zeithaml & Bitner, 1996). Thus, although designers contributed to certain phases of the NSD process, the recognition and usage of design were very limited. The Service Design perspective and approach that have been developed in the Design discipline have not sufficiently benefitted the NSD process partly due to a lack of connection between Design and Marketing and Management (Clatworthy, 2013; Kimbell, 2011).

In service research communities, a contrasting perspective on businesses to the traditional goods-oriented perspective is increasingly receiving attention. The contemporary business logic led by the Service Dominant Logic (Vargo & Lusch, 2008a, 2008b), the Service Logic (Grönroos, 2008), and the Customer Dominant Logic (Heinonen et al., 2010) are contributing to the shift of the focus of business activities from producing value-laden outputs to generating customer value outcomes (Edvardsson et al., 2005). The commonalities underlying these logics are the importance of customer value, and the critical role of customers in the value creation process (Ojasalo & Ojasalo, 2015). In the wider field of service research, there are attempts to apply the service-based perspective to service innovation (Breidbach et al., 2013; Michel et al., 2008; Ordanini & Parasuraman, 2010; Sebastiani & Paiola, 2010). According to the research, the focus of service innovation was altered by the Service Dominant Logic from differentiating attributes to improving the customer's value in use, and from operand resources to operant resources[3]. In the field of NSD, there are also studies adopting the Service Dominant Logic, focusing on service system as a frame for researching NSD, resource integration mechanisms, and customers as a key actor and resource integrator (Edvardsson et al., 2014). The recent NSD studies form a basis to shift the object of NSD activities from "service as a category of market offerings" to "service as a perspective on value creation" as specified by Edvardsson et al. (2005, p. 118). However, despite these studies applying the Service Dominant Logic to service innovation and NSD, research on process frameworks or knowledge to assist companies to adopt the service-based perspective in their NSD activities geared towards value creation is limited.

Some scholars in the Service Design community began to recognize the potential of Service Design perspectives and practices that are able to enact the contemporary business logic. Wetter Edman (2009) recognized the similarity between Design Thinking and the Service Dominant

[3] Operand resources are defined as "those on which an act or operation is performed" and operant resources as "those that act on other resources" (Madhavaram & Hunt, 2008, p. 67). Operand resources are mainly concerned with tangible resources while operant resources with skills and knowledge of human resources.

Logic in terms of their strong focus on creating value and the critical role of customers. She implied that the theory of the Service Dominant Logic could be complemented by the practice of Design Thinking. Sangiorgi et al. (2012) suggested that the Service Design approach can operationalize the principle of the Service Dominant Logic in facilitating the shift of manufacturing companies towards service providers. Wetter Edman et al. (2014) demonstrated how Service Design practice can realize the theory of the Service Logic by understanding the current service system and designing a new service system from the user's perspective. Despite these initial studies to prove the nature of Service Design in accordance with the service-based perspective, whether and how this quality of Service Design could affect current NSD practice and processes have not yet been researched.

1.3 Research objective and preliminary research questions

Given these backgrounds, this thesis aims to relate Service Design with NSD in a way to investigate Service Design practice and its contribution to NSD knowledge. Ostrom et al. (2010, p. 18) called for research into how design thinking can be integrated into service practices and processes "to inform traditional, analytical approaches to service development." They also point out that "in most organizations service design is not a well-established practice, and the processes, tools, and inputs needed for effective service design are not fully developed" (Ostrom et al., 2010, p. 17). This account seems to be in line with the author's earlier consideration described in the 'Research background' section that Service Design has tended to be developed in isolation as a form of design knowledge predominantly focused on engagement with users, while NSD has not benefitted from the evolving Service Design knowledge and approach. Thus, Service Design and NSD have not been sufficiently related to each other.

Therefore, this thesis will explore how to position the Service Design approach in the context of NSD knowledge by exploring Service Design practices and contributions to the NSD practice and process. To put it simply, it aims to *understand Service Design practice alongside service development processes, and its contributions to NSD theory*. This research objective leads to a set of preliminary research questions as follows:

1. How are Service Design practitioners[4] involved in service development processes?
2. Could the Service Design practice contribute to NSD theory? If so, how?

[4] The focus of this thesis is on the role and practice of the Service Design practitioner rather than any other members of service development projects. Here, the term, 'Service Design practitioners' and 'service designers' are used interchangeably to refer to people who work on service innovation projects in a Service Design team, regardless of whether or not they have a traditional design background. Service Design practice is normally undertaken by the team consisting of diverse disciplines and skill sets (Stickdorn & Schneider, 2010). The Service Design team is usually said to have the user-centred perspective and to use creative user-centred methods and tools.

First, to explore how the expanding nature of Service Design is applied to service development, the contemporary practice of Service Design can be examined alongside service development processes. As Service Design practice tends to rely more on tacit and informal knowledge (Kimbell, 2009b), it needs to be converted into academic knowledge to better communicate and promote the capability of Service Design to the wider service research communities. As tacit knowledge (Polanyi, 1966) means personal, intuitive and highly experience-based knowledge, in a literal sense, it might be considered impossible to formalize tacit knowledge into explicit knowledge. But, in reality, there can be various different types of knowledge (e.g., artistic sense, emotional intelligence, or innovation skills) beyond the dichotomy between tacit knowledge and explicit knowledge. In the world of knowledge management, the transfer of tacit knowledge to a wider group of people is considered key to successful innovation within organizations (Seidler-de Alwis & Hartmann, 2008). In this regard, the author aimed to understand common patterns to characterize the Service Design approach, which were embedded in service designers' activities and to convert them into codified knowledge.

Second, the investigated Service Design practice could be related to the NSD knowledge to understand the contribution of Service Design in the context of NSD practice and processes. It is notable that the fundamental starting points of Service Design (design) and NSD (business) are different. While designers tend to frame problems and solutions in a creative and exploratory way with emphasis on human-centeredness (Brown, 2008; Dorst, 2011), managers tend to produce outputs with available resources under constraints in a logical and efficient way (Blackmon, 2008). While these two approaches seemed incompatible, in this thesis, the difference was rather considered as an interesting point of departure for seeking a meaningful link between Service Design and NSD based on the question that if these two approaches contribute to service innovation in a different way, what may be the difference, and whether or how the two approaches could complement the other. As a designer, the author's interest in this thesis was more focused on investigating how the 'designerly' approach to service innovation could contribute to the existing business approach to it.

These two initial questions will be validated and, if necessary, revised, through the literature review and the expert interviews. Therefore, the finalized research questions will be presented at the end of the expert interviews.

1.4 Thesis structure and core components

This section illustrates the overall thesis structure, anticipating the key components of the research and the logical flow among them. It describes how the different research components are situated in the overall picture, and outlines how the outcomes of the components converge

into the ultimate findings of this thesis. Figure 1.2 visualizes this structure while more detailed explanations are provided in the following sections.

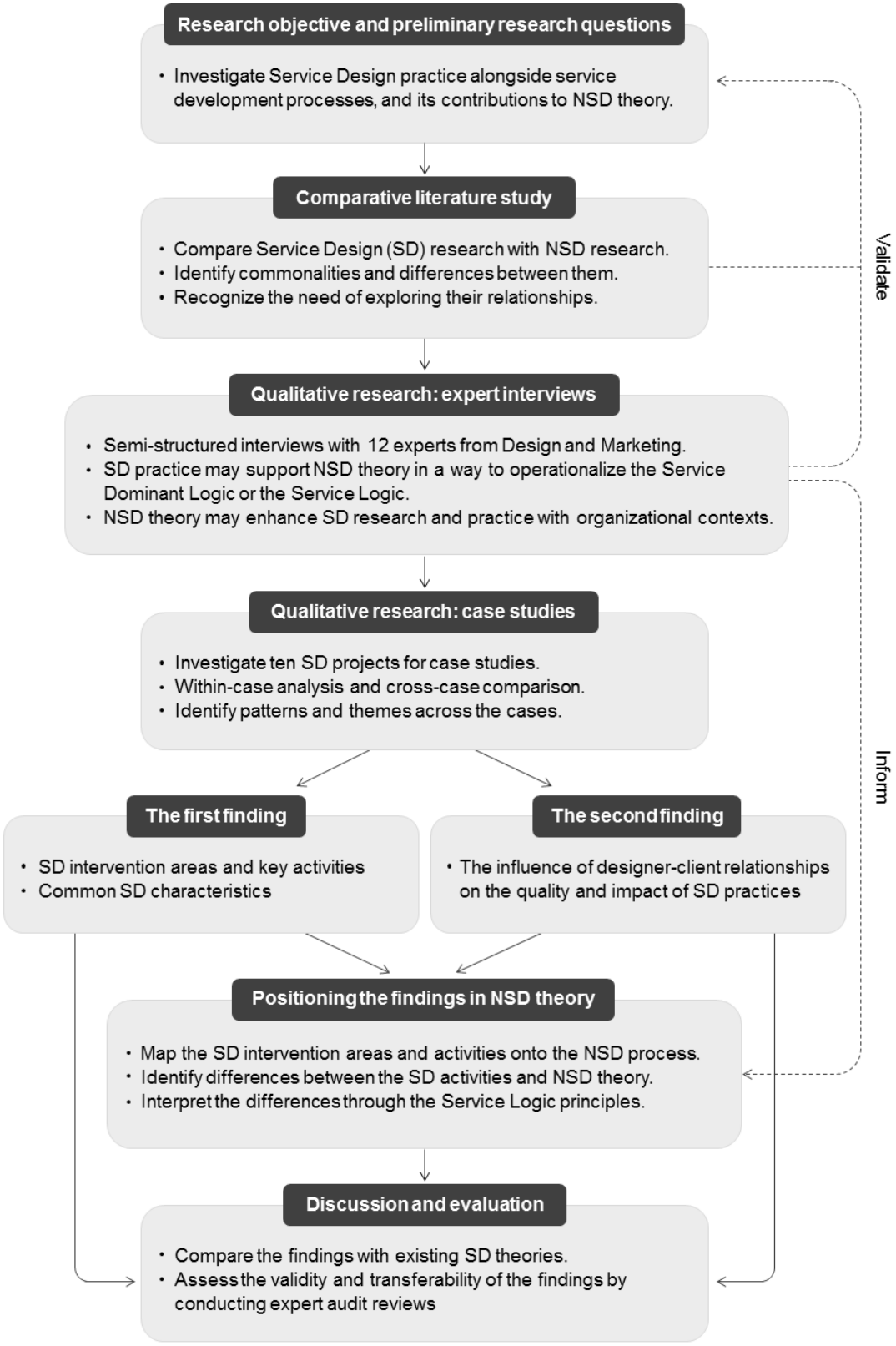


Figure 1.2 Thesis structure consisting of core components

Research objective and preliminary research questions

This thesis began with a research objective, which is to investigate Service Design practice alongside service development processes, and its contributions to NSD theory. This research objective has generated a set of preliminary research questions. These research questions were validated through the literature review and expert interviews.

Comparative literature study

The literature study was conducted to understand the theoretical background of Service Design and NSD. To examine Service Design and NSD research in parallel, and discuss the similarities and differences between them, a comparative framework was developed. The framework consists of three core dimensions concerning service development: 1) process; 2) object; and 3) facilitator. Thus, Service Design and NSD literature were discussed in terms of the three dimensions. The result suggested that Service Design approaches and activities alongside the full spectrum of service development process had not been studied empirically. This finding justified the need of the first research question (how are Service Design practitioners involved alongside service development processes?). In addition, the comparison between Service Design and NSD knowledge revealed that while both have identified and addressed partly similar prerequisites for developing services as objects of design and utilized methods/tools and user and staff involvement as facilitators, they have applied different perspectives to defining and developing services. These differences between Service Design and NSD made the validation of the second research question (could Service Design practice contribute to NSD theory?) challenging, highlighting the need to establish a conceptual link between the two notions before exploring one's contribution to the other. The relationships between Service Design and NSD were therefore explored through the following expert interviews.

Qualitative research: expert interviews

The expert interviews were focused on examining how the link between Service Design and NSD can be established. For this, the concept of Service Design, the validity of NSD knowledge for contemporary discussions of service innovation, and the relationship between Service Design and NSD knowledge were explored through multidisciplinary perspectives of twelve experts. As a result, whether and under which conditions Service Design can be linked to NSD were visualized, and two directions of research were identified. Overall, it was found Service Design and NSD can mutually complement each other in mainly two directions. The first direction was that Service Design practice could enhance NSD processes while better aligning them to the service-based perspective such as the Service Logic or the Service Dominant Logic. The second direction was that NSD theory could complement Service Design in a way to improve its practices and academic contributions. The first direction thus confirmed the validity of the second preliminary research (could the Service Design practice contribute to NSD

theory?). Furthermore, that direction informed the overall direction of the research by offering the insight that the findings of the case studies could be positioned in NSD processes to identify Service Design contributions to NSD theory, and the contributions could be interpreted through the service-based perspective (e.g., the Service Logic or the Service Dominant Logic).

Qualitative research: case studies

Based on the finalized research questions, ten contemporary Service Design projects were investigated following the strategy of multiple case studies. The case studies involved 28 interviews with designers and clients and a wide range of archival data. For data analysis, two levels of coding were conducted: process-oriented coding was carried out to understand the overall process and contexts of the project, and theme-oriented coding was carried out to understand the Service Design practitioners' interventions, approaches, and contributions. The data from each of the cases was described as individual cases in a way to provide rich contexts about the project. Thus, for each case, service development process, relationship and collaboration, and deliverables and outcomes were described. Also, the cases were compared to the other cases in terms of project contexts, Service Design interventions, and Service Design contributions for identifying common themes and patterns.

Findings

As the first finding of the case studies, four areas of service designers' interventions for service development were identified. For each intervention area, key activities, methods and tools, and outputs were derived. Also, four common Service Design characteristics cutting across the intervention areas were identified. As the second finding, the critical role of designer-client relationships on the quality and impact of Service Design practices was recognized. The designer-client relationships in the studied cases were classified in three types, and how the different types of relationships caused different qualities of Service Design practices, and how they impacted on the outcomes of the designers' work and deliverables for the client and organization were specified.

Positioning the findings in NSD

The findings of the case studies were then positioned in and compared to NSD theory. Then, they were interpreted through the Service Logic perspective. As stated earlier, this direction was informed by the part of the findings of the expert interviews. First, the Service Design intervention areas and associated activities were mapped onto the NSD process model, considering the outcomes of the Service Design practice. By doing this, to what extent the Service Design activities covered the NSD process was understood. Next, the Service Design activities were confronted with literature on NSD practice and processes. As a result, five differences between the Service Design approach and the NSD approach were identified. Finally,

the differences were interpreted through the Service Logic principles into Service Design contributions to NSD in the form of five propositions.

Discussion and evaluation

The two main findings of the case studies: the Service Design intervention areas, and the influence of designer-client relationships on the quality and impact of Service Design practice were discussed and evaluated in order to assess their qualities on the basis of both theoretical and empirical foundations. Two approaches were taken for this chapter: comparing the research findings to Service Design literature; and conducting expert audit reviews. The Service Design intervention areas were discussed in comparison to Service Design process literature while the influence of designer-client relationships on the quality and impact of Service Design practices was reflected on through service operations models. On the other hand, the research findings were reviewed and evaluated by 7 Service Design experts in order to assess their validity and transferability.

1.5 Chapter overview

This thesis consists of 10 chapters. To briefly introduce each of the chapters:

Chapter 1 sets the stage of research, introducing the definition of key notions, the background of research, the purpose of research and associated research questions.

Chapter 2 reviews literature on Service Design and NSD. As a comparative literature study, this chapter discusses Service Design and NSD research in terms of 3 dimensions: process, object, and facilitator. Also, both perspectives and approaches are compared with each other, and commonalities and differences between them are elaborated on.

Chapter 3 describes the methodology for the research. The rationale behind choosing qualitative research approaches is provided in a way to relate the research questions with the characteristics of qualitative research. Also, the philosophical stance of this research and the strategy of using inductive reasoning and deductive reasoning are described. Expert interviews and case studies are introduced as methods for fieldwork of this thesis.

Chapter 4 reports and discusses the findings of the expert interviews. Semi-structured interviews with 12 experts from Design academia, Marketing academia, and Service Design agencies are described. The analysis of data is presented in four themes: conceptualization of Service Design; Service Design characteristics for the early phases of service development; Service Design competences for service implementation; and the relationship between Service Design and NSD.

Based on the finding, theoretical links between Service Design and NSD are formulated, and two emerging research directions out of the links are introduced.

Chapter 5 describes the ten cases. The result of within-case analysis of the ten cases is described in four sub-sections: project overview; service development process; relationship and collaboration; and deliverables and outcomes. Next, all the ten cases are compiled and compared in order to recognize emerging patterns or themes across the ten projects. According to the research purpose and questions for this thesis, four main dimensions were set up: project contexts; Service Design practices; and Service Design contributions; and designer-client relationships. The dimensions were then extended into more specific variables in order to look at the data in divergent ways, which can help the researcher be sensitized to data reflecting the dimensions.

Chapter 6 presents the first finding of the case studies. It was reported that the service designers' activities to support service development in the cases can be clustered into four Service Design intervention areas: INFORMING; SPECIFYING; ACTIVATING; and SUSTAINING. Also, it was found that the service designers in the studied cases represented four common characteristics cutting across all the intervention areas: user experience centeredness; understanding staff and organizations; holistic approaches; and visualizations.

Chapter 7 presents the second finding of the case studies. This chapter focuses on three kinds of designer-client relationships identified in the cases: Delivering; Assisting; and Facilitating. It was found that the different types of designer-client relationships influenced the Service Design practices and the impact of service designers' work and deliverables. This chapter illustrates how the three types of relationships caused different qualities of the Service Design practices in the four intervention areas, and how the different Service Design practices impacted on the client and organization.

Chapter 8 positions the two findings into NSD theory, and identifies the Service Design contributions to NSD processes. The Service Design intervention areas and activities are mapped onto the NSD process model in order to compare them to NSD theory. As a result, five differences were identified between them. Besides, the five differences are translated through the Service Logic theory into five propositions, indicating how Service Design practice can infuse the Service Logic into NSD processes in a way to alter the focus of developments from producing services as market offerings to facilitating customer's value creation process.

Chapter 9 discusses and evaluates the findings. The results of the chapters (6 and 7) are reflected on by comparing with existing literature, and the insights are elaborated on. How much the results support existing Service Design literature, or how much they contradict

existing theory is examined to assess the quality of emerging theory on the basis of theoretical foundations. As the way to evaluate the findings of this thesis, an expert audit review was conducted to validate the findings and assess the transferability of them to other cases. The results of the expert audit review are described in this chapter.

Chapter 10 concludes the PhD research. It provides a final brief summary of the research while summarizing how the research questions have been answered. Also, it discusses the contributions and implications of this thesis for Service Design and service research fields. Then, this chapter addresses the limitations of this research and suggests the directions of future research.

2. Literature review: Service Design and New Service Development

Chapter 1 has set up the research aim to investigate Service Design practice in relation to NSD, and its contributions to NSD theory, and has formulated research questions. These research questions are discussed here against existing literature to better identify the key knowledge gaps and create the foundations for a theoretical comparison of Service Design with NSD.

In this chapter, a literature review is conducted to understand the theoretical background of Service Design and NSD as foundational knowledge for establishing a connection between the two concepts. The main aim of this chapter is to understand the respective perspectives and approaches of Service Design research and NSD research for service development, and to identify any similarities and differences between the two. To achieve this, a comparative framework has been developed, which consists of three core dimensions with respect to developing a new service: 1) process; 2) object; and 3) facilitator. Service Design literature and NSD literature are discussed and compared in terms of these three dimensions. Based on the finding of this literature study, the initial research questions are reconsidered, and revised if necessary.

The remainder of this chapter is structured as follows. Section 2.1 and 2.2 examine Service Design and NSD research against the three dimensions of process, object and facilitator. Next, section 2.3 compares the respective perspectives and approaches of Service Design and NSD, and discusses the similarities and differences between them. Finally, section 2.4 describes the implications of the findings, and reflects on the preliminary research questions as a way to validate them.

2.2 Service Design research

Service Design has been discussed as a new design agenda over the past two decades. However, as Kimbell (2009b) pointed out, Service Design practice tends to rely more on tacit and informal knowledge, while academic studies are still limited in numbers and fragmented due to their different research contexts. Except for a comprehensive framework proposed by Meroni & Sangiorgi (2011) that provided an overview of the status quo of Service Design, there are seldom studies that help to integrate the knowledge of this field. In this section, current design research addressing service development and service innovation is extensively investigated. As the purpose of this chapter is not only to review the Service Design literature but also to compare it with NSD research, a comparative framework is needed as common ground for the

comparison. In previous research, the author initially introduced three core dimensions that are concerned with developing services: 1) process; 2) object; and 3) facilitator (Yu & Sangiorgi, 2014). These dimensions were chosen because they enable a holistic understanding of service development processes and practice. While the 'process' is about how the phases of developing service are defined and structured, the 'object' are about what the development activities are aimed at. And, the 'facilitator' is about what supports the service development process. In this chapter, the three dimensions are adopted, and key Service Design and NSD literature are confronted with each other against these dimensions.

2.2.1 Service Design process

According to Service Design literature, design practitioners usually evolve their projects in a few phases, i.e., exploring design opportunities with people, generating ideas and solutions, developing the concepts, and ultimately producing actionable outputs for delivery. The double-diamond model created by the UK Design Council is often used to summarize how design practitioners work (Figure 2.1). It identifies four main D-phases: Discover; Define; Develop; and Deliver. The Discover phase is for gathering inspiration and exploring user needs while generating initial ideas. The Define phase is about framing the design problem and developing a clear brief. The Develop phase is for creating and refining solutions while prototyping them. The Deliver phase is for finalising the solutions and launching them through final testing and evaluation.

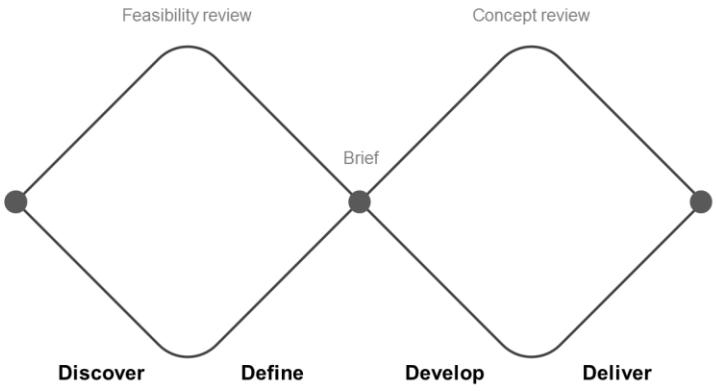


Figure 2.1 The 'Double Diamond' design process model (Technology Strategy Board & Design Council, 2015).

Other models that describe the design process for service innovation projects mostly adapt the double-diamond model despite some variations of languages. For example, Stickdorn & Schneider (2010) outlined the Service Design process in a series of iterative phases: Exploration; Creation, Reflection; and Implementation. In Exploration, the core task is to understand the given problem from the company's perspective, and more crucially to identify the real problem

from the customer's point of view. The Creation phase is about exploring ideas for concept design. The Reflection phase is dedicated to prototyping the concepts in order to test them. Lastly, the Implementation phase is about informing changes drawing on theories of change management. The authors described as a key quality of the designers' approach to Service Design, the constant shift between a small scale of designing a specific touch-point in detail and a larger scale of designing the whole customer experience in a holistic manner. According to Stigliani & Fayard (2010), Service Design relies on a research phase using ethnographic methods, a definition phase for generating ideas based on the insights from the research phase, a development phase for generating, testing and refining solutions, and finally a delivery phase for finalizing services and launching. Curedale (2013) viewed the Service Design process as a structure consisting of defining a vision, knowing people and their context, framing insights, exploring ideas, prototyping and iterating, and implementing the outcomes. Meroni & Sangiorgi (2011) simply identified out of case studies four main activities that qualify a Service Design process: analysing; generating; developing; and prototyping.

In most of the design literature, Service Design processes were described as flexible and dependent on different contexts of each project (Stickdorn & Schneider, 2010) rather than a fixed set of prescribed phases. And during the processes, designers go forward and backward iteratively between the phases. Also, many of the studies presented in detail how designers engage in and contribute to the Discover and Define phases, highlighting the designers' ability to understand the customer experience and apply it to the service development practices. For example, Clatworthy (2013) investigated how to develop brand-based service experiences in a fuzzy front end of NSD processes. He proposed a process to convert a brand personality into key service elements such as touch-points, behaviours and experiences. The process contributed not only to ideating service experiences in accordance with the company brand but also to building team coherence during the early phases of NSD. However, Service Design studies lacked a description of designers' activities and contributions for the Develop and Deliver phases. That is, while some of the Service Design processes encompassed the whole service development phases from ideas generation to service launch, some did not have considerations on service implementation, ending with prototyping or specification. Even in the models that embraced the implementation phase, very little literature discussed how Service Design practitioners could be involved in delivering the service.

2.2.2 Service Design object

Service Design in design communities has expanded over recent years in terms of its position and scope for service innovation. One of the main focuses of Service Design practice and research was on service interfaces. Service Design practitioners and scholars were interested in how to make service interfaces useful, usable, and desirable while improving existing service

experiences or creating superior service experiences from the customer's perspective (Mager, 2008; Moriz, 2005). Besides, the designers and researchers considered service contexts (Maffei & Sangiorgi, 2006; Morelli, 2002), service system (Morelli, 2009), stakeholders (Han, 2010), and organizations (Junginger & Sangiorgi, 2009). While expanding the interventions of Service Design, the designers and researchers have started to consider Service Design as a holistic methodology that can be applied to the whole process of service innovation aiming at value creation (Currie & Drummond, 2010; Kimbell, 2011; Meroni & Sangiorgi, 2011; Stickdorn & Schneider, 2010; Wetter Edman & Johansson, 2011). The following sub-sections describe how the expanded scope and intervention of Service Design for service innovation affected the object of Service Design.

Service interface, service experience, and interpersonal relationships

Service Design researchers have considered as a main prerequisite for service quality the design of service interfaces, which exist at the intersection between users and service systems. From an analogy with interaction design (Pacenti, 1998), the service interface is sometimes described as a 'touch-point' in the sense that it can serve as a point of contact through which users interact with the service (Meroni & Sangiorgi, 2011). Secomandi & Snelders (2011) consider the tangible service interface as a core object of Service Design, stressing its role in bringing a service into being. Service Design has been mainly associated with designing and managing the touch-points. For instance, the UK Design Council explains "service design is all about making the service you deliver useful, usable, efficient, effective and desirable[5]" focusing on designing the touch-points. Similarly, Mager (2008) stated one of the essential roles of service designers is to make service touch-points useful, usable, and desirable from the perspective of service users, and also to make them effective and efficient from the perspective of service providers. The collection of various interactions with these touch-points can shape the users' overall perception and impression on the quality of service (Clatworthy, 2011; Lo, 2011). Hence, service designers strive to orchestrate various elements constituting service interactions such as people, products, information and places to shape coherent and superior service experiences (Mager & Evenson, 2008; Meroni & Sangiorgi, 2011). The focus on the interactions between the users and the service system is also at the centre of the Experience-Based Co-Design (EBCD) methodology for healthcare service improvement which is documented by Bate & Robert (2007). In this methodology, the focus is on the users' cognitive and emotional pathways while using the service, with the object of design being the users' overall experience.

[5] http://www.designcouncil.org.uk/about-design/types-of-design/service-design/what-is-service-design/

When people use a service, they enter into a relationship with service providers and other service actors (Polaine et al., 2013). Designing for good interpersonal relationships and service relational qualities therefore has become one of the essential focuses of Service Design. As interpersonal interactions in service encounters play an important role in the quality of the overall service experience, they should be carefully 'meta-designed' (Cipolla, 2007). Designing for good interpersonal relationships is particularly relevant for so called 'collaborative services' where ordinary people collaboratively engage in creating solutions to solve their own daily problems when they are not addressed by governments (Manzini, 2005). In order to facilitate the emergence, growth and diffusion of these kinds of collaborative services, some studies investigated the right conditions (prerequisites) for enhanced interpersonal relationships (Baek, 2011; Cipolla, 2007). Similarly in the design for public services, Boyle et al. (2010) argued for 'reciprocity' and 'mutuality' among service participants as significant factors for successful co-created service models. Designers can facilitate the engagement of more people with the services by promoting a co-production culture supported by reciprocity. Also, supporting the creation and growth of social networks is considered as a key prerequisite for successful collaborative service models (Boyle et al., 2010; Cottam, 2008; Cottam & Leadbeater, 2004). Through peer support networks, the potential of the social bonds can be effectively realized (Boyle et al., 2010). Service Design thus considers the interpersonal relationships within service system as an opportunity to facilitate unique and rich service experiences (Cho, 2011).

Complex service system for value creation

Beyond service interactions, Service Design studies described how designers envision and design service systems with a view to value co-production (Morelli, 2009). The Service Design perspective on service systems is that service systems consist of a wide variety of contextual factors including actors, societies, organizations, and technologies (Morelli, 2002). Given that even a simple experience with an artefact does not happen in a vacuum (Buchenau & Suri, 2000), Service Design research has paid attention to understanding the contextual and organizational factors that influence the quality of service interactions (Sangiorgi, 2009). Understanding service contexts is thus emphasized as key to the design of services (Bunt & Leadbeater, 2012).

In order to design for service system, Service Design research has looked into existing theories and conceptual models from the Social Science to help designers interpret a service as a complex social system where the point of interaction between users and service providers is situated. For instance, Maffei & Sangiorgi (2006) contended that the design of services needs to shift from designing interactions between actors and service interfaces to designing activity systems because services are formed by diverse contextual elements. They argued that the perspective on service interactions within a wider activity system can be helpful to understand

any conflict between actors during service interactions. In this perspective, the actor's behaviours need to be understood with considerations of their belonging contexts such as object (goal), artefacts (equipment), rules, community, organizations. Adopting another perspective on service systems, Morelli (2002) stated that design activities should consider a heterogeneous combination of social and technological factors, because a service system is achieved through interactions between various actors and technological elements. He described services as socio-technical systems and derived a set of criteria to analyse the technological frames of different service actors. He argued how the designerly approach can have value in developing the complex service system by stating the designers' competences in understanding and coordinating actors' culture, organizational dimensions, technologies as represented in Figure 2.2. The potential role of designers as a coordinator or mediator of various kinds of interests, competences, constraints or requirements from different disciplines is also described in the report of Kimbell & Seidel (2008).

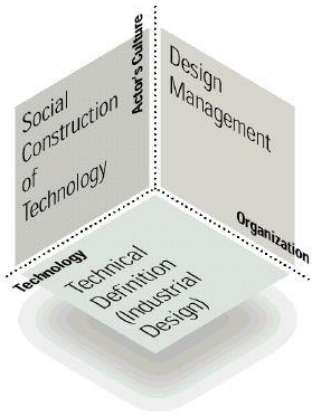


Figure 2.2 Multidimensional values implied in Service Design activities (Morelli, 2002).

The designers' development of service systems was strongly geared towards value creation (Morelli, 2009). Kimbell (2009b) described Service Design as a proposal for new value relations within socio-material configurations that are made up of people, artefacts and technologies. She observed service designers' practice through case studies, and found how their activities and outputs were targeted at creating value propositions by configuring actors, interactions, information, and artefacts, making a distinction between products and services obsolete. Wetter Edman et al. (2014) also discussed that designers' approach in designing a service system is targeted at value co-creation by analysing a current service system in terms of resource integration, the value co-creating process, and the resulting experiences. According to them, designers can contribute to enhancing value co-creation possibilities by involving actors in analysing the existing service system as a basis to envisage a future service system.

System change and organization change

Related to the focus on designing for service systems, some Service Design studies focused on how to mobilize the constituent elements of a service system to implement the service concept (De Lille et al., 2012; Lin et al., 2011). Among the service system components, Service Design research has been mainly focused on how to mobilize people by utilizing a transformative effect of Service Design (Pacenti & Sangiorgi, 2010; Sangiorgi, 2011). Wetter Edman (2011) discussed that the Service Design approach can contribute to people's behaviour change. Acknowledging the critical role of stakeholders in service implementation, Service Design literature discussed how a human-centred design approach integrated with change management theory could help designers to better manage staff's reluctance or resistance to change (Lin et al., 2011). Han (2010) explored how designers could manage multiple stakeholders' involvement in the service development process. Based on case studies, she argued that designers could teach Service Design knowledge, skills, and tools to staff during collaborations with them. While collaborating with designers, the staff could have awareness and confidence to act as designers in their daily work. Also, Hyvärinen et al. (2015) explained the role and contribution of Service Design in facilitating collaborations with actors in cross-organizational service networks.

Some studies looked into organizational dimensions, mainly investigating how the Service Design approach can facilitate organizational change (Pinheiro et al., 2012; Warwick et al., 2014; Wechsler, 2012). Junginger & Sangiorgi (2009) suggested how Service Design can consciously act as a potential driver for organizational change. They drew a scheme to represent how service designers can operate at different levels in an organization depending on what is their focus of change (Figure 2.3). Likewise, the Design Commission (2013) reported that an original design brief as a starting point for a larger conversation could affect organizational change if designers, from the outsider's perspective, could be involved in more systemic issues relating to the organization.

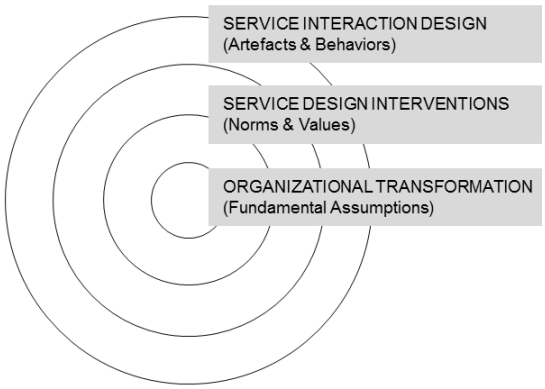


Figure 2.3 Levels of interventions of Service Design projects (Junginger & Sangiorgi, 2009).

Furthermore, some research has looked into the potential of embedding design thinking and methods in organizations. Pinheiro et al. (2012) reported how Service Design can play a transformational role to infuse an innovation culture in organizations when Service Design knowledge and tools are shared with the decision makers. According to them, the Service Design approach was very effective in embedding human-centred perspectives into the organization, connecting the company to its people's desires and needs. Bailey (2012) also investigated how Service Design thinking and practices could be embedded within organizations. When Service Design thinking and processes were disseminated in the organization, it led to the sustainable delivery of human-centred services. The design languages and design practices could be shared and diffused mainly through workshop activities. In this process, the organization's capacity to absorb design thinking and approaches was emphasized.

2.2.3 Service Design facilitator

Research on Service Design practice often discussed which factors can work as facilitators for successful and effective service development. In this section, design methods and tools, empathic approaches, and co-design are discussed as key facilitators for Service Design, focusing on how they can contribute to the service development process.

Design methods and tools

A considerable part of Service Design literature is dedicated to the analysis of case studies that illustrate and evaluate the application of a range of design methods and tools. Drawing on an empirical study of Service Design practice, Stigliani & Fayard (2010) discovered how tangible objects as an intermediate tool or technique can play a significant role in the service development process. The Service Design tools can be useful for making abstract concepts and service experiences concrete, and invisible service structures tangible and visible (Segelström & Holmlid, 2011). Also, they can be valued for helping designers or managers articulate and communicate the service ideas and structures to stakeholders and organizations (Segelström, 2009). Blomkvist & Segelström (2014) stressed how Service Design methods as a medium of external representations of a service can aid people in their cognitive interactions with the service system, thereby benefitting the service development practice. In this regard, although the design methods and tools themselves may not be the ultimate object or outcome of Service Design, they can serve as a useful facilitator to support service innovation practice and processes.

Based on a human-centred design tradition, the design for service interactions and service experiences always starts from an understanding of how users feel about the service in their life contexts and of what they want and desire for the future service (Lo, 2011; Stickdorn & Schneider, 2010). Designers tend to use ethnographically informed (Segelström et al., 2009)

tools and methods to capture users' rich and lived experiences and to represent these experiences as a basis for idea generation (Stickdorn & Schneider, 2010). The design methods for collecting and representing users' stories include for example, observation, shadowing, service safari, user journey mapping, storytelling, video diaries, and photo diaries (Tan & Szebeko, 2009; Technology Strategy Board & Design Council, 2015). Furthermore, designers strive to reach people's personal and private life contexts by using cultural probes (Gaver et al., 1999) that are specifically designed sets of materials to support users in documenting their own feelings, activities, and events in their life (Mattelmäki & Battarbee, 2002). These methods and tools can complement conventional marketing approaches mainly relying on user feedback or consultation (Alam, 2002). They can help designers to get rich inspiration from users' subjective emotions and moods through an empathic interpretation (Mattelmäki et al., 2014). Also, design tools can help designers understand users' experience not only from their past and present but also from their future (Elizabeth, 2001; Visser et al., 2005). Figure 2.4 illustrates the extended range of experiences sought by the designers from people.

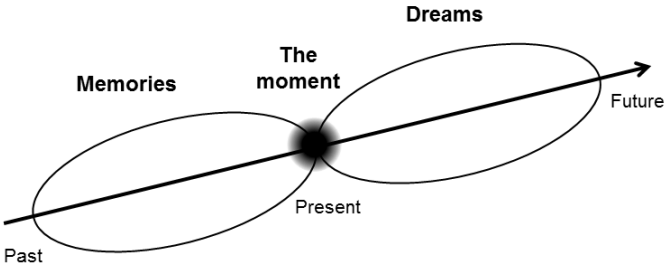


Figure 2.4 The experience domain (Visser et al., 2005).

The understanding of users' rich experiences is then materialized and visualized to inform design activities (Segelström & Holmlid, 2011). Some of the design methods and tools used for this stage were adopted from interaction design due to the similarities of methodological perspectives between Service Design and interaction design in terms of human-centeredness, experience modelling, and contextualization (Holmlid, 2007; Manzini, 2011). Designers convert the user stories and stakeholder insights into a tangible form, e.g., personas, user journeys, service blueprints, storyboards, scenarios and experience prototypes (Holmlid & Evenson, 2007; Segelström & Holmlid, 2011). Similarly, other design methods have been developed to analyse and design the systemic dimension of services. Morelli (2009) presented three categories of methods and tools for developing complex service system: analytical tools; development tools; and representation tools. These are oriented towards capturing and representing socio-cultural contexts to build the service system. Some of the tools have been adopted from Marketing, e.g., service blueprint (Bitner et al., 2008) while other tools have been developed to represent the nets of relations and interactions within a service system, e.g., service ecology map (Polaine et

al., 2013), service system map (Maffei & Sangiorgi, 2006) and actors network map (Morelli & Tollestrup, 2007). These tools are used to identify unrecognized opportunities and resources aiming to redesign the configuration of resources for service systems (Sangiorgi et al., 2012).

Designers also explore and refine design ideas and solutions for the service with a range of creative prototyping techniques (Blomkvist & Holmlid, 2011). Prototyping can illustrate service processes with scripts and scenery in the form of documentation, e.g., storyboards or act out service interactions in the form of performance (Erlhoff & Marshall, 2008). Unlike a prototype of physical products, prototyping a service requires a particular consideration on the invisible, temporal, and sequential nature of the service (Arvola et al., 2012). As Service Design deals with socio-material configuration over time (Kimbell, 2011), different prototyping techniques may be used, for example, to explore people's contextual experiences relating to artefacts, systems and relations through embodied prototyping techniques such as role-playing, body-storming, and improvisation (Buchenau & Suri, 2000). Also, they may be used to overview a service journey by a service walk through technique (Arvola et al., 2012). The key characteristics of the prototyping methods in Service Design is that they are geared towards gaining empathy for users, and situating people's experience in their real environments and contexts (Arvola et al., 2012; Buchenau & Suri, 2000).

Co-design approaches

In the Design community, the practice and research on involving users and other stakeholders in design practice have long existed along the participatory design tradition influenced by the Scandinavian workplace democracy movement (Muller & Kuhn, 1993). As a more recent concept, co-design is also used as an approach to involve users and other stakeholders in the design process (Sanders & Stappers, 2008). While it is less associated with the politics of design, co-design tends to be used interchangeably with participatory design due to their similar mind-set and methods (Mattelmäki & Sleeswijk Visser, 2011). Sanders & Stappers (2008, p. 6) defined co-design as "collective creativity as it is applied across the whole span of a design process." The core characteristic of service that it is normally performed by staff and users together through interactions in the service journeys, and value is co-created during the interaction processes offers a strong rationale behind employing participatory design or co-design approaches in Service Design contexts (Holmlid, 2009; Steen et al., 2011). One of the underlying characteristics of co-design is empowering people to become a creator to express their hidden creativity beyond the boundaries of what they can speak (through traditional focus groups) and what they can do (through direct observation) (Elizabeth & William, 2002). Co-design often entails a variety of design techniques and generative toolkits to enhance people's creativity (Elizabeth, 2000), and to facilitate the collaboration of multi-disciplinary teams or cross-organizational networks (Hyvärinen et al., 2015). However, it is emphasized that

co-design should not be used as a series of static methodological steps consisting of tools and activities in workshops, but instead it should be carried out in a way that it is entangled with people's lived contexts so that it may affect offerings, people, and relationships (Prendiville & Akama, 2013).

Although Sanders & Stappers (2008) considered co-design as relating to the design stage, Service Design research indicates the need and benefit of it alongside the whole service development process (Botero & Hyysalo, 2013; Steen et al., 2011). On the one hand, they can contribute to collective creativity during the early phase of the process. Co-design is frequently used as a way to deeply understand people's experiences and to provoke design inspirations and ideas for future services (Sanders & Stappers, 2008). At this early design stage, the co-design approach also can be used for building a shared understanding among different participants (Steen et al., 2011). On the other hand, co-design can play a facilitating role in successful service delivery during the later phase. Lin et al. (2011) presented how involving staff through collaborative design sessions in the change process of service can effectively deal with the employees' hesitance and resistance to obstruct successful service delivery. Also, it was found that co-design can provide organizations with knowledge and tools to enable themselves to develop their own service design capabilities required for service delivery and maintenance (Wechsler, 2012).

2.3 New Service Development research

NSD refers to the overall process of developing new service offerings (Edvardsson et al., 2000). Service development that was originated from Service Management and Marketing traditions provides the tactical management knowledge of development practices (Menor et al., 2002). With increasing attention to innovation in services, how organizations develop new services emerged as one of the critical avenues for service research. Scholars focused on how the development process of services and products are different, and what general principles can be applied to developing services (Zomerdijk & Voss, 2011). They paid attention to the prerequisites for successful services, and sought systematic approaches to NSD (Edvardsson & Olsson, 1996). As the NSD topics, various dimensions such as key concepts, success factors, process models, tools and techniques, and performance measurement were studied. According to the goal of this chapter, which is to understand NSD research and compare it with Service Design research based on the same dimensions, NSD studies were selectively reviewed against the three dimensions: 1) process; 2) object; and 3) facilitator.

2.3.1 NSD process

A systematic service development process has been considered as one of the critical success factors in service literature (Edgett, 1994; Griffin, 1997). Accordingly, various scholars have developed NSD process models that identify and structure key activities required for developing services (Cooper & Edgett, 1999; Edvardsson et al., 2000; Scheuing & Johnson, 1989; Zeithaml & Bitner, 1996). These initial process models were grounded on knowledge coming from New Product Development, and they consisted of a sequence of steps from strategy development to commercialization (Booz et al., 1982). Despite the inclusion or omission of some phases, they all prescribed activities required for developing service offerings in a systematic and linear manner. Table 2.1 represents some of the NSD process models developed by different scholars.

Table 2.1 Different models of NSD processes

Scheuing & Johnson (1989)	Zeithaml & Bitner (1996)	Cooper & Edgett (1999)	Edvardsson et al. (2000)
• Formulation of new service objectives and strategy • Idea generation • Idea screening • Concept development • Concept testing • Business analysis • Project authorization • Service design and testing • process and system design and testing • Personnel training • Service testing and pilot run • Test marketing • Full-scale launch • Post-launch review	• Business strategy development or review • New service strategy development • Idea generation • Concept development and evaluation • Business analysis • Service development and testing • Market test • Commercialization • Post-introduction evaluation	• Ideation • *Gate: initial review* • Stage 1: preliminary analysis • *Gate: conceptual review* • Stage 2: detailed investigation • *Gate: decision on business case* • Stage 3: development • *Gate: post-development review* • Stage 4: testing • *Gate: decision to launch* • Stage 5: launch • Post-implementation review	• Service idea generation • Service strategy and culture gate • Service design • Service policy development and implementation

Unlike the linear process models, Johnson et al. (2000) developed an iterative, cyclic and nonlinear NSD process model on a basis of consideration on interaction and interdependency between the design and delivery phases. Their model consists of four simplified basic phases–design, analysis, development and launch–that embrace diverse sub-phases proposed by other NSD models (Figure 2.5).

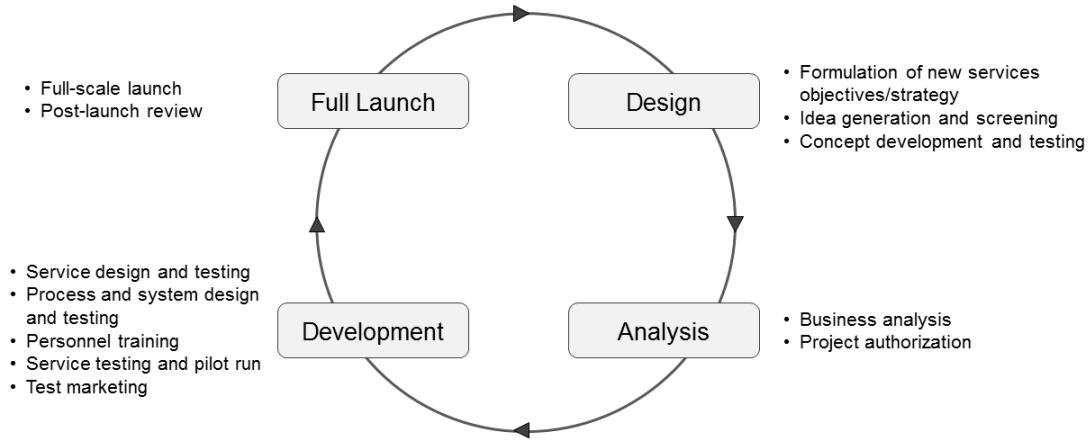


Figure 2.5 The NSD process cycle adapted from Johnson et al. (2000).

While the NSD process models offered a basis for systematic service development, most of the traditional NSD models were built on treating services as a different kind of goods emphasizing the distinction between goods and services. There was some research attempting to improve the NSD process model beyond the traditional paradigm. For example, Kindström & Kowalkowski (2009) pointed out the need of new NSD processes for manufacturing companies to provide customers with a bundle of products and services as their offerings, and they proposed a NSD process framework that can be applied to a manufacturing context. While they proposed a four-stage process framework: market sensing; development; sales; and delivery, they emphasized the importance of the latter two stages in developing service offerings, indicating NSD research tended to neglect issues relating to implementation. They argued that the new NSD process framework for integrative customer solutions including both products and services should consider the importance of interactions and infrastructure of the service, and more extensive customer involvement throughout the NSD process. This new framework may be considered to some degree as improvement of NSD towards the new perspective on value-creation driven by the Service Logic and the Service Dominant Logic. The reason is that the model was created to guide developments of an integrative offering for customers' value-creation blurring the boundary of goods and services (Gummesson, 1995). But, the framework still cannot be seen as a model based on the service-oriented perspective as the research treats services as market offerings, rather than as the fundamental function of business (Grönroos & Helle, 2010). Overall, The NSD models built on the service-oriented perspective were hardly found in literature. It seems to be evident there are needs for research on improving NSD processes to incorporate the service-oriented perspective (Klaus & Edvardsson, 2013).

2.3.2 NSD object

Edvardsson & Olsson (1996) argued that service companies cannot create services, but they can design the prerequisites for services. The different phases of the service development process

are dedicated to designing the prerequisites. In this study, these prerequisites are interpreted as the object of developments. As frequently addressed elements of strategic developments during the NSD process (Heskett, 1987; Roth & Menor, 2003), service concept and service delivery systems are discussed as key NSD objects.

Service concept

Service concept is one of the frequently used terms in the NSD literature (Goldstein et al., 2002). Edvardsson & Olsson (1996, p. 149) defined service concept as a prototype for a service, which means a "description of the customer needs to be satisfied", "how they are to be satisfied", "what is to be done for the customer", and "how this is to be achieved." But the notion has not been understood as one agreed definition in literature. According to scholars, it may mean a firm's business proposition, components of service offerings or more holistically, overall mental pictures of services held by stakeholders including customers (Clark et al., 2000). Goldstein et al. (2002) contended a service concept should be understood as a whole experience from the customers' perspective given the complexity of services. But, this broad definition of service concept needs to be specified better as services are not tangible and visible like products. Also, analysing the service concept into more specific elements enables the service concept to be accessed and designed. From this analytical perspective, Clark et al. (2000) articulated several attributes that form a service concept: value; form and function; experience; and outcomes. In other words, what values customers are paying for, how the service looks and operates, how customers experience the service, and what are the service outcomes constitute the whole service concept (Figure 2.6). Recently, Hakanen & Jaakkola (2012) synthesized service concept literature, and defined core aspects of a service concept as contents, operations and processes, customer experiences, and outcomes and values, which are similar to the elements of Clark et al. (2000).

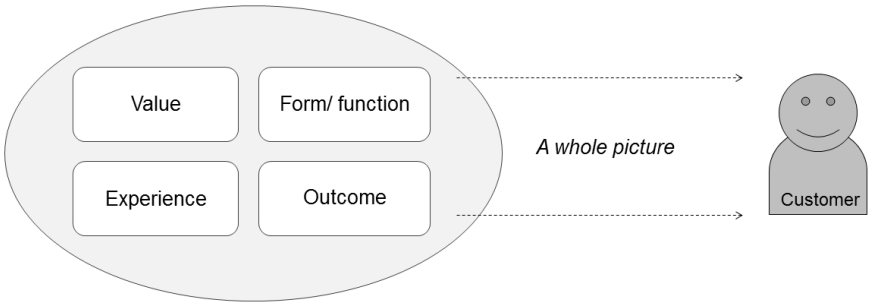


Figure 2.6 Service concept as a whole picture for customers as defined in Clark et al. (2000)

These attributes constituting a service concept need to be clearly defined and shared with stakeholders before the process proceeds to the operations phase, because a well-defined service concept can help organizations translate abstract ideas about services to concrete operational

information (Goldstein et al., 2002). Value in NSD contexts thus seems to be considered as one of the entities constituting a service concept that can be designed according to the company's strategy and customer's needs. And, experiences are also considered as one of the elements for the service concept that needs to be controlled by the providers in that they create the contexts in which the customers can engage with the service, thereby generating a memorable experience (Gupta & Vajic, 2000).

Service delivery system

The successful realization of service concepts was considered as dependent on how the service delivery system is designed to accommodate the service concept (Roth & Menor, 2003). Service concepts are translated into service specifications, and the service delivery system can be configured building on the specifications (Ponsignon et al., 2011). Therefore, aligning service concepts with service delivery systems was vital for achieving successful service performances (Menor et al., 2002; Ponsignon et al., 2011). Some scholars examined what components make up the service delivery system (Edvardsson & Olsson, 1996; Heskett, 1987; Ponsignon et al., 2011; Roth & Menor, 2003; Tax & Stuart, 1997). For example, Heskett (1987) proposed the role of people, technology, facilities, equipment, layout, service processes and procedures, and Tax & Stuart (1997) considered processes, participants and physical facilities as the elements of the service delivery system. To synthesize, those system components could be grouped in structure (physical, technical and environmental resources), infrastructure (people), and processes (a set of activities that use the structural and infrastructural resources to deliver services) (Ponsignon et al., 2011). Traditional NSD studies on service delivery systems focused on how to configure the components of service delivery systems depending on the characteristic of different kinds of services. For example, how to set the level of people's skills, the degree of employee discretion, the degree of service automation, or the layout of front and back office was considered (Ponsignon et al., 2011).

Concerning implementation of services, Johnston & Clark (2008) described how to manage service delivery systems in terms of processes, people, and resources. In developing processes, several tools were used to help the engineering of the service process, for example, process mapping, walk-through audits, emotion mapping, or customer experience analysis (Johnston & Clark, 2008). For service actor management, employees and customers were both considered as co-producers of the service in service encounters (Fitzsimmons & Fitzsimmons, 2006). While encouraging employees' motivation, clarifying their role, and reducing their stresses were emphasized for managing employees (Johnston & Clark, 2008), managing people's expectations and clarifying their role were stressed for managing customers (Fitzsimmons & Fitzsimmons, 2006). In utilizing resources, designing physical environment (servicescape), designing facilities,

and managing facility layout were, among others, considered as key factors for service operations and management (Fitzsimmons & Fitzsimmons, 2006).

2.2.3 NSD facilitator

NSD literature identified some key enablers that can support the whole development process (Johnson et al., 2000). Through the review of NSD literature, three facilitators have been identified: methods and tools; the involvement of customers and staff; and organizational contexts. In the following sub-sections, each of the facilitators is described.

Methods and tools

First, methods and tools played an important role in the process of developing services. There were a wide variety of tools, which can be employed in the different phases of the development from generating service ideas to service policy deployment and implementation. At the earlier stages for analysis and design, market research and ethnographic methods, brainstorming and lead user analysis were adopted, and for the later stages that are involved with development and launch, service simulation, service beta testing, and usability tests were used (Zomerdijk & Voss, 2011). Jin et al. (2012) provided the overview of NSD tools that can be used alongside the NSD processes (Table 2.2).

Table 2.2 NSD tools and purposes. Adapted from Jin et al. (2012).

NSD tool	Purpose
Benchmarking	To benchmark against best practices of NSD
Scenario Planning	To predict risks and needs in the future
Focus Groups	To understand customers' opinions about new service ideas
Brainstorming	To generate innovative new service ideas
Concept Testing	To identify promising new service ideas for further consideration
Quality Function Deployment (QFD)	To translate customer requirements into new service specifications
Structured Analysis and Design Technique (SADT)	To map service processes with clearly defined responsibilities
Service Blueprinting	To clarify service concepts and systematize service delivery processes
SERVQUAL	To assess customers' perceptions of service quality

According to Edvardsson et al. (2000), many of NSD methods were mainly used to enhance an understanding of customers and to reinforce internal communication within organizations. Successful services that satisfy customers' needs can be generated from a close dialogue and interaction with customers throughout the development process. For collecting the customers' needs, conventional methods such as a focus group or in-depth interviews can be employed for recognizing problems from the existing services (Alam, 2002). However, considering customers'

limited capabilities to express their latent needs and desires, only interviewing customers can have limitations as it cannot elicit people's imagination or desires (Edvardsson et al., 2000; Zomerdijk & Voss, 2011). Therefore, envisaging what people want in the future may require more innovative and creative methods or tools such as empathic design techniques (Zomerdijk & Voss, 2011). Responding to the needs for more innovative user research methods, Edvardsson et al. (2012) investigated a range of methods for collecting users' experiences out of different contexts and applying them to service development.

Also, tools for representing and analysing service structures and processes were helpful to enable better understandings and communications among stakeholders for successful service development. As an example, service blueprint (Bitner et al., 2008) represents the activities to deliver the service and the interactions of customers and staff, indicating which parts of the system are seen by customers and which parts are behind the scenes. More recently, Patrício et al. (2011) suggested multi-level service design methods that incorporate different hierarchical levels: service concept, service architecture and navigation, and service encounter. Prototyping services as a method for service development was mentioned in some literature as part of the development stage of NSD (Froehle & Roth, 2007). But, very little was described about specific activities or tools for prototyping services in NSD literature.

Customer and staff involvement

The second facilitator concerned the involvement of customers and front-line staff in service development practice (Rubalcaba et al., 2012). Edvardsson et al. (2000) suggested service failure in the market can be caused by technology-driven developments rather than customer-driven ones. In NSD literature, the need for user input and involvement in service development have been stressed due to multiple benefits including differentiated services, user education, rapid diffusion of innovation, and long-term relationships (Alam, 2002). But, despite the general emphasis on the needs of engaging users in NSD, inviting them as a member of the service development team was reported as the least preferred practice in NSD practices (Alam, 2002). Likewise, Nagele (2006) reported from the case studies that only a few companies engaged customers as a player with a proactive role in the NSD process while most of the companies regarded customers as reporters of their own needs and requirements. Thus, topics relating to involving customers as a co-designer or a co-creator such as what kinds of co-designing activities can be done with users, and how to make the most of their creativity and skills were rarely observed in the NSD studies. Instead, most user involvement remained at the level of passive acquisition of input, at the level of gathering of information and feedback on specific issues, or at the level of extensive consultations with users via interviews or focus groups (Alam, 2002). Together with customers, employees can also play a complementary role for providing useful ideas for service innovation (Rubalcaba et al., 2012). Involving front-line

employees can inform the service development process as they are aware of the customers' needs through a close contact and frequent interactions with the customers. Furthermore, the employees' participation per se can reinforce their ownership or royalty of the services they offer (Zeithaml et al., 1985). Rubalcaba et al. (2012, p. 706) argued for a new form of research based on "psychological, anthropological, and sociological views" beyond "a traditional service encounter logic" in order to better understand customers and employees.

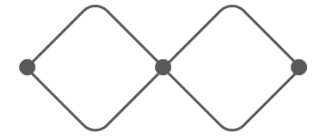
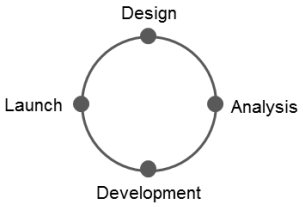
Organizational contexts

Edvardsson et al. (2000) discussed the role of organizational cultures as a factor to have a significant effect on service development strategies and business performance. Organizational cultures are mirrored in the values that members in the organization hold and concretized in the norms through which the values are manifested on a daily basis (Fitzsimmons & Fitzsimmons, 2006). Alam (2002) similarly noted the overarching culture of service firms guides its overall service development programs. Organizational cultures experienced and lived by employees can ultimately influence the organization's service-customer culture (Zeithaml & Bitner, 1996), affecting service experiences perceived by users. Also, a number of NSD studies considered organizational changes as closely related to innovative service processes due to the systemic nature of service development and management (Stevens & Dimitriadis, 2005). According to the studies, the organization's structures and communication flows can influence the overall efficiency of NSD. Building less formal organization structures was said to be more beneficial for communications with and learning from the members, and to enhance the information-sharing and decision-making, consequently increasing efficiency in the service development process (Stevens & Dimitriadis, 2005). De Jong & Vermeulen (2003) indicated that understanding organizational characteristics can help service managers to organize NSD practice successfully. They pointed out 'people' and 'structure' as key elements underpinning the organizational characteristics. For people, activities like "involving frontline employees in the NSD process, recruiting product champions and providing management support" were needed for NSD processes, and characteristics like "co-workers having frequent external contacts and sharing information, and securing co-workers' autonomy" were helpful for cultivating a climate for continuous innovation (De Jong & Vermeulen, 2003, p. 853). For structure, activities like "using funnel tools and multifunctional teams, providing sufficient resources and paying attention to testing and market launch" were useful for NSD processes, and characteristics like "strategic focus, training and education, task rotation and IT" were helpful for cultivating a climate for continuous innovation (De Jong & Vermeulen, 2003, p. 853).

2.3 Comparisons between Service Design and NSD research

Based on the examination of Service Design and NSD literature, this section compares both, and discusses the similarities and differences between them. The overall comparison between Service Design and NSD literature is summarized in Table 2.3, and descriptions in terms of the three dimensions follow in the next sections.

Table 2.3 Process, object, and facilitator in Service Design and NSD literature.

	Service Design	NSD
Process		
Object	- Service Experience Service Interface / Service Interaction / Interpersonal Relationships - Complex Service System Socio-material and Socio-technical Configuration - System and Organization Change Stakeholders' Collaboration / Organization's Culture	- Service Concept Value / Form and Function / Experience / Outcomes - Service Delivery System Structure (materials, facilities, equipment, and technology) Infrastructure (employees, and customers) Processes
Facilitator	- Design Methods and Tools - Co-design Approaches	- Marketing Methods and Tools - Staff and Customer Involvement - Organizational Contexts

2.3.1 Process

Most of the Service Design processes in literature were grounded on the four stages: discover, define, develop, and deliver. The Service Design process models were generally characterized by two iterations of divergent (generative) and convergent (selective) approaches; opening up design spaces by exploring ideas and narrowing down by discriminating the ideas, and opening up design spaces by developing solutions and narrowing down by finalising them (Blomkvist, 2014). These approaches served as a higher order frame under which specific Service Design activities can be located in a flexible and iterative manner (Stickdorn & Schneider, 2010; Zomerdijk & Voss, 2011). While Service Design activities for the early stages of SD processes were well described based on design practices for user research and idea generation (Clatworthy, 2013), Service Design activities for the later stages were not specified in terms of actual design practices and contribution for the development or delivery of services. On the other hand, NSD processes were activity-oriented, prescribing activities to be carried out at each stage. For example, Johnson et al. (2000) defined four main stages that are design, analysis, development and launch, and associated specific activities with each of the stages. In NSD process models,

NSD activities regarding the whole phases from the early stages to the later stages were prescribed. However, as the activities tended to be based on new product development (Edvardsson et al., 2000), they appeared to be normative, lacking empirical evidence in service innovation contexts.

2.3.2 Object

Service Design activities were geared towards designing for service experiences, envisioning service systems, and changing service systems and organizations from the user's perspective. On the other hand, NSD activities were directed towards developing service concepts consisting of value, form and function, experience, outcomes and service delivery systems consisting of structure and infrastructure according to the company's strategy to obtain a competitive advantage. While the NSD research treated service experiences as an element to be designed for economic value (Gupta & Vajic, 2000), service designers' view on service experience is more concerned with people's ordinary life contexts, not necessarily with the consideration of its economic value. Whereas value and experience in Service Design tend to be approached from the user's perspective, the NSD research seems to be weighted towards the provider's perspective in terms of creating and managing them.

In designing for service delivery systems, Service Design studies seem to conceive the creation of a complex service system in a fluid way (Sangiorgi et al., 2012), being made of evolving socio-material and socio-technical configurations of users and other stakeholders (Kimbell, 2011; Morelli, 2002). NSD research instead seems to focus on how a company can configure the service process, staff, equipment, facilities or technology in a fixed manner, considering efficiency and effectiveness in delivering the service concept (Fitzsimmons & Fitzsimmons, 2006; Ponsignon et al., 2011). In configuring resources and capabilities, Service Design research has been focused on infusing user-centric mindsets and visions into stakeholder networks (Hyvärinen et al., 2015), thereby motivating and mobilizing people to take on their role (Lin et al., 2011), and changing organizational culture (Junginger & Sangiorgi, 2009). In contrast, NSD literature appeared to emphasize efficiency for maximizing customer value at a reduced cost, but it seemed to lack practical knowledge for changing stakeholders and organizations except for some publications that addressed human resource management (e.g., training and reward) as a potential way to deal with it (Tatikonda & Zeithaml, 2002).

2.3.3 Facilitator

Service Design and NSD research similarly discussed methods/tools and the involvement of customers/staff as key facilitators for improving the service development process but from a slightly different perspective. First, while Service Design methods and tools were geared toward empathic (Mattelmäki et al., 2014) and ethnographic approaches (Segelström et al., 2009) to

capture users' potential and latent desires, most of the traditional NSD studies generally discussed a range of conventional marketing methods and tools for users' spoken needs (Edvardsson et al., 2000). Second, Service Design research considered users and stakeholders as a co-designer, by proactively engaging with them in collaborative working sessions and empowering them to exert their creativity (Godfroija et al., 2013), while in NSD research, customers and staff tended to be passively involved in NSD processes (Alam, 2002). As another facilitator for service development, while NSD studies focused on organizational structures, internal communications and organizational cultures as a driver for successful service development (De Jong & Vermeulen, 2003; Stevens & Dimitriadis, 2005), Service Design research seemed to lack an understanding and consideration on the organizational contexts.

2.4 Validation of research questions

The comparison between Service Design and NSD research in terms of process, object, and facilitator suggested that while both have identified and addressed prerequisites for developing service (e.g., service experience and service system) as objects of design, and utilized methods/tools and user/staff involvement as facilitators, they had different perspectives on defining and developing services. To summarize the findings:

- The Service Design approach and activities alongside the service development process were only partly specified on the basis of empirical studies; despite the contribution to the fuzzy front end, the role of Service Design for the later stage has not been specified.
- The NSD processes based on product development processes tended to be normative, requiring empirical evidence based on service contexts.
- The object of Service Design has expanded from service interfaces through service systems to organizational change, whereas the objects of NSD were focused on creating service concepts and configuring service systems.
- While the Service Design perspective on service seemed to be more focused on user value and experiences, the NSD perspective on service seemed to be more focused on engineering a service (product) in terms of the way that service concepts were defined and service delivery systems were configured.
- Service Design methods are designed for deriving people's latent desires cutting across the past, present, and future based on the empathic and ethnographic approach while traditional NSD methods were geared towards capturing customers' past and present needs.
- While Service Design activities were geared towards understanding users' holistic and relational contexts based on their ordinary life, NSD activities seemed to be restricted to understanding customer experience directly related to the service.

- In Service Design research, users and stakeholders were considered as empowered co-designers while customers and staff in NSD research were more regarded as passive informants for the development process.
- Service Design research lacked understandings and considerations on the organizational contexts as a facilitator to improve its practice, whereas NSD studies focused on organizational structures, internal communications and organizational cultures as a driver for service development.

These key differences suggest the potential for both disciplines to learn from and potentially complement each other confirming the need of research across the two fields as suggested by the preliminary research questions:

1. How are Service Design practitioners involved in service development processes?
2. Could Service Design practice contribute to NSD theory? If so, how?

In particular, according to the literature study, the Service Design approach alongside the full spectrum of service development process has not been empirically studied in terms of its concrete interventions, characteristics, contributions, and outcomes. Therefore, the need of the first research question seems to be justified.

Although the literature study provided a foundational knowledge about Service Design and NSD, the way of linking between the two notions has seldom been directly addressed in the literature. Therefore, before inquiring into whether and how Service Design practice can contribute to NSD, the initial assumption that the two notions could be linked to each other in some ways should be firstly clarified. For this purpose, expert interviews are adopted in Chapter 4. In the expert interviews, the second research question is validated, and accordingly a full set of research questions is finalized.

3. Research design

In Chapter 1, a research objective and preliminary research questions were defined based on the research background. In Chapter 2, literature on Service Design and NSD has been reviewed and compared to understand the foundational knowledge. This current chapter presents how to design this research in terms of methodological strategies and processes to achieve the research objective, and to address the defined research questions. The research design means "a logical plan for getting from here to there, where here may be defined as the initial set of questions to be answered, and there is some set of conclusions (answers) about these questions" (Yin, 2008, p. 26). Essential agendas for this chapter are defined as follows:

- Which research approach (qualitative vs quantitative) does this PhD research take?
- What is the philosophical stance and the strategy for reasoning of this PhD research?
- What research methods are chosen, and what are the strategies for data collection and analysis?

This chapter is structured as follows. In section 3.1, the characteristics of qualitative research and quantitative research are discussed, and the rationale for choosing qualitative research is described. Section 3.2 describes guiding principles in terms of the philosophical and theoretical stance, and the strategy for reasoning. In section 3.3, a range of qualitative research methods are introduced, and subsequently section 3.4 and 3.5 describe expert interviews and case studies in terms of data collection and data analysis. Finally, 3.6 describes how the field research obtains the rigor of qualitative research.

3.1 Rationale for qualitative research

3.1.1 Characteristics of qualitative and quantitative research

Quantitative research tends to systematically investigate certain facts, characteristics of a given phenomenon, or the relationships between special events and phenomena, paying considerable attention to revealing 'how many' or 'how much' with the results presented in numerical form (Merriam, 2009). Qualitative research is more concerned with understanding the meanings of given events, phenomena, or the relationships between particular variables, focusing on exploring "how people interpret their experiences, how they construct their worlds, and what meaning they attribute to their experiences" (Merriam, 2009, p. 5). Qualitative research is contextual by nature because the investigation is usually based in a real life environment (Gray, 2009). Table 3.1 shows how qualitative research is different from quantitative research in terms of its approach to inquiry.

Table 3.1 Characteristics of qualitative and quantitative research. Adapted from Merriam (2009, p. 18)

	Qualitative research	Quantitative research
Research focus	Quality (nature, essence)	Quantity (how much, how many)
Philosophical roots	Phenomenology, symbolic interactionism, constructivism	Positivism, logical empiricism, realism
Associated phrases	Fieldwork, ethnographic, naturalistic, grounded, constructivist	Experimental, empirical, statistical
Goal of investigation	Understanding, description, discovery, meaning, hypothesis generating	Prediction, control, description, confirmation, hypothesis testing
Design characteristics	Flexible, evolving, emergent	Predetermined, structured
Sample	Small, non-random, purposeful, theoretical	Large, random, representative
Data collection	Researcher as primary instrument, interviews, observations, documents	Inanimate instruments (scales, tests, surveys, questionnaires, computers)
Mode of analysis	Inductive, constant comparative method	Deductive, statistical
Findings	Comprehensive, holistic, expansive, richly descriptive	Precise, numerical

3.1.2 Match between the research purpose and the qualitative research approach

The purpose of this thesis is to understand the practice of Service Design alongside service development processes, and its contributions to NSD theory. It consists of two main parts: 1) an in-depth investigation into Service Design practice that is involved in the service development process; and 2) an understanding of the Service Design practice in the context of existing NSD theory mainly in Service Marketing and Management domains. The first part can be achieved through empirical research while the second part can be achieved through theoretical research by the positioning of the field work in NSD theory. Therefore, this section concentrates on the match between the first part of the research purpose and characteristics of qualitative research. The in-depth investigation on Service Design practice that is involved in the service development process will be geared toward capturing the approach of Service Design practitioners to the real service innovation projects. The author plans to approach the Service Design practice concentrating on the nature and characteristics of Service Design practice rather than numerical aspects of it. The realization of the research purpose can be better achieved through qualitative field research into real Service Design projects rather than controlled statistical experiments. And the field research can be more properly undertaken by observing Service Design practitioners' work on their real project, and communicating with people who are involved in the project, and understanding their experiences and opinions of Service Design. Therefore, the qualitative research approach has been chosen for this thesis rather than the quantitative research one.

3.2 Guiding research principles

3.2.1 Philosophical and theoretical perspective

Undertaking research begins with having a philosophical orientation about the nature of reality (ontology), and the nature of knowledge, that is to say the relationship between the researcher, and the entities or phenomena being researched (epistemology) (Creswell, 1998). Positivism is largely based on the belief that reality exists out there and it can be discovered. In contrast, qualitative research paradigm is based on the premise that reality is socially constructed by people involved in the research, which is called interpretivism or constructivism (sometimes they are used interchangeably) (Merriam, 2009). The perspective from interpretivism assumes there may be multiple realities that are concerned with a single event, and the researcher reports these realities based on the opinion or interpretation of informants that the researcher engages with. On the epistemological assumption, investigations are normally carried out through field research in order to have a close and intense contact with the entities or phenomena in a real life setting. The researcher interacts with those being researched by trying to minimize the distance between themselves and those that they are studying (Merriam, 2009).

This thesis is based on constructivism, and thereby attempts to understand Service Design practices and contributions for service development based on the interpretation of multiple participants' point of view. It is assumed that the theory regarding Service Design practices and contributions for service development can be socially constructed based on different participants' perspectives on the projects being investigated. Therefore, the author will undertake field research for exploring Service Design practices by setting up interviews with people (e.g., designers and project managers) who were involved in the project. As they can provide different experiences and interpretations about the practices and contributions of Service Design for the given project, their diverse perspectives and opinions could inform a holistic understanding of Service Design practices and contributions, thereby contributing to theory building.

3.2.2 Inductive and deductive reasoning

In general, inductive reasoning means theories result from the research while deductive reasoning means researchers begin their study with theories (Gray, 2009). The deductive approach is connected to hypothesis testing in positivist research. After data collection and analysis, the hypothesis can be confirmed, refuted or modified. On the contrary, the inductive approach is a process of reasoning in which the researcher identifies and gathers segments of texts or pieces of data, and integrates them in order to build up theory such as concepts, hypotheses or propositions (Merriam, 2009). When there is limited existing theory that addresses the given research questions adequately, the inductive approach may be considered as an effective way of building theory.

It is generally deemed true that while quantitative enquiry tends to adopt a deductive reasoning process, qualitative enquiry tends to use an inductive reasoning process. However, it is not always the case. Hyde (2000) indicates that a good qualitative research technique may involve a process of alternating the inductive and deductive reasoning process. Likewise, Patton (2002) suggests that qualitative research can apply both inductive and deductive reasoning to theory building. According to him, the researcher can apply inductive reasoning in the early stage of analysis when he or she develops a codebook, being open to data, and in the later stage when patterns or themes are developed, deductive reasoning can be used to test them. On the contrary, in 'analytic induction', the researcher begins examining data with sensitizing concepts relating to certain theory, and alongside the deductive reasoning process, he or she is able to identify new emerging patterns (Patton, 2002).

While this thesis takes the qualitative research approach using two types of research methods: expert interviews and case studies, the author, in line with Patton (2002), applied different reasoning strategies to each of the research depending on the aim of the research. On the one hand, the expert interviews mainly aimed to validate and further develop the initial research questions by clarifying the way of connecting Service Design with NSD. Therefore, the development of initial codes can be influenced by the pre-defined sensitizing concepts, which represents the deductive approach. But, as the interviews also aim to construct the theoretical relationships between Service Design and NSD based on the emerging themes, new patterns were identified while analysing the interview data (see more about the analysis of the expert interviews in section 3.4.3).

On the other hand, case studies aimed to investigate Service Design practitioners' interventions and approaches for service development in an exploratory way rather than relying on certain pre-existing theory. Therefore, the inductive reasoning process for theory building was adopted. But, rather than a purely inductive reasoning with an empty mind, the case studies set out with a set of research questions because without such an initial focus, judging what to be examined or ignored during the field work could be challenging. Here, the point is that the research questions are not for being tested deductively as in the positivist study, rather for setting a research boundary to develop criteria for the decision of whether to include or exclude data and for the guidance to lead data analysis (Gray, 2009).

3.3 Research design

3.3.1 Qualitative research approaches

For the qualitative research approach, there are several different research approaches. To summarize a few:

- ***Basic qualitative research:*** the researcher understands how people interpret their lives and experiences by collecting data through interviews, observations, or document analysis (Merriam, 2009). This qualitative research method does not belong to any of the following categories of methods.
- ***Case studies*****:** the researcher investigates a contemporary phenomenon within a bounded system in which phenomena and contexts are usually blurred (Yin, 2008). A bounded system that has a boundary in time and place can be a program, an event, an activity, or individuals (Creswell, 1998).
- ***Ethnography*****:** the researcher participates in people's daily lives, while closely observing and interviewing them with the aim of exploring a cultural and social group during a prolonged time (Creswell, 1998).
- ***Grounded theory*****:** the researcher derives a substantive theory inductively from data through an iterative process of comparison between collected data and analysed data until the saturation of theory (Creswell, 1998).
- ***Action research:*** the researcher investigates the world while also attempting to change or improve it by participating in the whole process as an agent of change (Gray, 2009).

3.3.2 Research methods chosen for this thesis

The research purpose of this thesis is to understand Service Design practices alongside the service development process, and its contributions to NSD theory. This research purpose involves examining contemporary service development practices of Service Design practitioners, and positioning the empirical findings in NSD theory based on the conceptual relationships between Service Design and NSD. To understand the relationships between the two concepts, expert interviews were chosen, and to examine Service Design practices alongside the service development process, case studies were selected. More detailed explanations of each of the research methods follow:

1. ***Expert interviews (basic qualitative research)***: expert interviews with multi-disciplinary professionals were used as a preliminary study to discuss a possible connection between Service Design and NSD. They served as a bridge to connect the findings of the literature study with the following research by providing the directions of the research. The literature study on Service Design and NSD discussed their perspectives and approaches for service development, and revealed commonalities and differences between Service Design and NSD. While the literature study provided a foundational knowledge about Service Design and NSD, possible relationships between the two notions have seldom been directly addressed in the literature. Therefore, *expert* interviews were conducted to understand whether and under which conditions NSD can be used as a frame of reference for studying Service Design. The findings from the expert interviews were expected to

confirm whether the research questions about understanding Service Design contributions to NSD knowledge were valid ones. Also, they were expected to inform the way that the empirical findings from case studies could be positioned into NSD theory. Thus, expert interviews helped to establish a relationship between the two disciplinary notions, Service Design and NSD, and that relationship could inform the remaining research process for theory construction.

2. ***Case studies***: case studies were chosen as a main method for field work to research into contemporary Service Design practice for service development. Benbasat et al. (1987) suggested case studies as an appropriate research method when the researcher studies a contemporary phenomenon in its natural setting in order to generate theory from the practice, and previous studies on the given research topic are limited. As there is limited empirical research in Service Design academia to investigate Service Design practices alongside the NSD process and the object of research is contemporary Service Design practice in a real-life context, case studies seemed to be more suitable for this thesis than any other qualitative research method. During the field research, the author intended to take on the role of an objective researcher rather than a participant in the practice. Therefore, case studies seemed to be a better choice than action research. This thesis adopted multiple case studies rather than a single case study. While a single case study can be useful for elaborating on a unique or rare phenomenon at a deep level (Siggelkow, 2007), multiple case studies are said to be proper for theory building as the theory is built on multiple varied cases, and thereby is more likely to be applicable to other cases (Eisenhardt & Graebner, 2007; Yin, 2008). As the author intended to construct a theory of Service Design practice and its contribution to service development, searching for common patterns or themes across various cases, multiple case studies seemed to better fit the purpose of the thesis.

Figure 3.1 visualizes how the expert interviews and case studies are situated in the whole process of the research, and how they contribute to developing theory. The expert interviews were conducted after the literature study in order to confirm the validity of the research questions in terms of: 1) whether Service Design can be connected with NSD despite the substantial differences between their perspective and approach for service development; 2) whether NSD theory can be used as a frame of reference for studying Service Design despite the Goods Dominant Logic paradigm which the traditional NSD theory seemed to build on; and 3) whether Service Design practice can contribute to NSD theory. The expert interviews were thus designed to validate the research questions. As a result, the expert interviews provided directions for interdisciplinary research between Service Design and NSD. The research directions guided the way of converting the empirical findings of case studies into a theory of

Service Design contributions to NSD knowledge. After the expert interviews, multiple case studies were undertaken, and data analysis identified Service Design intervention areas and activities, and Service Design outcomes for service development. Then, the findings of the case studies were compared to and positioned in NSD literature, and finally, Service Design contributions to NSD theory were derived.

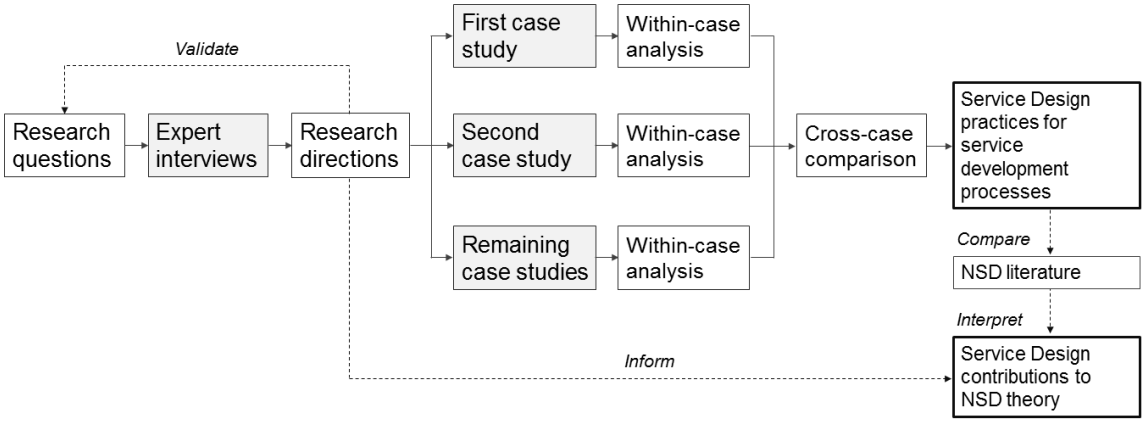


Figure 3.1 Methodological structure of the thesis

In the following sections, how the expert interviews and case studies were designed and implemented is described in detail in terms of data collection and data analysis.

3.4 Expert interviews

3.4.1 Participants

The interviews with twelve experts were conducted to investigate a Service Design concept, Service Design characteristics and competences to contribute to NSD, and the relationship between Service Design and NSD theory. As the purpose of these interviews was to understand Service Design from multiple perspectives and to relate Service Design to NSD knowledge, experts who can provide professional knowledge regarding Service Design were first considered as informants. Therefore, Service Design experts from Design academia and practice were selected. Then, to investigate NSD in relation to Service Design, NSD researchers whose research track is partly connected to Service Design were also invited as informants. Acknowledging that NSD has been studied in multiple knowledge areas, the author chose most of the NSD experts from Marketing and related areas as NSD studies from (Service) Marketing statistically accounts for more than half of the overall NSD research (Papastathopoulou & Hultink, 2012). Meanwhile, NSD practitioners were not considered as informants in this research as their practice is not directly related to Service Design as the Design-based approach to service innovation. As a result, Marketing academics, Design academics, and Service Design

(SD) practitioners were selected as three professional groups for the participants in this research. The criteria for the selection of participants are listed in Table 3.2.

Table 3.2 Criteria for the selection of respondents

Group	Criteria
Marketing academic	1) They have published many papers and have been widely cited in service research publications. 2) They have an understanding of Service Design as part of their research track.
Design academic	1) They have published many papers and have been widely cited in Service Design publications. 2) They represent a variety of research areas within Service Design (e.g., PSS, Service Design in general, Interaction Design, and Service Engineering)
SD practitioner	1) They have been working on service innovation projects for at least 2 years. 2) They represent a wide spectrum of different job roles for Service Design projects (e.g., service designer, service consultant, founder of external design agencies, and internal service designer)

As the reason that expert interviews were adopted was to understand professionals' opinions that may give insight into the potential relationship between Service Design and NSD, there was a need to introduce the interviewees by name to demonstrate the knowledge, expertise, or experiences of the three respondent groups[6]. However, analysing and interpreting the interview data were based more on the experts' collective opinions rather than the individual's personal and unique opinion, the individuals' names were not directly revealed in the profile (Table 3.3) and text. The University ethics approval forms regarding the expert interviews are included in Appendix A.

Table 3.3 Profile of twelve respondents

Group 1 – Marketing academics	
Marketing academic 1	Full Professor, Marketing Department
Marketing academic 2	Full Professor, Marketing Department
Marketing academic 3	Full Professor, Marketing Department
Marketing academic 4	Full Professor, Business Administration
Group 2 – Design academics	
Design academic 1	Associate Professor, Architecture, Design and Media Technology
Design academic 2	Full Professor, Service Design
Design academic 3	Associate Professor, Computer and Information Science Department
Design academic 4	Assistant Professor, Faculty of Engineering
Group 3 – SD practitioners	
SD practitioner 1	Service designer at Livework
SD practitioner 2	Consultant at Engine
SD practitioner 3	Founder of Design Thinkers Group
SD practitioner 4	Internal service designer at SMHI (Swedish Meteorological and Hydrological Institute)

[6] For the expert interviews, the author had interviews with Raymond Fisk, Amy Ostrom, Mary Jo Bitner, Bo Edvardsson, Nicola Morelli, Brigit Mager, Stefan Holmlid, Lia Patrício, Dominic Burton, Itamar Ferrer, Arne Van Oosterom, and Andrea de Angelis.

3.4.2 Data collection

Data was collected through qualitative semi-structured interviews consisting of both pre-defined questions and open-ended questions. On the one hand, according to the purpose of the interviews that was to examine the theoretical relationship between two notions of NSD and Service Design based on the clarification of each concept, many of the questions were targeted at addressing the pre-defined categories (Hsieh & Shannon, 2005). On the other hand, data were also gained through open-ended questions, as they allowed respondents to expand on their answers when they thought it was necessary (Gray, 2009), which was desirable for this research because the primary purpose of these interviews was to explore the experts' subjective viewpoints and opinions for the given topics. Each of the interviews lasted between 20 minutes and 95 minutes. Four interviews were conducted face to face, and the other eight interviews were done via a video call. Interview questions were designed in order to deepen the understanding of: 1) how Service Design is conceptualized; 2) what the characteristics and competences of Service Design for service development are; and 3) how the relations of NSD and Service Design can be made. Table 3.4 summarizes key categories for the interviews while the sample specific questionnaire for each group is included in Appendix B.

Table 3.4 Key categories for interviews

Category
NSD theory for service innovation
The relationship between NSD and Service Design
Service Design concept
Characteristics of Service Design that have contributed to service development
Service Design competences or potentials for service development

3.4.3 Data analysis

All the interviews were transcribed by the researcher and analysed using qualitative content analysis method (Zhang & Wildemuth, 2009). According to Hsieh & Shannon (2005, p. 1278), qualitative content analysis is defined as "a research method for the subjective interpretation of the content of text data through the systematic classification process of coding and identifying themes or patterns." The qualitative analysis method helped the researcher pay attention not only to the explicit text itself, but also the experts' intention or contextual meanings around the text. According to how codes are developed, qualitative content analysis diverges into three different approaches, which are conventional, directed, and summative (Hsieh & Shannon, 2005). Among those, while the conventional approach follows the inductive way of coding without any pre-conceived theoretical construct, the directed approach applies the deductive reasoning with a more structured process to coding data in order to validate or refute the existing theory or findings of prior research. Hsieh & Shannon (2005, p. 1281) say that the

directed approach allows the researcher to conceive the variables relating to the research question or the existing theory, and the variables can "determine the initial coding scheme or relationships between codes." As the expert interviews that set out based on the theoretical study of NSD and Service Design aimed to further clarify the concept of NSD and Service Design, and to investigate the theoretical relationship between the two key concepts, this research took directed content analysis as a strategy for coding. Hence, the coding of data began by looking carefully at what data segments represent the key categories listed in Table 3.4. If data that does not fit the existing categories emerge, a new code was assigned. While assigning the initial broad categories to data, sub-categories representing more particular aspects or attributes were developed, following the general rule of deductive data analysis, which is to move from more general propositions to more specific accounts (Elo & Kyngäs, 2008).

3.5 Case studies

3.5.1 Case selection

As the object of investigation was Service Design practices for service development, the unit of analysis for the case studies was a 'project' rather than a company. As the aim of this thesis was to build a theory based on a qualitative investigation on Service Design contributions to service development, cases were selected relying on purposeful sampling (Merriam, 2009) rather than random sampling. Patton (2002) suggested 15 different, but not exclusive strategies for purposeful sampling, and he recommended more than one strategy for the research serving multiple purposes. The author adopted two strategies for purposeful sampling: criterion sampling; and maximum variation sampling. First, the sampling needed several criteria determined by practical and theoretical reasons. Considering accessibility and resources, the geographical location of case providing companies was limited to the UK. And considering that the research aim was to understand Service Design contributions to the whole service development process, the cases satisfying the following criteria were considered:

- The project should aim at developing a new service.
- The designers should have been involved in both planning and developing phases.

Second, as the goal of the case studies was exploring central patterns and characteristics in various practices of Service Design practitioners, it made sense to select cases following the 'maximum variation (heterogeneity) sampling' strategy (Merriam, 2009; Patton, 2002). This sampling is helpful for capturing core themes cutting across a great deal of heterogeneity (Patton, 2002). The sample variation was maximized in a way that each case is different from others in three dimensions: 1) agency types; 2) service innovation dimensions; and 3) project areas. As one way of classifying the type of Service Design agencies, external Service Design

agencies and internal Service Design agencies were considered. The report of the Design Commission (2013, p. 31) defines an external agency as a "consultancy from an independent design practice on a project-by-project basis", and an internal agency as "a service design unit (normally multi-disciplinary)" that "works with other parts of the organization on a project-by-project basis." Next, concerning the innovation aspects that the projects involved, the dimensions of service innovation proposed by Den Hertog et al. (2010) were used. According to them, service innovation consists of multiple dimensions: new service concept; new customer interaction; new business partners; new revenue model; and new delivery system (e.g., personnel, organization, culture, or technology). Lastly, a variety of project areas was considered for the variation of the projects in sectors. Thus, the projects were filtered firstly based on the three criteria, and secondly on the variation in agency types, service innovation dimensions, and project areas. As a result, ten cases were chosen for the case studies (Table 3.5). The number of cases was basically determined by considering the balance between theoretical saturation and practical constraints such as time and resources (Eisenhardt, 1989). Besides, it was confirmed by the general principle suggested by Eisenhardt (1989), which is that despite no ideal number for multiple cases, a number between 4 and 10 cases may work well, and more than 10 cases might cause complexity from too diverse data sets.

Table 3.5 A matrix for sample variation.

Case	Agency	Agency type	Key innovation dimensions	Project area
Quick Tap	Livework	External	New business partners New service concept	Telecom
ANA airports	Engine	External	New service concept New customer interaction	Aviation
Wheel of Wellbeing	Uscreates	External	New revenue model New customer interaction	Mental health & wellbeing
Netherlands National Railway Station	STBY	External	New business partners New service concept	Transportation
Connect & Do	Innovation Unit	External	New delivery system New customer interaction	Mental health & social care
Care Information Scotland	Snook	External	New delivery system New customer interaction	Social care
Fall Proof	Sea communications	External	New customer interaction	Housing
Partner Zone	Service Design team in Skills Development Scotland (SDS)	Internal	New delivery system New customer interaction	Employment
Teachers' Pensions	Service Design team in Capita	Internal	New delivery system New customer interaction	Insurance
Dementia Checklist	Social Innovation Lab in Kent County Council (SILK)	Internal	New service concept	Social care

3.5.2 Data collection

The primary data source for this study was in-depth semi-structured interviews. Most of the interviews were conducted between May of 2014 and September of 2014. Altogether 28 interviews were carried out with design directors, service designers, project managers and other stakeholders who were involved in the given project in some way. The interviews consisted of face-to-face interviews, video call interviews and telephone interviews, and lasted between 48 and 112 minutes. The respondents from most of the ten cases represent multiple perspectives on the project from the Service Design practitioner side and the client side. Thus, collecting data from the cases involved at least one Service Design director or designer, and his/her client except two cases (ANA airports and Teachers' Pension). The rationale behind this combination of interviewee profile was to avoid potential bias that might be caused by relying on answers from only one side. Along with interviews, a range of archival documents was obtained for a comprehensive understanding of the project and triangulation. Table 3.6 outlines data sources for the case studies.

Table 3.6 Data sources (*at the time of interview)

Case	Interviewee and affiliation*	Number of interview	Archival data
Quick Tap	Founding partner, Livework Programme manager, Weve	2	Developing project visual document Final project visual document Agency website
ANA airports	Design director, Engine	1	Presentation document Service process map Agency website
Wheel of Wellbeing	Co-founder and managing director, Uscreates Design & communication director, Uscreates Head of mental health promotion, South London and Maudsley NHS Foundation Trust	3	Project summary reports Online service platform Agency website
Netherland national railway station	Strategy director, STBY Design researcher, STBY Stations program manager, ProRail	3	Project reports Online publishing case studies book Magazine article Agency website
Connect & Do	Senior service designer, Innovation Unit Evaluation unit, Innovation Unit Director of mental health services, Certitude Community connector, Certitude	4	Presentation document Community Connecting Impact brochure Online service platform Agency website
Care Information Scotland	Service designer, Snook Project manager, NHS 24 Team leader, Scottish Government	3	Project final reports Information provision guidelines Design deliverables Agency website
Fall Proof	Service design director, Made Open Strategy officer, Teignbridge Council Private sector housing team leader, Teignbridge Council	3	Project reports Presentation document Agency website Online communication platform

Continued

Partner Zone	Service designer, SDS Service development executive, SDS Strategic projects team leader, SDS	3	Recommendation report Service Design materials for workshops Online service platform
Teachers' Pensions	Director of experience & service design, Capita (3x)	3	Presentation document Online article Service website Company website
Dementia Checklist	Program coordinator, SILK Project manager, SILK Head of Strategic Commissioning, Kent County Council	3	Presentation document Agency website

Overall, the interviewees were commonly asked to share the background of the project, key stakeholders, the development process, key activities, outputs, and outcomes. But, for clients, extra questions were added to understand the progress or state of the project after the designers disengaged from the project. The interview protocol for Service Design practitioners and clients is introduced in Table 3.7. The interviews with Service Design directors were useful for understanding the overall context and information of the selected project. After the interviews with the Service Design directors, next interviews with other designers and clients were planned, while the identification and selection of the designers and the clients were supported by the Service Design directors. Although the questions for Service Design directors and designers were almost the same, the interviews with directors were more focused on capturing the overall strategies of the project, while the interviews with designers were more focused on gaining specific information, for example, detailed design activities, and design methods and tools adopted in the project. Meanwhile, the interviews with clients were helpful to understand the project from the provider's perspective and to check whether the designers' work and deliverable were perceived by the organization in the same way that was said by the designers. The University ethics approval forms regarding the case studies are included in Appendix A.

Table 3.7 Interview protocol

For Service Design practitioners	
Introduction	Introduction of the respondent in terms of his/her role and responsibility
Project background	General information of the project (e.g., project aim, scope, and focus)
Service development process	Summary of the overall process Specific activities or events in each phase of the process Key stakeholders and their main roles Methods and tools for the project
Design deliverables and outcomes	A list of design deliverables and their intended outcomes
Overall reflection on the project	Key contributions of Service Design to service development and implementation Relationships between the service practitioners and the client during the project

Continued

For clients	
Introduction	Introduction of the respondent in terms of his/her role and responsibility
Project background	General information of the project (e.g., project aim, scope, and focus)
Service development process	Summary of the overall process Specific activities or events in each phase of the process Key stakeholders and their main roles
Design deliverables and outcomes	A list of design deliverables Roles and outcomes of the design deliverables in the client's practice and process
Service in operation	Current status of the project after the designers disengaged
Overall reflection on the project	Key contributions of Service Design to service development and implementation Relationships between the service practitioners and the client during the project

3.5.3 Data analysis

Data analysis was overlapped with data collection in order to take advantage of flexible data collection (Eisenhardt, 1989). While early cases were being analysed, some additional adjustments were made to the interview questions for next data collection. For instance, data analysis of 'Quick Tap' project revealed the role of Service Design as a referee to mediate between two different service providers, which had not been anticipated by the researcher beforehand. This allowed the researcher to be sensitive to the similar issue which might be present in the next project case and to add some relevant questions for the following interviews. All the interviews were transcribed for analysis. The interview transcripts and the archival data for all the cases were analysed using within-case analysis and cross-case analysis strategies (Eisenhardt, 1989).

For the within-case analysis, two levels of coding were conducted to obtain both the context around each project and the themes emerging from the data. First, process-oriented coding was carried out to understand the overall process of the project. While reading through interviews scripts, the text segments for describing the process that the project had gone through were selected and clustered to the constituents of the process (e.g., key phases, key activities or events, key actors, and key outcomes or outputs). The results were represented in the time-ordered matrix, which is helpful for the analysis of flow and sequences of each project (Miles & Huberman, 1994). Second, theme-oriented coding was carried out. As this research aimed to take an exploratory approach and derive a theory inductively, no pre-existing theory or framework was applied to data coding. Instead, while reading through the interview scripts, any text segment representing issues explicitly or implicitly relating to the research question were captured and categorized according to the theme. The categories were, for examples, service designers' activities, roles, methods, and deliverables for service development or implementation. As a result of the within-case analysis, a large amount of data for every single

project case was reduced (Eisenhardt, 1989) and summarized into data displays with a process matrix, the focus of the project, emerging themes with supporting descriptions or quotes, and some memos if necessary (for a sample of the data display, see Appendix C).

Coupled with within-case analysis, cross-case analysis was conducted in order to recognize emerging patterns across the ten project cases. According to Eisenhardt (1989), one tactic for comparing cases is to select categories or dimensions, and then to search for similarities or differences. For the comparison of the ten cases, four dimensions, which were project contexts, Service Design practices, Service Design contributions and designer-client relationships were derived based on the research questions. The four dimensions were specified into eight variables to enable the researcher to sensitize to and better capture data relating to the dimensions. For each of the dimensions, the ten project cases were compiled and compared. The cross-case comparison is represented in Chapter 5.

While comparing the cases, several key tactics to make a good sense and to generate meaningful findings out of data were adopted from Miles & Huberman (1994) and applied to the overall process of cross-case analysis. First, "Noting patterns, Themes" (p. 246) was used to identify emerging patterns and themes that characterize different Service Design practice with associated approaches. Second, "Clustering" (p. 248) mainly helped to group specific Service Design activities into broader conceptual categories that were labelled as Service Design intervention areas. Third, "Factoring" (p. 256) is defined as identifying factors underlying variables. This tactic was used to identify common Service Design characteristics by searching for thematic commonalities underlying the service designers' activities. Fourth, "Finding Intervening Variables" (p. 258) was employed. This tactic is about looking for a 3rd variable, when two variables (in this research, Service Design intervention areas, and qualities and impacts of Service Design practice) that are conceptually expected to be coupled actually represent inconclusive relations. Similarly, Eisenhardt (1989) discussed when a seemingly apparent co-relationship proves not to work, researchers may need to assume the possibility of the impact of some 3rd variable on the relationship. The analysis of case studies indicated that although the service designers were involved in the same intervention area, their ways of practicing and the result of their work or deliverables were not necessarily the same, representing different qualities and impacts. Through using the 'Finding Intervening Variables' tactic, designer-client relationships were found to play as a 3rd factor between the Service Design intervention areas, and the qualities and impacts of Service Design practice.

3.5.4 Theorizing from case studies

While many publications on case studies tend to focus on the methods for data collection and data analysis, how a theory is generated from the case studies is not likely to be explicitly

described (Welch et al., 2010). With the recognition of the need for methods of theorizing from case studies, some scholars examined different ways to theorize from case studies (Tsang, 2013; Welch et al., 2010). Tsang (2013) investigated theorizing from case studies depending on the degree of contextualization and the degree of theory development, and identified four strategies: 1) interpretive sensemaking; 2) contextualized explanation; 3) identification of empirical regularities; and 4) theory building & testing. Depending on whether the research findings would be context-free knowledge or context-sensitive knowledge, and whether the researchers explore the phenomenon itself or explain the mechanisms of the phenomenon, an appropriate method for theorizing can be chosen. As the *interpretive sensemaking* is about exploring the unique meanings and subjective experiences of the phenomenon, the focus is on the thick description of the phenomenon with its rich context rather than developing a theory. The *contextual explanation* is about seeking explanations of the causal mechanisms behind the phenomenon taking into account relevant factors. As it embeds the unique context surrounding the phenomenon into the explanations, the result may not be universally generalized. The *identification of empirical regularities* is about identifying phenomena that have practical significance through multiple case studies. As the purpose is to understand the phenomenon itself, the outcome may or may not be theory creation. Investigating multiple cases can enable the researcher to understand whether the findings are unique to a single case or cut across multiple cases representing a pattern. According to Tsang (2013), the identification of empirical regularities can have a value as a stand-alone method for theorizing although it may not necessarily result in theory creation and thereby may be weaker than theory building & testing in terms of theory development. The *theory building & testing* is instead about developing a theory or testing an existing theory aiming at explaining the mechanisms of the phenomenon in general without specifying the context. Figure 3.2 summarizes the characteristics each of the four methods of theorizing from case studies.

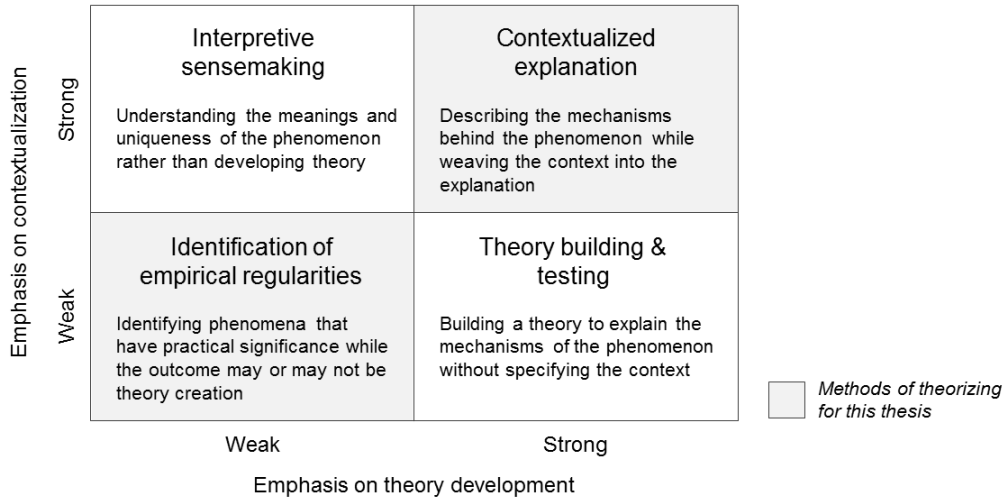


Figure 3.2 Four methods of theorizing from case studies adapted from Tsang (2013).

To theorize from the case studies in this thesis, the *contextualized explanation* and *identification of empirical regularities* were used. As the primary purpose of the case studies was to explore the practices of service designers for service development (the phenomenon itself), the *identification of empirical regularities* seemed suitable for theorizing. To examine the existence of regularities across diverse cases, multiple cases were selected by the maximum variation sampling so that the result may not be confined to the specific context expecting some possibilities of generalization. The first finding of the case studies (see Chapter 6) was concerned with identifying the intervention areas that the service designers intervened in, and the common characteristics underpinning the Service Design practices. While the results provided initial insight into Service Design practices for service development, they can be developed as a more universal theory if the mechanisms (i.e., factors or elements) relating to the Service Design intervention areas and common characteristics will be investigated beyond the boundary of specific contexts.

On the other hand, while exploring the service designers' practices in the case studies, the potential causal connection between designer-client relationships and the quality and impact of Service Design practices was sensed and explained (see Chapter 7). To theorize this, the *contextualized explanation* method was adopted. While explaining the influence of designer-client relationships on the quality and impact of Service Design practices, the author took into account the specific context of each of the case projects rather than considered the finding as context-free knowledge. That is, the finding cannot be considered as a universal theory as it was confined to the specific cases. However, this type of method of theorizing has its own value and legitimacy in providing theoretical explanation without sacrificing contextualization (Tsang, 2013; Welch et al., 2010).

3.6 Rigour of the research

Scholars doing qualitative research have used different standards to obtain the rigour of research (Gray, 2009). Creswell (1998) summarized several selected studies on verification of qualitative research, comparing their different perspectives and terms. According to the comparison, internal validity and external validity are, among others, commonly discussed in most of the scholars' literature. Internal validity is concerned with ensuring the research findings reflect reality while external validity is related with the issue of how much the findings can be transferred to other situations (Gray, 2009; Merriam, 2009). Merriam (2009) summarized how researchers can enhance the rigour of their research in terms of reliability and validity. Table 3.9 extracted the strategies of Merriam (2009) for ensuring internal validity and external validity. In the following sections, what kinds of strategies applied to the expert interviews and case studies are described.

Table 3.8 Strategies for promoting validity. Adapted from Merriam (2009, p. 229).

Internal/external validity	Strategy	Description
Internal validity *How much do the research findings reflect reality?*	Triangulation	Using multiple investigators, sources of data, or data collection methods to confirm emerging findings.
	Member checks	Taking data and tentative interpretations back to the people from whom they were derived and asking if they are plausible.
	Adequate engagement in data collection	Adequate time spent collecting data such that the data become "saturated"; this may involve seeking discrepant or negative cases.
	Researcher's position or reflexivity	Critical self-reflection by the researcher regarding assumptions, worldview, biases, theoretical orientation, and relationship to the study that may affect the investigation.
	Peer review/examination	Discussions with colleagues regarding the process of study, the congruency of emerging findings with the raw data, and tentative interpretations.
External validity *How much can the findings be transferred to other situations?*	Rich, thick descriptions	Providing enough description to contextualize the study such that readers will be able to determine the extent to which their situations match the research context, and, hence, whether the findings can be transferred.
	Maximum variation	Purposefully seeking variation or diversity in sample selection to allow for a greater range of application of the findings by consumers of the research.

Expert interviews

In the field research for this thesis, some of the strategies for internal validity and external validity were applied to the research process. On the one hand, to improve internal validity in the expert interviews, *member checks* and *peer review* were undertaken. The result of data analysis was sent back by email to the selected experts who had participated in the interviews for checking whether there is any misunderstanding or incorrect information. Most of the experts provided further comments or correction on the report. The peer review was carried out by peer reviewers of a journal to which the finding of the interviews was submitted as an academic paper. For external validity, the findings of the expert interviews were documented in a way to deliver contexts with sufficient descriptions and quotes from which the findings were derived.

Case studies

The internal validity in the case studies was enhanced by *triangulation, member checks*, and *peer review.* Triangulation was done through multiple methods for collecting data (Merriam, 2009); the interviews with informants were compared to the archival resources such as project reports and public websites. It was also done through varying sources of data; interviews in most of the cases were conducted with designers and clients for multiple perspectives while in some case, a series of follow-up interviews with the same informant were done as specified by

Merriam (2009). The member checks were done through having the within-case analysis of each case reviewed by the original informants asking them to check whether there is any incorrect information or missing point. Some of the informants corrected some parts of the initial case report and they sent back the report via email to the author, and the author re-examined the corrected parts and applied the corrections to the final case descriptions. For the peer review, the findings of the case studies were converted into academic papers and submitted to a conference and journals, which were then reviewed by peer reviewers.

Meanwhile, external validity in the case studies was improved by *thick descriptions* and by *maximum variation sampling* strategy. Each of the cases was analysed and described in Chapter 5 to deliver sufficient contexts of the project. The result of within-case analysis was described in a dedicated section namely, Project overview, Service development process, Relationship and collaboration, and Deliverables and outcomes. Each of the cases generated a report in 3pages of A4 papers with about 1,300 words. The sampling of cases was carried out considering different agency types, a wide spectrum of service domains, and varied types of service innovation so that the findings from these case studies may be transferred to other contexts to some degree. Besides, although an expert audit review (Patton, 2002) is not included in Table 3.9 as a strategy for ensuring external validity, the author undertook it to check how much the findings of the case studies reflect the reality of Service Design practice, and whether there is any critical insight missing in the findings from their own professional point of view. The expert audit review is described in Chapter 9. Seven professional service designers were asked to read through the summary of the case studies, and to assess the validity and applicability of the findings. They all provided via email their comments and insights on the findings. The expert audit review contributed to enhancing the transferability of the research findings as they validated the findings against their accumulated experiences obtained from other Service Design projects.

4. Expert interviews: Discussing the relationship between Service Design and NSD

In Chapter 2, the literature review on Service Design and NSD was discussed in order to compare their perspectives on service development. This review has revealed both commonalities and differences between the two disciplinary knowledge areas, i.e., commonalities in addressing prerequisites for service development, and differences in their perspective on service and their approach to service development.

Chapter 4 aims to discuss whether and under which conditions Service Design could be related to NSD theory. It describes an interview-based study in order to build theoretical links between Service Design and NSD theory. Twelve interviews with leading professionals in NSD theory and Service Design were conducted to address the following questions:

1. How can Service Design be conceptualized?
2. Are NSD theories still useful and applicable for service innovation?
3. How can Service Design and NSD be related to each other?

The first question arose from the plurality of conceptualizations of Service Design. As introduced in Chapter 1 (see section 1.1 Concept definitions), service design has been regarded as an ambiguous concept representing different meanings across disciplines. Hence, conceptualizing Service Design needed to precede the establishment of the connection between Service Design and NSD. The second question investigated the NSD concept and its validity for studying service innovation. In Chapter 2, traditional NSD studies seemed to be anchored in the Goods Dominant Logic, concentrating more on how to produce and manage services as ‘outputs’ rather than considering the overall value (co-) creation as ‘outcomes’(Edvardsson et al., 2005). Therefore, it needed to be discussed whether NSD theory can be still useful for understanding service innovation, and if there might be spaces for improvement. The last question is to examine if and how NSD theory could be used as a theoretical background for studying Service Design contributions to service innovation. Based on the synthesis between the literature review and the expert interviews, a conceptual link between Service Design and NSD has been developed.

The remainder of this chapter is structured as follows. In section 4.1, the findings from the interview study are documented being interrelated with the exerts’ opinions on the conceptualization of Service Design, Service Design characteristics and competences for service development, and the relationship between Service Design and NSD theory. Next, section 4.2

proposes the theoretical links between Service Design and NSD theory, and section 4.3 suggests two possible directions for studying Service Design in relation to NSD theory. This chapter concludes with the finalized research questions in section 4.4.

4.1 Multi-disciplinary perspectives on Service Design and NSD

4.1.1 Conceptualization of Service Design

It was found that although the respondents described Service Design in a slightly different way, their responses converged around the fact that Service Design can be considered as a broad concept that is able to be associated with the whole service development process rather than a narrow phase as clearly remarked by the Design academic 4:

> I think that the Service Design community is assuming a broader perspective than just a narrow stage in the NSD. Service Design shouldn't be just that stage and the narrow activities but it should be a perspective and an approach, a way of doing things that could spread and go to the different stages way of NSD. So when I think of the movement that service design is doing now, the question is "why can't we use service design approaches from the start, in even the implementation? (Design academic 4)

This broadened concept of Service Design beyond the narrow phase of the service development process was also found to varying degrees in accounts of all the Marketing academics. For instance, the Marketing academic 4 defined Service Design as a multi-dimensional concept:

> I would say four things: first, it (Service Design) is to design the offering in terms of what value it is for, then we come to how to design the process including the actors' roles and responsibilities. Then, the third is about designing environments, I would call it servicescape, the surroundings. Fourth, it is about communication, how to communicate service. (Marketing academic 4)

Service Design was mostly considered as a methodology consisting of a human-centred mentality and creative methods or tools to help a deeper understanding of service users. However, there was a slight difference between the Marketing academics and Design academics in which elements were more emphasized between the philosophy and the methods. Although the Marketing academics tended to put forward the Service Design methods or tools, the Design academics emphasized the Service Design mindset or perspective more than its methods or tools. For example, the Design academic 2 said that Service Design at its early phase has been often characterized by processes and a specific set of tools, but it is increasingly positioning itself as a different attitude and way of working:

> I think it becomes more an attitude, and different culture of working makes a difference. I think with growing maturity of Service Design we need to look beyond methods, and to make sure that we have a very clear understanding of what is beyond methods that makes Service Design unique. […] I am not so sure about the methods anymore, because I think methods are assimilated to other disciplines. They talk about personas and customer journey maps. All these things today are not new. People in service innovation, service marketing, they use it. (Design academic 2)

Meanwhile, one Design academic and one SD practitioner explained the concept of Service Design associated with the marketing principles of the Service Logic (Grönroos, 2006) and the Service Dominant Logic (Vargo & Lusch, 2008a). The SD practitioner 3 hesitated to use the term 'Service Design' in the same manner that people use 'graphic design' or 'product design' because he believes that Service Design is about designing for value-creation rather than designing an 'object.' Similarly, the Design academic 3 interpreted the contribution of Service Design in a different way alongside two different marketing perspectives on service, which are respectively viewing services as a type of market offering, and viewing service as "the fundamental basis of exchange" as defined by Vargo & Lusch (2008b, p. 7). He preferred thinking of Service Design in line with the Service Logic perspective:

> It (the contribution of Service Design) all depends on the perspective actually. If you leave it from the perspective of service as being something new that came into play in the late 20th century, design research has contributed with understanding how users, customers and complex stakeholder networks interact to achieve the outcomes of service and ways to visualize this and to engage users and so forth. But on the other hand, if you ask Christian Grönroos or Stephan Vargo, service as the underlying phenomena that makes product meaningful, design research has contributed for a long time by focusing on what the material objects are, how they function as deliverables of service. So, it all depends on the perspective. […] My view is based on the Nordic school, Service Logic perspective. (Design academic 3)

Some respondents said that the way that Service Design is defined can determine its scope of involvement in, or contribution to service development. The SD practitioner 3 said if Service Design is understood as narrow activities, it can have a huge limitation in supporting the later phases of service development (e.g., service delivery). On the contrary, if Service Design is conceptualized as a way of thinking, which is in line with his perspective, it has no limitation in its involvement across the whole service development process including the service implementation phase. Overall, most of the experts in the interviews, regardless of their discipline, were in line with the idea that Service Design can have an impact throughout the whole development process as said by the Marketing academic 3:

> You could think about, the design way of thinking should have an influence throughout the whole process, and that kind of design thinking takes into the perspective of the user, takes in the perspective of all of the elements, and has an impact on the whole system of the service. I think design has a lot of really great methods and tools, and philosophy of how you do new services that would benefit the whole implementation process. (Marketing academic 3)

4.1.2 Service Design contributions to the early phases of service development

Most of the respondents including the Marketing academics, Design academics and SD practitioners acknowledged the strong contribution that Service Design makes for the initial stages of service development although they used slightly different terms to refer to the initial stage. For instance, one Design academic described it as the exploration phase, the creation phase and the ideation phase while one SD practitioner called the early stage as 'understand' and 'imagine' stages. Many of the experts from Marketing and Design attributed the Service Design contribution to service development to its human-centred mentality and creative

methods. Five key Service Design characteristics to support the initial stages of service development were identified during analysing the data.

User centeredness

The most frequently mentioned characteristic regardless of the informants' domain was the user-centred approach that is focused on exploring service users' experience including their perspective, needs, expectations and emotions to inform idea generation and concept development.

> I think the main contribution of Service Design is in the introduction of users and consideration of user perspective in designing new services. I think this is the fundamental shifting perspective in Service Design. (Design academic 1)

As user-centred activities, user observation and involving users in co-design/co-creation workshops were mainly reported. According to the respondents, the user research undertaken by service designers is described as an ethnographic and empathic approach to deeply understand people in their life contexts. The Design academic 2 described the service designers' empathic user research as "understand the world of users and to step into their shoes and to look through their eyes." Also, it was said that service designers pay attention to people in terms not only of the rational aspect, but also of the emotional aspect. The SD practitioner 3 said designers tend to rely on understanding users' deep emotional and cognitive experiences around using the service taking it into account that a human being is a rational entity and an emotional entity:

> It (the designerly approach) has created a growing awareness of, the importance of how people perceive things, so perception, the difference between the rational human-being and the emotional human-being. That is really important because I think in designerly approach you use emotions and not just rational approaches but also intuition and gut-feeling. (SD practitioner 3)

Co-design with users and stakeholders

Another characteristic of Service Design found in the data was the co-design approach that is about involving users and other stakeholders in the design process. Particularly, most of the Design academics and SD practitioners stressed how service designers closely work with users and stakeholders by involving them in the service development process through various engagement sessions. The importance of involving stakeholders all the way through the development process was stressed by most of the SD practitioners. The SD practitioner at Livework emphasized how it is important to involve stakeholders in the earlier stage of the process because it enables designers to anticipate which barriers might come later when they need to implement the service ideas. Also, co-design can help stakeholders not only to understand the Service Design process but also to feel they are part of it as remarked by the SD practitioner 2:

> At Engine we work very closely with our clients and they can be involved at different stages of the design process. It is important that clients not only participate in the activities we carry out but also in the design process. This way, the rationale behind design decisions and the deliverables presented is not only better understood but owned. For example, on occasions when conducting customer research our clients might come along with us and take part in the interviews alongside us. (SD practitioner 2)

Holistic approach and system thinking

The holistic approach was mostly mentioned by the Design academics and SD practitioners as one of the important characteristics that Service Design brings to the service development process. Many of the SD experts said that the Service Design approach tends to step back in order to view the problem in the wider context before going straight to the solution to the given problems. What is the ultimate value and goals that service users want to achieve is firstly explored with an open mind. The SD practitioner 3 described the holistic approach as looking at service eco-system taking into account users' value:

> We look at contexts and ask questions and take a step back, let's look at the eco-system. They (business people) say "No, it is too complicated." We say "Yes, but that is what it is. So you can ignore it and you can just look at the little piece of what you are doing, and ignore the rest of the puzzle, then you have no clue of what you are doing." So looking at complexity, trying to understand the complexity and understand value, what value is, people are actually trying to do. I think that is the most important part what we contribute. (SD practitioner 3)

Similarly, the Design academic 4 said that Service Design practitioners tend to focus on the users' fundamental objective and the overall picture of their experiences while considering the services or products as an instrument to achieve the objective. She shared her own experience to demonstrate how Service Design could infuse the holistic view into the service development process:

> In my experience with companies many times they have very much focused on their offerings and their products. And they forget to think what are the fundamental objective of customers for which my product or service is just instrumental. And many times they are so focused on the product, they forget the overall picture. So I think that for example, a service design, human-centered, holistic approach of service design can help the NSD process even in framing the initial idea. And with service design perspective, we can ask "Is that what the customers want?", "Shouldn't we take one step back and see the activities, the goals of customers, and see the overall picture? (Design academic 4)

Prototyping and iterative processes

The iterative and flexible processes enabled by prototyping were also reported by the Design academics and SD practitioners as one of the distinctive Service Design characteristics for service development. The iterative processes were described in contrast with the stage-gate process or the waterfall process used in the traditional approach to service development.

> We do prototyping and run pilots where we learn how to change and adapt. But we do that very quickly. Testing our hypothesis and testing a business model. So testing, going back and forth is very important part of every step. But it is continuous. (SD practitioner 3)

The Design academic 4 said that although there are some cyclic models to overcome traditional linear service development processes in service marketing, these models still seem to be less flexible compared to the Service Design process. As the enabler for the strongly iterative process, prototyping skills were mentioned by many of the SD experts as said by the Design academic 3:

> Ok we know very little about this service. Let's make a prototype. Ok we understand the problem wrong. Ok that is fine. We scrap that prototype and let's go to some user research. So we talk to people. […] Ok I know little bit more but I don't know everything. Let's make a new prototype from the knowledge we know. So we make a new prototype and we invite people to perform this prototype. (Design academic 3)

Creative and open mindset

Several respondents stressed an open mindset as the unique feature of Service Design that can be differentiated from other disciplines. According to the interviewees, the Service Design approach is deeply rooted in divergent and creative thinking. Designers have been trained to explore wide opportunities rather than being restricted to a given brief or scope. This open mindedness of designers was said to have a huge potential in the fuzzy front end of the service development process where initial questions are often framed. The Service Design practitioners normally embark on a project by asking "why?"

> The first step is usually about asking questions, "Why? Why do we want to do? Why is this important? Why? Why, Why?" asking the right questions, framing the right questions. Asking questions, having a period where you don't know what you are doing, and that is actually ok. You can actually spend time as long as possible in that space where you are exploring and getting inspiration […] This is the part that in business everyone wants to skip as quick as possible." (SD practitioner 3)

The creative and open mindset is made possible because designers are willing to be open about uncertain and ambiguous situations, and welcome risk taking. This is an attitude that proactively seeks out rich opportunities for improvement, different from the relatively defensive position that often seems to be taken from other disciplines as discussed by the Design academic 3:

> As designers, we are good at risk taking. A lot of other disciplines are not good at risk taking. Many of the other disciplines talk about 'the fuzzy front end where we don't know a lot of things. We don't know what we want to do, where to go, and how to do it. That is the way it is described, 'fuzzy front end.' And there are two assumptions. One, as an organization, we will be de-fuzzing this, and we will end up with something that is minimal fuzzing, so kind of nice little thin thing. For designers, there is no fuzzy front end. There is always a lot of options, different perspectives, and people, a lots of ideas, lots of ambiguity. We are not disturbed by that. It is ok. (Design academic 3)

4.1.3 Service Design competences for service implementation

Most of the respondents regardless of their discipline agreed on the fact that Service Design has competences that may facilitate service implementation although they somewhat diverged on the means to achieve that. The recognized competences and potentials of the Service Design approach for service implementation can be grouped as below.

Human-centred perspectives for mobilizing actors

Many of the respondents stressed that the human-centred mentality and principle of Service Design can be applied to service implementation. For instance, the Marketing academic 2 and 3 similarly said that the process of implementing service requires a very human-centric approach because service delivery usually involves users and a variety of stakeholders across the organization, mostly changing the ways they have been thinking about and doing their work on a daily basis. According to them, several questions may arise in that regard. How can we educate the actors about their role and responsibility? How can we communicate with the consumers about the new offering and value? How can the customers co-create the service with the firm? The Marketing academic 4 emphasized that service is 'integrated' in a bottom-up way rather than 'implemented' in a top-down way if we consider service delivery from the service system perspective. In this sense, he said that Service Design can contribute to understanding the individual actor's unique use context. Similarly, the SD practitioner 3 explained how the human-centred approach can be applied to understanding service actors and mobilizing them for change. He stressed that if we consider stakeholders as 'users' of the service system, we need to understand their needs and values as we did the same thing for the end-users in the early phase of service planning:

> Again, it is a human-centred approach. It is about understanding value, and what drives people in organizations, not treating them as job descriptions and departments. (It is about) really understanding what drives people in organizations and trying to help them do it better. So, in a way, Service Design is all about understanding what your customer wants, and helping them do this better. So we are applying that in implementation. (SD practitioner 3)

The service designers' emphasis on users' experiences was also reported to be useful to successful service implementation. According to the Design academic 4, the Service Design approach can serve as a guardian to keep users' experience consistent across the whole service development stages. While going through various development stages involving different parties, the original service experience and concept might lose its consistency or coherency depending on the different parties' interests or capabilities. The Service Design approach thus can help diverse service actors not to miss the overall picture for the service experience that can be achieved through a patchwork of efforts from different parties or teams, while stopping them from only thinking about their own part.

Co-creation for changes and organization's capabilities

As a way of facilitating or helping service organizations, the co-creation approach was highlighted by many of the Design academics and SD practitioners. The SD practitioner 2 explained how Engine has been involving their clients in the service development process in order to make a chain reaction within the client organization:

> Our work is customer-centred and our clients are constantly involved and contribute throughout the process. We believe this approach produces more informed and interesting design outcomes. It can also generate positive responses within the organisation. For example, when trying to understand service change requirements, we approach the problem by placing the customer in the centre of the whole service and organizational eco-system. What we try to do is, paint a picture of what customers encounter, and understand where things might go wrong, to flesh out what we could do to make it better. The client then not only starts to understand what changes they might need to make but they co-own the result by being part of discovering what those changes need to be. (SD practitioner 2)

Meanwhile, the facilitating and mentoring role was reported to be one of the SD practitioners' key strategies for service implementation. Most of the SD practitioners interviewed for this research agreed on the critical role that the client organization has in order to achieve sustainable service innovation and management. They said that it is ultimately the organization itself that needs to take ownership in designing, developing, changing, and improving the service. For instance, the SD practitioner 3 said that the organization should take ownership and responsibility for the whole service development stages, stressing that constant user research to catch up with changing user needs, and service delivery and management are in the end the organization's role, not the external consultancy's role. Hence, service organizations should build their own capability and capacity for service innovation, and Service Design consultancies can help their clients to achieve that by teaching them how to have an empathic conversation with users to understand their changing value and needs, and how to actualize the insights from the user research.

Holistic view on different actors

Some of the respondents said that the Service Design approach can offer a holistic view on the organization that many organization staff members are likely to miss. If it is a big organization, many teams tend to be segmented and people are not likely to understand the other teams' roles or tasks. There might be important elements that get missed in between departments, which the Service Design approach is able to pick up on because the holistic approach that Service Design practitioners take enables them to look at the whole picture of the company. This holistic approach enables people to get an overview of what is happening, and then to share that with all the stakeholders. The SD practitioner 2 was talking about this:

> We don't only speak to the direct client or the stakeholder who commissioned the work but also to the various stakeholders that may have an impact in the experience delivery or those with relevant knowledge regarding the issue we are looking at. So what we normally do with our clients' help, is to conduct working sessions or stakeholder workshops to share views and knowledge based on their experience and expertise. We also conduct one to one interviews with stakeholders to understand more in depth challenges and opportunities So, what you get at the end is a map of the different points of view on the matter. This informs the process and generates invaluable input to be able to deliver a better design outcome. (SD practitioner 2)

While the Marketing academics tended to mention the complexity arising out of working with many different parties involved in service implementation as a big challenge (see the Marketing academic 2's comment below), the SD practitioners regarded the complexity as opportunities through which their interventions can have value.

> There are just lots of players involved in trying to make all of these things work. […] I think any one discipline working in conjunction with all of these parties makes it a challenge to holistically get aware, there are just a lot of players involved ultimately in the design execution, this is how we want it, idealize the design, execution of it to get through the whole process, but lots of different people and functions having to work with. (Marketing academic 2)

Communication through visualization for changes

Some of the SD experts said that design can be strongly involved in the change process by facilitating creative communications. Service designers can apply to the change process the designerly ways of communication that tend to be more visual, tangible, expressive, and innovative than ones normally found in other disciplines. Designers can propose the aimed future in a more visual and fun way and that can play a mobilizing role. For instance, the Design academic 4 emphasized how the images and narratives can be very effective tools when designers have communications with people from service operations teams (e.g., engineers) during the service development phase:

> One of the strong contributions that service design can bring is that for example, the visualization. We could establish the connection with the customers and hospitals and the blood donors that they couldn't do otherwise. I think this human-centric, creative communication, because we did several workshops with participants, they could drag and drop, they comment and in the end they see the value of what we do. (Design academic 4)

Different opinions about Service Design contributions to service implementation

Before closing this section, it needs to be reported that there were discrepancies in the opinions between the Design academics and SD practitioners about the Service Design intervention in service implementation. Although they mostly agreed that Service Design has potential competences for service implementation, they voiced different opinions about whether Service Design currently engages in service implementation. The Design academics said that Service Design currently lacks contributions to service implementation in terms of both research and practice as mentioned by the Design academic 1:

> If you look at the parallel of product design, a long time ago, there were engineers designing the project and object, and then they were going to designers asking him or her to make it beautiful. And now it is similar. The timing is different because the service designer is involved in the value creation in the concept development, but when it comes to the real, actual implementation, it is considered the matter of organizing people, organizing process, and sometimes the designer is kicked off from this process. (Design academic 1)

On the contrary, the SD practitioners said that there are different strategies to engage in service implementation, and they 'are' currently involved in supporting their clients to implement the service by using different approaches according to their clients' needs and the organizational contexts.

> There are different ways of helping implementation. On some projects, we have probably done the implementation stage. I think we are definitely being involved in implementation. (SD practitioner 1)

> We are involved in implementation because we start implementing straight away. That is the first thing we start doing. Because, if you only think about implementation at the end, you are too late. (SD practitioner 3)

4.1.4 The relationship between Service Design and NSD

When asked about whether and how NSD theory is useful in understanding service innovation, all the Marketing academics and one Design academic said that NSD knowledge is relevant and useful although it might be considered as a somewhat traditional term or an old phrase in the service research field. When referring to the widely discussed two perspectives on service, which are services as "a category of market offerings" and service as "a perspective on value creation" (Edvardsson et al., 2005, p. 118), most of the respondents agreed that many of traditional NSD studies seemed to be built on the perception of service as a market offering. However, none of them considered the NSD contributions irrelevant for service innovation. Rather, they all stressed that NSD knowledge is still useful and applicable, especially when working with companies. The Marketing academic 3 emphasized the relevance of NSD knowledge, saying that the different views on service can exist as different ways of approaching service:

> I still think that (NSD research) is very relevant because services in some cases are offerings, and they need to be viewed that way and developed in that way. […] I am a proponent, we can have the view that a service is an offering because companies certainly think that way, they need to think that way much of the time, but we also need to think of service as a philosophy of business as a way of working with a customer as a whole paradigm of business. I think those are just a different way of looking at service. (Marketing academic 3)

The opinions of many of the Marketing academics converged around the idea that NSD knowledge could be combined with some contemporary ideas such as value co-creation, customers' involvement and use contexts that are associated with the Service Logic or Service Dominant Logic concept. For instance, the Marketing academic 4 said that NSD studies seemed to be limited in terms of the scope or the unit of analysis by focusing on a new service offering. He said that NSD literature needs to include further investigations on service system exploring users' actual use contexts and service actors' roles and responsibilities. He also emphasized that because services are not stand-alone entities, it should be taken into account how the service would interact with other products or services when it is used by customers in their real life context. The Marketing academic 3 also agreed with the idea that NSD studies can be enhanced by introducing contemporary ideas of co-creation, co-development, and customer involvement:

> I think that there could be real value in bringing those two perspectives (viewing services as an offering and service as a perspective on business) together, or bringing the more contemporary perspective into the service development frameworks and models. Also I think there could be some good value there because I don't think we should throw out the original ideas because they are still good and work, but we maybe need to expand and bring some of the new ideas into that or vice versa. (Marketing academic 3)

Concerning the relationship between NSD knowledge and Service Design, all the Marketing academics agreed that NSD knowledge and Service Design can have a connection to each other although their ideas about the mode of connection was slightly different from each respondent. For example, the Marketing academic 1 said that Service Design can be considered as bigger

than NSD in that while Service Design is concerned with both improving the existing service and creating new service, NSD is focusing on developing 'new' services. He preferred to use the term 'Service Design' as a more related concept to service innovation rather than to use the phrase NSD. Other Marketing academics 2 and 3, both considered the Service Design and Marketing approaches as somewhat overlapping in that they both consider customers and users, and share some tools and methods for service development (e.g., service blueprint). The Marketing academic 3 and 4 stated that Service Design can contribute to deepening the understanding of NSD processes by providing more practice-based knowledge because NSD is highly abstract and theory-based. According to the Marketing academic 4, many spaces of the NSD process are still in a black box in the service literature in terms of several aspects, for example its prerequisites, customer involvement, processes and methods, and Service Design can contribute to uncovering the hidden areas. Meanwhile, the Design academic 4 remarked that Service Design can permeate the NSD process enriching each of the phases:

> I wouldn't see Service Design as replacing NSD but instead as permeating the other stages of NSD. But having said that, service design approach could also change the way the NSD is undertaken, be more iterative. If you go to the traditional books of NSD, you see them as a more linear process, although Johnson has a cyclical process but it is not as iterative for example as service design approaches typically are with a rapid prototyping. So I would see Service Design as contributing to changing the new service, not absolutely replacing but deeply changing the way we develop services at each stage. (Design academic 4)

4.2 Theoretical links between Service Design and NSD

The findings from the data analysis help to clarify the relationship that can be made between NSD and Service Design. On the one hand, while NSD theories can be valued as a theoretical basis for understanding service development, it was pointed out that NSD research needs more empirical evidence that can support the theories. Especially it was emphasized by the Marketing academic 4 that the current NSD processes still have many hidden spaces to be disclosed by the real practices:

> I would say that we don't know so much about the process of developing new services. How does it take place in practice? […] It is still a bit of black box, I think, in the literature. I mean you say the prerequisite, idea, customer involvement, what about the creative process? Not much at all. (Marketing academic 4)

Besides, NSD research tends to lack considerations on more contemporary marketing ideas for service, which are centred on value, service system, actors, and customers. These ideas are mostly highlighted in the Service Dominant Logic and the Service Logic. However, all the Marketing academics did not say that NSD knowledge should be abandoned or that it is irrelevant for service innovation, rather they said that it needs to be improved in terms of its unit of analysis from planning and producing a new service offering towards developing service system as a platform for value co-creation. In particular, the need of engaging with actors, and

facilitating users' value determination by fully understanding their individualistic use contexts and engaging with them was highlighted.

On the other hand, it was said that Service Design as practice has contributed to service development focusing on user research, idea generation and service concept development with the human-centred perspective, co-design with users and stakeholders, holistic and system thinking, iterative processes with prototypes and an open mindset. In terms of Service Design competences for supporting the service implementation process, the opinions of all the three groups converged around the human-centred perspective, and the Design academics and the SD practitioners added co-creation with stakeholders, visualization, and the holistic view across the organization. It is notable that the Service Design characteristics that were said to contribute to the early phases of the service development process and the Service Design competences that are expected to improve service implementation were overlapping to a large extent. In particular, among other characteristics, understanding the experience and context of users and other actors, involving them in the design process, and holistic thinking seem to resonate strongly with the core mentality of the Service Logic. In fact, these Service Design characteristics could help to understand users' value realization context and other actors' needs for the development of service systems. As an initial insight then, we can assume that Service Design as an encompassing concept may apply to and permeate the whole service development process from design to implementation, infusing the current NSD knowledge with the Service Logic principle. This implication can be in line with the perspective of the Marketing academic 1 that Service Design is bigger than NSD. And it is also in accordance with the opinion of the Design academic 4 that Service Design can spread throughout the NSD process.

At the same time, the Marketing experts indicated the lack of theory in Service Design, which has been also pointed out by the design community (Kimbell, 2009b; Sangiorgi, 2009). In this sense, NSD might be able to inform Service Design practices with theoretical models or frameworks through which the service designers' tacit knowledge and skills could be interpreted or formalized. In addition, the discrepancy between the opinions of the Design academics and the SD practitioners about the extent to which Service Design intervenes in and contributes to the service development and implementation process needs to be paid attention to. While the SD practitioners described the engagement with service implementation using various strategies, the Design academics mostly said that Service Design currently has limitation in its involvement in service implementation, indicating a lack of studies to show how service implementation can be enhanced by the Service Design intervention. These different perceptions between practitioners and researchers imply that there may exist a gap between Service Design practices and Service Design research, highlighting the need for dedicated research activities.

Based on the synthesis of the above discussions, the integrative links between Service Design and NSD theory were suggested in Figure 4.1.

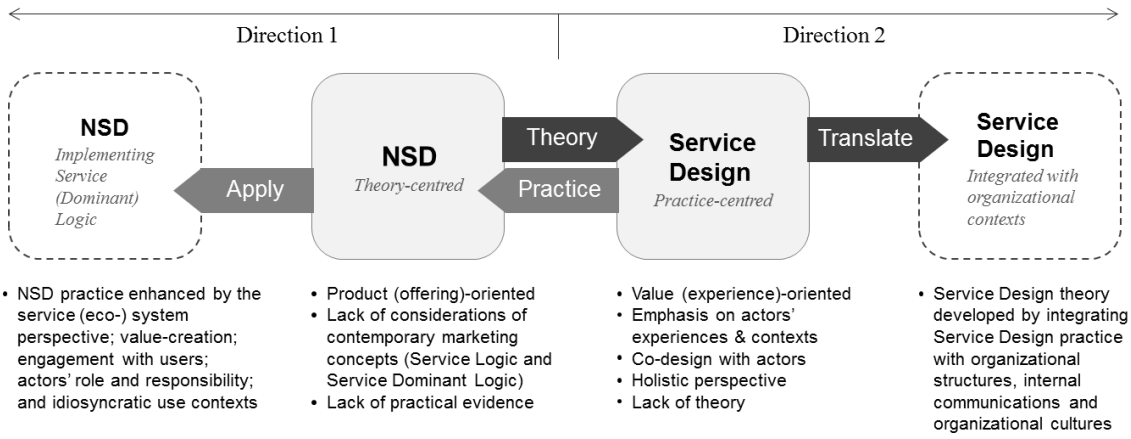


Figure 4.1 Theoretical links between Service Design and NSD theory for studying Service Design in relation to NSD theory

4.3 Research directions for interdisciplinary service research

The links illustrate that while NSD is theory-focused, Service Design is predominantly focused on practices, and they can benefit from each other as a complementary approach and perspectives to service innovation. The link implies that there exist at least two directions for future inter-disciplinary research. ***The first direction*** is to explore how Service Design can enhance NSD by its practices. Although classical NSD research has created its own perspectives, process, and methods with respect to developing services, it is lacking practical knowledge around value (co-) creation, service system and service eco-system, actors' role and responsibility and users' use contexts. Although there is increasing service research addressing those topics anchored in the Service Logic and the Service Dominant Logic, these research contributions do not seem to be closely integrated or empirically applied into the actual NSD process. This limitation of NSD theory may be partly complemented by examining Service Design practices. Many of the multi-disciplinary experts interviewed for this research emphasized how Service Design has its strength in deeply understanding actors (not only users but also stakeholders) around their contexts, and can contribute to applying the holistic point of view to envisioning and developing service systems. Therefore, it can be said that the Service Design perspective and methods can permeate the overall NSD process in order to better align it to the Service Logic and the Service Dominant Logic. Taking this direction could be achieved by answering the following research questions as sequential steps:

Direction 1. Service Design could complement traditional theory on NSD processes with its practice by transforming NSD towards better implementing the Service Dominant Logic.

1) How do Service Design practitioners intervene in each stage of the NSD process?
2) What contributions can Service Design practice bring to the existing knowledge of NSD?
3) Can the contributions help to reframe NSD towards reflecting the service-based perspectives (e.g., the Service Logic or the Service Dominant Logic)? If so, how?

The second direction is how NSD can improve Service Design by providing theories. Whereas service marketing studies have generated distinct theories around developing and managing services, many of Service Design consultancies' knowledge and skills remain tacit, not being translated into systematized disciplinary knowledge, which leads to the limitation of Service Design in terms of its theoretical contributions (Kimbell, 2009b). The need of transferring Service Design practices into Service Design research has been also witnessed by the different opinions between the SD practitioners and the Design academics interviewed for this research about the Service Design contribution to service implementation. The critical point here is that the conversion of practical knowledge should not be merely the description of the practices. The Service Design practices should be reinforced by relevant theories for the academic contributions as remarked by the Marketing academic 3:

> I think that one of the (Service Design) distinctions is clearly in the methodological approach, the interesting techniques and tools that you used to understand the experience and the user, but I think if you want to publish that kind of work in the more traditional service journals, then the challenge is to bring those to wrap some theory around those methods. […] So, if you can integrate those with some of the other disciplines, that is the uniqueness that Service Design can bring to the service research community. (Marketing academic 3)

Service Design may be able to apply relevant NSD theory to its practice in order to both enhance the practice itself and to better interpret it into Service Design theory. The literature review indicated that whereas service designers have engaged creatively with users, they lacked engagement with organizations. This can be related to the criticism for designers that their ideas stay "on the drawing board" due to the "lack of attention to organizational issues and cultures" (Mulgan, 2014, p. 4). NSD knowledge could help the service designers' outside perspectives and practice to be better implemented and embedded in the organizations' internal processes. According to Papastathopoulou & Hultink (2012), the majority of NSD articles have studied organizational issues for NSD, i.e., cross-functional integration, internal communications, organizational learning, and organizational interactions. The literature review also showed how NSD research has contributed to understanding organizational structures, internal communications and organizational cultures as a facilitator for successful NSD. Service Design may be able to utilize these theoretical contributions as a way to enhance its practice and

research. This research direction could be taken by addressing the following sequential research questions:

Direction 2. Service Design could be enhanced by integrating Service Design knowledge or practice with organizational contexts that could be provided by NSD theory.

1) What problems or challenges do service designers encounter to implement the design outputs in the organization?
2) Which organizational theories can be useful and applicable to address the challenges?
3) How can Service Design practice be integrated with the organizational theories to make greater contributions to service implementation?

4.4 Finalized research questions

In Chapter 1, three preliminary research questions were defined as follows:

1. How are Service Design practitioners involved in service development processes?
2. Could the Service Design practice contribute to NSD theory? If so, how?

The findings of the expert interviews confirmed that Service Design and NSD can be linked and mutually benefit each other in the two different directions. The first direction (***Service Design could complement traditional theory on NSD processes with its practice by transforming NSD towards better implementing the Service Dominant Logic***) can validate the second research question. Furthermore, the first direction is able to guide the process of inquiry for this thesis according to the following steps: 1) examining Service Design intervention areas alongside the NSD process; 2) searching for differences between the Service Design approach and the NSD theory; and 3) interpreting the differences into Service Design contributions to NSD through the lens of the service-based perspective such as the Service Logic or the Service Dominant Logic. By positioning Service Design intervention areas and activities in the NSD process model, to what extent Service Design practice covers the phases of NSD processes, and what changes it can bring to the NSD process can be clarified. During this process, it can be revealed whether or not Service Design can be rethought out of the traditional rendering activities happening in the narrow phase, and repositioned as a holistic approach to NSD. And, the changes brought by the Service Design activities can be interpreted through the service-based perspective into Service Design contributions to NSD theory.

To sum up, the research questions for this PhD thesis are finalized as follows:

1. How are Service Design practitioners involved in service development processes?
2. How can Service Design practice contribute to NSD theory?

5. Case studies: Exploring Service Design practices alongside the service development process

This chapter summarizes the ten contemporary Service Design projects in the form of within-case description and cross-case comparison. In the first part, the results of the within-case analysis are documented. According to Eisenhardt (1989, p. 540), "within-case analysis typically involves detailed case study write-ups for each site" and "the overall idea is to become intimately familiar with each case as a stand-alone entity." The descriptions of the individual cases are organized in a set of sub-sections that allow for a systematic understanding of the project. The categories for the sub-sections are organized as follows:

- ***Project overview***: This section summarizes the whole story of the given project highlighting specific contextual conditions of the project, for example, project background, project scope, project challenges, and Service Design strategies that have been applied to overcome the challenges.
- ***Service development process***: This section outlines how each of the projects unfolded in terms of detailed phases, specific activities or events, and actors involved in the activities.
- ***Relationship and collaboration***: This section describes how the Service Design practitioners and their clients worked together during the designers' interventions. The case studies contain a range of projects carried out both by external Service Design agencies and by internal Service Design teams within service organizations. Therefore, for the external Service Design agency, the relationship and collaboration are examined in the context of the interaction with their client, and for the internal Service Design team, the relationship and collaboration are explored focusing on how they interacted with the commissioning team of the organization. The service development process and the relationship and collaboration are then synthesized using a visual diagram.
- ***Deliverables and outcomes***: This section describes what the Service Design practitioners generated as key deliverables and what their work and deliverables brought about into the clients and organizations as a result.

The second part then compares the ten cases in order to recognize emerging patterns or themes across the ten projects. According to the defined research purpose and questions, four main dimensions were set up: project contexts, designer-client relationships, Service Design

approaches, and Service Design contributions. The ten cases are compared with each other against these dimensions.

This chapter is organized as follows. In section 5.1, the results of the within-case analysis for the ten cases are described according to the defined categories. Next, in section 5.2, the cases are compiled for cross-case comparison based on the four given dimensions.

5.1 Findings of within-case analysis

5.1.1 Case study 1- Quick Tap (Livework)

Project overview

Quick Tap was a mobile payment service using Near Field Communication (NFC) technology that was developed by Orange in partnership with Barclaycard. It enabled Orange customers to pay for their small purchases with their smartphones if they buy the mobile device and activate it through the given process. At an early stage of the project, Orange, with the initial service ideas, involved Livework in the project to overcome several challenges. As it was the first mobile payment service introduced to the UK market, Orange had to make sure that their customers were able to engage with the new service process. The Quick Tap service entailed a potentially complicated procedure involving several channels and touch points (e.g., phone, written material and website) for the sign-up process. The client wanted the customer to go through the process without difficulties. To address this challenge, the designers at Livework focused on creating a coherent end-to-end customer experience journey. During the development of the customer experience, they also developed, tested and modified several prototypes of touch points to discover the potential barriers to the customers' interactions with the service. Through the iterative prototyping process, the designers could help the customers better engage in the new type of behaviour required by the new service (Figure 5.1).

Figure 5.1 Prototyping the out-of-the-box experience[7]

[7] Image accessed 09 July 2015, available online http://liveworkstudio.com/client-cases/orange-barclaycard/

Besides, there was a need to develop a common understanding of the service among the stakeholders, and the stakeholders needed to agree on how to interact with the customers, for example the customer support process between Orange and Barclaycard. A critical requirement of this project was also to find a way to help the two big companies, Orange and Barclaycard to better cooperate and collaborate during service delivery. Livework supported the stakeholders to have a shared understanding of what a desirable user experience for the service should look like. They developed a service blueprint describing service processes aligned to the end-to-end customer experience journey, and used this material in regular collaborative workshops to identify potential gaps and inconsistencies between what the desired customer experience should look like and what their current experience would look like. The collaborative sessions also helped the stakeholders to understand not only their own role and responsibilites but also other parties' role and responsibilities. Furthermore, Livework facilitated discussions between Orange and Barclaycard, helping them make a strategic decision about their business relationships and processes. In this process, the designers at Livework played the role of a referee to reconcile them and a guardian to ensure that a coherent end-to-end customer experience is maintained throughout the operational processes.

Service development process

Orange initially looked at a concept of delivering a new payment service using NFC technology early in 2008. The service concept was outlined detailing a potential business partner, Barclaycard and technical suppliers such as Samsung for device and Gemalto for SIM. During ***the concept development*** phase, Livework was involved in helping Orange communicate the new service concept and the project plan internally in order to get the project funded within the business. Livework created the service stories about what the new service would look like from the customer's perspective. After going through the ***opportunity study*** phase in which the cost of resources for the service development was considered, the project went into a ***detailed design*** phase to shape an end-to-end customer experience and to validate it with the relevant stakeholders and suppliers. Livework held a number of workshops in order to facilitate ongoing conversations among the stakeholders such as Orange, Barclaycard and the technical suppliers about what the customer experience would look like, how to align the business processes to the desired customer experience. The ongoing conversations were helpful to draw the actors' commitment and collaboration across the different teams and suppliers. The ***development*** phase was dedicated to the development of hardware and applications, integration testing, live testing, and resources deployment. During this development stage, Livework offered inputs about how to communicate the new service with customers into market deployment activities that were carried out alongside the core technology development activities. Through the ***deployment*** phase including 3 to 6 month live testing period, in May 2011 the service was initially launched

to the market. After the initial ***launch*** there was a need to support new mobile devices, and Livework was called again for supporting the launch of the first Android NFC device.

The overall development process is visually summarized in Figure 5.2.

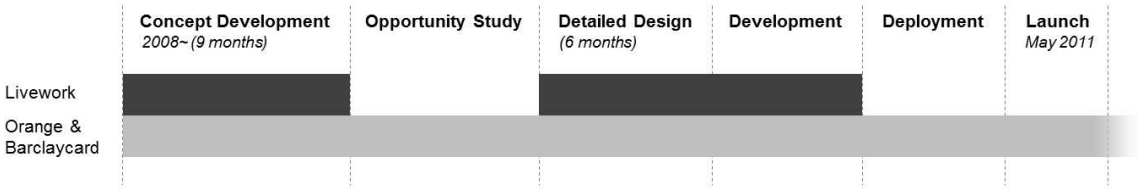


Figure 5.2 Service development process in the Quick Tap project

Relationship and collaboration

Livework was involved in the project during the concept development stage, the detailed design stage, and the development stage. Although they supported their client to communicate the service concept and offered inputs into the marketing activities, they made a much stronger contribution to the detailed design phase. For the detailed design, during the regular workshops with the stakeholders and suppliers, the designers facilitated the communication between the actors to shape the service processes and business relations, and shared with them customer's feedback about the prototypes. As the focal client in the Orange company had a very good understanding of Service Design based on his prior experiences of working with service designers, the overall collaboration between the service provider and the designers was very smooth. In addition, the shared thinking among the actors that the coherent customer experience and the customer's engagement with the service are the key to success allowed the service designers' way of working to be well received and embedded into the service development processes.

Deliverables and outcomes

The critical outputs generated by Livework were the workshops, and the visual specification documents illustrating the end-to-end customer experience. The document outlined the service process from the customer's perspective in six key stages from awareness to customer support at a macro level, and described every key touch point alongside the customer journey and across the two service provider companies (Orange and Barclaycard) at a micro level. It documented internal information such as a time schedule, issues and ownership for the development and management of each of the channels, and contained the user feedback from the prototype tests and the development plans based on the feedback. The document kept being revised alongside the regular workshops over six months, and the finalized version of it was delivered to the clients. The service designers' interventions and outputs brought about some critical outcomes. The workshops enabled the stakeholders and suppliers to be aligned and committed to the

customer experience, and fostered the condition in which different parties collaborate with each other rather than work in silos. The visual specification document not only supported the clients to be ready for service launch, but also raised the organizational members' awareness of the new service process. Because of many graphics and photographs in the document, it was highly valued as an effective communication tool by the client. It was utilized as an internal briefing tool and a manual for the operations team and live testers to train users.

5.1.2 Case study 2- ANA airports (Engine)

Project overview

As the public-owned company operating Portugal's primary airports, ANA (Aeroportos de Portugal) was specialized in infrastructure for the airlines, which were their main customers. With the changing industry environment and increasing market competition, ANA recognized the need to alter their business position from an infrastructure provider to a passenger service provider offering great customer services. To achieve the mission, ANA asked Engine to help establish passenger services strategies and concrete action plans to implement the services across ANA airports. Engine responded to the mission with two key approaches: the first was to create a vision of ANA for the new passenger services strategy and a customer-centred value proposition. Based on exploratory and in-depth ethnographic user research, Engine defined a new vision and new roles for the airport to play in passengers' experiences and outlined a sustainable customer service strategy. The second was to realize the vision in key service areas and build the skills and capabilities of the ANA team and staff. Engine developed nine work streams in which a range of service offerings were proposed to meet various customer needs. Along with defining the work streams, Engine was also involved in building ANA's capabilities by means of setting up a new operating board and a dedicated team to deliver the services, which caused a slight restructuring of the organization both at the group level and at the regional level. For example, the restructuring included having services managers or product managers within each of the airports, which were new to ANA. This suggested organizational structure was partly prototyped and tested during the project development process.

Service development process

The overall service development process can be described aligned to the four D-phases: Discover, Define, Develop and Deliver. The ***Discover*** phase was mainly about building a better understanding of customer and partner requirements. The Engine project team generated insights into a passenger service strategy through a close engagement with passengers, front line staff and third parties. The research with the passengers was carried out through on-site experience auditing and ethnographic research focused on passengers at Lisbon airport. As a result, an opportunities framework was developed outlining passenger needs, airport responses

and opportunity spaces. The ***Define*** phase was about deriving a set of strategic frameworks in order to position solutions in the opportunities framework, and define the role of ANA clarifying how ANA could deliver that role (Figure 5.3). Engine developed a customer needs spectrum according to passenger variability in order to represent more sophisticated passenger requirements, and examined what role ANA needs to play in order to deliver value to those customers. As a result, the overarching vision was defined as 'Preparing for travel', and the three key roles of ANA were defined as advisors, companions, and hero. According to the vision and roles, a set of service offerings and features were generated.

Figure 5.3 Strategic frameworks to define ANA's roles[8]

In the ***Develop*** phase, the ANA's new service offerings were defined as nine specific work streams, for example travelling with children, airport environments, security, premium travellers and the use of technology and communications. Each of the work streams were validated for technical requirements and business viability. Engine then prioritized the service offerings considering their impact on the overall passenger journey and made a roadmap for future development. Alongside the work streams, Engine helped ANA establish a services management team by defining the right mix of the skillsets required for the team and nurturing team skills and capabilities with Service Design tools and methods via on the job training. The ***Deliver*** phase was about putting the program in place, which was to deliver a pilot for 6-12 months where ANA got the service components built while the road mapping of the services was defined. In 2012, as part of the roadmap some of the services were rolled out to the market successfully.

The overall development process is visualized in Figure 5.4.

[8] Image accessed 09 July 2015, available online http://www.slideshare.net/JamesSamperi/engine-service-development-for-ana-airports

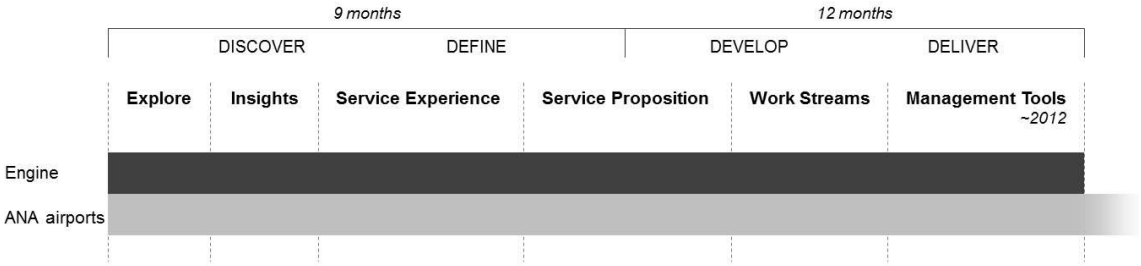


Figure 5.4 Service development process in the ANA airports project

Relationship and collaboration

ANA was receptive to the new way of working of Engine because the mission of ANA towards a customer service brand had already been communicated and shared across the organization with support of the board level. Thanks to the top down vision, the Service Design approach suggested by Engine thus had less resistance within the client organization, and could get buy-in from the ANA's internal stakeholders. Engine also spent a lot of time supporting internal advocates of the Service Design approach, supporting them with making a case internally for about 4-5 months. Meanwhile, Engine's prior experiences of working with clients in the aviation sector helped the Service Design team to understand the industry knowledge and languages, and to better communicate with the staff in ANA. Therefore, with respect to the relationship between the service designers and the client, no specific barrier or conflict was reported. While the Engine project team worked with senior marketing people during the Discover and Define stages, they engaged with operations teams during the Develop and Deliver phases. In particular, when they were working on the nine work streams, Engine embedded its project team within the ANA office in Lisbon and had one-to-one engagement with the ANA services management team members, aligning them to a range of work streams. Engine trained them by involving them in several design sessions such as co-facilitated workshops so that the ANA services management team may build their own capabilities to sustain the service innovation without the direct engagement of the Engine project team.

Deliverables and outcomes

During the Discover and Define phases, the Engine project team generated many insights on passengers' experiences to help the client's understanding of their customers. Based on these insights, Engine produced the ANA passenger services strategy and service propositions along with an implementation plan. The passenger services strategy contained ANA's basic principles, required roles and skills, and organizational culture to enable the transition of ANA from an infrastructure company to a customer service provider. When the design outputs were received by ANA, they facilitated the ANA project team's internal briefing and communication processes for project authorization by the ANA board. During the Develop and Deliver phases, Engine formulated service propositions and blueprints for the nine work streams, and actionable service

specifications. Also, Engine produced ‘ANA Basics’ consisting of tools and guidelines to help ANA sustainably deliver and manage the services in a long-term basis. The management tools were aimed at supporting ANA to define and assess a consistent service quality over various service channels, and training staff and building organizational capability within ANA. The management tools consisted of two elements. The first element was about defining the customer service standard for what great customer experiences mean for ANA in terms of behaviours of front-line staff, facilities, and information and communication. The standard was aimed to measure performance internally and to use as a training tool, and it also had a set of management processes, which were regularly evaluating and troubleshooting specifically aspects of customer services. The second element was about the security experience standard that was developed in order to manage and recruit the best 3rd party for delivering the target security experience. This was focused on demonstrating a set of Key Performance Indicators (KPIs) around security both in hard and soft factors, guiding how those performances can be measured and evaluated. The service management tools were then built into the training for front line staff in ANA, and applied to ANA’s procurement process.

5.1.3 Case study 3- Wheel of Wellbeing (Uscreates)

Project overview

This program was originally commissioned through Well London, the lottery funded program to improve wellbeing of Londoners especially in 20 areas with highest health inequalities. As a partner of the program, South London and Maudsley NHS Foundation Trust had interest in promoting the positive mental health and wellbeing of the communities. As people would not easily change their habit and life pattern regarding their health despite lots of health promotions, South London and Maudsley NHS Foundation Trust wanted to have more engaging conversations with people about positive mental health in order to share knowledge and change people’s behaviour. Uscreates, as the design consultancy partner, was initially involved in generating a Wheel of Wellbeing framework and pertaining branding and design elements to the framework. The framework consists of six areas around mental well-being, namely body: be active, mind: keep learning, spirit: give, people: connect, place: take notice and planet: care. Since the initial work, over a number of years South London and Maudsley NHS Foundation Trust and Uscreates have jointly expanded the Wheel of Wellbeing framework by working on developing various service offerings relating to the framework that could encourage local communities to improve their mental wellbeing. The DIY happiness game was one of the ideas developed as a way to get local neighbourhoods communicating and promoting mental health and well-being (Figure 5.5). The DIY happiness game based on the Wheel of Wellbeing framework was designed to use a series of ‘Happiness Tips’ cards about mental health and wellbeing that players can share or trade to collect a full set of cards. The game was piloted

around 13 London locations, and was played by thousands of people. Along with the game, the Wheel of Wellbeing website was developed and launched as an online platform where people, communities, and policy makers can access a range of tools and resources pertaining to improving their mental health and wellbeing.

Figure 5.5 The DIY happiness game[9]

Service development process

This process is focused on describing the process of developing the DIY happiness game and the Wheel of Well-being website. Initially two activities were led by Uscreates project team: firstly, via ***crowd-sourcing activities***, the team collected tips for mental health and well-being from people by distributing post-cards and asking people to give their opinions about what makes them happy, specifically around the developed six areas of the wheel of well-being. As a part of the crowd-sourcing activities, a web blog was also set up to collect opinions and ideas from wider communities. Second, Uscreates hosted ***a co-design event*** where a lot of different members of community and service providers were invited to come up with ideas for services through which to promote and spread the tips and information for mental health and well-being. Through the workshop, the initial ***concept*** of the DIY happiness game was generated and it was validated to test its feasibility. Then the detail of the game was further specified, for instance the game mechanism, the facilitators who deliver the game, the training of the facilitators, and the way of distribution of the game. While working on these details, the project team considered how to make a bigger social impact on communities and thus made sure that the facilitator playing the game need to be an influencer with access to wider communities. The Uscreates team ***piloted*** the game across 13 different areas through an iterative process, collecting people's feedback and looking for ways of improvement. The pilot entailed the qualitative and quantitative evaluation to measure the success. After the pilot, Uscreates worked with South London and Maudsley NHS Foundation Trust in order to develop ***a business case*** for expanding

[9] Image accessed 09 July 2015, available online http://uscreates.com/work/healthier-happier-communities-thanks-to-an-open-source-wellbeing-framework/

the game into a proper and sustainable service. Uscreates here considered the limitation of the client team in terms of their capability of delivering the game by themselves due to the limited members in the team, and they alternatively suggested the model of training of game facilitators by the client team. To realize this model, Uscreates trained the client team not only to be a facilitator who delivers the game but also to get the team training facilitators to deliver the game to the community. Then the ***launching event*** took place to get people being aware of the game. Afterwards, the client has been ***running the service*** scaling it up with some occasional Uscreates' support for certain challenges or problems which require an outside perspective or expertise.

The overall development process is visually summarized in Figure 5.6.

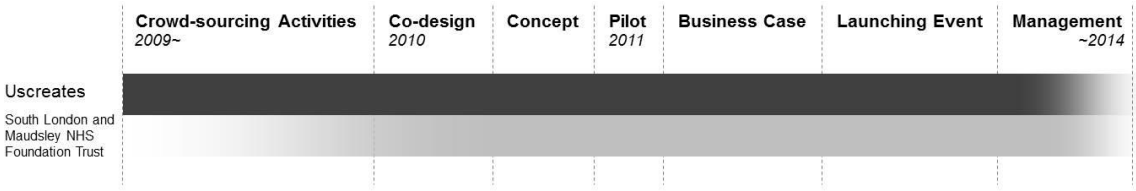


Figure 5.6 Service development process in the DIY happiness project

Relationship and collaboration

The basis of the relationship between South London and Maudsley NHS Foundation Trust and Uscreates was their common vision for delivering social value to communities and achieving a social impact. Their collaboration is described as an evolving partnership built during a long period of over 5 years rather than a short term client/agency relationship meaning the client pays the agency to do something and the agency finishes it. The partnership enables them to think together about what needs to be developed as a next service offering. The focal client of South London and Maudsley NHS Foundation Trust described their collaborative work as a journey rather than a project because they started working initially on a small piece of work (e.g., designing icons for the Wheel of Well-being framework) and they generated the DIY happiness game and then further created the Wheel of Well-being website, which was very developmental rather than prescribed. For the long-term collaboration, they have been working based on 3 different models of commissioning depending on the type of work: a pay as you go model for a consulting-based work (e.g., the meeting for a certain agenda), a retainer model for supporting the client's work on an ongoing basis with a monthly payment (e.g., the maintenance of the website), and a project by project model for a new project (e.g., developing a new business model). While working with Uscreates, the client is increasingly building their own capability to run the website. The client team was receptive to the designers' way of work and their methods and languages partly thanks to the project lead with a design background, who served as an

interpreter to connect between the design side and the client organization. The client team sought to change people's behaviour using a positive psychology and positive emotion approach, and they thought the design approach could contribute to the positive emotion by engaging with people in a creative and interesting way.

Deliverables and outcomes

Uscreates created a wide variety of outputs such as the Wheel of Well-being website, the DIY happiness game, brand guidelines, launch event concepts and communication strategies, and event toolkits containing resources and materials for event planners to use at community events. All these outputs were generated alongside the overarching theme, the communities' behaviour change. The designers also deeply engaged in the client team's internal practice including the development of business case and the marketing strategy. To manage the services, the client team members had to be in charge of several roles such as business development, the promotion of the services, and managing the communities. Uscreates helped the client team define each member's role and developed a very accurate plan on a monthly basis and a series of supporting tools for the members to develop and deliver their role with. These are, among others, a prioritization of customer segments, a catch up meeting structure, and a prioritization grid. The big outcome of the design intervention was the community members' behaviour change. The client plans to work on measuring the impact of the program in terms of the behaviour change. The other long term outcome has been that the designers helped the client focus more on business development, thinking systematically about how to manage the services sustainably based on a stable income stream.

5.1.4 Case study 4- Netherlands National Railway Station (STBY)

Project overview

ProRail is the company responsible for the rail infrastructure and the platforms of train stations in the Netherlands. With an increasing number of train travellers especially during rush hours on the platforms, ProRail faced the critical needs of guarding the safety and comfort for travellers, and consequently they began to search for good ways to reduce congestion on platforms. Until then, ProRail was mainly measuring and monitoring the congestions of platforms using so called CCB cameras. Although these cameras provide heat maps of the platforms and show where and at what moments congestion is critical, the heat maps do not provide sufficient clues as to why these congestions occur: why do people move and stop at these locations? ProRail thus asked STBY and another design partner (Edenspiekermann) to help them fully understand the experiences of travellers using the platforms and stations to be able to generate new service offerings to improve people's safety and comfort. The design team contributed their competences for an empathic understanding of travellers and a range of visual materials to this

project. Throughout the process of the project, the designers tried to keep a balance between the users' side and the service providers' side. They served as a representative of users, concentrating on how to unearth the travellers' true needs and desires and how to realize the desired user experience. In addition to this, they tried to understand the client organizations in terms of their culture and languages, while supporting the client team in their internal communication. As an output of the project, a LED display on the train platform and a train-planning application for smartphones were developed and piloted for January 2013-April 2013, and based on the result of the first pilot, the second pilot was being worked on in 2014.

Service development process

In the first stage of the project, the first workshop was undertaken to inform the client about what to expect and what process they go through as the client did not know much about design research and Service Design. At the same time, this kick-off workshop provided STBY with the opportunity to get a better idea on what was already known and what had already been done by the client regarding travellers' congestion on platforms. After that workshop, the designers did ***explorative research*** by observing the passengers' movement patterns on the train platform using a range of design research techniques. As ethnographic research, they charted the behaviour patterns of passengers boarding and alighting from trains and even traced them during their journey to their destination (Figure 5.7). These observations helped the designers to get an idea about what was happening on the platform. Also they had a series of interviews with train travellers to get an understanding of their motivation behind their behaviour patterns.

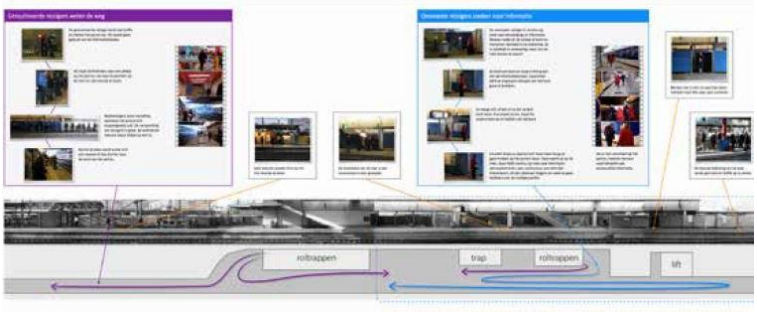


Figure 5.7 visualization of passenger movements on the platform (Enninga et al., 2013, p. 24)

From the analysis of this data, it became clear that the travellers' movement patterns are different depending on the type of trip one is undertaking rather than the type of person because a traveller undertaking a frequent trip, for instance a daily commuting trip behaves differently from one undertaking an incidental trip. For each of these cases, a customer journey was created, and problem areas and ***opportunities*** for improvement were discovered, which were prioritized with the client in the workshop. It was decided here to focus on the messy moment when trains arrive at the platform and travellers want to step in and out of the train. With some initial ideas

from the exploration, the designers carried out more research specifically about that moment for concept development. They asked a group of 12 travellers to keep a diary of their train trips, writing and sketching everything they were doing when they were traveling by train for 3 weeks. Then the travellers were interviewed to go through some of the most salient experiences. Having reflected on their behaviour, travellers already came up with ideas for improvement. STBY therefore organized a co-creation workshop where travellers, designers and the client teams were invited to come up with new ideas together. The insights from the research and the ideas from the co-creation workshop were used as a basis to develop the concepts. As a result, 12 service concepts were generated and in a client workshop they were jointly evaluated in terms of their feasibility. In the end two related concepts were selected to be further developed, prototyped and tested during a pilot. The first solution was a LED display on the train platform that offered travellers real-time information about the occupancy and organization of the train. (e.g., where is the 1st/2nd class carriage? Where are the train doors? Where is the bike carriage?) The second concept was an add-on to the already known train-planning application that provided travellers with the same information. Both were aimed at allowing travellers to access real-time information about their train, and helping them better plan and control their travel experience. Then the project went through the pilot test phase in which the two service offerings were installed and tested for 4 month in a live setting on a train line throughout Netherlands. For the pilot, several trains were equipped with sensors in order to measure how busy the train carriages are, and people thus could easily access the information when downloading the application on their mobile phone and looking at the LED screen on the platform. During the pilot, STBY conducted qualitative research into the traveller's satisfaction with the new services and quantitative research for around 700 people via online questionnaires. The pilot proved to be successful. People welcomed and valued highly the new services, and the user data could be used by the clients as evidence to support the deployment of train equipment. The development of business case was made by Prorail and NS (National Rail Station). Although the prototype test was input for the business case, it was mostly about an internal logistics and operational measurement done by the clients themselves.

The overall development process is visually represented in Figure 5.8.

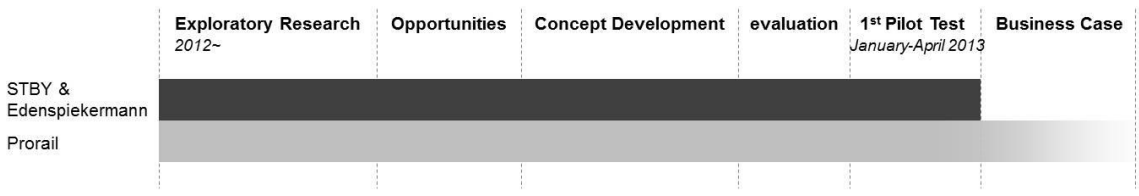


Figure 5.8 Service development process in the Netherlands National Railway Station project

Relationship and collaboration

Initially, the project was initiated by ProRail. However, as the problem area and opportunity became more specified and the customer journey was developed by the designers, the need of involving another service provider emerged. To implement the customer journey, ProRail in charge of the infrastructure of trains and platforms needed NS in charge of communications with travellers as a partner for the service offerings. The Service Design practitioners put a considerable effort on finding the right persons from NS and had a few meetings to be referred to proper staff. They especially needed the collaboration of people who were tolerant of the Service Design approach because the early exploratory phase of the Service Design approach was intrinsically vague and undetermined. After finding the right people, the communication and collaboration between the designers and the service providers went well. During the communication, the designers tried to understand the client's language and culture, but also they kept becoming a representative of customers, being aware that their biggest value is to be an outsider. The focal client of ProRail played a role of mediator between the Service Design approach and his organization. He managed internal communications by inviting some of his colleagues to the design workshops and by utilizing the designers' visual materials (e.g., leaflet, posters, and videos), which was very effective.

Deliverables and outcomes

The design research into the travellers generated a lot of insights such as the passengers' behaviour, movement patterns and their motivations that underpinned the final service ideas. The designers' qualitative research for understanding in-depth experiences of an individual traveller, with empathic mindset stepping in the shoes of the person was highly valued by the client as it was a relatively new approach in his organization. Also the designers' graphic materials and videos were appreciated by the client as an effective communication tool in the organization. Meanwhile, a co-creation session where the designers invited some of the train travellers and some people from ProRail and NS helped the client to openly work together. During the project, a total of five workshops were organized including the co-creation workshop with travellers for idea generation. Involving the client team from early on in the workshops was helpful for the designers to get buy-in from them, and for the project manager of ProRail to share the progress of the project with his colleagues. The workshops with the stakeholders also enabled the joint evaluation of the service ideas and the assessment of feasibility and applicability of the ideas.

5.1.5 Case study 5- Connect & Do (Innovation Unit)

Project Overview

Certitude is a third sector body that has been offering personalized support for people with learning disabilities and mental health needs in London and neighbouring areas. They realized that specialist services for people with mental health needs which are focused on clinical care and treatment cannot always best support people because these services may make the patients more dependent on the professional interventions and less confident in their life. With this recognition, they wanted to develop a new service model that is able to make use of people's potential and resources, and to make people less socially isolated in the community. They aimed to connect people with learning disabilities and mental health needs to other people, groups and places that exist outside of specialist care services. For this purpose, they set up a community connecting approach and team consisting of people from across the organization. With this basic idea, Certitude wanted to strengthen their approach to service innovation by collaborating with a design partner. Hence, they involved Innovation Unit, a Service Design company in the project. Certitude and Innovation Unit explored together a platform-based service model using community assets in which Certitude could play a facilitative role. Also, Innovation Unit focused on building the capability and capacity of Certitude by exposing them to the user-centred service innovation approach. As a result of their collaborative efforts, a social networking website, Connect & Do was developed and launched with an aim to support users to find activities and courses (e.g., sports and exercise, faith and spirituality, arts and culture, and etc.) based on their interests (Figure 5.9). It was aimed to train volunteer supporters to help the mental health patients engage with a range of activities and courses, and meet others with similar interests in their local areas. Innovation Unit have completed some of the evaluation and helped Certitude think about how they collect data for more findings that they could use in the future.

Figure 5.9 Connect & Do online platform[10]

[10] Image accessed 09 July 2015, available online http://www.connectanddo.org/

Service development process

In the ***research*** phase, the design team at Innovation Unit did a horizon scan, which was about collecting inspiring references from a wide variety of sectors around the world. Then they carried out mini-ethnographies in a way that they trained staff at Certitude to conduct a series of interviews with people who used their services and to ask them about their lives, their relationships and their approach to trying (or not trying) new things. In the ***design*** phase, Certitude and Innovation Unit held two big co-design workshops for users and organizations. During the workshop with users, they brought people together who were in the target audience and took them through a range of collaborative and visual activities to explore the principles underpinning the service, and how it should work. And, during the other workshop, the organizations in Lambeth borough were invited and asked what service they expected for people with learning disabilities and mental health needs. And these workshops were followed by a series of collaborative working sessions where the Innovation Unit team helped Certitude staff reflect on employing the user-centred design process and embed the learning within the team so that they could carry on using the approach after the project finished. This phase resulted in 7 principles underpinning community connecting, which were oriented towards linking people with mental health needs with wide communities according to their interests, not their conditions. Moreover, Certitude conducted some promotional activities, visiting a lot of organizations and explaining how the service would work. During the ***development*** phase, they ran 5 different prototypes over a couple of weeks while testing challenges and exploring opportunities for the service, for example, what features the service could have to help people overcome high technology. During this prototyping, decisions about information architecture for the website were made and the back-end system of the website was developed. The Connect & Do website went through the ***soft launch*** phase in Lambeth over one year. The new website was finally ***launched*** in September 2014 as an organization wide tool. It has been piloted across six London boroughs where Certitude is operating a lot of services so that Certitude may develop rich contents and an infrastructure behind the tool. The ***evaluation*** of the service was conducted by Innovation Unit to measure the impact by assessing how many people and what types of people were being referred to the community connecting and signing up to the Connect & Do website, and how their life has changed positively. During the evaluation phase, data analytics from the website site were used, and face-to-face interviews and phone interviews were carried out.

The overall development process is represented in Figure 5.10.

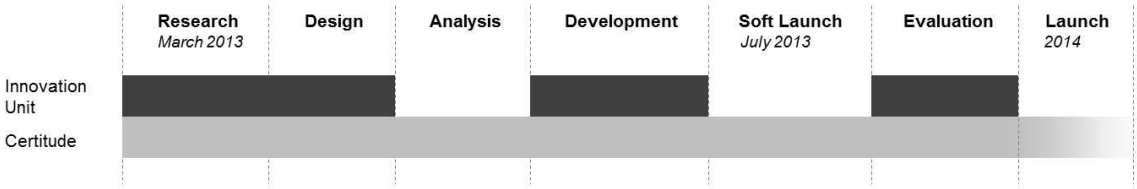


Figure 5.10 Service development process in the Connect & Do project

Relationship and collaboration

The design team of Innovation Unit worked collaboratively with about 15 people in the Certitude innovation team that was part of the wider innovation group and smaller group to deliver the service. The relationship between Innovation Unit and Certitude can be described as partnership that enables communicating and learning back and forth between both sides, and setting up and working on every session together. The designers at Innovation Unit interacted frequently with the Certitude innovation team, and their collaborative way of working facilitated the informal and agile information and knowledge sharing. In particular, as the director of mental health services in Certitude had a belief that the co-production approach is useful for the Certitude innovation team that consists of cross-section of people, he helped Innovation Unit get buy in from internal stakeholders and fostered the environment where the designers could actively involve the stakeholders in every design session. As Certitude aimed to innovate the organization based on their learning from the collaboration with Innovation Unit, they were very open to the 'designerly' approach brought by the Service Design team. Although at a very early stage, they felt challenged at the unfamiliar language and methods used by the designers, they had been patient enough to consider those activities as a chance for their learning and growth. Therefore, the compatibility between the Service Design approach and the client organizational culture was very good.

Deliverables and outcomes

Three main outputs had been generated by the Service Design approach. The first one was the Connect & Do website that was an essential enabling tool for the community connecting approach. The second one was an off-line support that was about recommendations on the community connecting team model and the team's function, roles and ways of working. The third one was about building the capability and capacity of the organization for their sustainable innovation by positioning the Connect & Do service within the other services provided by Certitude. With respect to the outcomes, the designers' interventions brought about a transformative effect on the Certitude innovation team. The designerly research such as the mini ethnography and co-design workshops inspired the Certitude team members to take a fresh view on how to make a user-centred relationship with the people they support. Through participating in those design activities, the Certitude team could better recognize a gap between what they

expected people would need and what people really wanted, which otherwise could not have been recognized. Also, they could have a new set of skills and competencies around being able to listen to people, and could learn how to achieve ongoing innovation that fits not only the provider's purpose but also the real user's needs and wants.

5.1.6 Case study 6- Care Information Scotland (Snook)

Project overview

In 2013, this project originated from the challenge of NHS 24 and the Scottish government, which was how the existing Care information Scotland could reach wider audiences encompassing all age groups by a new approach and could be reshaped in terms of its presentation and interaction. Originally the old service comprising of telephone and text-based website was mainly designed for elderly people and their carers to help them access care information. Thus the purpose of this project was to reflect on the existing service model and to explore what people wanted the new Care information service to be like from their point of view. Snook was asked to examine the users' current experiences and future needs and to suggest how the existing service could be improved based on the user research. Snook held several engagement sessions and co-design workshops where participants (e.g., people needing care and carers supporting them) were invited to reflect on their current experiences and articulate their favourite services to meet their needs, and prototype them. Throughout these workshops a range of creative tools and methods were created to help people to better present their opinions (e.g., experience game and cultural probes) and to empower people to become a co-designer (e.g., magnetic layouts for web services). They also created an interactive service blueprint in order to outline channels and touch-points through which people might engage with the service.

Service development process

The ***research*** phase started with Snook's initial workshop with the steering group with an aim of creating a blueprint of how the existing Care information service was working. During the workshop a common vision for the project and guidelines to measure project outcomes including Key Performance Indicators were discussed. Then Snook hosted engagement workshops where wide age groups and communities were asked to share their experiences about how they access information within the care system. Next Snook developed persona to create a range of representative people stories based on the synthesis of the results from the user research and combined it with the business model canvas to consider what values the new service could give to each persona. The results were shared with the steering group in an insights workshop. In the ***design*** stage Snook developed initial design proposals by hosting several co-design workshops where they asked potential service users to design and prototype for the new Care information Scotland website in terms of its look and functionality using

magnetic layouts for the web service (Figure 5.11). A recommendation report that included a new blueprint outlining different channels of the new service and prototypes showing some of the touch points was developed. Then the report was examined in a following steering group meeting in terms of the position of the new service within the wider Scottish Government information services and the brand identity of the new service. Also a gap analysis workshop was conducted by Snook and the stakeholders to look at the whole care information landscape identifying the gaps of the current service and how the new service could fill those gaps.

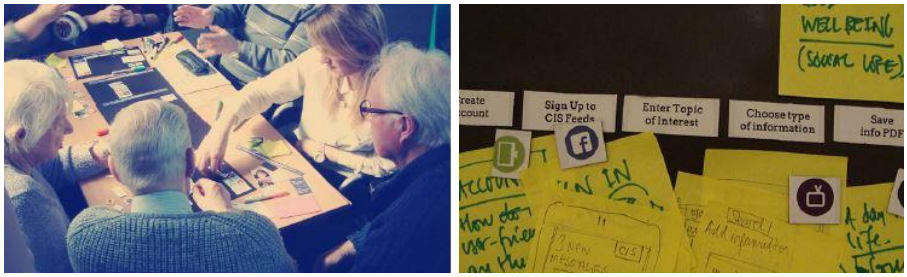


Figure 5.11 Co-design workshops and website magnetic kit prototype[11]

The Snook's first engagement in the service stopped here and during the ***analysis*** phase NHS 24 got the funding to be able to take the project forward. Snook's second involvement, which contributed to the ***development*** phase began in January 2014 with extending the service blueprint into more detailed use cases to support the implementation of their proposals. Snook did that in a co-design way where they were engaging some of the service users. The new web service development has been organized by NHS 24 in parallel work streams, namely a content work stream, a technology work stream, an engagement work stream and an operation team. Snook partly influenced some of the work streams with the framework for implementing their proposals, helping the technical and content teams. For ***launch***, NHS24 anticipated completion of 75% of service development by the end of the financial year of 2014, and they planned to do a formal ***evaluation*** for the service with a specialist organization and user groups when contents would be uploaded on the website.

The figure 5.12 represents the overall development process.

[11] Image from the final CIS report developed by Snook

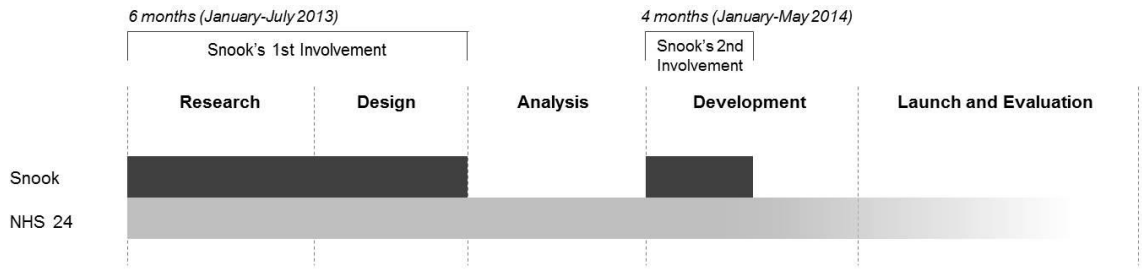


Figure 5.12 Service development process in the Care Information Scotland project

Relationship and collaboration

Throughout the project process, a small management stakeholder group consisting of 6 to 8 people from NHS, Scottish government and one of the carers' organizations and a wider stakeholder group comprising of about 16 to 20 people who are carers organizations, third sector groups, and patients were set up. Snook communicated with the stakeholder groups via diverse channels including face-to-face meetings and monthly teleconferences, and the project management online tool, Base Camp was also used in order to get them updated every week with the progress of the project. The collaboration between Snook and NHS 24 was primarily done in a manner that Snook had a range of co-design sessions with potential service users such as young carers and older people and presented the results back to the stakeholder groups discussing new insights with them. Although Snook had a few collaborative working sessions directly with the client for some specific purposes, for example the development of a service blueprint of the existing service and a gap analysis to look at the whole care information landscape, the main activities of Snook were undertaken closely with service users. The client of NHS 24 expected Snook to contribute their creative engagement skills and visualization competencies to exploring people's needs and suggesting a new way of interacting with people rather than to engage in the actual service development process. Thus, Snook led user research, design and part of the development, but they did not directly engage in the organizational implementation process except for some influences on specific work streams (e.g., the technology work stream and partnership work stream) during the development process with the framework for the implementation of their proposals.

Deliverables and outcomes

Snook created a service blueprint, personas, an insight map, a stakeholder map, and a final recommendation report for Care Information Scotland during their first involvement in this project. The final recommendations report contains an interactive service blueprint to represent various touch-points through which service users might interact with the service. These design outputs were helpful for NHS 24 to get buy-in from internal stakeholders and to get the funding for project development as they were based on service users' opinions and needs rather than on the service provider's intentions. During Snook's second involvement, the use cases, an

information provision guideline, and a website wireframe were produced. The use cases outlined the main interactions between the user and the service while also specifying work stream specifications. It contained three main scenarios that illustrate different ways in which users might use the service as well as the main three touch points that are most relevant to that specific user. The information provision guideline is a series of principles to guide the provision of care information and support anchored in users' needs. The guidelines were aimed to be shared with other care information providers with a view to creating a consistent national information provision standard. However, when it was received in NHS 24, there was some confusion in terms of language and interpretation, and the actual application of the guidelines seemed to be unclear.

5.1.7 Case study 7- Fall Proof (Made Open)

Project overview

The Fall Proof project was initiated from the participation of the Teignbridge Council housing team in the Design Council program that explored how to enhance public services through the design approach. In a workshop with the Design Council, the housing team mainly focused on seeking innovative and creative approaches to make elderly people's homes safer, reducing the risk of trips and falls within their limited finances. They were focusing on prevention rather than the hospital treatment, which can cost a lot of money. After the initial exploration, the Teignbridge Council involved Made Open, which is a Service Design company that works on customer experiences. The housing team in the Council needed a design partner to further investigate the ideas generated from the initial workshop and to prototype some of the ideas for new services. Through the collaboration between Made Open and the housing team, several awareness campaigns, an online photo submission tool and home self-assessment toolkits were developed and prototyped. They also held the Falls Pathway workshop where all the relevant stakeholders and users were invited to identify opportunities for improving the user's service journey. The Service Design approach and outputs enabled the Teignbridge Council housing team to learn a different way of working, which is more collaborative and user-centred. The new way of working learnt from the designers is currently being applied to the housing team members' day-to-day practice.

Service development process

After the initial workshop with the Design Council, Made Open was commissioned to work further on the project. Made Open and the Teignbridge Council housing team reviewed and analysed the results of the previous workshop, and they looked at videos of interviews with older people who had experienced falling in order to understand the elderly people's real experiences, emotions, and perspectives about their fall. They also talked with elderly people in

a day centre in Teignbridge, and also with medical professionals, GPs, social workers, and people working in a housing team, ***researching*** not just what happens to an older person who falls in their home, but what processes and journeys the person then goes through. Then, they started mapping the process from the point of people's falling, identifying where and how they could go in the whole service system and whom they could be related to in need of advice and guidance. Next, they worked with GPs for creative ideas to raise people's awareness of the risk of falls, and they generated three different kinds of campaigns, which are an installation of old records, dead body graphics on the floor with a statistic, and a bubble wrap installation. All these ideas were ***prototyped*** and tested in a real situation (Figure 5.13). During these works, Made Open recognized a potential for a new home assessment and reporting service. The online photo submission tool was for supporting family members to self-diagnose risks in their house and to get necessary advice on how they could improve their housing environment. And a simple home self-assessment toolkit could help friends, family, and the Council or volunteers to check and fill in all the hazards in the old people's home. These services were being piloted at the time of the case study.

Figure 5.13 User testing about the raising awareness campaigns and service prototypes[12]

The other part of this project was the ***Falls Pathway workshop*** that happened at the end of the prototyping. All the different providers such as the GPs, the health professionals, people from voluntary sector and users were invited to identify issues in the system about where a breakdown of communication happens, and where simple things could be improved to make the service journey easier for older people, friends, families, and professionals. They identified about 10 opportunities, some of which have been taken forward. They also recognized that the voluntary sector and charity sector could be a great point of contact for social workers and professionals to offer full information about falls, but they were not joined up. They tried to join the fragmented local supports and services in a way that the connection gets stronger between them, and people can easily find the proper supports. Given those outputs, although the direct

[12] Image from the project summary hand-out developed by Made Open

involvement of Made Open concluded, the collaboration between Made Open and the housing team continued, applying together for more funding to implement the ideas. Meanwhile, the Council housing team began to work with stakeholders on a so called 'Community Hub' where people who are concerned about falls could get useful information and peer support.

The overall development process is represented in Figure 5.14.

Figure 5.14 Service development process in the Fall Proof project

Relationship and collaboration

Throughout the process, the Teignbridge Council and Made Open collaborated well with frequent communications. They communicated not only through face-to-face meetings but also through an online platform in order to better share their ideas, visual materials and videos. The Teignbridge Council housing team members were very receptive to learning a service design approach, design language, and creative methods. Their openness to the designer's way of working was partly due to their initial exposure to the human-centred design philosophy and collaborative way of working during the initial workshop with the Design Council. Made Open and the housing team both were involved in every phase of the service development process. Although the project concluded with the prototypes and the Falls Pathway workshop because of the lack of funding, at the time of the case study Made Open still kept in touch with the housing team via the online platform while supporting them to apply for several funding programs. Meanwhile, the housing team began a visioning event with the relevant service providers from various areas such as health, social care and the voluntary sector to discuss how they could set up a new type of community to provide people who are concerned about trips and falls with peer support and advice.

Deliverables and outcomes

One of the design deliverables was prototypes of three different awareness campaigns to raise awareness of the impact of falls, and prototypes of the photo-submission website, and the self-assessment tool. Also, the Falls Pathway map was produced to offer an overview of the user journey and the connection of the different support services. The most relevant outcome of the Service Design approach was that the design approach encouraged the housing team to work in a very different way. The housing team members have tried to embed the design approach within their day-to-day practices and ways of working. For instance, the housing team learnt

how to work with their service users to make sure they research people's needs properly rather than just come up with an idea and implement it. The design approach allowed them to recognize the importance of testing an idea using prototyping skills. Also, the collaboration with the design agency opened their eyes towards viewing the users' experience in the wider service landscape beyond the narrow housing perspective. Through the falls pathway session, they realized that they need to collaborate with the network stakeholders to help the elderly get the proper services in a coherent and desirable way. The design outputs and opportunities identified during the fall pathway session actually prompted them to prepare the visioning event with all the key players and the voluntary sector for the 'Community Hub' where people could meet and give each other peer advice and tips. Another outcome of the Service designers' intervention was that the designers' high quality visual and tangible products helped the housing team to clearly communicate with the stakeholders and obtain the trust and agreement of the relevant stakeholders including doctors, NHS staff, and volunteers.

5.1.8 Case study 8- Partner Zone (Skills Development Scotland)

Project overview

The Partner Zone is a dedicated online section located in the 'My world of work' website (Figure 5.15), which is developed and managed by the Skills Development Scotland (SDS). The SDS is a non-departmental public body that aims to support individuals to build their career management skills, and to help employers develop the skills of their employees. For this aim, SDS has been running the 'My world of work' website where people can be provided with practical knowledge about their career management required at every stage of their working life, from school to their retirement. The Partner Zone was planned and developed with an aim of encouraging and supporting school and college staff, or training providers, to introduce the 'My world of work' to their students or individuals whilst supporting them to deliver Curriculum for Excellence[13], specifically Building the Curriculum 4. The Partner zone contents were structured to add value to the teacher's curriculum so that students in the class could discover their potential or strengths, and get useful information for the planning of their career. A wide variety of contents across the 'My world of work' were aggregated into the dedicated section named as Partner Zone in the form of lessons in order to raise the accessibility and usability for partners, and supporting materials that can support the offline lessons were also uploaded with each of the lesson plans. The Partner Zone was collaboratively developed and delivered by the Service

[13] Curriculum for Excellence is about a transformation in education in Scotland by offering an excellent curriculum from individuals aged three to eighteen. The purpose of the curriculum is to make sure that children and young people in Scotland explore and develop the knowledge and skills required for their learning or career, and their successful life. (Information from http://www.educationscotland.gov.uk/thecurriculum/whatiscurriculumforexcellence/index.asp)

Design and Innovation (SD&I) team, and the Partner Development and Integration (PD&I) team[14]. The SD&I team was working like an (internal) design consultancy that was commissioned by another team in charge of operating the 'My world of work' to take on idea generation for the service concept, and the development of some contents and user experiences of the website. After the development of the concept and initial contents for the Partner Zone, the evaluation through piloting was conducted by the PD&I team with the support of the SD&I team. Then the website was launched. After the launch, more contents and materials have been updated and managed mainly by the PD&I team.

Figure 5.15 My World of Work online platform[15]

Service development process

The SD&I team ***developed the concept*** with some customers and partners through focus groups and co-design sessions. The designers took the partners through the website and asked them to generate ideas for what they would want within the Partner Zone. It was helpful for the designers to understand how the Partner Zone could fit into the people's needs, and to generate useful ideas. The recommendation report was then taken forward to the program board, and the approval of the project was obtained. Next, the PD&I and SD&I teams together had a ***pilot*** where the designers created mock-ups and tested if teachers would be actually using the contents of the service. The lesson plans within the site were tested as they were critical elements for the offline sessions that the partners (e.g., teachers) would deliver to their students within schools. The SD&I and the PD&I team members went into the schools and observed teachers trying to use those materials with their students. Along with the observation, participant questionnaires were carried out. During the pilot, some career staff members were also involved to organize the pilot while observing how the customers and partners were engaging with the service elements. Meanwhile, a partner design agency was involved in the actual ***development***

[14] There were other teams that were involved in this project such as the content team within the digital services team, but this case study is focused on the collaboration between the SD&I team and PD&I team.

[15] Image accessed 09 July 2015, available online http://www.myworldofwork.co.uk/

of the website, being given detailed technical requirements for the service and design mock-ups by the SD&I team. After the pilot and development of the website, the ***hand-over report*** describing detailed information on the project such as the overview of the service, relevant stakeholders with their roles, and remaining tasks was made by the SD&I team, and it was delivered to the PD&I team that would be actually using the service on a day-to-day basis, interacting with partners. The PD&I team was also developing materials to train career advisors including internal staff and external partners on how to use the Partner Zone. They also went out to schools in order to ***communicate*** the new service to the education authorities and partners, and to encourage teachers to engage with the service. After the ***launch*** of the website, more contents including lessons and materials were updated through the co-design sessions where the PD&I and SD&I team worked with the teachers. The customer journey was created to clarify what they wanted customers to do in the class, and it was translated into the lessons that were finally completed by the teachers. And they were again tested in schools. During the co-design sessions, the designers supported some creative tools (e.g., prompt card) to facilitate idea generation and communication among the participants.

The figure 5.16 visualizes the overall development process.

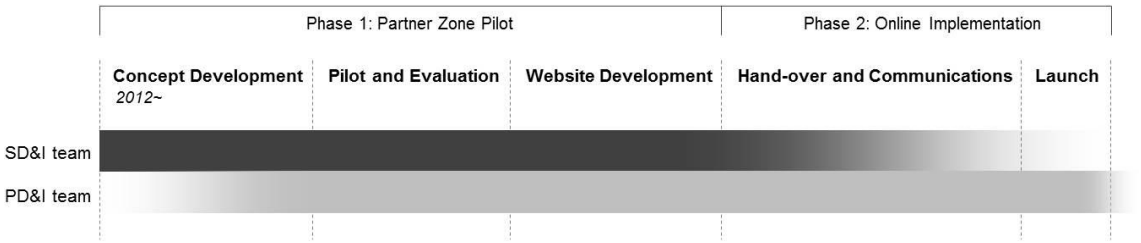


Figure 5.16 Service development process in the Partner Zone project

Relationship and collaboration

Before this project, the recommendation reports made by the SD&I team often stayed at a proposal stage rather than being implemented. Since the expansion of the SD&I team including project managers and Service Design executives, the recommendations combined with the project management skills were better communicated and they could be effectively managed and implemented, getting buy-in from internal stakeholders. Getting buy-in from internal stakeholders was a very critical factor for successful project implementation. While the SD&I team was working on concept generation and co-design sessions, they tried to involve not only partners but also as many internal stakeholders as possible, and it was helpful to get an agreement from the stakeholders. In particular, they closely collaborated with the PD&I team all the way through the project. While the SD&I team was focusing more on the earlier phases for user research, service concept, contents generation and user experiences of the website, the

PD&I team was responsible for defining audience priorities, piloting and evaluation, and liaison and communication with partners. After the piloting, the hand-over document was delivered from the SD&I team to the PD&I team with ownership and responsibility to manage the service, and more contents and materials have been updated by the PD&I team and content team with some support from the SD&I team for design materials.

Deliverables and outcomes

The main outputs were the Partner zone website, and the created lessons that the teachers deliver to their students as well as a wide range of supporting materials (e.g., downloadable worksheets and power point presentations) to support the lessons in the class. Also, the hand-over document was made by the service development executive in the SD&I team in order to give an overview of the Partner zone from its very inception of the project all the way through to implementation. That document was delivered to the digital services team and PD&I team to help them capture what is outstanding, what are some of the elements that did not get fully developed, and what they needed to be aware of in order to manage the contents or supports that go with the materials on the Partner zone. Besides, it gave a long list of all the roles and stakeholders that were involved in the initial stage of the project and all the way through. The key outcome of the SD&I contribution is that the involvement of the partners for the generation of the ideas and contents, and the validation of them through the co-design activities helped the PD&I team members' communication with the partners. The co-design sessions provided the PD&I team members with confidence to tell the education authorities and partners that the service has been developed based on the real needs of the partners through their actual engagement.

5.1.9 Case study 9- Teachers' Pension (Capita)

Project overview

Capita is a UK company that provides business process management and service solutions for many companies across public and private sectors. Since 1996, Capita has been administering the Teachers' Pension scheme for the Department for Education, which is one of the largest pension funds in the UK. The project investigated for this case study was initiated in 2011 by the third contract. The main purpose of the project was to reach people who did not actively engage with the pension scheme, and motivate them to recognize the value of their pension and prepare for their retirement. Capita wanted to achieve this mission while decreasing costs. For the enhanced customer experience and engagement with the service, the internal Service Design team was involved in the Teachers' Pension service. Since the initial engagement of the Service Design team in the project, the designers in the team have been evolving their way of collaborating with other teams. They are increasingly attempting to work on the integration of

three elements, which are the *target customer experience*, *target operating model* and *target employee experience*. For the target customer experience, they consider what branded service experience they need to offer to their customers and how to derive the customers' behaviour change in a way that they plan. For the Teachers' Pension service, they wanted to change the customers' behaviour in a way that people perceive the value of their pension, they are paying more in the pension and they shift their channels of transactions from offline to online. Next, the target operating model is an enabling operation system that actualizes the target customer experience including all the back-end and front-end system such as technology, web interfaces, and data warehouse. While the traditional organizational practices were mainly focused on developing the target operating model, the Service Design team's expertise and efforts have been geared towards connecting the target customer experience with the target operating model. Lastly, the target employee experience means new employee's behaviours, which need to be more agile, collaborative, and innovative. The agile and innovative employee behaviour is increasingly required by clients because the world and market environment are changing very quickly, and thereby the strategies developed a long time ago are not likely to work as expected at the point when they are implemented.

Service development process

As the Teachers' Pension scheme is a long term project over about 7 years involving a range of small and big sub-projects, this section outlines one of the development cycles relating to improving the Teachers' Pension website in general. For ***insights***, the project team carried out user research including focus groups and quantitative surveys into the current online experience of the Teacher' Pension website. The results indicated the current website was not designed in a way to help the customers' engagement with the service and to support their behaviour change. For instance, the accessibility of critical information including the annual statement on the website was not so good. While scheme members wanted to maximize their pension benefits, they did not have enough understanding about their pension. Also employers wanted to be relieved of the administrative tasks. To ***develop ideas*** that satisfy these needs, the project team created personas to classify several types of members and employees for the Pension scheme, and the target customer experience for each of the personas was made (Figure 5.17). Moreover, all the prompts, suggestions and contents to derive the desired behaviours were developed. Multi-disciplinary teams such as game science, behavioural science, user experience design, and content design collaborated not only to deliver desired experiences, but also to influence customers' behaviour concerning with the Pension scheme.

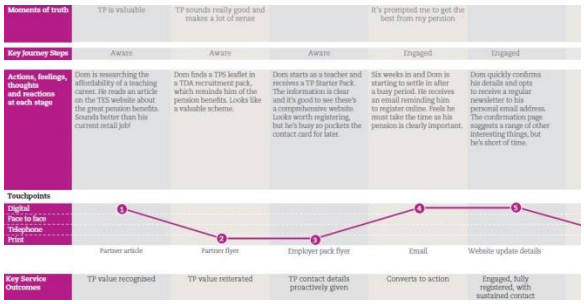


Figure 5.17 Example of a persona and his experience journey[16]

Then, the service design team ***prototyped*** the ideas and amended them with other teams. They worked closely with operational teams to co-produce the outputs. For instance, the human resources team is in charge of agent training, and the web team re-wrote the contents. The refreshed website was ***delivered*** in December 2012 with all information rewritten in plain English without jargon. And the website offered secure login areas to members enabling them to check their private information such as annual benefit statements and to contact Capita securely. Also it supported employers to manage data about pension scheme members. A range of online and face to face training tools for members and employers was added to help them make the most of the scheme. Also the project team integrated multiple channels such as personalized electronic direct mails, a tailored Facebook page, online calculators and other resources. To assess the success of the change, customer surveys and regular focus groups with usability testing were conducted.

The figure 5.18 visualizes the organizational long-term project development process, and zooms in one of the iterative development cycles.

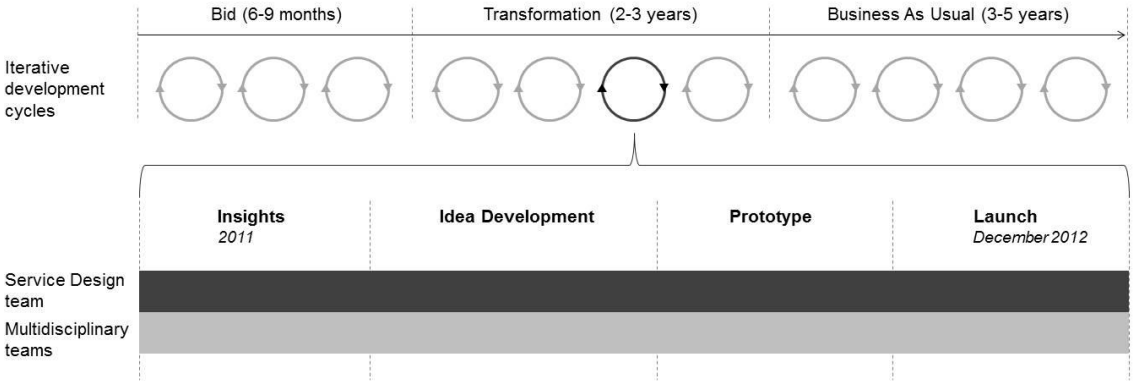


Figure 5.18 Service development process in the Teachers' Pension website renewal project

[16] Image from a presentation document developed by the Service Design team

Relationship and collaboration

As depicted in Figure 5.18, Capita generally goes through the key three organizational processes over a long period of years, which are a bid process, a transformation process, and a business as usual (BAU) process. The bid process is dedicated to getting client requirements, generating outline solutions, having dialogues with the client and creating details of the solution, and it concludes with getting the contract. The transformation process is about the actual delivery of the changes in the client business through building an implementation environment jointly. Then the BAU process goes on for a further 3-5 years and that is the end of the contract. Throughout this long term process, big changes needed for the project have been carried out in a waterfall way. Meanwhile, as described before, there is a series of development phases employed in the Service Design team, which are insights, idea development, prototypes and delivery. The design process, in its beginning period of the Service Design team was very detached from the organizational implementation processes. Thus, one of the key challenges faced by the Service Design team was how to integrate the Service Design process with the existing organizational processes. The Service Design team aimed to do that by adopting an agile development approach that entails constant iteration cycles. It means that based on what they have learnt from the previous small implementations, they decide what to do next, and they test it and deliver it repeatedly. The iterative small changes in a short term are combined with big changes in a long term. The design team is increasingly trying to make a prototyping environment within the organization where multi-disciplinary teams work collaboratively on specific tasks in the agile process. The intention is to get some changes live on the system as quickly as possible and amend or adjust it based on the live data. However, there still exist tensions between the old waterfall approach and the new agile approach, and the transformation of the employees' behaviours towards the agile, collaborative and innovative way is an ongoing challenge that might take a longer period of time.

Deliverables and outcomes

The design team produced detailed information about the customers for the Teachers' Pension scheme through a wide range of user research techniques, and indicated what may be the barriers to achieving the target customer experience. The refreshed website and various online tools to support the customer's experience are the main outputs at the moment. With respect to the key outcomes, the existing way of working of the organization was focused on implementing the operating model without consistent and agreed considerations on what is the target customer experience driving the operational changes. With the need for raising customers' engagement with the service, the Service Design team developed a set of 'customer promises' based on the target customer experience, and tried to infuse them across the different teams in the organization as a vision to govern the development and management of every channel and every touch point. The design activities were reported to be useful to overcome the

organization’s traditional way of working in which different operational teams worked in silos under their own assumptions about what would be needed for the customers.

5.1.10 Case study 10- Kent Dementia Co-production (SILK)

Project overview

The Social Innovation Lab for Kent (SILK) is a dedicated team in the Kent County Council that was established in 2007 to apply a human-centred participatory approach and toolkit developed from multiple disciplines (e.g., social science and design) for addressing complex social problems. In 2011, SILK was commissioned by the Health & Social Care Commissioning Team in the Kent County Council to look at the dementia care pathway with an aim of supporting people with dementia to receive timely diagnosis and proper support. SILK focused on exploring several key themes that were recognized during co-work with the Dementia Collaborative Board, which were diagnosis, information, personalization/community, and services and support networks. SILK worked on the project collaboratively with a range of people who could be affected by dementia including people with dementia, their families, and carers, professionals from health and social care, and voluntary organizations in order to get a whole picture of what it is like living with dementia from multiple perspectives. SILK asked them to share salient experiences in their journey, and opinions about what needs to be improved, and then they together generated ideas and solutions to address the identified problems. Conversations with professionals and frontline workers also helped SILK understand issues that they encounter while working with people with dementia and their families, and carers. These phases resulted in several key solutions for action: Maidstone Mentors; Dementia Checklist; and Dementia Diaries. These solutions were aimed at raising public awareness of dementia to encourage people to actively seek support and to ensure that people who are suspected of dementia are identified properly, helping them to make informed choices whether they need a formal diagnosis. They were also aimed to help people with dementia and carers to feel supported and independent through periods of change. The Maidstone Mentors is a scheme in which newly diagnosed people can get some peer support from their mentors who are able to share their own experience of being diagnosed and to help them find proper support. The scheme has been trialled for almost one year and went through a formal evaluation to improve it. The Dementia Checklist is a supporting tool for diagnosis that has been developed to help people communicate their symptoms to their doctor (Figure 5.19). It is being distributed currently to people in the community while being in the formal evaluation with associated organizations. The Dementia Diaries are a resource in book form to help young people have a good understanding of dementia. It was published and distributed to all the participants and their families and every school and library in Kent.

Figure 5.19 Dementia Checklist[17]

Service development process

This section is dedicated to describing the service development process for the Dementia Checklist project among other projects for Kent Dementia Co-production. During this project, SILK has been following their own methodology, which is highly based on participatory design principles. The methodology consists of four phases: Initiate, Create, Test and Define. In the ***Initiate*** phase, SILK started to talk to people that had been through the diagnosis process, their families, carers, and professionals in order to fully understand what they experienced and how they felt during the diagnosis process. The SILK team paid attention to the fact everybody is different, and each person's diagnosis journey is not the same. Therefore, they tried to develop a flexible service to fit different needs of people. After the research phase, it was found that people had difficulties in going to GPs and trying to articulate precisely what their problems were. Because similar symptoms could emerge from other reasons such as depression or stress, people might need some supporting materials to help them better articulate their situations to doctors. They finally agreed to a new document that could provide them with an understanding of the symptoms of dementia, prepare people for meeting with their GP, and signpost them to additional support if they needed it. The SILK team went back to desk research to look around some checklists already available as a reference. Then the questionnaire in the symptom checklists from the Alzheimer's Society was shared with a couple of groups where people were living with dementia to get their feedback. The team also reviewed the questionnaire with some nurses and professionals working in the field of dementia in order to discuss the questionnaire content and modify it for their own purpose. In the ***Create*** phase, a prototype was designed based on the identified needs from the review discussions. This prototype was shared back with all the contributors and the Kent and Medway Dementia Collaborative Board, to share back in turn with their organizations. All responses were gathered and used to refine the design of the Dementia Checklist prototype. As a result, the 2nd revised version of the checklist was

[17] Image from a presentation document developed by SILK.

developed with some changes, for example rephrasing some of the text so that it may apply to the person concerned and also family members and friends and creating space for people to add any other symptoms, changes or questions. The project was then entering the ***Test*** phase where the pilot area and initial targeting people were identified. Also, SILK was working with Canterbury Christ Church University for the formal evaluation of the impact of the Checklist. If the evaluation proves that the Dementia Checklist is effective and it can have an impact on the community, the final version of the Dementia Checklist document will be published both in papers and online in the ***Define*** phase.

The overall development process is visually summarized in Figure 5.20.

Figure 5.20 Service development process in the Dementia Checklist project

Relationship and collaboration

The Health & Social Care Commissioning Team indirectly supported SILK throughout the project development process. They commissioned SILK to work on the insight gathering report regarding the dementia care pathway. Then, they participated in discussing insights arising from the report, and selecting which themes to take forward. After that, they became a sounding board for the development of the project, overseeing that the project was going in the right direction and involving the right mixture of professionals and people. Also, they assured the quality of the output, while offering support to disseminate the Dementia Checklist through their network such as their CCG (Clinical Commissioning Group) and commissioning partners so that the Dementia Checklist could be embedded into real practice. Although the commissioning group supported SILK indirectly during the project, the role between them was distinct while they were doing their own work. Whereas SILK collaboratively worked through workshops with people living with dementia, carers, and some professionals such as dementia UK admiral nurses, the commissioning group did not attend those workshops. Instead, SILK briefed the commissioning team on the outputs, and then the commissioning team looked through the outputs. As the director of the commissioning team had a belief that the outputs should be right as they were derived out of the co-production group consisting of the right mixture of professionals and people, she wanted to take a back seat rather than directly engaging in the design activities.

Deliverables and outcomes

The final output was the Checklist prototypes produced by the designers' collaboration with people and the professionals. The 2nd version of the Checklist had been widely distributed through various channels (e.g., community events or conferences) and it was very welcomed and requested by many people. It was especially highly valued in the care home setting. But, there were some challenges in demonstrating the real impact of using it. As many copies of the Checklist were distributed to the whole community, the tracking of its actual usage was not easy. It was also reported to be a challenge motivating doctors to use the Checklist. Although the Checklist was considered to be useful from the GPs' perspective because it can enable the GPs to identify the symptoms of their patients within the limited time given for each of their patients, there was still uncertainty about whether GPs would really utilize it in their practice. The main reason behind this uncertainty was that GPs had not been engaged in the project development process due to their busy schedule. Likewise, the engagement with pharmacies was considered to be needed as they could serve as a good place for people to pick up the Checklist. To overcome these challenges by getting buy-in from the professionals, SILK was at the time of the case study having the Checklist formally evaluated. And they were expecting that the formal evaluation would be able to give them more confidence to take it to the doctors and encourage them to use it by demonstrating the actual impact that it could have on the community.

5.2 Cross-case comparison

5.2.1 Dimensions and variables for cross-case comparison

While the previous section was dedicated to describing the individual cases based on the within-case analysis, this section compiles all the ten cases, and compares them to each other. This cross-case comparison is conducted to recognize emerging patterns or themes across the ten cases. According to Eisenhardt (1989, p. 540), "one tactic for comparing cases is to select categories or dimensions, and then to look for within-group similarities coupled with intergroup differences", and "dimensions can be suggested by the research problem or by existing literature, or the researcher can simply choose some dimensions." In this thesis, the choice of dimensions for the cross-case comparison of the ten cases heavily relied on the research objective of this thesis, which is to understand Service Design practice alongside service development processes. For in-depth investigations on Service Design practice that is involved in the service development process, the author aimed to compare the cases against dimensions that could represent service designers' activities, approaches, and contributions. Furthermore, while conducting the within-case analysis, it was observed that the Service Design practices and contributions may be dependent on the contextual and relational conditions of the project. Hence, project contexts and designer-client relationships were considered as parts of the

dimensions. As a result, project contexts, designer-client relationships, Service Design approaches, and Service Design contributions were identified as four dimensions for the cross-case comparison. Eisenhardt (1989) suggests that the key to good cross-case comparison in order to avoid disconfirming evidence and premature conclusions, is to look at the data in many divergent ways. In line with this suggestion, the author also subdivided the dimensions into more specific variables which can sensitize the researcher to better capture data segments reflecting the dimensions. Table 5.1 represents those dimensions and their descriptions, and what variables were derived from the dimensions.

Table 5.1 Dimensions and variables for the cross-case comparison

Dimensions	Description	Sensitizing variables
Project contexts	Contextual information about the project that may influence the Service Design practice	Project aim Project scope
Designer-client relationships	Relational information regarding the interaction between designers and their clients that may influence the Service Design practice	Designer-client relationships
Service Design approaches	Service Design practitioners' activities and methods/ tools for the activities	Key activities Methods/ tools
Service Design contributions	Contributions that were made by the Service Design practitioners during the project	Key deliverables Service Design (SD) role Service Design (SD) outcomes

5.2.2 Cross-case comparison of the ten case projects

With the defined variables, interview data and archival data from the 10 case projects were analysed and organized in a matrix format (Miles & Huberman, 1994). The data from each of the cases were translated into more general accounts so that they could be compared at a similar abstraction level. The output of the cross-case comparison for each of the variables is shown in Appendix D. During the cross-case comparison, common patterns were identified, and they were clustered in a higher level of groups. These groups could be defined as areas of service designers' interventions. The Service Design intervention areas involved different design approaches such as different activities, methods, and deliverables. In the next chapter, the identified patterns from the cross-case comparison with respect to the Service Design intervention areas are described in detail.

6. Finding 1: Service Design intervention areas and common characteristics

Building on the previous chapters, Chapter 6 and Chapter 7 will describe main findings from the case studies. As the first finding, this chapter reports the results of the case studies associated with the following questions:

1. What areas did the service designers intervene in during the service development process?
2. What were the common characteristics underlying the service designers' activities?

The first question is concerned with the service designers' involvement in the service development process. It is about what conceptual areas the service designers' main activities contributed to, and how the service designers approached the intervention areas. This question was answered by identifying regular patterns and themes in the case studies, which characterize different Service Design activities, and clustering the activities into broader conceptual categories (Miles & Huberman, 1994). The second question relates to identifying whether there was any common attribute to underpin the Service Design practices, and if so, what it was. For this, the Service Design activities were analysed searching for thematic commonalities underlying them. This tactic was defined as "factoring" in Miles & Huberman (1994, p. 256).

The remainder of this chapter is organized as follows. In section 6.1, four Service Design intervention areas are defined with the description of key activities for the intervention areas. In section 6.2, the recurring common characteristics of the Service Design activities emerging alongside the service development process are described. Section 6.3 overviews the findings and discusses insights from them.

6.1 Service Design intervention areas for service development

Through the analysis of the 10 cases, key Service Design activities that contributed to the service development process were identified. These activities were then clustered into four Service Design intervention areas as follows:

1. **INFORMING**: exploring users' contextual and holistic experiences to create service concepts
2. **SPECIFYING**: converting the service concept into requirements for the service system

3. **ACTIVATING**: developing non-human resources and facilitating stakeholders' engagement
4. **SUSTAINING**: supporting the client's service management and capability building

Table 6.1 summarizes the four Service Design intervention areas with their description and key activities. The key activities show how the different cases contributed to the intervention areas in a different way. In the following sub-sections, each of the intervention areas and key activities are described in detail.

Table 6.1 Four Service Design intervention areas

INFORMING	SPECIFYING	ACTIVATING	SUSTAINING
Description			
Exploring users' contextual and holistic experiences in order to create user-centred service concepts	Converting the service concept into specifications by defining concrete elements to inform the design of service structures and functions	Developing physical or online resources to constitute service system, and facilitating stakeholders' engagement for service development and implementation	Supporting the client's service management and capability building, aiming at sustainable user-centred service innovation
Key activities			
- Ethnographic and empathic research into user experience - Mapping users' holistic service journey - Co-designing - Prototyping	- Identifying stakeholders for service delivery - Validating service concepts and specifying requirements for the service system	- Developing physical or online resources - Piloting in situ - Aligning and mediating among stakeholders - Facilitating the client's briefing and communication process	- Supporting service measurement from the user's perspective - Providing guiding tools for further developments - Building internal capabilities and capacities
Key methods			
Observation, shadowing, exploratory interview, design probe, persona, user journey map, survey, focus group, prototype, visualization	Service blueprinting, visualization, collaborative workshop	Visualization, mock ups/prototype, collaborative workshop	Interview, scenario, visualization, collaborative workshop
Key deliverables			
Recommendation report, Evaluation report from prototyping	Visual specification documentation	Visual specification documentation, pilot products, physical touch-points, online platforms	Visual specification documentation, service management guidelines, service management toolkits
Case examples			
Quick Tap, ANA airports, Wheel of Wellbeing, Netherlands National Rail Station, Connect & Do, Care Information Scotland, Fall Proof, Partner Zone, Teachers' Pension, Kent Dementia Co-production	Quick Tap, ANA airports, Wheel of Wellbeing, Care Information Scotland, Partner Zone, Teachers' Pension, Kent Dementia Co-production	Quick Tap, ANA airports, Wheel of Wellbeing, Netherlands National Rail Station, Connect & Do, Partner Zone, Teachers' Pension, Kent Dementia Co-production	Quick Tap, ANA airports, Wheel of Wellbeing, Connect & Do, Care Information Scotland

6.1.1 INFORMING: exploring users' contextual and holistic experiences to create service concepts

As one of the main Service Design interventions emerging from the studied cases, the Service Design practitioners concentrated on understanding users' contextual and holistic experiences. This kind of intervention area was observed in all of the cases (i.e., Quick Tap, ANA airports,

Wheel of Wellbeing, Netherlands National Rail Station, Connect & Do, Care Information Scotland, Fall Proof, Partner Zone, Teachers' Pension, and Kent Dementia Co-production). The primary aim of this intervention area was to deeply understand the current and potential users and their experiences. The service designers explored what users experienced in the service context, how they felt about it, what they wanted to change, and what they wanted future services to be like. The studied cases presented several key activities that are associated with this intervention area.

Ethnographic and empathic research into user experience

The case studies showed that the service designers focused on understanding users' experiences regarding difficulties, needs, desires, and values from the perspective of individual users in an ethnographic and empathic way. Ethnographic research in Service Design has been characterised as "a strong focus on the experience of people in their own context" (Segelström et al., 2009, p. 4350), and empathic research means "people are seen and understood from where they stand, not as test subjects but as persons with feelings" (Mattelmäki & Battarbee, 2002, p. 266). The service designers aimed to understand people's emotional, cognitive or relational experiences in their life contexts. As one of the main methods, exploratory interviews were carried out to listen to people's real voices and opinions about their broad experiences regarding the service. According to the service designer of the Kent Dementia Co-production project, she had a conversation with people to understand how their experience and journey went through when they visited their GP and when they were diagnosed with Dementia. As another method, observation was used to understand people in their use contexts of the service. While observing people, the service designers tried to find out whether there might be latent problems or unspoken issues that were missed out during the interviews. In the ANA airports project, after the design team of Engine had some exploratory interviews with passengers, visitors and staff at Lisbon airport, they shadowed (observing people closely while following them in their environment) to generate insights to inform a passenger services strategy. Similarly, in the Netherlands National Rail Station project, the design researchers of STBY observed and shadowed people to explore what was actually happening on the train platforms, specifically where, how and why people were moving around in the certain ways. In particular, they focused on understanding why travellers made certain behaviour patterns, which could not be found in the quantitative research data obtained by their client:

> They (client) had the numbers so they know 'ok it's rush hour and around the escalators then there was dangerous density of people' but they didn't know why people just wouldn't just walk 10 meters further to take another escalator. So, in the beginning our role was more to get a clear understanding of what is happening on the platform and how is it different, different moments of the day? How is it different during the week and weekend? […] so we just spent time and we made four groups of researchers, two groups would research people stepping out of the train and one of these two groups would do that at individual level, so by just following people who stepped out of the train and see where they are moving. (Design researcher, STBY)

Furthermore, the designers at STBY felt the need to investigate the travellers' experience around travelling and using the train platform during an extended period of time. For this, they used design probes–specifically designed as a set of materials to support users in documenting their feelings, activities, and events in their life (Gaver et al., 1999; Mattelmäki & Battarbee, 2002)– to get the travellers keeping a diary (Figure 6.1). In that diary, travellers were asked to fill in a questionnaire regarding their trip, and also they could draw some sketches to visualize their experiences and movements. From the diary, experiences regarding one trip were staged in a train station while being filmed:

> We had a group of 10 or 12 travellers filling in a diary so that they had a diary for a period of 3 weeks wherein they would note everything they are doing when they are traveling by train, and after that we had interviews with those people and we would record some of the most salient experiences, for instance in the diary they would say 'I come onto the platform and I am waiting but the train is only stopping a way further', then we would do that again with them to see, and also to see what information are you looking at now." (Design researcher, STBY)

Figure 6.1 Travellers' diaries (Enninga et al., 2013, p. 54)

The in-depth and creative user studies conducted by the service designers were particularly appreciated by many clients in terms of the service designers' consideration of individual user's unique experience. That approach seemed to be novel to them compared to their conventional quantitative research methods, for example, surveys. For example, the client of the Netherlands National Rail Station project reported how the service designers' research to capture an individual user's experience using videos helped him share the outside world with his colleagues and get buy-in from the internal staff:

> The manner in which service design focuses on the experiences of the end users–in our case train passengers–provided ProRail with a number of tangible and usable insights. Our task is then to translate these insights into improvements to our service provision process. I believe that such research can help us to speed up this process. (Stations program manager, ProRail) (Enninga et al., 2013, p. 62)

Mapping users' holistic service journey

As another key activity, the service designers paid attention to people's overall journey involving not only the service but also neighbouring support and services. While working with service users in collaborative sessions, the service designers located the individual users at the centre of the service landscape, and tried to identify from their perspective what their service

journey could be like, what they might feel as a challenge to their coherent service journey, and what they would want to change to achieve their goal. For example, in the Fall Proof project, the design team held a workshop called 'Falls Pathways' where the users and stakeholders were invited to explore the pathway of elderly people who have fallen (Figure 6.2):

> We talked to older people in a day centre in Teignbridge, we spoke to medical professionals, GPs, social workers, people working in a housing team within the council, really trying to understand not just what happened to an older person who falls in their home, but what the processes and what the service user journey is, and we started mapping that process from the point of somebody falling, where do they go in a system and who are the people whether it's their family, GP, who'll they go to for advice and guidance. (Service Design director, Made Open)

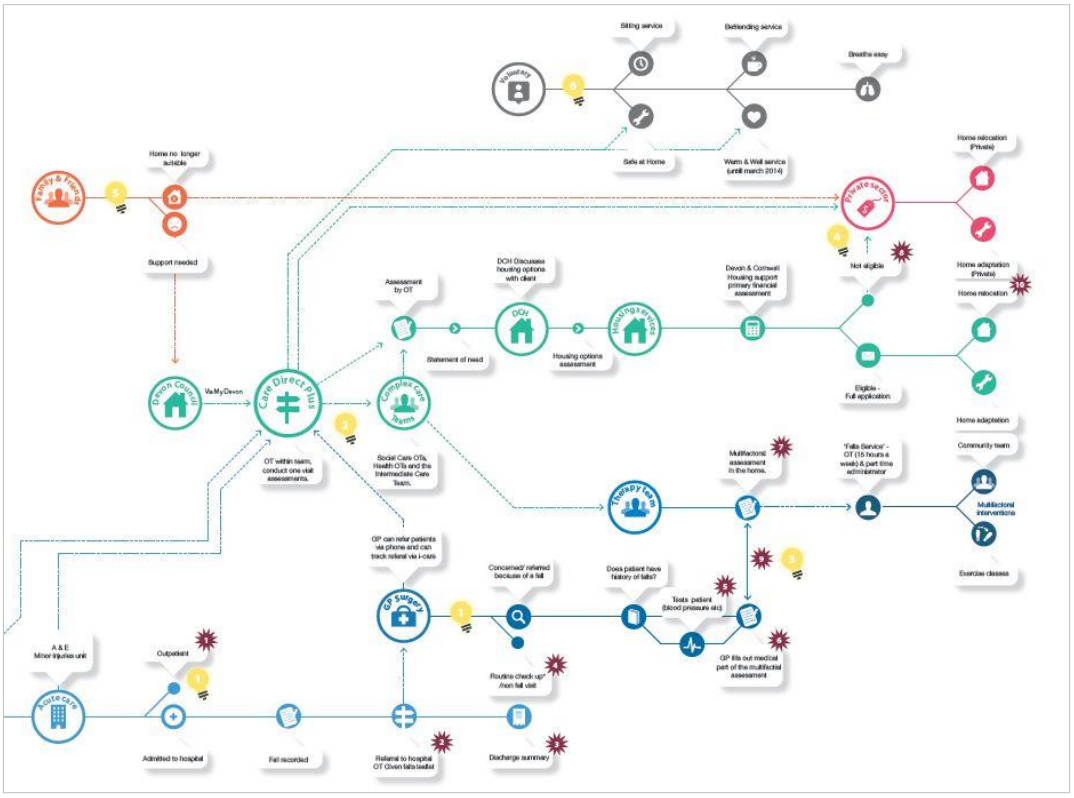


Figure 6.2 The 'Falls Pathways' map[18]

Zooming out users' experiences and exploring their holistic journey involving different services appeared to help designers and clients find new opportunities for innovating the service system, while providing the clients with a holistic perspective on the user's experience. As another example, the designers in the Care Information Scotland project conducted a gap analysis workshop with the stakeholders in order to understand the whole service journey of users around care information services. Through the workshop, they identified where a gap might

[18] Image accessed 10 July 2015, available online http://www.madeopen.co.uk/wp-content/uploads/2015/02/Falls_pathway_large.pdf

exist, and discussed how the new Care Information Scotland service could fill the gap, thereby making the users' journey coherent.

Co-designing

In most of the cases, the service designers took co-design approaches during the service development process as a way of collecting ideas and opinions of users and stakeholders. As one of the examples, in the Netherlands National Rail Station project, the designers organized co-design workshops with travellers and the client team in order to explore their ideas for service concepts and solutions. The Partner Zone project also witnessed the co-designing activities as one of the core designers' contributions:

> We were co-designing the service. Basically we asked them to, we took them through my world of work at the moment. We used our themes as sort of points area to generate ideas and then asked them to generate ideas for what they would want within partner zone, it was very initial stages. […] So we started it off just trying to understand how partners use at the moment, what sort of career's advice they were giving the customers at the moment, and therefore to understand for ourselves how could this fit in, and we took themes from that and used that as basis to generate as much ideas as possible. (Service designer, SDS)

When the service designers had co-design workshops with people, they focused on how to have engaging conversations with them by helping them become more proactive in articulating their thoughts and ideas rather than staying as passive participants. This was witnessed by one designer involved in the Care Information Scotland project:

> We need to get our citizens more involved in the service but they just don't really know how to do it, so then I guess through engaging with them and in doing workshops together it kind of sets a bit of an environment where they can work more closely together with their service users so often in that respect it's an innovation. (Service designer, Snook)

To involve people effectively, different kinds of design materials were utilized to motivate people to express their thoughts and experiences. In the Wheel of Wellbeing project, the design team of Uscreates did 'crowd-sourcing' activities (seeking collective thoughts and ideas around a certain topic) using post-cards and an online blog to collect tips from people about what makes them happy. For the Care Information Scotland project, when Snook held a range of co-design workshop sessions to understand what information people need and where they go for care information at a different level of urgent situations, the designers created a wide range of tools to motivate and empower the participants from different age groups to better engage in the workshops (Figure 6.3). For example, they created the hexagons with 3 different colours (red, amber and green) in order to help the participants to better express the level of urgency. The designers at Snook emphasized how the creative tools could contribute to the engaging conversation with the users:

> We don't like to have just kind of standard tools that we always use so like when it's the young people we are just like oh we'll do it like a pizza and then we'll order pizza for them and it will be like a fun thing because these guys are all people

who are carers, you know like they are 13 years old but their mums may be disabled or a drug addict so they've got a pretty hard life, they've got to look after them so we want to do like a fun thing with them. (Service designer, Snook)

Figure 6.3 Creative tools used in the workshops[19]

Prototyping

The service designers in many of the cases used prototypes to test the ideas, physical objects, interactions, or processes and learned from the findings. While getting people to engage with mock-ups, the designers researched into how people reacted to the new service concept or process. The prototypes observed in the case studies began from the early stages for exploring or creating service concepts before project authorizations, which means their primary purpose was not necessarily to test or validate the complete service offerings, rather to optimize the user experience. For example, in the Fall Proof project, the designer experimented three ways of raising elderly people's awareness of the risk of falls, testing what worked well and what did not:

> It was just a prototype, so we put it in two GP surgeries and a community centre, and we left it there probably about 4 weeks. what we found was people, they liked it but they won't take it away, we wanted them to take away their record sleeves like leaflets, not many of those were gone from the GP surgeries, maybe that's, it's not good to test, but maybe it's not going to be that effective. (Service design director, Made Open)

Besides, the service designers' prototyping helped to reach the optimal service process involving certain tangible touch points. In Quick Tap project, the designers looked through the service registration and activation process with users through prototyping sessions, observing whether there were some challenges to prohibit the coherent user experience. The designers informed stakeholders about what degree potential users could understand the new service concept, and what could be barriers for them. What they learned quickly was that "because of the security and technical complexity, activation was going to be a challenge, so it was very possible that lots of people would buy us the phone, trying to set it up and then fail, they give up. […] so one of the ways to help people set up the phone would be to ensure the package is very clear" (Founding partner, Engine). In the Teachers' Pension project, "the design work was

[19] Images from the final CIS report developed by Snook

routinely tested with teachers, employers and staff to ensure it was authentic and valid in its direction–and to ensure it would be used as expected" (an article for Teachers' Pension, Capita). If something proved not to work, the design team tweaked it in an agile and iterative way. In the Fall Proof project, the activities and mind-set relating to prototyping were appreciated by the client as a design-led approach that was employed in his organization's practice:

> I think local authorities […] not really test the product that much to see what people thought of them. But this is much more a design-led approach we adopt now, everyday work we do now, we will make sure it fits purpose trying out, I think local authorities, they tend to be making very perfect before they get them out rather than just trying it to make sure it work, so much more we try out now. So we are not afraid of trying out, […] rather than trying to get it perfect and launch in hopes of the best. (Strategy officer, Teignbridge Council)

In the case studies, prototypes helped the clients confirm the service concept or the service model. Also, they facilitated the clients' internal processes, for example making an internal agreement with other staff or getting the approval of the program board. For instance, the client of the Netherlands National Rail Station project remarked how the prototypes (Figure 6.4) facilitated the development process by convincing him of the service concept, thereby involving a partner to realize the service concept:

> I was inspired by one of the prototypes that was displayed during a service design session. The research that had preceded this prototype had quickly revealed that passengers wanted such information about the train presented in this manner. When, shortly afterwards, I heard about NS Reizigers' initiative to provide passengers with boarding information, the idea of course quickly took shape. (Stations program manager, ProRail) (Enninga et al., 2013, p. 62)

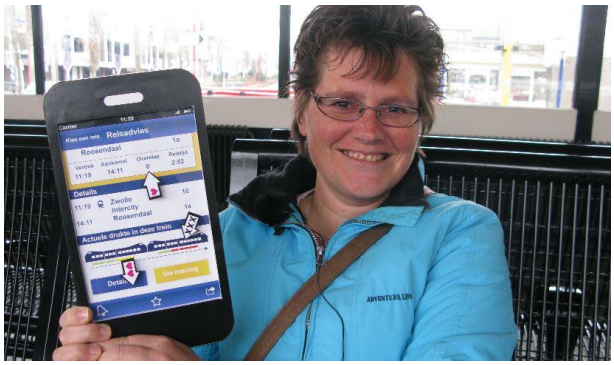


Figure 6.4 Prototypes in the Netherlands National Rail Station project[20]

6.1.2 SPECIFYING: converting the service concept into requirements for the service system

Another Service Design intervention area was concerned with converting the conceptual service ideas into operational details that are required to implement the service (e.g., Quick Tap, ANA

[20] Image accessed 10 July 2015, available online http://www.stby.eu/2013/06/13/working-with-ns-and-prorail-to-improve-services-for-traintravellers/

airports, Wheel of Wellbeing, Care Information Scotland, Partner Zone, Teachers' Pension, and Kent Dementia Co-production). The case studies indicated that the service designers supported the client teams to prepare for the development of the service system by specifying its components including detailed service processes, service channels, interactions, touch points, and staff. The main activities regarding this intervention area that were identified in the case studies are described next.

Identifying stakeholders for service delivery

It was found that the service designers could be involved in the service specification process by identifying which actors could contribute to the realization of the service concept. Based on the end-to-end user experience, the service designers recognized the stakeholders that should be involved in the service delivery system, who had not been thought of by the client. This point was evident in the Netherlands National Rail Station project. While the designers were creating the traveller's experience journey, they recognized that there was potentially meaningful information relating to travellers, and the new service experience required that traveller information. But, that information could not be provided by the current provider, which was ProRail. While ProRail was responsible for managing rails and platforms, the national train company (NS) was responsible for managing the trains and travellers' information. Therefore, the designers came up with the idea of involving NS as another potential provider. This identification of the right actor based on the users' needs and the service concept was acknowledged as a contribution of the Service Design approach by both the designers and the client:

> The initial idea came out of STBY because the ProRail would never say 'we need NS.' That is not something they would, it is much easier if you can keep a project within an organization and be in total control of it, and this made it more difficult because you had to align more stakeholders. (Design researcher, STBY)

> About the concept, because NS is not working in our sector, the designers came up with the ideas which maybe we had never thought about. (Stations program manager, ProRail)

The designers' recognition of stakeholders based on the user experience was also observed in the Care Information Scotland project where the designers identified the right system of stakeholders to support user experiences of personas that had been created by the design team out of their insights from the engagement workshops with diverse age groups. The design team paid attention to different kinds of experiences that a user from the different age groups (e.g., Rosemary aged 79 and Callum aged 13) may have. According to the persona's unique experiences, the ecology of actors and resources that the Care Information Scotland service could be connected with was specified so that the users may have appropriate access to care information and support. This work was aimed to make sure that the Care Information Scotland service has a seamless connection with the existing network of actors and support available to

each of the personas so that people may have easy and appropriate access to care information and support, and utilize the service anytime they are in need.

Validating service concepts and specifying requirements for the service system

As another recurring activity, the service designers were involved in specifying detailed elements and information that were required to develop service system. Service specifications often began with validating the service concept and service experience with business, technical, operational or marketing people in order to check if there might be any issue or challenge. The findings were then applied to and represented in concrete and detailed service specification documents. In the case of Quick Tap, Livework held regular collaborative working sessions over 6 months to discuss the business process with the stakeholder group including the focal providers (Orange and Barclaycard), technical partners and product suppliers. This activity enabled them to discover some of the operational challenges that had not been foreseen beforehand, and to work on the issues together:

> Service Design not only drove change on the product we tried to deliver, but also drove change back into the business in terms of some of the Business As Usual (BAU) standard procedures like SIM swopping, update firmware, device, various things we had to streamline the process to get the customer to a point where they can just receive and use the service, it was quite a useful activity to go through. (Programme manager, Weve)

Alongside the working sessions, Livework also developed a document outlining the end-to-end customer journey and describing the operational requirements (e.g. project timelines, staff in charge of the task, the development progress of each of the service channels, and etc.) for the implementation of each critical point of the defined service experience. Similarly, for the ANA airports services, Engine had sessions with different teams in ANA for the validation of the services that they suggested, and the refinement of the concepts toward specification. Based on the validation and refinement, Engine delivered detailed specification documents to prescribe business elements, technical elements and staff behaviours. They were aimed to help ANA work on the implementation of the nine work streams: Environments, Passenger Information, Customer Service, My Airport, Greenway Plus, Travel Together, ANA POD, Family Services, and Security Experience for service implementation (Figure 6.5).

Furthermore, in some cases, the service specification documents served as a tool through which to make a transition of ownership from the Service Design practitioners to the service providers. As one of the examples, in the Partner Zone project, after the designers engaged in the exploration stage and the design stage, they delivered the specification document describing all the information about the service including detailed requirements for the development of the website to the operational team so that they may lead the later implementation stages including the debugging of the website and the full launch of it.

Figure 6.5 Service specifications for the My Airport service[21]

6.1.3 ACTIVATING: developing non-human resources and facilitating stakeholders' engagement

Another area of Service Design interventions was concerned with preparing resources as part of the service system (e.g., Quick Tap, ANA airports, Wheel of Wellbeing, Netherlands National Rail Station, Connect & Do, Partner Zone, Teachers' Pension, and Kent Dementia Co-production). The resources included physical/online products and human actors to engage in implementing and delivering the service. For a new service concept to shift from the conceptual level to the operational level, the human and non-human resources to constitute the service delivery system had to be prepared and configured. The studied cases indicated key activities associated with this intervention area as follows:

Developing physical or online resources

As one of the frequently reported activities, the service designers were involved in developing diverse types of physical or online resources that were part of service touch-points or channels. For example, in the Quick Tap project, the designers developed the early version of packages for the mobile in high fidelity to test how well the customers would perceive and engage with the service. Similarly, the designers in the Wheel of Wellbeing project produced a wide range of physical products regarding the DIY happiness game (Figure 6.6), and the designers in the Kent Dementia Co-production project were also involved in creating the Dementia Checklist form. When developing the physical resources, service designers focused on how the materials could help users better engage with the service, and they iteratively tested and revised the products. Also, many of the cases involved the digital platform for their key service channels. The service designers in the Connect & Do project, the Partner Zone project, the Fall Proof project, and the Teachers' Pension project were all involved in the development of the web platform as part of

[21] Image accessed 09 July 2015, available online http://www.slideshare.net/JamesSamperi/engine-service-development-for-ana-airports

the service system resources. For the development of the online resources, the service designers' focus was placed on improving usability and convenience of the website.

Figure 6.6 Products regarding the DIY happiness game[22]

Piloting in situ

Both prototyping and piloting were concerned with simulating or enacting the user experience with tangible and visible artefacts. But while the prototyping activities in the studied cases were more aimed at exploring ideas and concepts in an engaging way with users, the piloting activities were geared towards testing the integrated experiences consisting of tangible artefacts and intangible interactions while embedding the solutions within people's daily life. For example, in the Netherlands National Rail Station project the two solutions, the mobile application called 'iNStApp' and a LED screen were tested in the real situation. The LED screen was developed and set up on a platform in Den Bosch from February until the end of April 2013 while the mobile application was also tested along a whole train route. And the design researchers at STBY measured the effectiveness through a series of online surveys and interviews with travellers. As a similar case, the Uscreates team in the Wheel of Wellbeing project developed piloted the DIY happiness game across 13 different areas while collecting people's feedback through the qualitative and quantitative evaluation to measure the success. (Figure 6.7) During the piloting period, the feedback of people who engaged with the game contributed to finalize the solution in terms of its specification.

[22] Image accessed 09 July 2015, available online http://uscreates.com/work/healthier-happier-communities-thanks-to-an-open-source-wellbeing-framework/

Figure 6.7 The DIY happiness game pilot[23]

As another example, in the Partner Zone project, the PD&I team had a pilot with the SD&I team where the designers created mock-ups and tested if teachers would be actually using the contents of the service. The lesson plans within the site were tested as they were critical elements for the offline sessions that the partners (e.g., school teachers) would deliver to their students within schools. The SD&I and the PD&I team members went into the schools and observed teachers using those materials with their students. Along with the observation, participant surveys were carried out.

Aligning and mediating among stakeholders

More significant contributions acknowledged by the clients in the ACTIVATING area were concerned with mobilizing human actors in different ways. As most of the studied cases involved multiple human actors, aligning them to the same direction was considered as one of the critical agendas for the new service to be implemented. The case studies showed that the service designers could play a facilitative role in tying together diverse actors from different parties, and getting them to cooperate and collaborate with each other. For instance, the Quick Tap service involved a wide range of actors: the handset maker, Information Technology builder, platform provider for the bank, package designer for the handset, marketing people, website developer, and etc. Livework had regular collaborative working sessions where they shared the end-to-end user experience with the stakeholders and discussed the emerging issues from implementing the user experience. During the sessions, the designers helped the stakeholders to get updated with the development and to understand what they needed to work on and what other parties were doing. For the sessions, visual documents including key issues from the users' feedback were used to facilitate the discussion, and the documents were continuously updated from the stakeholders' feedback and decisions. The client acknowledged the role of Service Design in effectively managing the alignment of stakeholders:

> Livework facilitated a lot of meetings between ourselves and Barclaycard, some of the technical partners who were key, who managed the hosted platform we used, developing manufacturers, SIM suppliers, and sat around and resolved talking to

[23] Image from the DIY Happiness Game report developed by STBY.

> highlight some of the challenges. Some of the challenges actually came out of that piece of work. Challenges that we'd not really foreseen. […] it was good to kind of get everyone together to talk about how the service would be delivered. So it was a good way really early on in the project, basically the first six months of the project, sitting down, together and talking through what the perspectives were going to be, and how we were going to approach it. (Programme manager, Weve)

In several cases, service implementation processes required service designers' coordination of different perspectives between multiple companies as they had to collaborate with each other, sometimes conceding their argument to reach an agreement among them. As the multiple companies had worked on different business areas with different organizational contexts, there might have been potential conflicts or debates during the project. In the Quick Tap project, Orange and Barclaycard were partners, but sometimes "there were a lot of debates between Barclay and Orange," which required the Livework's intervention and mediation as a referee "to help them make a decision about strategically who is in the lead and things like that, helping to clarify the business relationships" (Founding partner, Livework). In the mediation process, the designers helped the two partners focus on how to realize the seamless user experience, and drew their attention to the needs of their collaboration. This way of mediation was highly appreciated by the client:

> When you've got two organizations like telecom and bank, you have to agree on a single set of processes, for example, if somebody wanted to swop a SIM? What would each side tell them, how they will handover between the two organizations as well, giving a warm handover. […] It was all about facilitating meetings, being a kind of referee sometimes, because we had telecom and bank staff come from completely different angles, so the designers helped facilitate discussions so we didn't fall out with each other (Programme manager, Weve)

The ANA airports project also evidenced how the user experience could alleviate the conflicts between the airlines and airports, aligning them towards creating the superior customer experience. The service designers actively involved the two parties in design workshops and shared the defined user experience as a common ground for their collaboration. Similarly, when working with the two service providers, ProRail and NS, the designers at STBY utilized the travellers' data to tie the two companies for collaboration as explained by the design researcher:

> What was very helpful here was that, we did research, we had a lot of data about travellers and what they wanted and their needs, so that really helped to stress the urgency of "you (ProRail and NS) have to work together now, this is an opportunity to do so. (Design researcher, STBY)

The Teachers' Pension project also confirmed the user experience as a tool to get different teams aligned to the same goal. The target customer experience defined by the Service Design team helped the different operational teams that had been usually working in silo to be aligned to the customer experience. The clear goal based on the user experience mobilized the actors to take their part with stronger commitment and ownership.

> The team (Service Design team) developed a set of 'customer promises', aligned to brand values, to govern every channel and point of engagement, to overcome the tendency for silos to operate under its own assumptions about what was important to the customer – a factor that often contributed to 'death by a thousand cuts.' (The article for Teachers' Pension, Capita)

Facilitating the client's briefing and communication process

As another key activity, the service designers' workshops and design materials supported the clients to have an effective and efficient communication with their colleagues so that the internal staff could be better committed to the new service concept and process. As an example, the focal client in the Netherlands National Rail Station project invited his colleagues into several design workshops that were organized by the designers in order to discuss the service concept. The client preferred having the design workshops for his communication with staff rather than having a formal briefing process internally (Figure 6.8):

> I asked some of the colleagues to be part of the workshops, it was a good approach, because of that they knew what we were doing, sometimes it is difficult or takes a lot of time to get a formal answer, so I chose informal ways, I knew some colleagues were interested in. (Stations program manager, ProRail)

Figure 6.8 Workshops in the Netherlands National Rail Station project (Enninga et al., 2013, p. 58)

In the case studies, design materials were also used to enhance the communication during the development of the service system. The client in the Fall Proof project reported how the design materials and prototypes with high fidelity were helpful to the briefing and communication process for getting buy-in from the stakeholders:

> The designers' visual design and products helped actually buy in the trust of the doctors and the NHS staff because they could see the quality, we don't have the printers, we don't have the different font, the Macintosh computer that would allow you to do, and also for the volunteers when we took the products out, you can tell if it worked, it was almost done properly, it was sort of trials but it can be seen as a finished product. (Strategy officer, Teignbridge Council)

Similarly, for the Quick Tap project, visual documents outlining the end-to-end user experience and service process served as an effective tool to communicate the knowledge of the new service to different teams within the organization. The program manager emphasized how the visual outputs delivered by the designers were useful for his internal briefing process:

> Before I entered the process, using a visualization piece of work was a luxury and nice to have, but as we moved on, it was quite key actually. […] that visual piece of work was really useful to open conversation, because it is very hard to get 20 people in a room and talk through an Excel spreadsheet for 4 hours from there, where you can, if you can get every 20

> people in a room, from area of business, talking through a presentation or single document, then that is a much better tool. (Programme manager, Weve)

Furthermore, the design materials were effectively used to provide new staff who joined the service with the knowledge of the service, reducing communication costs in the organization.

> Also with a project, you get new people who need to join the project at different times. So if you join the project, they phone us and say "can you send the latest version to John?" So he can just get up the speed and understand it. I think some of the values of service design are not really talked about, but just clear communication and briefing, those kind of things are highly appreciated by organizations because they take the pain away from people in their job. (Founding partner, Livework)

The design materials were also found to help the front-line staff to better understand the concept and the holistic process of the service. Livework's visual document with lots of pictures and graphic elements representing the end-to-end customer experience and the relating service process "was used for the service call-centre," (Founding partner, Livework) as it was considered as a very clear communication material. Similarly, Engine "provided the content and the materials that can be used by their (ANA airports) training teams so that the internal training team may convert them into their own format that fits the way they do things when training staff" (Design director, Engine).

6.1.4 SUSTAINING: supporting the client's service management and capability building

As another Service Design intervention area, the service designers assisted their clients in implementing and managing the service with the user-centric approach on a day-to-day basis, although there were relatively fewer cases related to this area (e.g., Quick Tap, ANA airports, Wheel of Wellbeing, Connect & Do, and Care Information Scotland). In these cases, the service designers considered how their deliverables or practices could help the client successfully implement and manage the service after their disengagement from the project. The Service Design practices geared towards enabling the clients' independent and sustainable user-centred service innovation were found to diverge into three main approaches as follows.

Supporting service measurement from the user's perspective

The service designers in some cases supported their client teams to measure the impact that the new service could bring or brought to the organization or the communities. The role of service designers for this activity was to infuse the user's perspective into the measurement practices. For instance, Engine developed languages for measurement so that ANA may supplement the traditional measurement tools that had been traditionally used by the airports. There had been a couple of measurement tools in the aviation industry such as customer satisfaction surveys, passenger performance statistics, and the benchmark of worldwide airports' performances. Engine leveraged those existing tools in order to measure how the Service Design solutions

improved the customers' experience of the airports by adding another layer to the measurement tools, which was brand awareness to help ANA gain its brand value as a passenger service provider. Besides, Engine considered how the qualities of the Service Design solutions could be enhanced in terms of revenues and passenger numbers as well as the effective and efficient deployment of the organizational resources. While the ANA airports project was the example to demonstrate how the Service Design experts could inform the service provider's service measurement activities, the Connect & Do case indicated how the Service Design consultancy could be directly involved in the evaluation of the service:

> So we've got data on the number of people they've worked with and what kinds of people they've worked with. We've got data about who's referred to their service. There are some statistics on the use of the website. We'd also devised, we did a few in-depth user stories, and we also devised a telephone survey to conduct with a sample of 15 people, which works out as 10% of the people they worked with. (Evaluation unit, Innovation Unit)

The designers in the project considered how the individual user's overall experience was enhanced as one of the important factors for the success of the service. That is, they looked not only at the quantitative aspects (statistics) but also at the qualitative aspects (user stories or experiences). In the Connect & Do project, the designers paid attention to how the service improved the qualities of users' experiences by observing how the users felt more supported, more independent, and more capable of dealing with a crisis after experiencing the community connecting service.

Providing guiding tools for further developments

The service designers in some cases supported their client to evolve the service in terms of its functionalities or qualities, and to scale it up by offering a service road map to the service provider. As one example to evidence it, when Orange and Barclaycard got to the point of initial launch of the Quick Tap project, only some elements of the prepared service ideas were ready to be rolled out with the remaining parts left for the next phase of launch. For the service provider to plan and work on the next scope of works, the service specification document delivered by the Livework design team describing all the service offerings and processes alongside the end-to-end customer experience, and timelines and actors in charge was able to serve as useful guiding tools for the client.

> So the idea for us is that this kind of document would then be used to manage a service when it is live. Because this was definitely not perfect when it was launched, it was okay. We had a number of concepts about, 'okay this is something that should happen that we have to argue with people about, because it would cost money to improve.' So we have to make a business case for upgrading it and improving it. So in a way you've got three strands of 'design', then this 'launch' which is what is it going to be, what are we going to have there at that point, but then there is also 'improve.' The service isn't finished. (Founding partner, Livework)

In the same regard, the ANA airports did not roll out all the defined service offerings at the same time. Among the nine work streams proposed by the Engine design team, only some offerings

relating to the family services, and airport facilities and technology were initially launched. The Engine's specification documents representing the nine work streams for ANA airports were aimed to be used as guiding tools that would help the ANA staff continue the following service development (Figure 6.9). As another example, in the Partner Zone project, a hand-over report was developed by the Service Design and Innovation team and delivered to the other teams including the Digital Services team and the Partner Development and Integration team to let them know "what are some of the things that didn't get fully developed or anything they need to be aware of to help manage the content or support that goes with the materials that are on the partner zone" (Service development executive, SDS). The hand-over document was aimed at supporting the operations team to finalize the development of the web platform and implement the service without the active engagement of the design team.

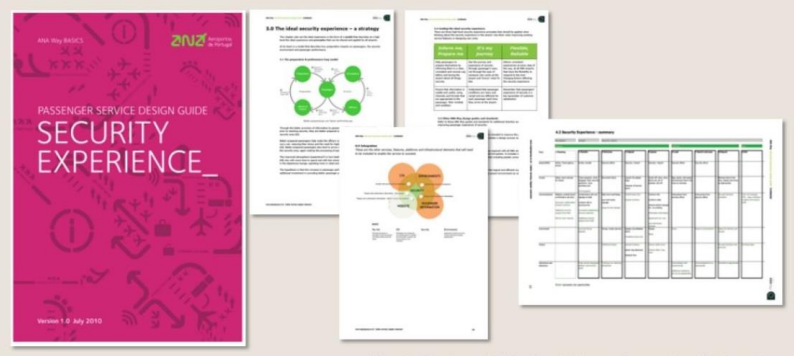


Figure 6.9 Service Design guidelines for developing and managing third parties[24]

Building the internal capabilities and capacities

As the final key activity regarding the sustaining intervention area, the service designers in several projects focused on developing their client's internal capabilities for the service operations team to manage the service on a day-to-day basis. The case studies showed that the capability building was primarily done in a way that the service designers engaged in setting up a new team that would be in charge of managing the service while training the members of the team, and that they delivered service management tools to their client teams. What Engine did for ANA was to help their client build a services management team by offering advice on the mixture of the skill sets and disciplines for the team members. They also provided the team with 'on the job training' meaning that the service designers involved the member of the management team in the designers' work for each of the work streams so that the staff could learn the Service Design user-centred approaches and design methods/tools.

[24] Image accessed 09 July 2015, available online http://www.slideshare.net/JamesSamperi/engine-service-development-for-ana-airports

> One thing was what we called 'on the job training.' So aligning the team to various work streams which were run by Engine people, so embedding them and giving them exposure to that process, as we went through, each work stream was like many design projects, they would co-facilitate workshops, they would be involved in concept generation sessions. […] Then some of the documentation was around, so some of the service management tools, with then things they can use, also for them to build into things like the intranet, into training for front line members or staff in order to support the ongoing development of the service's capability within ANA. So this one was quite an informal form of training. (Design director, Engine)

Likewise, the design team for the Connect & Do project was engaged in "developing the community connecting team model" by defining "the team's function, roles and ways of working" (Presentation document, Innovation Unit). The design team also helped the client team to "build their organizational capabilities as innovators and pave the way for future projects" (Website, Innovation Unit) by exposing them to Service Design methods. For example, the service designers trained them "to deliver mini ethnographies (in depth qualitative research into people's lives)" and "to deliver co-design workshops and prototyping sessions so that they could create something that fully reflected the demand of its users" (Website, Innovation Unit). The Service Design approach absorbed by the client's service management teams brought a transformative effect in the organization. One of the community connectors in Certitude who directly met and interacted with the users described the co-design sessions that she experienced as an "eye opener" for her because they gave her chances to listen to the users' real voices and to recognize a gap between what she offered to users and what users really wanted. She felt the need to work differently from before, which is more in a user-centred way.

> What I do now is really different, totally different, and it's more like listen to what they (users) want to do, who they want to meet, and how they want to be supported. And working at the website together, what sort of activities, what sort of things you want to do and then we find the thing to do and be doing things together. (Community connector, Certitude)

While Engine and Innovation Unit contributed to building their client's capabilities for user-centred ways of service innovation, the design team for the Wheel of Wellbeing project trained the client to be more business centric for sustainable service management. To support their client to run the Wheel of Wellbeing website based on a stable income stream, the designers were involved in the client's marketing strategy by developing and delivering a set of tools for service management called 'implementation strategy tools.' These tools were aimed at supporting the client team members to define and take a role for economically sustainable service operation. Each of the members in the small team needed to play a different role for the operation of the service. For example, one member could be responsible for business development relating to finding organizations interested in buying or using their service offerings, while another member could be in charge of service promotion and marketing. And the other could be working on managing the community to draw people's contributions to the service. The designers at Uscreates supported each of these roles with the specially designed management tools:

> We trained them (the mental health promotion team) and gave them a very accurate plan with. These are the activities that each role needs to do on a monthly basis. These are the targets they need to reach on a monthly basis. We also developed a catch up meeting structure for them that they would have once a month like a team meeting where they have a big wall planner where everyone can share back what they did over the past month, and what they plan over the next month. They also have a prioritization grid […] so that prioritization metrics can help them think about what's the most important opportunities […] we developed tools for each role to develop and deliver their role but also for them we designed the team agenda. (Design & communication director, Uscreates)

The client in the project acknowledged the contribution of the designers towards cultivating a business mindset in their team, saying "what they brought was business language", and "their contribution is really thinking about how you turn into enough proper business" (Head of mental health promotion, South London and Maudsley NHS Foundation Trust).

6.2 Common Service Design characteristics

While the previous section described the key areas that the Service Design practitioners were involved in, this section describes the main characteristics that emerged out of the service designers' practices in the Service Design intervention areas. The following sections describe four Service Design characteristics that have been identified in the cases, and illustrate how each of the characteristics was manifested in a different form depending on the intervention areas.

6.2.1 User experience centeredness

One of the characteristics found in the Service Design practices was that service designers' activities and deliverables were strongly based on the consideration of the user experience. The user experience centeredness appeared in the designers' practices alongside the whole service development process from the design stage to the implementation stage. The designer in the Quick Tap project described the role of designers as 'guardian' to keep the user's perspective and experience all the way through the service development process:

> So our role, Service Design role was to kind of represent the customer and be the customer experience guardians and to keep telling their story. (Founding partner, Livework)

In the early intervention areas, the service designers paid attention to ***exploring users' contexts and generating ideas to improve the user experience***. They understood what challenges the users were facing in the service context, and what needs and desires they had in their life. Their focus was on how to understand the problems from the standpoint of people who use the service. As just one example, the designers in the Partner Zone project had co-design workshops where they took the teachers through the initial high level concepts and themes for the Partner Zone, and asked them to generate ideas for what they would want within the Partner Zone. This

practice helped the designers create service concepts that were useful and desirable from the real user's perspective.

In the middle areas of intervention, the service designers played the role of ***advocates or representatives of the users*** while they developed service specifications and discussed them with the stakeholders in co-working sessions. Their user experience centeredness ensured that the initial concept grounded in the insights from the real user stories was consistently implemented throughout the whole phases of the service development process. In the Quick Tap project, the designers documented the end-to-end user experience of using the mobile payment service. The client of the Quick Tap project illustrated how the defined user experience affected not only the service process but also the business process in the back office:

> There were some big issues that were highlighted very early on like the fact that customers would have to do a SIM swap to get the service effectively, have to request a new SIM, receive the new SIM, go through the process, activate the SIM, import phone numbers. That wasn't realized up front, so when that was documented, we tried to make the new process simple as possible. It not only drove change on the product we tried to deliver, but also drove change back into the business in terms of some of the Business As Usual (BAU) standard procedures like SIM swopping update firmware, device, various things we had to streamline the process to get the customer to a point where they can just receive and use the service, it was a quite useful activity to go through. (Programme manager, Weve)

Furthermore, the user experience was used as a tool to guide the stakeholders towards the shared vision and concrete goal. For example, in the Quick Tap project, when reconciling two different sector people (telecom and banking), and coordinating the different teams and suppliers, the designers focused on how the customers can have a seamless experience and support from the two companies through one integrated process. Their role that was expected by the client was to facilitate discussions between the two companies so that they could agree on a joint customer support process. In this process, the designers placed the user experience at the centre of making each party's roles and responsibilities clear in supporting the users.

> Basically they will design customer support processes around the service, big operation element especially when you've got two organizations like a telecom and bank that have to agree on a single set of processes, for example, if somebody wanted to swop a SIM what would each side tell them, how they will handover between the two organizations as well, giving a warm handover. For example, if a customer phones Barclaycard, and said that they've got a problem with a SIM, they would know exactly how to get the customer to the orange customer support team to manage the call and make sure that they are happy. (Programme manager, Weve)

Similarly, the design director at Engine emphasized how Engine could navigate the challenges from conflicts between different stakeholders (mainly airlines and airports) for the ANA airports project by providing them with "the common goal of creating the superior category leading the customer experience." His perspective that "focusing on the passengers often alleviates some of the direct departmental challenges" (Design director, Engine) was also evidenced in other cases such as the Netherlands National Rail Station project in which the traveller's experience was used as a strategic tool to mediate the two providers, which were ProRail and NS.

In the later intervention areas, the service designers' user experience centeredness appeared in the form of ***supporting or training the client to implement the service in a more user-centric way***. For example, service designers supported the marketing team with the user-centred knowledge (e.g., Quick Tap, ANA airports, and Wheel of Wellbeing). Also, they embedded the user-centric perspective and approach in the client's practices (e.g., ANA airports, Connect & Do, and Fall Proof). By involving clients in the design activities and methods, service designers trained the clients to learn a new way of approaching their customers and a new perspective on their offerings from the customers' real needs. For example, one of the staff in the client team of the Fall Proof project said how the user experience helped her team look at the service not only from their own sector, which was housing, but also from the wider sectors including all bodies involved in the health and social care and the voluntary sector to support elderly people to have better experiences in their lives. This change of mindset allowed them to have open conversations with the key players in different sectors in order to develop a 'Community Hub' for joint support for people.

6.2.2 Understanding staff and organizations

While the service designers in the case studies were highly user-centred, they were also staff-centred. Despite varying extents to which the designers in each of the case projects understood the clients and the client organization depending on the contexts of the project, most of the service designers aimed to understand their clients and their contexts in the organization throughout their involvement in the service development process. In the initial intervention areas, they tried to understand ***the contexts and needs of the client team and the organization***. This was possible by "going to the client team to find out how this organization works and how can we help them" (Strategy director, STBY). In the ANA airports, the designers' efforts were put on understanding of the challenges of the organization from moving from infrastructure to a service brand with an idea of how to build the better understanding of the requirements not only of ANA but also of its associated partners such as airlines and the security company. The client of the Netherlands National Railway Station project emphasized how the designers' understanding of their client's organization was critical for the success of projects while he was appreciating the effort made by STBY for an understanding of his organization:

> The main thing is that if you want this to work especially in a company with my colleagues, and my culture, thinking and knowledge, you as a Service Design company have to be able to understand the language of the company, the culture and the expression of certain experiences, certain problems in their sector. (Stations program manager, ProRail)

In the middle of intervention areas, the service designers' understanding of the clients and organizations was represented in the form of ***coordinating the client's internal timeline and processes with the design process***. In some cases, the clients required the designers to understand their own internal timelines and processes for decision making in particular when

the client organization is large in size, and the designers attempted to balance between their own design process and their client's process. The strategy director at STBY explained how her design team had to balance between the design process and the client's process:

> This is a project that has a really long life time span, but that doesn't mean the agency is all the time working on it. Often you have a lot of projects going on, but you still need to keep your attention, still you need to keep your motivation. […] This big organisation, and this is about many millions of Euro that has been invested, so this is not something that is decided in a week. So you have to accept that if you work on such large scale projects with such big investment and so important implications, you need to be patient. And that is a balance you need to find in between. (Strategy director, STBY)

When the service designers' understanding of the staff and organizations occurred in the later stages, it was mainly concerned with design activities to ***consider the current capacities and capabilities of the client team, and strengthen them***. They considered how to enable the clients to continue implementing and managing the service in a longer term independently. For example, the designers in the Wheel of Well-being project created the DIY happiness game to promote the mental health and well-being to the wider communities, aiming at a bigger social impact. When preparing for the actual implementation of the game, they realized the provider team did not have enough resources for rolling out the game by themselves. This consideration allowed the service designers to come up with a new service model and business case.

> We had to take their capacity into consideration. Because initially they were like "this is not possible because we don't have time, we are only 4 people, we don't have time to go and deliver it." So that's when we came up with the model of training the trainers. So all they have to do is to train other people and other people can keep playing it. After developing the business case, they took it on. They started doing it on their own. (Design & communication director, Uscreates)

Similarly, the ANA airports and Connect & Do project witnessed the service designers' activities to build the capabilities of the client team towards the user-centred approach. The designers trained their client team in a way that they invited the staff from the team in diverse design sessions (e.g., the mini ethnography and co-design workshops) so that the staff can learn how to take the designerly approach for service innovation. In the Connect & Do project, the designers also supported the client team to develop a long term strategy for service innovation by positioning the new service in the wider ecology of their existing support and services.

6.2.3 Visualizations

Another Service Design characteristic highlighted in the case studies was the service designers' use of visual and tangible design materials throughout the intervention areas. When the graphic and visual design materials were used in the earlier intervention areas, they were mainly used as ***a supporting tool for user research and idea generation***. A wide range of graphic materials that was used in the co-design workshops for the Care Information Scotland project and for the Wheel of Wellbeing project can be examples to show how those visual materials facilitated the idea generation process. The visual materials supported people in the co-design sessions to have

engaging conversations, resulting in creative service ideas and concepts. Also, the visual tools helped the clients better understand user insights and service concepts. For instance, the client of the Netherlands National Rail Station project emphasized the effectiveness of the infographic created by the designers in which passengers were visually classified into 'frequent' and 'incidental' travellers:

> The infographic displays, among other things, how their behaviour changes if their journey is disrupted. The distinction between frequent and incidental passengers proved to be very useful. (Stations program manager, ProRail) (Enninga et al., 2013, p. 62)

In the middle of the intervention areas, the visual materials were employed to ***communicate the ideas to the clients and users*** in a tangible and visible form. For example, in the Fall Proof project, the designers converted the ideas of promoting the risk of falling into graphic materials in high fidelity to clearly communicate them with the clients and the community (Figure 6.10).

Figure 6.10 Examples of visualized prototypes[25]

The visuals were also used for clear communications and briefing among the stakeholders. For instance, in the Quick Tap project, the designers used a visual document to synthesize and represent what the stakeholders had decided and agreed on at the last meeting, saying "so you've told us what it will look like and we can visualize what it would look like, this is what you said" (Programme manager, Weve). While looking at the visualized service experience, the stakeholders could clearly understand what the service experience would be like and what barriers the customers might encounter in the new service process. The designers' visuals also enabled the new service concept to be better communicated and distributed within the client organization. The strategy director in the Netherlands National Rail Station project stated how the visuals were effectively utilized for the client's internal communications throughout the whole phases of service development:

[25] Image from the project summary hand-out developed by Made Open

> We were helping them (the clients) to communicate what happened and is discovered within the project team, we were keen to create very visual materials, so we created a lot of posters which we distributed internally, so that we could give them, for instance ProRail they have offices around the country so the people we worked with couldn't reach everyone but with the poster put it on the wall everywhere, and if you then communicate what came out of the exploration stage, we made films, so made little video clips they have used it as an internal presentation also with NS, and that was on every stage of the process. Also later when we were doing the implementation test, there were videos we made of people using those service concepts, which were hugely important internally for them to communicate successfully and also what it is to communicate the concept. We are very focused on that always. (Strategy director, STBY)

In the later phases, the visual elements were used effectively in the ***specification documentation and service management guidelines*** in many of the cases (e.g., Quick Tap, ANA airports, Wheel of Wellbeing, Connect & Do, and Care Information Scotland). And in some cases, the designers' visual technique benefitted the organization's marketing practices. In the ANA airports project, the designers created "low resolution storytelling to support internal marketing and liaison with third party agencies", and "high resolution rendering of final designs for internal and external marketing" (Presentation document, Engine). Similarly, in the Wheel of Wellbeing project, the designers applied their design skills to developing a range of marketing promotion materials and service launching events.

6.2.4 Holistic approaches

Throughout the Service Design intervention areas, the service designers tried to hold a holistic perspective on what they were exploring and designing. The design director at Livework emphasized how designers are good at keeping a balance between a macro view and a micro view on user experience, paying attention not only to the holistic picture of an end-to-end user experience, but also to the details of a certain point of interaction. The holistic perspective appeared at mainly three different levels in the case studies. First of all, the most frequently observed aspect was that service designers considered the whole user experience ***across multiple channels and different touch points***. This aspect was consistently observed in all the ten case projects. As one example, in the Netherlands National Rail Station project, although the project was originally aimed at improving travellers' experiences of boarding and alighting, the designers paid attention to the holistic end-to-end experiences of the travellers from preparing for the travel to arriving at their destination, seeking solutions alongside them (Figure 6.11).

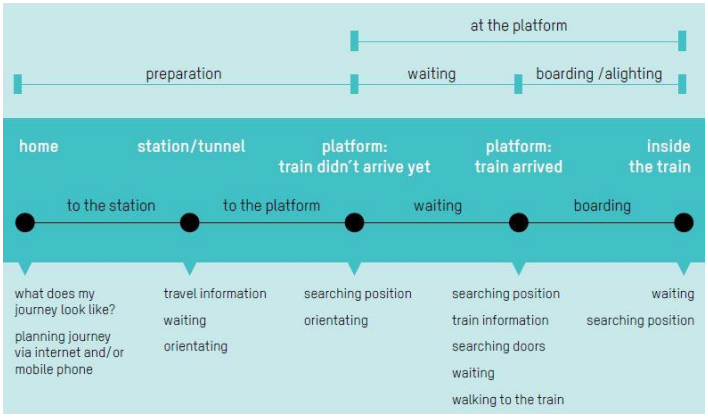


Figure 6.11 The travellers' entire experiences around boarding and alighting (Enninga et al., 2013, p. 53)

Secondly, the service designers' holistic perspective was concerned with ***working across the different teams within the organization***. Whereas many teams especially in a large company tended to work in silos, designers pursued working across the organization. During the Teachers' Pension project in Capita, the Service Design team helped the different teams to be aligned with the target customer experience beyond working in silos. In the same context, the design director at Engine emphasized the designers' horizontal way of working across organizations as one of the values that the Service Design companies can offer to the client organization.

> I think why some Service Design agencies are commissioned is because they can work, and the same with some management organizations, they can work horizontally across an organization. They have that permission, there is a big thing around permission, there is a big thing about the politics of working across those things, I would describe it as agnostic, you can go in there, not necessarily have a pre-defined idea of what the solution needs to be, but you can be a lot more problem centric. And I think there is a lot of value in that, there is a lot of value in an approach being agnostic. (Design director, Engine)

Third, in some cases, the holistic approach taken by the service designers contributed to discovering new service opportunities ***in the wider service eco-system*** beyond the current service system, and suggesting new ways of collaboration among different service providers. For instance, in the Care Information Scotland project, Snook applied the holistic perspective to the session where they mapped out the existing repositories of care information while considering how the different organizations could collaborate to provide users with better access to care information and support. Likewise, in the Fall Proof project, the designers ran a series of "Falls Pathway" mapping workshops where they met with different providers from the health, social care, community volunteering and housing sectors. They mapped out available support and services for people who have fallen, and tried to understand issues in the current system and identify opportunities for improvement. They created a visual pathway to show how the different services linked together (or did not link together). In this process, the designers contributed to making new partnerships among the current service providers, and making the existing partnerships much stronger.

> They also recognized that the voluntary sector and charity sector who do a lot of work with community groups like the day care centre we visited, they could be an amazing point of contact for social workers and professionals who offer full information about falls to go there, but it's not joined up, so our job was to join the dots in a way and say I make those connections stronger between charities, voluntary groups, professionals who are all working around putting that patient at the centre of all the support that is available to them and making it easier for friends and family to find that support for their loved ones. (Service design director, Made Open)

6.3 Summary and discussion

In this chapter, four areas that the service designers in the case studies intervened in during the service development process, and key design activities associated with the intervention areas were investigated. While the INFORMING, SPECIFYING, and ACTIVATING areas were commonly identified across most of the cases, the SUSTAINING area was identified in relatively fewer cases. Therefore, the four Service Design intervention areas may not always apply to other Service Design projects in general. However, they can offer a critical insight into possible areas that service designers can contribute to during the service development process, which has not been much explored yet in Service Design literature.

The four Service Design intervention areas needs to be perceived differently from generic Service Design processes in that they are about conceptual domains that service designers' activities intended to contribute to, whereas the Service Design processes are organized focused on service designers' activities themselves. The general Service Design process stages are associated with design activities, not necessarily reflecting their actual outcome or contribution to clients' internal development process. For example, designers' activities relating to developing guiding tools to drive further service implementation were subsumed under 'SUSTAINING', considering the outcome of the activities rather than focusing on the 'developing' activities themselves. But, from the existing Service Design process perspective, they can sit within the 'Develop' category. Thus, comparing to the design activity-oriented Service Design process, the outcome-oriented Service Design intervention areas can be valued as an initial attempt to understand Service Design practice in conjunction with organizational NSD processes. Chapter 9 elaborates on this by comparing the Service Design process to the Service Design intervention areas in more detail.

Furthermore, although the four Service Design intervention areas were mapped against the sequential phases of the NSD process, the service designers' practices associated with the intervention areas did not necessarily happen in accordance with the chronological order of the service development process. In the studied cases, although the service designers aimed at developing the service system and implementing the service, their physical involvement in the project sometimes ended before the client's actual service implementation process or after the initial launch of the service. Especially, when the service project was large in scale, it had to be

developed and rolled out over a long period of time beyond the contract for the designers' engagement in the project. In this case, the service designers began to consider design strategies for sustainable service management, supporting the client's capability building from the very early phase of their process. The ANA airports project is one of the cases to illustrate this. Whereas the final solutions of the project consisted of nine work streams for different services that were supposed to be happening over a long period of time, the involvement of Engine in the project lasted for only 1 year and 9 months. Although the design team at Engine was involved in doing prototypes and piloting some of the services (e.g., ANA 'PODs' and Family Services), the actual implementation and management of each of the work streams were supposed to be undertaken by the providers after Engine disengaged from the project. It was not feasible for both Engine and ANA to be working with each other alongside the full period of service implementation. As Engine could not be physically involved in the implementation of all of the planned services, they instead co-developed approaches, tools and methods with the client to build their capabilities for service implementation and management (e.g., the staff forum for training and sharing insights), and trained the services management team to develop the user-centred design approach and skills. Therefore, it can be said that the Service Design intervention areas engage with the service development process in a non-linear way.

Along with the four Service Design intervention areas, a set of generalizable attributes to characterize the Service Design approach were identified as common Service Design characteristics across the intervention areas. The four characteristics empirically confirmed the existing Service Design features described in literature while adding more depth by articulating how the characteristics were manifested in a different form along with the Service Design intervention areas. Figure 6.12 visually summarizes the four Service Design intervention areas, and the four Service Design characteristics.

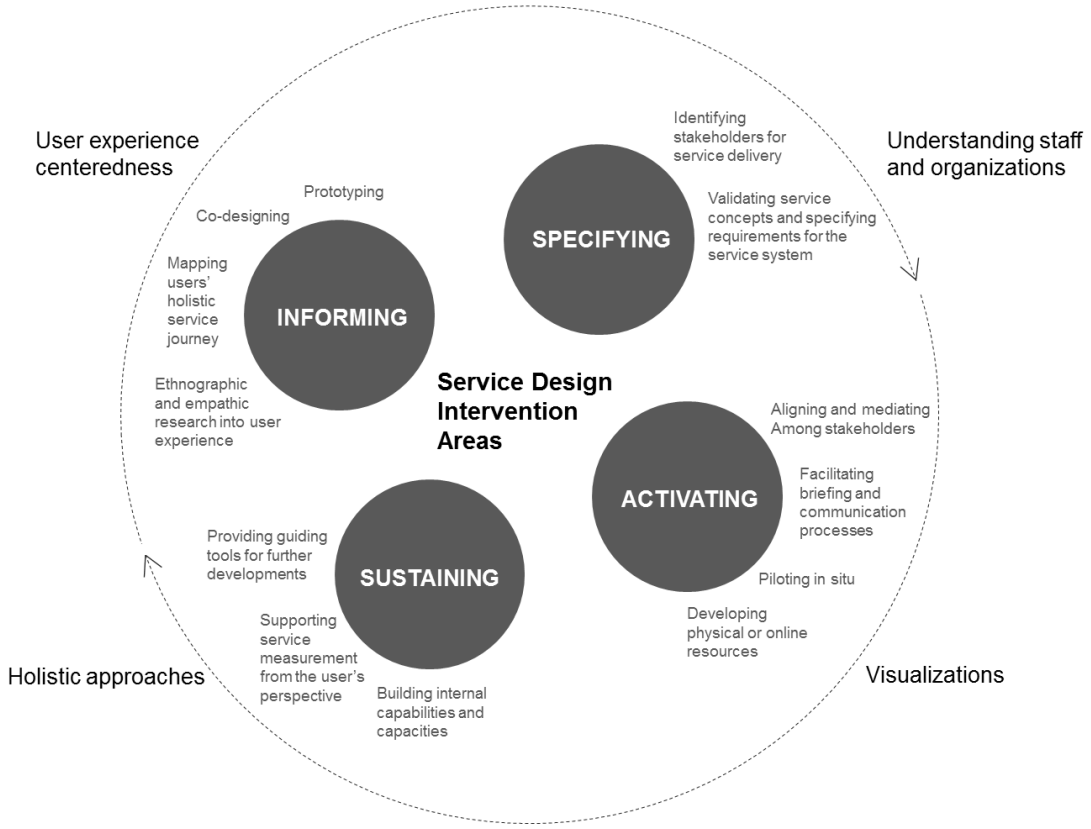


Figure 6.12 Service Design intervention areas and characteristics for service development

While this chapter described the Service Design intervention areas with the associated service designers' activities, the next chapter will explain varying qualities and impacts of the Service Design practices in each of the intervention areas. As a factor to influence the variation, the nature of designer-client relationships was highlighted, and how different types of designer-client relationships affected the Service Design practices is investigated based on evidence from the case studies.

7. Finding 2: The influence of designer-client relationships on the quality and impact of Service Design practices

The previous chapter has presented the first finding of the case studies regarding Service Design intervention areas and common characteristics. The current chapter discusses the second finding of the case studies, which is the influence of the designer-client relationships on the quality and impact of the Service Design practices in the four intervention areas. During the cross-case analysis, it was observed that although the service designers were involved in the same intervention area, their activities and deliverables represented different qualities and impacts depending on the designers' relationships with their clients (see section 3.5.3 Data analysis in Chapter 3). Therefore, this chapter aims to focus on the following questions:

1. What types of designer-client relationships were identified in the case studies?
2. How did the different designer-client relationships influence the quality and impact of Service Design practices?

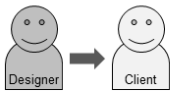
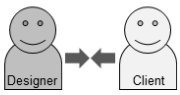
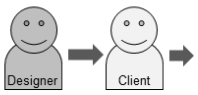
The first question is addressed by identifying regular patterns in the interactions and collaborations between the service designers and their clients. In the cases studies, four main aspects were considered to classify different types of designer-client relationships: 1) the designer's role and client's role; 2) the kinds of interactions between the designer's process and client's process; 3) the core design practices; and 4) the designer's perspective on the project. Against these aspects, three types of designer-client relationships were defined. As a result, three types of designer-client relationships were identified. The second question is about how the three types of designer-client relationships affected the designers' way of practicing, and the impact of their activities and deliverables on the client's practices in each of the intervention areas.

This chapter is structured as follows. In section 7.1, three types of designer-client relationships are classified and described. Then, how the different kinds of designer-client relationship varied the quality and impact of the designer's work and deliverables is examined in section 7.2. This examination is undertaken in each of the Service Design intervention areas. Finally, section 7.3 overviews the specified Service Design outcomes and discusses insights from them.

7.1 Three types of designer-client relationships

In the studied cases, the service designers worked with their clients in mainly three different ways, which were entitled Delivering, Assisting, and Facilitating respectively. These identification and classification have been developed from the author's earlier consideration on different ways of interacting between designers and clients (Yu, 2015). Based on the previous research, the author further identified specific factors to characterize the different designer-client relationships in the case studies: the designer's role and client's role; the kinds of interactions between the designer's process and client's process; the core design practices; and the designer's perspective on the project. Figure 7.1 shows how the nature of the designer-client relationships was manifested differently in the factors. The detailed explanations on each of the designer-client relationship are provided in the following sub-sections.

Table 7.1 Three types of designer-client relationships

	Delivering	Assisting	Facilitating
			
Designer's role / client's role	Expert / Passive recipient	Partner / Participant	Coacher / Practitioner
Interaction of processes	Parallel, separate	Mutually influencing	Joint, merged
Core design practices	Developing design deliverable in high fidelity	Collaborative workshops with users and clients	On the job training for the clients
Designer's perspective	Highly user-centred	Mediating between users and clients	Highly staff-centred while being user-centred
Case examples	Care Information Scotland, Partner Zone	Quick Tap, Netherlands National Rail Station, Fall Proof, Teachers' Pension, Kent Dementia co-production	ANA airports, Connect & Do, Wheel of Wellbeing

7.1.1 Delivering

In this relationship, the designers were considered as an expert who held specialized competences and skills in user-centred service innovation. As the clients respected designers' professionalism in the user-centred perspective and approach with creative methods and tools, they delegated most of design activities to the designers, and rarely intervened in their practices. Instead they, as a commissioner, tended to stay away from the designers' activities, and became a passive recipient of the designers' outputs, only giving their feedback to the designers from the commissioner's perspective. Thus, both parties worked in a parallel way while separately focusing on their own practice, rarely affecting the other's practice and process. The designers' insight, ideas, and solutions were converted and visualized into design documentation with high

fidelity such as reports, blueprint maps, and guidelines in order to be communicated with, and handed over to the clients. The designers' perspective and approach were strongly focused on how to have an engaging conversation with users to creatively explore their contextual experiences and latent needs through a wide range of collaborative sessions, and how to apply their insight to the solutions for the service. In this mode, the designers' considerations on the client's context as well as their communication and interaction with the clients (e.g., employees in charge of service development and operations) were limited. In the cases, Care Information Scotland and Partner Zone were considered to belong to this category.

7.1.2 Assisting

In this type of relationship, while the designers were organizing design sessions for exploring users, and ideating user-centred insight and solutions, the clients were part of the design process and activities by committing their time and resources. The clients observed design practices, and sometimes participated in them in order not only to gain designers' insight and user information but also to provide operational knowledge or practical concerns from their internal contexts and perspective. Both parties worked in partnership with each other, contributing different competences and specialties to affect each other's practices and processes. Core design practices were done during collaborative working sessions where main ideas and solutions were discussed and developed together by the designers and clients. As the ideas and solutions were co-developed by both parties, the clients kept updated on the progress of the design work and vice versa. Design deliverables were shared with the clients during those collaborative sessions in a more informal way rather than in formal briefing sessions. During these collaborative sessions, the designers engaged not only with the focal client but also with other employees from different teams with the help of the client. Therefore, they could be informed of the client's internal practices and context, and considered them in their design work. But, they also played the role of a representative of users all the way through the service development process. Among the cases, Quick Tap, Netherlands National Rail Station, Fall Proof, Teachers' Pension, and Kent Dementia co-production were considered to fall into this category.

7.1.3 Facilitating

In this relationship, the designers were described as a coacher or advisor to help their clients learn the user-centred design perspective and approach. While the designers and clients worked very closely as in the 'Assisting' relationship, one of the main differences was that they supported the clients to take the lead in doing some of the design practices. Also, for the collaboration between the two parties, the designers embedded themselves into the client's practices to have better engagement and more frequent interactions with clients. Therefore, the design process and practices seemed to merge into the client's process and practices,

representing one joint process. As the designers' attention was paid to how to support their clients to build user-centred design capabilities that could last beyond the duration of the contract, the focus of their practices was placed on teaching the clients design methods or tools, or training them on the job. Besides, while the designers developed solutions for the service, they considered the client's capabilities and capacities to implement and manage them. During the training process, some of the design practices were conducted by the clients with the assistance of the designers, and design materials or documentation served as a useful instrument to achieve the gradual transition of ownership from the designers to the clients rather than final deliverables to be handed over to the clients in the end of the project. Among the studied cases, ANA airports, Connect & Do, and Wheel of Wellbeing were considered to belong to this category.

7.2 Different qualities and impacts of Service Design practices depending on the types of designer-client relationships

In Chapter 6, four main areas in which the service designers in the case studies intervened during the service development process were identified as follows:

1. **INFORMING**: exploring users' contextual and holistic experiences to create service concepts.
2. **SPECIFYING**: converting the service concept into requirements for the service system
3. **ACTIVATING**: developing resources and facilitating stakeholders' engagement.
4. **SUSTAINING**: supporting the client's service management and capability building.

In this section, it will be discussed how the service designers' way of working on each of the intervention areas and its impact varied depending on the type of designer-client relationship with empirical evidence from the case studies.

7.2.1 INFORMING

In the INFORMING area, the service designers' activities and methods were dedicated to exploring users' contextual and holistic experiences, aiming at supporting clients in creating service concepts. But, different ways of practicing Service Design and different impacts on clients and organizations were observed in the three types of designer-client relationships. While the design practices in the 'Delivering' relationship were received by the clients as background data to inform the design of user-centred services, they infused user-centeredness in the clients' mind-set in the 'Assisting' relationship and further affected the clients' business in the 'Facilitating' relationship. Table 7.2 summarized the differences.

Table 7.2 Characteristics of the Service Design practices in the INFORMING area

Types of relationship	*Delivering*	*Assisting*	*Facilitating*
INFORMING: exploring users' contextual and holistic experiences to create service concepts	• The designers engaged with users through workshops not necessarily with the client. After the workshops, they briefed the client on the insights of the user research. • The clients were interested in receiving the designers' insights from user research while they did not intend to learn the designerly ways of working. • The user-centred research provided the clients with solid evidence to support the rationale of the provision of the service • The user experience facilitated the clients' internal communications and decision making processes	• The designers involved the clients in engagement sessions with users either by directly inviting them in the sessions or by indirectly exposing them to users' stories and experiences. • User insights and service opportunities were explored together during collaborative sessions. • The clients were interested in the designers' user-centred way of working and methods. • While participating in design activities, the clients felt empathy with users and motivated toward creating enhanced experiences for them.	• The designers supported the clients to incorporate user insights and opportunities into their business and to translate them into action plans. • In some cases, the ownership of the sessions for user research and service opportunities was delegated more to the clients than the designers, while the designers served as a facilitator or coacher. • The clients learned how to approach users in a more user-centred way, and began to apply the lesson to their own way of working.

Delivering

In the 'Delivering' mode, the designers undertook extensive user research independently without the direct involvement of the clients. Instead, they presented the results of user research back to their clients or stakeholder groups and discussed further insights with them. The main activities of the designers were thus undertaken much more closely with users rather than with their clients. The clients did not attend or only partly attended designers' engagement sessions with users. For example, in the Care Information Scotland project, some members from the client organization attended a few of the collaborative working sessions with the design team for some specific purposes, for example for the development of the service blueprint of the existing service and gap analysis to look at the whole care information landscape. But those sessions were more about engaging with the designers rather than engaging with the users. Instead, the actual engagement of staff from the service development and operations team in design activities involving users seemed to be very limited:

> We didn't take part in that activity (co-design workshops with users), no, so we didn't attend, apart from Gail who, one of the engagement officers who attended, a couple of the sessions, we didn't. (Project manager, NHS 24)

The head of the commissioning team in the Kent Dementia Co-production project said it is sometimes better for commissioners not to participate in designers' co-production activities

undertaken with users in order not to input their opinions, but to understand what people really want:

> I don't think it's appropriate sometimes for commissioners to participate in workshops because if you want things co-produced, it is better to step sometimes back as commissioner, […] sometimes I think my start of co-production is to take a back seat, I want to know what people think. (Head of Strategic Commissioning, Kent County Council)

In this 'Delivering' mode of relationship, the clients expected their designers to provide the required user knowledge and user experiences to help them design and develop the right solutions for people who will use the service. Thus, they were interested in receiving designers' deliverables regarding user research, but they did not pay attention to the designers' processes, methods, or ways of engaging with users as reported by the project manager of NHS 24 in the Care Information Scotland project who said "I didn't have the expectation that we would learn that methodology."

The user insights and experiences were used as effective background data by the clients for their internal processes. The design documentation containing user insights based on ethnographic and empathic research, and co-design workshops provided the clients with firm evidence to support the rationale behind the provision of the service, thereby facilitating the internal communication and decision making processes for project authorization. Owing to the user data, the clients could have confidence to say that the service concept was developed based on the real users' needs and experiences:

> That gives me the evidence base to then when we start building things and people say 'why are you doing that?' we'll say we are doing that because we had the evidence that said people like this, this is what, how people, what they think about interacting with these services. (Project manager, NHS 24)

This kind of impact was also reported in the Partner Zone project. The designers' recommendation report made out of interviews and co-design workshops with users provided the operating team with enough confidence to promote the service to their partners as they were able to explicitly say the solution was co-produced with school teachers who were key users:

> I had confidence to take these out to the school, to say we have met with other teachers, we have involved them in various sessions, workshops, prototyping and so on. So I needed to know that they had done that part, that sense gave me confidence to go out and say 'you know, these activities are very good, but we needed to try them out, here see we've created them. So it helped me, they have gone through that process. (Strategic projects team leader, Skills Development Scotland)

Assisting

Within this category, while the designers undertook a wide range of user research and engagement sessions with users, they also involved the clients in the processes. While participating in these workshops, the clients were able to better understand their users' experiences, and to explore gaps or opportunities relating to their service. Thus, the clients did

not remain as passive recipients of designers' insights and outputs. Compared to the 'Delivering' mode of relationship, a wider range of stakeholders, which is not only focal clients but also their colleagues and other stakeholders participated in the design sessions. In some cases, the designers directly involved their client and stakeholders in the workshops to help them directly engage with users by observing and listening to them. The direct involvement allowed the clients and users to mutually listen to each other and understand each other's contexts. For example, in the National Railway Station project, the designers invited their clients to directly learn from travellers' real stories and experiences by inviting them in the workshop with users. This seemed to result in the client's empathy for users and higher motivation towards the provision of the new service:

> Until then we have been telling them, we have been showing them our research, but now they are confronted directly, so I think that works very well. […] The other is having them (users) interact directly with clients and enable them (clients) to raise empathy and really listen being confronted with stories of their users, and their clients, so it helps, also in terms of elevating the urgency. (Design researcher, STBY)

When the designers in some cases could not directly invite users in the workshops with their client, they instead used diverse design materials to vividly represent users' stories and experiences (e.g., videos and interview quotes) in order to help their client immerse themselves in users' contexts. In this case, the design deliverables regarding user research served as an instrument to help the clients to empathise with users. Also, they supported clients to communicate the user's stories and experiences with their internal colleagues and staff as evidence to support the service concept. The designers of the Netherlands National Rail Station project stressed the contribution of the empathic approach with users to the client organization:

> They (clients) do it (user research) in a survey way. So they speak with travellers but speak in a way of "can you take tick these boxes?" And they are not so experienced in doing in-depth interviews and really stepping in their shoes of their customers. But they appreciated that. They didn't do it as they have another routine internally. (Strategy director, STBY)

Similarly, in the Fall Proof project, videos of older people enhanced the stakeholders' empathy with elderly people who experienced falls, and provoked stakeholders' motivation and commitment towards helping them by enhancing their experiences:

> We recorded four videos. […] I think it is a quite powerful video, it is one of the strongest things we still use throughout to demonstrate the effect of a fall on an older person, what it means to them. (Strategy officer, Teignbridge Council)

The clients' participation in the design activities and their engagement with users seemed to inform a change in their way of working. The client of the Netherlands National Rail Station project remarked on the insights from the observation of the designers' engagement with users and their methods:

> The way the service design method focused on the experiences of the end user–in this case the passenger–provided ProRail with many new insights into its own products and working methods. During the service design projects, we continuously

> concentrated on the experience of the passengers and how they used our products and services. This approach revealed a lot of new information to us about how the passenger really values our product and how logical they consider our system (Stations program manager, ProRail) (Enninga et al., 2013, p. 62)

In the case of Fall Proof, the designers organized the 'Falls Pathways' workshops where they invited stakeholders and mapped the whole landscape of services and support around elderly people's falling in order to explore opportunities. While participating in that session, the clients recognized the need for a wider perspective on their work and a holistic approach to users' experiences, and consequently they began to change their existing way of working:

> The tangible outcome was we are working differently, we learned different ways of working, we've worked with different partners, we continue to work with those partners. (Strategy officer, Teignbridge Council)

Furthermore, the health authorities embarked on setting up a new community called 'Falls Hub' for which different key players and voluntary sectors work together on providing users with a community for information and support:

> We are having a next event, a visioning event with all bodies involved in some sort of health social care not voluntary sector to see how this hub can be set up […] this work has come out as one of the key results of the work that we actually started with the design council and commissioning group. (Private sector housing team leader, Teignbridge Council)

Facilitating

In the 'Facilitating' relationship, the designers, as a coacher, supported their clients to learn from user research activities, and integrate the insights with their internal practice. While the designers in the 'Assisting' mode focused on how to encourage their client to engage with users, they did not necessarily intervene in the client's application of the user insights to organizational practices. On the contrary, the designers in this 'Facilitating' mode went further into helping their client to incorporate the user insights into the organizational NSD practice. While the designers' key activities and deliverables in the 'Assisting' mode impacted on the changes of their client's mind-set or attitude towards users such as a higher empathy with users and stronger motivation toward better services, the impact of design practice in the 'Facilitating' mode was concerned not only with the change of the client's mind-set but also the change of the organization's practice. In this mode, the designers attempted to align their client's practice and business to the user insights and associated opportunities. During collaborative workshops, the designers helped their clients to reflect on user insights and service opportunities in relation to their business, and also supported them to associate their organizational capacities and capabilities with the user needs and service opportunities. In this process, the clients could also consider their role and responsibilities to achieve the service innovation. Besides, the client could learn how to relate user insights with their business strategies and practices. The ANA airports project illustrates this. After the designers' extensive user research using on-site experience auditing and ethnographic research at Lisbon airport, the designers and the client

developed a set of strategic frameworks to associate values sought by the passengers with the ANA airport's roles. During this process, the insights from the user research by the designers were integrated with the organizational business and thus translated into the organizational action plan:

> We developed a needs spectrum which was to try to understand passenger variability, which was to provide more sophisticated understanding passenger requirements, we then overlaid perspective on, okay therefore what role does the airport need to play in order to deliver value to those customers and then what was the umbrella role that we could talk about these things under, which was the idea of preparing for travel, which was something that we could start talking about across the organization what did that mean? (Design director, Engine)

In the case studies, the process of integrating user insights with the clients' business also happened when the designers helped their client to learn the user-centred design approach and methods, and trained the client to experience the user research. In the Connect & Do project, the designers carried out mini-ethnographies in a way that they trained staff at Certitude (client) to conduct a series of interviews with people whom they served and to ask them about their lives, their relationships and their approach to trying (or not trying) new things. They also helped the client team to hold co-design workshops for users and organizations where people in the target audience and organizations were invited and asked about the principles underpinning the service, and how it should work. Through conducting these user research sessions with the facilitation of the designers, the client team could incorporate the user insights into their internal service innovation practices. This was witnessed by one of the staff in the client team:

> These are really the eye opener to me, it was, we did two co-designing sessions, we invited the organisation sitting in Lambeth borough and then asked them to what sort of thing they were expecting to get as a service and also second co-designing session we invited the service users and what sort of thing they are expecting to get, what sort of services they are expecting to get. So they obviously told us what they want and it was quite inspiring really, that's really the base of the community connecting that's the how we can design the service in a way that it's what they want and organisation as well as the service users. (Community connector, Certitude)

7.2.2 SPECIFYING

In this area, while the designers generally aimed to convert the service concept into concrete elements to inform the design of service structures and functions, the main focus and outcome of the design practices were different depending on the designer-client relationships. The designers' practices in the 'Delivering' relationship were mainly focused on developing user-centred service specifications in the form of documentation. In the 'Assisting' relationship, the designers paid more attention to aligning the client to the user-centred service processes, while in the 'Facilitating' mode, the designers considered how to apply the client's capabilities to service specifications. Table 7.3 summarized the differences.

Table 7.3 Characteristics of the Service Design practice in the SPECIFYING area

Types of relationship	*Delivering*	*Assisting*	*Facilitating*
SPECIFYING: converting the service concept into requirements for the service system	• The designers applied a user's perspective when defining and specifying elements required for designing service structures and functions. • As the clients were not much involved in the design practices, the applicability of the specification was not ensured. • The role of the design documentation was critical and the fidelity of it was high so that it may be better communicated with the clients, compensating for the limited involvement of the clients.	• The designers and clients collaboratively determined operational requirements and service processes. • The clients highlighted operational issues and challenges from their perspective while the designers discussed them from the customer's perspective. • The Service Design practices formulated service processes, while keeping actors aware of and aligned to the user centred service process.	• The designers considered the capabilities of their client in defining and specifying the operational elements. • The design deliverables were used as a tool to enable the shift of ownership and responsibility from the designers to the clients. The transition was achieved in a very gradual manner over the whole period of the project.

Delivering

In this area, the designers focused on applying a user's perspective when defining and specifying elements required for designing service structures and functions. Therefore, service specifications developed in this category were highly user-centred. For example, while the service designers in the Kent Dementia co-production project were developing the specific content of the Dementia Checklist through desk research, they iteratively defined the contents of the Dementia Checklist through the feedback of people who would need the service:

> We asked them (people relating to dementia), what would they have liked to be done, what they have felt, how they would care themselves better if they could. So myself and colleague went back to desk research, and we found there were some checklists already available, a questionnaire, one was in America, and one was something the Alzheimer society uses, so what we've done was, we sent it off the questionnaire and we took them to a couple of groups where people were living with dementia, and we asked them what they thought of the questionnaire, can you understand the questions? What did it look like? Could you read it? Would you use it? (Project manager, SILK)

The Care Information Scotland (CIS) project also shows the user-centred perspective on service specifications. The service designers developed the final report with several materials for specifications such as the service blueprint, insights map, and stakeholder map to inform the redesign of the CIS service model and touch points. These specification materials represented how to convert the abstract users' needs and desires into concrete elements for the new CIS service. As an example, they articulated how the function of 'CIS Partners' Drop In Sessions' can improve the experience of users saying "I want face to face – someone I can talk to who can look me in the eye and say, 'Right, this is what you need to do.'" (The service blueprint for CIS designed by Snook).

Whereas the service specifications greatly reflected the user's perspective and needs, they were not necessarily informed by the considerations of the clients' internal contexts. Consequently, the exploitation and application of the design deliverables by the client were not ensured. For instance, in the Partner Zone project, after the service designers finished user research, concept generation, and website design, the ownership and responsibility of developing and launching the Partner Zone website were shifted from the Service Design team to the operations teams. For the shift, the Service Design practitioner created a full report describing all the information required for the project implementation (e.g. the overview of the project, relevant stakeholders with their specific roles, and remaining tasks for developing the website). But this document was received by the operational team with some resistance. The staff at the operational team did not feel that the document itself was sufficient to support their independent operation of the service. Instead, they required additional communications with and support from the Service Design team whenever issues not specified in the document emerged during implementation. This limitation in the transition was witnessed by both the client and the Service Design practitioner:

> Once the partner zone was handed over to me, it was a big lengthy document, I forgot what it was called, which gave all the background, the involvement of everybody and outstanding issues that had to be taken out in such a way, and that was handed over to me, and I wasn't convinced about that process because I just thought you can't have that, you need a period of transition. You know, it's not just you put everything down in a document and they hand it over to me. […] So all I did was because I had the relationship, I just go back and said no, I still need you into it. (Strategic projects team leader, SDS)

> There has been some issue in them (the operating teams) feeling confident enough to go and develop new materials to upload to the site. There could have been better process in putting it in place in order for them to do that. […] There has to be a better or smoother transition from development to implementation to maintenance or management of product. (Service development executive, SDS)

It was also notable that the fidelity of the design documentation in this 'Delivering' relationship in terms of graphic qualities and contents tended to be high so that it may be better communicated with clients, compensating for the limited involvement of them in the design process.

Assisting

Within this category, the designers contributed to the specification of operational requirements in a collaborative way with their client during workshops. The clients participated in the formulation of service processes from their perspective, highlighting any relevant operational issue and challenge that needed discussion. In the Quick Tap project, the designers held collaborative working sessions with the core stakeholder groups every month in order to discuss together the detailed process for the new mobile payment service.

> It (Service Design) not only drove change on the product we tried to deliver, but also drove change back into the business in terms of some of the Business As Usual (BAU) standard procedures like SIM swopping update firmware, device, various

> things. We had to streamline the process to get the customer to a point where they can just receive and use the service, it was quite useful activity to go through. (Programme manager, Weve)

While the client and suppliers in the project shared the operational issues in workshops, the designers used the collaborative working sessions as an opportunity to discuss with stakeholders difficulties and challenges emerging in sessions with users. In those workshops, the designers and stakeholders changed the part of the service process to obstruct the coherent customer experience. During these sessions, the documentation and design materials were utilized as a tangible tool to facilitate discussions among the participants rather than as hand-over materials.

> We used these tools (e.g., blueprints and journey) in the workshop. The workshop was engagement and collaboration on top of those tools. So my point really is that the document doesn't manage and engage. We have to work on it with people. (Founding partner, Livework)

The documentation was therefore considered to be part of the outputs for service specification practice while the workshops with the stakeholders played a pivotal role in converting the user experience into the operational information. Also, as opposed to the high quality of design documentation observed in the 'Delivering' mode, the documentation in this mode was developmental rather than complete. It began as a very rough sketch and it developed into a complete document while the discussions between the designers and the stakeholders were continuing over 6 months.

> So, I guess what is specific about the project from the implementation point of view is as it grew we weren't really able, at the beginning, to say this is the requirements, we need all these different components, I can't shape it. The first version of this document, everything was just hand drawn and as it got more and more mature, we replaced the hand drawn pictures with the real visuals and the real processes. (Founding partner, Livework)

In the Teachers' Pension project, the target customer experience which was to raise the engagement of members and employers with the pension service was translated into new design, new functions, new communications, and new brand for the pension website with the multidisciplinary team in a collaborative way. And for an agile process, the multi-disciplinary team tried to apply many small changes to the system as quickly as possible to see if they work with live data, and if needed, to amend and adjust the changes. This iterative process of design and development allowed for ongoing verifications and adjustments that seemed to represent the condition for a smoother implementation.

Within this mode of collaboration, the designers' work was acknowledged not only to formulate the detailed service process and required elements, but also to keep the different actors clearly aware of and aligned to the defined service experience and the agreed service process. In the Quick Tap project, the design workshops for specifications partly contributed to helping stakeholders align their work to the big picture of the customer experience journey:

> We were saying this is what we've learnt about, this is customers' requirements. And it would be partly an opportunity for all the different parties to update and say this is where we are, this is what we've done, this is how it fits into the bigger picture. (Founding partner, Livework)

Facilitating

In this relationship, while specifying operational elements for service system, the designers supported the clients to take the lead in developing and implementing the service. The point that the designers collaboratively worked on defining components and information for service system with their clients may seem similar to the practice in the 'Assisting' mode of relationships. But the difference was that while involving their clients in service specifications, at the same time, they considered the capabilities of their clients to actually take forward the project in the long term. As an example, in the Connect & Do project, after completing the research and design phases that gathered insights from users and stakeholders, the designers and the client co-developed a set of concrete working principles that should have underpinned the community connecting concept and the early model of the service. The designers considered how to embed the working principles into the providers' daily service innovation practices. In the Wheel of Wellbeing project, as a way of putting one of the service concepts (the DIY happiness game) into practice, Uscreates developed the detailed mechanism of the game. During this work, the designers paid attention to the fact that due to the client team's limited resources, the client was not able to approach the wide communities as a facilitator of the game. Therefore, the designers and the client team jointly generated a feasible plan to implement the game, which was to train people in the communities to become a facilitator of the game instead of the client team:

> We had to take their capacity into consideration. Because initially they were like, this is not possible because we don't have time, we are only 4 people, we don't have time to go and deliver it. So that's when we came up with the model of training the trainers. So all they have to do is to train other people and other people can keep playing it. (Design & communication director, Uscreates)

In the 'Facilitating' mode, the design outputs (e.g. documents and co-design workshops) were used as a tool that enabled the shift of ownership and responsibility from the designers to the providers. This transition was achieved in a very gradual manner over a long period of time, providing the staff in the operating teams with enough confidence to carry on independently.

> That wasn't really hand-over of any description. They were just carried on. So some of the documentation that we developed was early developed in conjunction with them or was developed with them having visibility over a long period of time, and I guess documentation is mainly a representation of something of the moment in time. (Design director, Engine)

7.2.3 ACTIVATING

In this area, the designers developed resources to constitute the service system, and facilitated stakeholders' engagement for service development and implementation. But when the designers worked in the 'Delivering' relationship, their contribution to affecting human resources was

minimal compared to their competences for creating physical and online resources. In contrast, design practice and deliverables in the 'Assisting' relationship contributed to motivating actors to develop the service, while the designers in the 'Facilitating' relationship contributed to building the clients' capabilities to develop and implement the service. The differences are summarized in Table 7.4.

Table 7.4 Characteristics of the Service Design practice in the ACTIVATING area

Types of relationship	***Delivering***	***Assisting***	***Facilitating***
ACTIVATING: developing non-human resources and facilitating stakeholders' engagement.	• The designers worked on developing non-human system resources from the user's perspective. • The designers rarely engaged in mobilizing actors.	• The designers used collaborative working sessions to motivate the client to develop the service based on a clear understanding of their roles and tasks aligned to the customer experience. • Visual documentation was used as a supporting tool for the actors' clear understanding of their roles and tasks.	• While the designers were developing resources for the service system, they engaged with clients to build their capabilities to develop and implement the service. • The designers' activities helped the clients gradually learn the design approaches and methods for user-centred service innovation.

Delivering

In this type of relationship, the design practice was mainly concerned with developing non-human resources such as physical or online touch points at a distance from the clients and other stakeholders. During the development of touch points, the designers applied their user-centred competences and skills to making them usable and desirable from the user's perspective. But, despite the contribution to creating non-human resources, the designers rarely engaged in the configuration of human resources. For example, in the Kent Dementia co-production project, while the service designers contributed to producing the core physical resource, the Dementia Checklist, they had limited contributions to affecting key stakeholders for the service such as GPs and pharmacists as they could not successfully engage with them:

> One of the picky points. It is very hard to engage with GPs. They are so busy. […] We've struggled to do the pharmacy, what we would have liked to do is, to engage with a local pharmacy. (Project manager, SILK)

As another example, in the Partner Zone project, the Service Design and Innovation (SD&I) team was in charge of designing and developing the Partner Zone website with the external partner design agency. The designers focused on designing the web platform to improve user experiences as the website was one of the central resources for the service where users of the service were supposed to get information and physical materials needed for their class. However, the designers were not involved in training actors to engage with the web service. Instead, the operations team was only in charge of affecting human resources by training internal staff and

teachers to build awareness about the service, and teaching how to use the Partner Zone web platform. The leader of the operations team stated how the role of the design team and the operations team was clearly divided:

> I am having the sort of discussions with teachers about some other activities they would like, we are looking to update some of the lesson plans that would be PD&I that would do that. […] but in terms of how the partner zone itself looks and user experience, they (SD&I) are very much leading on the whole user experience aspect of partner zone. (Strategic projects team leader, SDS)

In this category, although the designers partly contributed to developing the service system with the user-centred perspective and design skills, the impact of their practice on mobilizing human resources was very limited. The designer in the Partner Zone project, acknowledging the lack of it in her project, stressed how involving people from the business can contribute to mobilizing people who will actually run the service:

> If we were doing it again, we would have much more involvement from other areas of the business as we went along the project before getting to this stage. So getting people on site, getting people engaged in the project, so once we finish, they'll take on it, and it will work. (Service designer, SDS)

Assisting

The designers' practices and deliverables in the 'Assisting' mode were focused on motivating the client and other stakeholders by assigning them roles and tasks based on the defined customer service journey and associated service processes. In the Quick Tap project, through the collaborative working sessions with the stakeholder groups, Livework helped the participants to agree on the business relationship between different providers by clarifying each party's role and responsibility. The client appreciated the contribution of Service Design practice to facilitating the cooperation and collaboration of actors:

> It (the Service Design approach) was good to get everyone together to talk about how the service would be delivered. […] sitting down, together and talking through what the perspectives were going to be, and how we were going to approach it. (Programme manager, Weve)

In particular, the designers at Livework articulated in the specification document the tasks required to actualize the service process, the staff that was in charge of the tasks, and the related timeline. Those specific tasks were defined based on the whole service process and the end-to-end customer experience. The customer experience was a central point of reference for clarifying the actors' roles and tasks. Moreover, the designers denoted the progress of each of the tasks by using an interface of traffic lights highlighting red, amber or green according to the status of development. While a unit of tasks for development with the green light meant a good progress, some units with the red light meant a sluggish progress. This visualization motivated the actors to actively participate in the development of the service while infusing dynamism into the collaborative sessions.

Moreover, the design documentation also served as a front-end staff training manual for the customer centre owing to the rich graphics and photographs illustrating the overall customer experience and service processes. Based on the knowledge of the whole customer experience and service process, the front line staff that was in charge of communicating with and supporting customers was able to do their job effectively:

> This document was used for the service call-centre. So they understand how service works because there are a lot of pictures. So when they say, ok you are going to now help the customers with Quick Tap, here we go, here is the briefing document. Without this, someone would have to go and create a new piece of training. (Founding partner, Livework)

In the Teachers' Pension project, the designer was in charge of communicating with the staff to configure operational elements to achieve the target customer experience. The designer taught the staff what the target customer experience was, and what their role and task to achieve it were. Here, the target customer experience was used to mobilize the operations team as a governing vision. The design director explained how the design team contributed to helping the staff clarify their roles and tasks to it.

> He was in charge of the website, but no one was telling him what do the website needed to do to make customers happy until I told them, until I did all the work of these, and I said what you really need to do is to get rid of all the horrible colour, you need to rewrite all these contents, you need to do the information architecture differently and also you need to motivate people to visit more often. And he was like, "Oh great, now I know what to do, I'll just go and do it." So these guys are very technical and they just see the website in a very crude way. So you have to have someone appear, that's what my team does. […] Business analysts are very good at doing this stuff, how can I make this process a bit smaller, faster, cheaper, but they only do that from the perspective of business. Business analysts don't think about customer requirements. (Director of experience & service design, Capita)

Facilitating

When collaborating in the 'Facilitating' mode, the designers aimed to hand over the approach and knowledge regarding the development of the service system to the client. In particular, when they were involved in preparing human system resources, they engaged with the staff to develop their capabilities. For example, in the ANA airports project, Engine was involved in setting up the ANA services management team by defining an appropriate skill set required for the team:

> We had discussions with head of marketing about what might be the right mix in terms of skill set within the services management team. So we had someone who is drawn from marketing and someone who is from operations perspective in there. Our contribution really was an advisory one, to them setting up that team, we outlined the structure of the team. (Design director, Engine)

Once the team was established, the designers were focusing on building the team members' capabilities to implement and manage the services. The designers trained them to take the lead in practicing Service Design through one-to-one engagement sessions with them. Four designers from Engine and four staff from ANA participated in the training sessions. During the collaboration, the client team members could learn how to develop each of the work streams

through the designerly activities, thereby achieving a gradual change of practices between the designers and the client:

> It was about skilling up that team across the projects.[…] One thing was what we called 'on the job training', so aligning the team to various work streams which were run by Engine people, so embedding them and giving them exposure to that process, as we went through each work stream was like many design projects, there would be co-facilitated workshops, involving concept generation sessions. (Design director, Engine)

As another example, in the Wheel of Wellbeing project, while the design team was developing the DIY happiness game and the Wheel of Wellbeing website, they helped their client to implement and operate the service to build the capability of the clients. For this intervention in preparing human and non-human system resources, the designers involved the clients all the way through the process, having very frequent communications on a daily basis.

> What happens when everyone comes together, there was another thing that was beneficial, they gain ownership of what they are involved in, so rather than they had coming and briefing then say you have to do this they were involved in making that happen, so they have a sense of ownership, they think it's feasible because they make decisions about how they would implement it. (Design & communication director, Uscreates)

Overall, the designers in the 'Facilitating' relationship were involved in developing physical resources and facilitating stakeholders' engagement in developing the service system while they encouraged clients to take the leading role in the process. The design practice and deliverables helped designers gradually pass the activities for service development on to their client so that they could develop and implement the service.

7.2.4 SUSTAINING

In this area, the designers supported the client's service management and capability building, aiming at sustainable user-centred service innovation. However, the case studies indicated that the contribution of designers to this intervention area in the 'Delivering' relationship was restricted to providing service management guidelines as a reference manual without clear evidence of their impact on the client's practice. In contrast, the design practices in the 'Assisting' relationship resulted in growing the client's confidence to manage the service. In the 'Facilitating' relationship, the design practices contributed to building the client's capacity and capability for lasting service innovation. Table 7.5 summarizes the differences.

Table 7.5 Characteristics of the Service Design practice in the SUSTAINING area

Types of relationship	*Delivering*	*Assisting*	*Facilitating*
SUSTAINING: supporting the client's service management and capability building	• The designers developed documentation for guidelines to support service implementation and management, while the clients were not involved in the process. • The design deliverables remained as a reference manual with their uncertain impact on the client.	• The designers involved the staff from the operations teams in planning and designing the next phase of developments. • The designers' practice and deliverables resulted in growing the client's confidence to manage the service independently.	• The designers focused on how to enable the clients' sustainable innovation practices while providing guidelines, management tools, or training. • The designers' practice was valued for embedding the client's capacity and capability for user-centred innovation within the organization.

Delivering

The Service Design practices in this relationship were focused on developing guideline documentation to inform service management while the user-centred perspective was applied to developing the deliverable. But, due to the clients' limited engagement in the initiation and development of the deliverable, the impact of the design practice on the organization practice seemed uncertain. For example, in the Care Information Scotland (CIS) project, the designers developed the document titled 'Information Provision Guideline for CIS' consisting of a series of principles that were grounded on their understanding of users' needs and desires. The guide was aimed at supporting the operations teams to maintain and update the website in terms of its information, graphic interfaces, interactions, and the overall user experience from the user's perspective. For example, the designers documented a guideline for how to use different levels of information considering different needs of different types of users. When the guideline documentation was delivered to the clients as one of the final deliverables, it was intended to be referred to for the user-centred maintenance of the service after launch. However, when it was handed over to the client team, there was some resistance among staff who did not have a shared understanding of the guideline:

> One of the documents that Snook produced is called information guidelines and its, people just look at it and go 'what? Why have we been given information guidelines? We're a website development organisation we know about delivering information'. But it's not that, it's more to do with the principles of interpreting how these are going to be used. So although it's got a very generic title, it's actually quite a specific document but I'd struggle to know how to describe it in such a way that it said something else. (Project manager, NHS 24)

The resistance was partly due to the different contexts and meanings between the designers and the clients behind the language, 'Information guideline.' Also, it seemed be partly caused by the lack of collaborative sessions where the design deliverables were planned and designed together, and communicated mutually.

Assisting

In this category, while the designers involved their client in the development practices, the client could gain confidence to continue managing the service after service launch. In the Teachers' Pension project, the designers in the Service Design team worked on the project all the way through the development process. As the project was based on a very long term contract over about 7 years, they took an iterative and agile approach to the project aiming at small and iterative changes, rather than designing all the solutions and implementing the solutions at once in a waterfall way. Therefore, the designers worked on many different cycles of designing and implementing small changes collaboratively with the multi-disciplinary teams. During this collaborative maintenance of the service, the designers pursued an agile way of working instead of delivering formal documentation to the operating teams.

> What I am trying to work increasingly is to get multi-disciplinary teams into rooms to work on specific tasks, you will have all of these people, some of these people working on these ways on these problems. And you can get them into a room and it's like a kind of prototyping environment, the service is continually in prototype in that space, stuff on the walls and people spend their days working in there on these challenges. (Director of experience & service design, Capita)

On the other hand, in the Quick Tap project, the designers offered the clients a service roadmap to help them develop further functions or elements of the service after the initial service launch. The roadmap was about the remaining parts of the specification document that were not included in the scope of the 1st launch because all the functions and elements in the specification could not be completed at once by the deadline.

> Obviously we are not going to solve them all within the first launch but it can inform the roadmap process and phases of the project, we can take the picture back for approval and that helps them gain the funding. (Programme manager, Weve)

> This is where they really learn. Because in the market, they think "can people use it?" "Is it happening?" So, that is where they really learn. That is where we should be cycling back around and engage with customers again and learning about what it is really like (Livework)

In the Quick Tap project, the specification document was the output that was co-developed by the designers and the providers during the 6 month collaborative working sessions. Therefore, all the information specified in the roadmap documentation was understood by the client well enough to manage the service. It was reported that based on the learning from the prior experience of working with the designers for the initial service launch, they were aware of what to do next, and how to do it.

Facilitating

In this relationship, the designers were involved in helping the clients to manage the service in a way that the designers grew their clients' capabilities to continue the innovation in a longer term. While the clients were participating in design activities, the design knowledge and skills were embodied in the practice of the client organization. For example, in the ANA airports project,

the designers involved the stakeholders from the marketing team to the operations teams in defining and developing the services, and they trained them all the way through the process of developments to take a user-centred approach. As the designers wanted to spread the practices into the organization, they offered the providers the 'ANA Customer Service Standard.' It was a defined guideline about what a great customer experience means for ANA in terms of a range of elements comprising the service system such as staff behaviours, facilities, information, and communications. The guidelines were reported by the designers to have been applied to the organizational practices, for example, in the procurement process in ANA and in the training program for front line staff.

> Yes, they (the client) are using them all, I know some of them were briefed into their procurement, […] So part of it is within their procurement process when they are procuring services. The second part has been built into training for front line staff. (Design director, Engine)

As another example, in the Wheel of Wellbeing project, the designers actively supported the client team to manage the services while paying attention to building the internal capabilities of the team members. The designers considered that the client team members had to be in charge of several roles such as business development, the promotion of the services, and managing the communities. Uscreates helped the client team define each member's role and developed a detailed plan on a monthly basis and a series of supporting tools for the members to deliver their role with. These were, among others, a prioritization of customer segments, a catch up meeting structure, and a prioritization grid. These tools were reported by the client to have been used in the organization.

The designers in the Connect & Do project formulated the community connecting model with the clients in order to scale it up and replicate it across the organization. The model, as a set of concrete instructions, was intended to be embedded into all the services that were currently operated or would be developed in the future. The client acknowledged the value of the designers' practices by saying that:

> We now see that Community Connecting has become the new 'it' in the borough. All organisations are using the language of Community Connecting and so again it's a kind of probably again a replication of what's happened within our organisation; a very small, a very tiny bit of funding has now spread its influence so Community Connecting is now the language that commissioners and other providers and big agencies are using (Director of mental health services, Certitude).

Moreover, the designers in the Connect & Do project linked the community connecting approach with the client's organizational strategy. They positioned it as a bridge to connect between the specialist care system and the communities based system in order to enable a long term transformative change in the organization. To this end, the designers grew the innovation capability of the organization by supporting the cross-disciplinary innovation team that was set up to take on further innovation in the organization beyond the Connect & Do project.

7.3 An overview of the specified Service Design qualities and impacts

This chapter defined three types of designer-client relationships in the case studies as 'Delivering', 'Assisting' and 'Facilitating', and investigated the Service Design practices and outcomes in each type of the designer-client relationships. As a similar approach, Sangiorgi et al. (2015b) divided the relationship between service designers and their client into three categories: Parallel; Collaborative; and Integrated. While their classification was predominantly determined by the ways of interactions between designer's process and client's process, this thesis articulated multiple aspects to look at the designer-client relationships from diverse angles: the designer's role vs the client's role; the interactions between the designer's process and client's process; the core design practices; and the designer's perspective on the project. Therefore, the three types of designer-client relationships in this thesis identified much richer qualities embedded in the designer's collaboration with the client rather than process-centred aspects.

In particular, this thesis further examined how the different types of designer-client relationships influenced the Service Design practices and their impact on the client's practices. Figure 7.1 summarizes the results, indicating how the Service Design practices and outcomes can be varied according to the different modes of designer-client relationships. Each cell of the matrix encapsulates the key practice and outcome (not exhaustive) caused by the combination of the two contextual conditions: the three types of designer-client relationships and the four Service Design intervention areas.

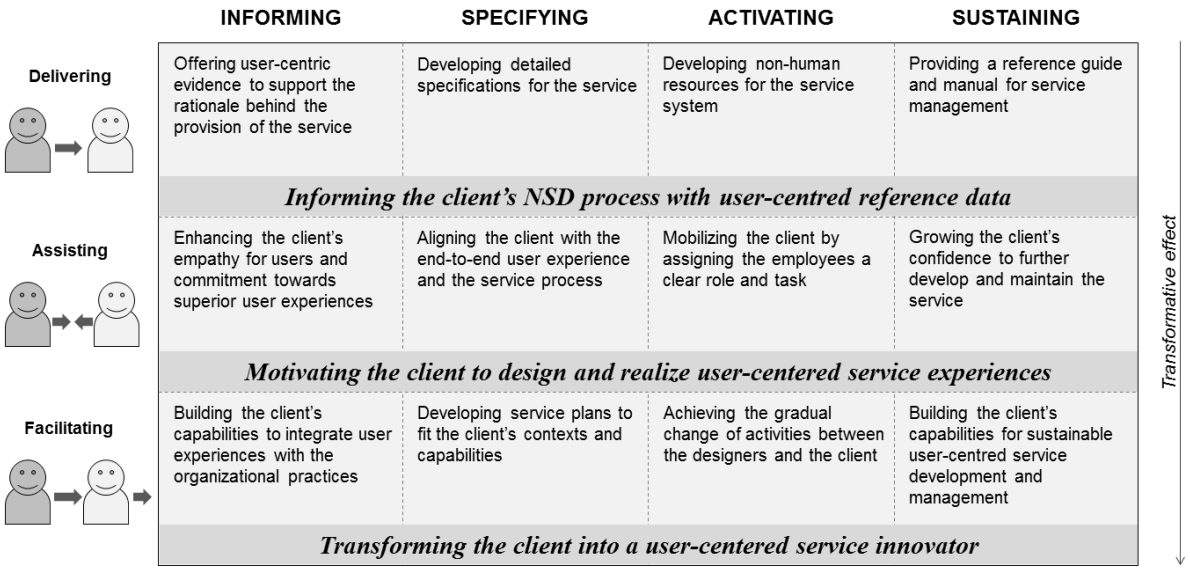


Figure 7.1 Specified Service Design qualities and impacts according to the designer-client relationships

In the ‘Delivering’ relationship, while the Service Design practices in the four intervention areas were deliverable-oriented, they mainly contributed to informing the client’s internal NSD process with various kinds of design documentation. The designers’ activities and knowledge were materialized in the form of tangible design documents or materials in order to be communicated with and transferred to the clients. Therefore, the role of those tangible design outputs was ever more critical throughout the development process. The design documentation that mainly consisted of in-depth user insights, detailed specifications of operational elements, and a management guide offered knowledge and resources to inform the NSD process in the organization. For example, in the intervention areas, the user stories and experiences through the design research served as useful background data to support the client’s internal communications. Also, in the later intervention areas, the specification documentation offered guidelines to help the client manage service elements, e.g., contents or interfaces for online services. However, the deliverables alone seemed to have a limited impact on the actual operation or implementation of the service through the client’s internal practices. Most of the clients in this category reported that they had to have further collaborations or communications with the designers to better understand and implement the design outputs. It was partly related to the limited mutual engagement between the designers and clients. As the clients were hardly involved in the design practices, the designers could not have enough opportunities to consider and accommodate the client’s contexts and capabilities in their work. Conversely, the design perspective and approach could not affect the client’s mindset and practices. For example, in the early intervention areas, users’ experiences and stories obtained from the design research informed the clients as background data but they did not necessarily influence the client’s fundamental mindset or attitude towards the users. Also during the later intervention areas, the designers’ contribution was limited to offering non-human resources (e.g., physical touch points) without affecting human actors. Thus, the Service Design practices in this mode seemed to stay at a peripheral level, not necessarily permeating the organizational actual NSD practices.

In the ‘Assisting’ relationship, the Service Design practices mainly contributed to motivating the clients to design service concepts based on user-centered service experiences and realize them. As the designers worked in partnership with the clients, they focused on getting the clients on board and establishing common grounds for action. The designers, similarly to the designers in the ‘Delivering’ mode, converted the user-centered information and insight into various types of documentation, but these were co-developed with the clients during collaborative workshops. During the collaborative workshops, the documentation served as a supporting tool to orient the clients towards being user-centered and to promote their commitment to developing the user-centered service. As the design activities and deliverables were developed by the collaboration between the designers and clients, both parties affected each other. On the one hand, as the client’s contexts and operational issues could be applied to the design outputs, the

design practices could be better incorporated into the client's NSD practices. On the other hand, the design practices affected the client's resources and capabilities. For example, in the early intervention areas, the rich and vivid user stories, beyond serving as background data, strengthened the providers' motivation towards creating the superior user experience, and aligned the stakeholders to the shared goal of realizing the defined user experience. It was evidenced by the several cases (e.g., Netherlands National Rail Station and Fall Proof) in which the user stories captured through videos had a powerful impact on the staff in the way that they felt empathy with them and motivated to design superior customer experiences. During the later intervention areas, the designers' activities and outputs supported the clients to develop and manage the service in a way to realize the defined customer experiences. Thus, the Service Design practices in this mode had a transformative effect on people in the organization while being interwoven with the client's internal practices.

In the 'Facilitating' relationship, the Service Design practices seemed to contribute to a fundamental change to the client's way of practicing and culture of the organization. The design practices were aimed at sustainable service management and innovation in a longer term. While the design activities and outputs were generally co-developed by the designers and clients, some of them were led by the clients with the support of the designers. In this relationship, the tangible design materials and documentation were not explicitly highlighted as deliverables. Rather, they seemed to be developmental results of the conversations and discussions from collaborative design sessions. While the designers were considering the client's capabilities and helping the client to take the lead of NSD practices based on the designerly approach and methods, the design practices seemed to be embedded into the clients' way of working and the culture of the organization. For example, in the early intervention areas, after the clients experienced the user-centered design approach to understand users and their real desires, they realized the needs of changing their existing perspective on the service from being provider-centered to being user-centered. Also, they learned from the designers how to integrate the user insights with their business and internal practice. In the later intervention areas, the workshops where the designers provided the employees with the trainings of the designerly approach and methods gradually helped the clients to be at the center of innovation with confidence and ownership. As the training and learning were happening alongside the NSD process, the period for the project served as a long transition during which the ownership and responsibility of the service gradually moved from the designer's side to the client's side. Overall, the Service Design practices thus contributed not only to the development of the specific services but also seemed to help the client organizations to have capabilities to sustain service innovation based on the user-centred mind-set and approach.

8. Interpretation: Service Design Contributions to implementing the Service Logic in NSD processes

In the previous chapters, the findings of the ten case studies were presented. Chapter 6 discussed the main Service Design intervention areas alongside the service development process while Chapter 7 discussed the influence of designer-client relationship on the quality and impact of Service Design practices in each of the intervention areas. Chapter 8 aims to interpret the Service Design practices in terms of specific contributions to NSD by discussing insights against NSD theory (i.e., NSD process models and knowledge) and relating them to a service-oriented perspective (i.e., Service Logic). This chapter addresses the following questions:

1. How can the Service Design practices be positioned in the NSD process model?
2. What can they bring to the extant NSD process knowledge in Marketing and Management literature?
3. Could the Service Design practices contribute to the transformation of the NSD process? If so, how and with which results?

The first question is concerned with locating the Service Design intervention areas and corresponding key activities that were identified in Chapter 6 in NSD processes. While the Service Design intervention areas and key activities in Chapter 6 were described focused mainly on the designers' perspective, this chapter aims to relate the design practice to the existing organization's NSD practice and process. This is aimed at contextualizing the Service Design practices in the organization's NSD process and activities, thereby overviewing what phases of the NSD process were covered by the service designers' practices and what phases not. The second question suggests the need to compare the Service Design practices to the NSD process knowledge, and identify what changes the Service Design practices can bring to the NSD process. The third question is to reflect on how the changes by the Service Design practices can be theoretically interpreted as contributions to the NSD process theory particularly in relation to recent debates of the Service Logic.

The remainder of this chapter is structured as follows. In section 8.1, the Service Design intervention areas and associated activities are aligned to the NSD process model, and presented in the context of an organization's practice and process. Section 8.2 examines and articulates the differences emerging from the comparison between the Service Design practices and the NSD

process knowledge. In section 8.3, the changes brought by the Service Design practices are interpreted as contributions to NSD through the lens of the Service Logic concept.

8.1 Contextualizing the Service Design practices in the NSD process model

The four Service Design intervention areas and corresponding Service Design activities that were identified in Chapter 6 were located in the NSD process of Johnson et al. (2000) to contextualize the service designers' practices in the organization's NSD practices. While there have been several NSD process models in the literature, the model of Johnson et al. (2000) was adopted because the model encompasses previous NSD models in an intuitive and concise manner. Also, according to Froehle & Roth (2007), the model is generalizable because it was constructed based on a variety of industry and firm contexts. When mapping the Service Design intervention areas and activities in the NSD process, which practices of the clients were associated with them was considered. And, the clients' practices in the case studies and the activities suggested in the NSD model were compared, and when they had commonalities, the corresponding Service Design intervention area and activities were mapped onto that phase of the NSD model. This comparison between the clients' practices in the empirical data and the organization's activities suggested in the NSD model helped the author to map the service designers' practices onto the organization's process while minimizing the author's subjective mapping. Figure 8.1 represents the result of the comparison and mapping.

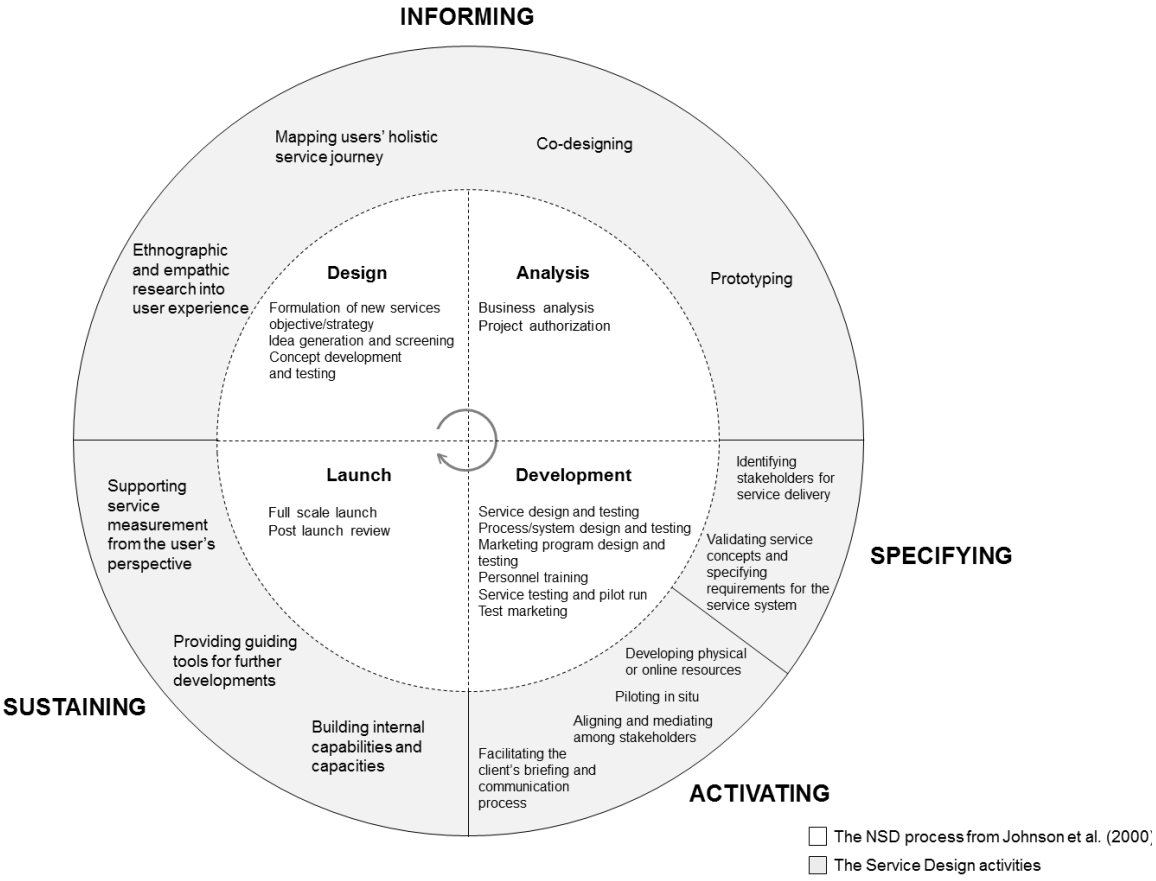


Figure 8.1 Service Design intervention areas and activities mapped onto the NSD process

8.1.1 INFORMING

The first Service Design intervention area was exploring users' contextual and holistic experiences through ethnographic and empathic research, the mapping of the user's holistic service journey, the co-design approach, and service prototyping. This intervention area was mapped onto the ***'Design'*** phase of the NSD process. The designers' activities and outputs from this area of intervention informed the clients' creation and validation of service concepts. The design outputs supported by the user stories (e.g., user stories with their real voices, scenarios, and user journey) enabled the clients to understand the user's personal experiences and needs that they could not have gained from their conventional way of user research. For example, the client of the Netherlands National Rail Station project reported the designers' approach to understanding the individual user's unique experience was novel to their organization, and the rich user data (e.g., travellers' opinions and experiences about the platforms captured on videos) was helpful for their concept generation process. Also, the designers' prototyping was reported to help the client check if the concept could work properly from the user's perspective. The prototyping of the awareness campaign about the risk of trips and falls in the Fall Proof project

was one of the examples to indicate how the designer's prototyping activities assisted the client in testing the service concept.

Second, the intervention area was also mapped onto the ***'Analysis'*** phase of the NSD process. The designers' activities and outputs from this intervention area were reported to support the client in obtaining buy-in from stakeholders and gain the approval of the project from the program board, which is relevant to project authorization in the NSD process. It was reported that the designers' outputs served as evidence with which to convince the top management to invest in realizing the service concept. The project manager of NHS 24 for Care Information Scotland acknowledged that the design activities and outputs from the engagement workshops with the user groups were very helpful to gain confidence to take forward the service concept, and convince his colleagues to buy into it. Likewise, the Teachers' Pension project also indicated that the design team's qualitative and quantitative research (e.g., focus groups, quantitative surveys and data analysis) were useful to provide the leadership with enough confidence to invest in the service concept. Meanwhile, although many of the clients in the studied cases agreed that Service Design practices and deliverables (e.g., qualitative user research, user experiences, and service concepts) indirectly informed the development of the business case, their explicit appreciation of service designers' contribution to business analysis was less identified in the data. As an exception, the client of the Wheel of Wellbeing project gave the service designers the credit for developing a stable income stream for the organization and orienting the employees towards being business-centred.

8.1.2 SPECIFYING

The second Service Design intervention area was specifying requirements for developing service, which means converting the conceptual service ideas into operational details required to implement the service. This intervention area was mapped onto the part of the ***'Development'*** phase of the NSD process as the clients' practices that went together with the intervention area related to service design and service process design, and testing them. The designers validated the service concept and the target service experience with the business, technical, operational or marketing teams to check if there might be any issue or challenge to implement it. Based on the testing, they generated the documentation to specify detailed service processes. For example, the specification document in the Quick Tap project described the overall customer experience journey for using the service from being aware of the service to using the customer support centre. The service designers converted each of the channel experiences into detailed business processes and requirements, which were then associated with specific staff and roles. The designers shared the specification documents with the stakeholders in collaborative sessions, which helped to get the stakeholders on board and aligned not only with the shared vision and goal of the project but also with the proposed service processes and project timeline. Along with

developing service specifications, the service designers were also involved in identifying who would need to be involved as an external actor and what role they should play. This activity of the designers contributed to clarifying the tasks and responsibilities of the staff in the operations team. For example, the client of the Netherlands National Rail Station project acknowledged that the designers supported his team to identify another company (NS) as a service provider, and mediated the collaboration and relationship between the two providers.

8.1.3 ACTIVATING

The third Service Design intervention area was to develop physical and online resources and to facilitate stakeholders' engagement while supporting service implementation and launch. This intervention area was mapped onto the part of the ***'Development'*** phase of the NSD process as the clients' practices coupled with the designers' intervention area predominantly related to personnel training and the marketing program design. The personnel training in the NSD process model can be understood as mobilizing staff to understand their part and to learn how to support customers in the service process. While the SPECIFYING intervention area was concerned with designing service processes and articulating the requirements for service implementation in the form of documentation, the ACTIVATING intervention area was concerned with actually preparing the resources constituting the service system including non-human resources and human actors for service delivery. For the non-human resources, the designers were involved in developing physical products and digital platforms, and creating marketing materials for service promotion. The most acknowledged contribution of the designers at this stage was their practice to mobilize stakeholders and front line employees to clearly understand their role and responsibilities in the context of the designed user experience. The client of the Quick Tap project reflected on how the designers' regular workshops with the stakeholders and their visual communication tools contributed to the stakeholders' stronger commitment to the project development, and to more effective internal communications of the service concept and processes to the front-line staff. In the Netherlands National Rail Station project, the client acknowledged that the designers' mediation between the different providers in terms of their role and responsibility for the user experience facilitated the development process.

8.1.4 SUSTAINING

The last Service Design intervention area was to support the clients to manage the service, and build their capacities and capabilities for continuous service innovation on a day-to-day basis. The designers supported service measurement, provided service roadmaps to guide the clients for further developments, and built internal capabilities and capacities for the clients. This area of the service designers' intervention was mapped onto the ***'Launch'*** phase of the NSD process because the relevant clients' practices were concerned with issues around service launch and

post launch. In some cases, the service designers helped the clients measure the impact of the designed service from the user's perspective and experience. In other cases, designers provided the client with a road map which would support the client to prepare for the next developments of the service offering. The documentation for the nine work streams for future services in the ANA airports project enabled the clients to have long-term plans on the overall services although just two of the nine streams could be launched at that moment. Also, in some cases, the design activities to build internal capabilities or capacities by teaching the teams design skills and approaches were said to transform the client teams in a way that they became more customer-centric in terms of their attitude and practices. The Connect & Do project illustrated how the designers' training practices for the client changed the team members to think of their offering and to approach people who use the service in a more user-centred and collaborative way. As another contribution of service designers for this intervention area, service management tools and guidelines were reported to support the client's operations team in delivering the service with a clear business goal.

To sum up, mapping the four Service Design intervention areas and relevant designers' activities in the NSD process helped to understand to what extent the service designers' practices contribute to the different phases of the NSD process. According to Figure 8.1, the designers' practices manifested in different ways in the ten case studies seem to address all the phases of the NSD process, demonstrating the potential capabilities of Service Design to support the NSD process from the early planning phase to the later implementation phase. However, that does not necessarily mean the Service Design activities correspond to all of the specific activities in the NSD process model. Although the Service Design intervention areas were aligned with the four phases of the NSD process at a high level of abstraction, some of the NSD activities did not engage with the service designers' activities and vice versa. In the next section, what differences can be identified between the Service Design activities and the NSD activities is examined through confronting the Service Design practices with literature on NSD practice and processes.

8.2 Differences between Service Design practices and NSD theory

While the previous section helped to understand the extent and nature of the service designers' practices as aligned to the NSD process, this section concentrates on exploring Service Design contributions to the NSD process by examining whether there is any difference between the Service Design practices and the existing NSD process knowledge. Table 8.1 summarizes the Service Design practices and the relative NSD process knowledge. As a result, five main differences emerged, which are presented in the following section.

Table 8.1 NSD knowledge aligned to the NSD process, and Service Design practices

NSD process	NSD knowledge in literature	SD intervention areas and activities in the cases
Design • Formulation of new services objectives/strategy • Idea generation and screening • Concept development and testing *Analysis* • Business analysis • Project authorization	• Concept development is more driven by market situations and competitors (Froehle & Roth, 2007; Tatikonda & Zeithaml, 2002). • Customers often remain as an information provider via interviews or focus groups (Alam, 2002; Matthing et al., 2004) • Co-designing activities by inviting them as a member of the service development team is reported as the least preferred practice (Alam, 2002). • Testing usually means informal/formal feedbacks about already developed concepts or solutions from customers and employees (Froehle & Roth, 2007). • Despite the prescription of prototyping as a method in some NSD literature (Froehle & Roth, 2007), little is known about strategies for prototyping service. • Prototyping is mainly used for the representation and simulation of the service with the aim of supporting the organization's NSD practice (Tatikonda & Zeithaml, 2002).	*Informing* • Ethnographic and empathic research into user experience were undertaken to understand users' contextual experiences and personal life contexts over an extended period of time. • Users' journey along services was mapped to understand people's holistic experience of using not only the service but also other relevant services. • Co-design workshops were facilitated to help people express and create what they want and need, being empowered as a co-designer by the methods and tools created by the designers. • Physical objects, service concepts, and processes were prototyped from the early stage in order to explore the optimal user experience.
Development • Service design and testing • Process and system design and testing • Personnel training • Service testing and pilot run • Test marketing	• The network collaboration was focused on the identification and integration of resources and the linkage between actors (Syson & Perks, 2004). • Project leadership and management skills were highlighted to deal with complexities caused by diverse stakeholders and to coordinate their interests (Smith & Fischbacher, 2005). • The customer's viewpoint has been suggested for the success of the solutions co-created by multiple actors (Hakanen & Jaakkola, 2012; Tuli et al., 2007).	*Specifying* • Identifying stakeholders for service delivery was conducted based on creating seamless user experiences. • The service experience journey was validated with operational teams, and specified in the form of requirements and information. *Activating* • The designers aligned stakeholders to the service journey based on user experience, and mediated between stakeholders for their collaboration. • The visual documentation facilitated the client's briefing and communication processes. • Physical touch-points and online platforms were developed.
Launch • Full scale launch • Post launch review	• Service training, launch and marketing are discussed as main issues around service implementation (Edvardsson et al., 2000). • NSD processes tend to end with a post launch review (Johnson et al., 2000; Scheuing & Johnson, 1989) that assesses how well the NSD process and marketing efforts were performed (Froehle & Roth, 2007).	*Sustaining* • The designers supported the client's service measurement by adding more layers to the traditional measurement tools, and infusing the user experience perspective. • Service roadmaps were developed to guide the subsequent development and launch of the service. • Internal capabilities of the client were built through the designers' engagement in setting up the operations team, and their training of the staff through the human-centred design methods.

8.2.1 Service concepts driven by users' contextual and holistic experiences

One of the main differences between the NSD knowledge and the Service Design practices lies in what is the main driver for the generation of service concepts. While the development of service concepts has been led by the analysis of both customers and market according to the NSD literature (Froehle & Roth, 2007; Tatikonda & Zeithaml, 2002), the NSD knowledge seemed to be limited in in-depth user experience research (Alam, 2002; Matthing et al., 2004). The findings of the case studies instead indicated the Service Design practitioners' in-depth understanding of users and their contexts was always a critical driver for idea and concept development. Understanding the users meant not only collecting people's expressed needs, but also observing people's personal life regarding the service context, sometimes during a longer period of time. For instance, in the Netherlands National Rail Station project, the design researchers not only observed travellers' behaviour pattern of boarding and alighting from trains while tracing them during their journey to their destination, but also asked some of the users to write a diary about their personal emotions and experiences. Furthermore, service designers understood the users' experience in a holistic way by mapping their journey involving not only the service but also the neighbouring services. They explored the service eco-system by putting people at the centre of all the support available to them. This activity enabled the designers to discover any breakdown in the service eco-system and to search for opportunities in the wider area beyond the isolated client's problem area. The designers' holistic understanding of user experience was evidenced by many projects. For example, in the Fall Proof project, the designers explored the experience of the elderly people who have fallen in the whole service eco-system to identify potential issues in the system or any breakdown of communications. They focused on how to make the service journey seamless and convenient for not only the older people who had fallen and needed help in their home, but also for their friends, families, and professionals who were supporting them. Thus, they considered the human network around the focal user when ideating and designing user experience.

8.2.2 Empowering users to work as a designer

Another significant difference is the co-design approach that aims to support users to become active players in designing for services. In NSD literature, involving customers in the design and development of resources and processes for new service has been emphasized as a critical factor for success (Edvardsson et al., 2006). However, despite this general emphasis on the need of engaging users in NSD, inviting them as a member of the service development team has been reported as the least preferred practice in NSD practices (Alam, 2002; Nagele, 2006). According to the literature, most of user involvement remains at the level of passive acquisition of input, gathering information and feedback on specific issues, or extensive consultations with users via interviews or focus groups. Although more proactive approaches to involve customers have

been mentioned (e.g., innovation retreats and summits) (Alam, 2006), what kinds of co-designing activities can be done with users, and how to make the most of their creativity and skills seemed to be lacking in the NSD publications. In the studied cases, the co-design approach with the users appeared to be a fundamental approach not an optional one. When the service designers engaged with people, they focused on how to help people reflect on their own personal experience, and design their favourite solutions as a designer. As these activities required people to exert their creativity and competences such as knowledge and skills to come up with ideas, a range of enabling techniques and design tools were employed to provoke people's imagination and expression. The Care Information Scotland project was one of the good examples to evidence this. During the several co-design workshops with people, the designers developed diverse creative engagement tools (e.g., the experience game and the cultural probe pack) to encourage people to express their stories, emotions, and ideas.

8.2.3 Exploratory prototyping for optimizing user experiences

Another difference brought to NSD processes by the Service Design practices was the utilization of prototypes from the early phase of the service development process. The prototyping seemed to infuse agility and flexibility into the traditional NSD process where tests have been primarily conducted to validate concepts or products (Froehle & Roth, 2007; Scheuing & Johnson, 1989). Although Johnson et al. (2000) proposed the cyclic NSD process model as opposed to linear models, the NSD process still seems to lack sufficient evidence for agility and flexibility in terms of service development. Froehle & Roth (2007) stated the design stage involves initial concept testing, but they mainly consider informal/formal feedbacks about already developed concepts from customers and employees, which is different from the designers' exploratory prototyping. Unlike the testing through feedback, the designers' prototyping enabled the users to directly experience and engage with the object of test. Although prototyping services as a method is mentioned in some literature as part of the development stage of NSD (Froehle & Roth, 2007), very little has been described about specific strategies or tools for prototyping services in NSD literature. The prototypes observed in the case studies began at the early stages for exploring service concepts before project authorization, which means their primary purpose was not necessarily to test the complete service offerings, rather to explore optimal user experience. The designers' prototyping helped the clients ameliorate service processes and tangible touch points. In the Quick Tap project, the designers looked through the service registration and activation process with the users through prototyping sessions, observing whether there were some challenges obstructing the coherent user experience. By prototyping, the designers could help the stakeholders understand if users could understand and relate to the new service concept, and what barriers could limit their engagement. What they learned quickly was that, "because of the security and technical complexity,

activation was going to be a challenge, so it was very possible that lots of people would buy us the phone, trying to set it up and then fail, they give up. […] so one of the ways to help people set up the phone would be to ensure the package is very clear" (Founding partner, Livework). As another example, in the Teachers' Pension project, "the design work was routinely tested with teachers, employers and staff to ensure it was authentic and valid in its direction and to ensure it would be used as expected" (an article for Teachers' Pension, Capita). If something proved not to work, the design team improved it in an agile and iterative way.

8.2.4 Organizing and mobilizing actors based on user experiences

In the studied cases, the identification and involvement of stakeholders were carried out based on the defined user experience. In NSD literature, management of different actors' relationship and collaboration has been addressed in the context of integrative solutions that need to be co-created by multiple actors from intra- and inter-organizations (Hakanen & Jaakkola, 2012). In some literature, the network collaboration was considered from the supplier's perspective, focusing on the identification and integration of resources and the linkage between the actors (Syson & Perks, 2004), and project leadership and management skills required to deal with complexities caused by diverse stakeholders and to coordinate their interest (Smith & Fischbacher, 2005). In other literature, the customer's viewpoint was emphasized for the success of the solutions (Tuli et al., 2007). Hakanen & Jaakkola (2012) suggested using a service concept as a framework to be applied to the solutions that are co-created by multiple actors so that actors may develop a shared vision of the solution. In the studied Service Design practices, the application of the user experience to organizing and managing the stakeholders was frequently observed. This was enabled mainly by the development and use of visual documentation that made the desired user experience more tangible. The designers' identification of actors emerged while creating the user experience journey. In the Netherlands National Rail Station project, the need for involvement of another provider emerged while the designers were creating the traveller's experience journey map. They recognized that the new service experience would require passenger information that could not be provided by the current provider. Moreover, the mobilization of actors in the Service Design practices was geared towards realizing the user experience. When coordinating the collaboration between multiple stakeholders, the designers utilized the user experience as a practical instrument to orient them towards the shared behavioural goal. The Quick Tap project indicated how the designers' coordination of stakeholders' interest benefited from the visual specification documentation as a way to describe the end-to-end customer experience journey. The designers kept becoming a customer experience guardian, while supporting different parties to understand their position and role in the customer experience and to cooperate and sometimes negotiate with others. Similarly, in the Teachers' Pension project, the target customer experience that was

described in persona and experience journey maps offered the shared vision to which actors' activities across the organization could be aligned.

8.2.5 Fostering organizational capability for a user-centric service innovation

The Service Design practices were distinct from the NSD process in terms of considerations on organizational capabilities for managing service on a day-to-day basis after service launch. Many NSD process models tend to end with service launch and a post launch review (Johnson et al., 2000; Scheuing & Johnson, 1989). According to Froehle & Roth (2007), the post launch review is carried out to assess how well the NSD process and marketing efforts were performed. Edvardsson et al. (2000) discussed service training, launch and marketing as main issues around service implementation. But, NSD processes do not generally encompass activities for sustainable service innovation with a customer-centred mind-set and attitude. Den Hertog et al. (2010), stress "what matters for service innovators to be successful in the long run is not only being able to successfully launch a service innovation once, but to be able to introduce and exploit service innovations repeatedly" (Den Hertog et al., 2010, p. 496). The Service Design practitioners supported organizational staff to successfully implement the service and sustainably manage it. The service designers' capability building happened alongside the whole service development process, not restricted to the launch stage. They considered how to (directly or indirectly) train organizations' staff, and foster their ownership and capability for a longer term innovation. For instance, in the ANA airports project, the designers passed their user-centred perspective and skills to the services management team by exposing the team to a range of Service Design activities hoping that the team will be capable of implementing and managing the services after they disengage from the project. In the Connect & Do project, the designers trained the innovation team to do themselves mini-ethnographic design research and co-design workshops aiming at embedding the user-centred design approach within the organization. The Service Design approach absorbed by service management teams brought about a transformative effect in organizations. One employee in the Connect & Do project described the co-design sessions that she experienced as the "eye opener" because they gave her chances to listen to users' real voices and to recognize a gap between what she offered to users and what users really wanted. She felt the need to work differently from before, which is more in a user-centred way.

8.3 Interpreting Service Design contributions to NSD processes through the Service Logic

The previous sections discussed the main differences between the Service Design approach and NSD approach. Here, we explore what are the possible implications that these differences can generate for NSD processes by applying a service-oriented perspective (e.g., the Service Logic

or the Service Dominant Logic). The rationale behind the interpretation through the service-oriented perspective is grounded on the findings of the expert interviews in Chapter 4. The review of expert interviews pointed toward the potential of Service Design practice to enhance NSD in a way to complement the limitation of NSD theory. It indicated that NSD theory has limitations in that the focus of developments is placed on developing services as market offerings, and it requires more empirical evidence to reveal the black box of the service development process. The experts' opinions also implied that the human-centric nature of Service Design could be related to the idea of the Service Logic and the Service Dominant Logic, and thereby Service Design practice could enhance NSD towards reflecting the contemporary perspective on service. (See more in section 4.2 of Chapter 4) Therefore, this section will interpret the potential Service Design contributions through the lens of the Service Logic. In the following sections, why the Service Logic, not the Service Dominant Logic was chosen as the theoretical lens is explained, and the interpretations of the Service Design contributions through the Service Logic are presented in the form of five propositions for theory construction.

8.3.1 Service Logic

Edvardsson et al. (2005) classified the perspective on service in two ways: One is "service as a category of market offerings" and the other is "service as a perspective on value creation" (Edvardsson et al., 2005, p. 118). Service as a category of offerings means a different type of products of which the nature is "performance, activities, processes, and interactions" (Edvardsson et al., 2005, p. 118). Service as a category of offerings considers value as embedded in the offerings by the providers, and exchanged for money. On the other hand, service as a perspective on value creation is a higher order concept geared towards value creation through the lens of the customers (Edvardsson et al., 2005). The Service Logic (Grönroos, 2006) and the Service Dominant Logic (Vargo & Lusch, 2008a) are in line with the service-based perspective in that both consider services and goods as resources to support customers' value creation, and stress value creation through the perspective of the customers. And, both seem to contribute to the shift of the service paradigm from the offering-oriented and provider-centric perspective to value (co-) creation and a customer-centric perspective.

However, the Service Logic and the Service Dominant Logic have substantial differences in other aspects. While the Service Dominant Logic is mainly used as a philosophical foundation for service systems (Maglio & Spohrer, 2008), the Service Logic focuses on a managerial aspect, reinventing the marketing concept from a service-based perspective (Grönroos, 2006). Also, they present a gap from each other mainly in the perspective on value (co-) creation and the role of providers and customers (Grönroos & Gummerus, 2014). Whereas the Service Logic argues that value is created by customers, and the provider can become a co-creator of value through

interactions with the customers (Grönroos, 2008), the Service Dominant Logic declares providers only offer value propositions, and the customers are a value co-creator (Vargo & Lusch, 2008b). While the Service Dominant Logic takes a metaphorical view on value creation, the Service Logic offers analytical descriptions of value creation clarifying its phases (provider sphere, joint sphere, and customer sphere), actors, and goals (Figure 8.2) (Grönroos & Gummerus, 2014). As the author aimed to understand Service Design contributions to NSD from multiple aspects, which are, for example, resource production in the client sphere, co-design in the joint sphere, and users' experience in the user sphere, an analytic approach to value seemed to be more applicable. Therefore, the Service Logic has been chosen as a framework for interpreting the Service Design contributions to the NSD process.

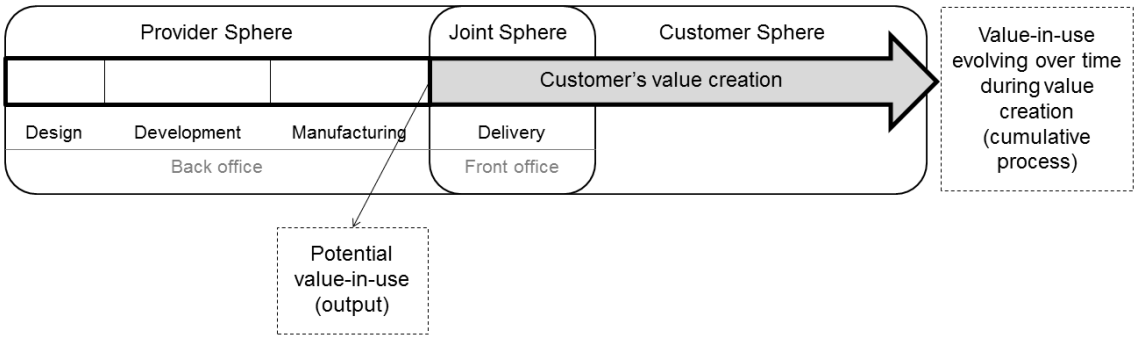


Figure 8.2 Value generation process: value creation and co-creation according to the service logic. Adapted from Grönroos & Gummerus (2014).

As stated earlier, the analytical model of value creation provided by the Service Logic consists of three spheres: provider sphere; joint sphere; and customer sphere. In the provider sphere, service providers serve as a value facilitator or a creator of expected value-in-use by producing resources (e.g., goods, physical facilities, servicescape, service activities, information, and personnel) and processes for customers. In the joint sphere, the providers can become a value co-creator by having direct interactions in which the providers and customers integrate their processes (Grönroos & Gummerus, 2014; Grönroos & Voima, 2013). In the joint sphere, the customers can produce the resources and processes with the firm as a value co-creator, widening the joint value co-creation sphere where they are invited into the service development process as a co-designer or co-creator (Grönroos & Voima, 2013). In the customer sphere, users create value while using the service and other related services in their life contexts.

Based on the model, the Service Logic can be viewed from two perspectives (Grönroos & Voima, 2013). When it is viewed from the customer's value creation, the focus is the fact that value emerges during the users' resource (e.g., knowledge, skills, information and motivation) integration for their experience through the use of resources, processes, and outcomes from the

service provider (Grönroos & Voima, 2013). As value is considered as "idiosyncratic, experiential, contextual, and meaning laden" (Vargo & Lusch, 2008b), an understanding of the individual user's different contexts accumulated over time have been discussed as critical agenda (Grönroos & Voima, 2013; Heinonen et al., 2010). The service provider's efforts to understand the customers' individual, relational, and collective goals (Grönroos & Voima, 2013), and how they independently create their value enabled scholars to pay attention to innovative research methods and tools (Edvardsson et al., 2012). On the other hand, when the Service Logic is considered from the provider side, the focus is on how the supplier can assist users' value creation by producing organizational resources to support the users' everyday practices in a value-creating way (Grönroos & Voima, 2013). This focus creates a business logic in which firms need to focus on understanding users' activities and processes to better support them, and they need to include interactions with users to make a value co-creating platform (Grönroos & Voima, 2013).

8.3.2 Interpreting the Service Design contributions to the NSD process through the Service Logic

By assimilating the changes to the NSD process possibly brought by the Service Design practices with Service Design literature and Service Logic literature, the author translated the Service Design contributions to NSD through the Service Logic thinking. First, as the purpose of this research was theory building from cases, the Service Design contributions manifested in the studied cases were entangled with existing Service Design literature in order to improve the theoretical quality of the emerging theories. It is supported by Eisenhardt (1989, p. 545) saying "tying the emergent theory to existing literature enhances internal validity, generalizability, and theoretical level of theory building from case research." Second, the unified Service Design knowledge evidenced by practice and theory was translated through the Service Logic literature into a set of propositions for theory construction. Table 8.2 presents the five Service Design contributions with their manifestation in the data, and five elaborated propositions. More detailed descriptions for each of the propositions are provided next.

Table 8.2 The Service Design contributions to NSD and their connection to the Service Logic

Service Design contributions	Manifestation in the studied cases	Propositions
Service concepts driven by the user's contextual and holistic experiences	• The ethnographic approach to user research was taken to understand the individual user's unique experience. • The user's personal life contexts during an extended period of time were explored using design probes.	**P 1: Service Design can support the NSD process in developing value proposition to better fit users' idiosyncratic contexts in value-in-use over time.**
Empowering users to work as a co-designer	• Co-design workshops where users were invited as a designer to share their experiences, and to design their desirable experiences were facilitated by the designers. • Creative co-design tools and techniques facilitated users' engagement with the workshops and boosted their creativity and skills.	**P 2: Service Design can widen the joint value co-creation sphere in the NSD process by incorporating users in the resource production process while supporting them to better apply their own resources.**
Exploratory prototyping for optimizing user experiences	• Prototyping was undertaken from an early stage to explore user experiences and optimize them so that users could best integrate their knowledge, skills, and motivation. • The object of prototyping was not only the solutions but also the processes and resources to constitute user experiences.	**P 3: Service Design can support the NSD process in optimizing the provider's processes and resources so that customers may better apply and integrate their own resources.**
Organizing and mobilizing actors based on user experiences	• User experiences were the key instrument for identifying actors and facilitating their engagement while managing the conflict and collaboration between actors. • Visual communication materials were employed to communicate the service concept and user experience, thereby helping the stakeholders align their knowledge, skills and competence to realizing the customer experience.	**P 4: Service Design can support the NSD process by facilitating human-resource configuration in a way that the actors better support users' value creation.**
Fostering organizational capability for sustainable user-centric service innovation	• The Service Design practitioners focused on embedding user-centric design approaches and methods in the client organizations to build internal capabilities for ongoing service innovation on a day-to-day basis.	**P 5: Service Design can advance the NSD process by fostering the provider's attitudes and communications towards service mindedness and customer-oriented performances.**

The first Service Design contribution is supporting the development of service concepts based on the user's contextual and holistic experience. In the studied case, the Service Design practitioners undertook observation, shadowing and design probes in order to investigate users' idiosyncratic and personal life contexts. Service Design literature has addressed the designers' ethnographic (Segelström et al., 2009) and empathic design research (Mattelmäki & Battarbee, 2002) to enable them to obtain the individual user's unique experiences and life contexts over an extended period of time that otherwise the service provider could not get access to. Unlike conventional user research methods oriented towards collecting user stories based on the past and present, the Service Design approach focuses on understanding users' experiences not only from the past and present but also from the future (Elizabeth, 2001; Visser et al., 2005). Edvardsson et al. (2012, p. 419) defined context as "a resource constellation that is available for customers" to enable value creation. Also, customers' value is created through the total experience including functional and emotional aspects (Sandström et al., 2008). Therefore, the Service Design approaches to delve into users' contextual experiences can be interpreted as a contribution to the service provider's value proposition to better fit customers' potential

value-in-use. In particular, the in-depth exploration of Service Design into users' personal life contexts over a longer period of time through the empathic design probes can offer the NSD process the customer's accumulated experiences (Heinonen et al., 2013) indicating how, when, where, why and with whom the user creates value (Grönroos & Voima, 2013; Voima et al., 2011). Also, the service designers' holistic understanding of users' experience cutting across the service eco-system can infuse the NSD process with the customer-centric perspective on the service journey suggested by Tax et al. (2013). The author therefore puts forward the following proposition connecting the Service Design contribution to the Service Logic:

> **Proposition 1:** Service Design can support the NSD process in developing value proposition to better fit users' idiosyncratic contexts in value-in-use over time.

The second Service Design contribution is empowering users to work as a co-designer. In the studied cases, the Service Design practitioners held co-design workshops where the users were invited as a designer to reflect on their current experiences and envision their desirable service experiences. During the workshops, the designers used a variety of creative design tools to boost people's creativity and imagination. Service Design literature has revealed the designers' competences in empowering people to become a creator to express their latent creativity through creating artefacts beyond the boundaries of what they can speak and do (Elizabeth & William, 2002). Co-design often entails creative techniques and generative toolkits with the aim of enhancing people's creativity (Elizabeth, 2000). In the Service Logic literature, when the firms have the Service Logic perspective, they directly interact with users, extending their role into a value co-creator that influences users' value formation during the interaction (Grönroos, 2008). The direct interactions mean a dialogical process where the service provider and the user merge their processes into one joint process (Grönroos & Voima, 2013). The joint process occurs when the users are invited into the service providers' resource production process. Grönroos & Voima (2013, p. 140) state that when active customers "give input as a co-developer or co-designer, or even co-manufacturer, then the joint sphere widens." When involving users in co-design sessions, service providers can widen their joint co-production sphere, which leads to increased opportunities for value co-creation with the users. Therefore, Service Design practitioners' co-design activities can be valued as a way of helping service companies to adopt the Service Logic. Especially, the designers' creative engagement tools and materials can contribute to the users' better application of their motivation, knowledge, and skills and their integration of resources. In this context, the Service Design practice of empowering users as a co-designer can be regarded to be able to enhance the NSD process towards adopting the Service Logic. Therefore, the author proposes the following proposition:

Proposition 2: Service Design can widen the joint value co-creation sphere in the NSD process by incorporating users in the resource production process while supporting them to better apply their own resources.

The third Service Design contribution is exploratory prototyping as a continuous learning process that supports the testing and improvements of service concepts and experiences. In the studied cases, the Service Design practitioners developed prototypes and tested them from an early stage of the project development process to make sure service concepts and processes support the user's coherent experience. The iterative improvement process via prototypes enabled clients to explore which conditions would enable users to best apply their understanding, knowledge, skills, and motivation and integrate them with the resources and processes provided by the company. According to Service Design literature, designers test and refine design ideas and solutions with a range of creative prototyping techniques (Buchenau & Suri, 2000; Miettinen et al., 2012) with a consideration on the invisible, temporal, and sequential nature of the service (Arvola et al., 2012). The key characteristic of the Service Design prototyping techniques is that they are geared towards gaining empathy for users, and situating people's experience in their real environments and contexts (Arvola et al., 2012; Buchenau & Suri, 2000). According to Grönroos & Voima (2013), during the customers' value creation process, their resources, processes, and outcomes interact with the provider's ones. When the customers engage with the service, they apply and integrate their intellectual resources (e.g., motivation, knowledge, competence and skills). Prototyping can help designers keep communicating with users to capture their difficulties in engaging with the resources and processes. Based on the users' reactions, providers can adjust their resources and processes to ensure users' optimal use experience. As the core of service is not the output itself but the value creation process (Edvardsson et al., 2012), the Service Design practices can inform the NSD process so that the role of prototyping may shift from confirming solutions to exploring processes and resources. The author therefore puts forward the following proposition:

Proposition 3: Service Design can support the NSD process in optimizing the provider's processes and resources so that customers may better apply and integrate their own resources.

The fourth contribution of Service Design is applying user experience to identifying stakeholders and managing their collaboration. In the studied cases, the service designers involved new actors that would be needed to provide the desired user experience, and helped to reduce conflicts between actors by aligning them to the shared user experience. In this process, the designers' visual communication tools played a critical role in the stakeholders' clear understanding of the user experience and aligning their resources to it. Service Design literature

indicates how the user-centric perspective on the user value and experiences can be used as an instrument for organizing and managing the heterogeneous networked collaboration (Henze et al., 2012). The design approach to the facilitation of networked collaboration entails design methods and tools that can serve as boundary objects (e.g., design prototypes) (Henze et al., 2013). Hyvärinen et al. (2015) presented the potential of Service Design in facilitating the collaboration of actors by using design tools (e.g., visualizing and storytelling) for converting user experiences into tangible ones so that they become a shared vision and goal. From the service perspective, a customer-centric perspective on the service delivery network is emphasized (Tax et al., 2013). That is, service actors need to understand how their offering is situated in the customer-defined service journey, and how they need to coordinate their offering with other actors' offerings to support the customer's purpose. According to Heinonen et al. (2010), providers should shift from thinking how to persuade the customers to fit in their offering toward considering how to position their offering in customers' dynamic experiences. The designers' user-centric approach and visual tools appear to implement the customer-centric view on the actor configuration. The studied cases indicated the designers coordinated stakeholders in a way to guide them towards the shared vision and goal. The service designers' visual specification documents helped actors clearly understand the service concept and the user experience the new service aims to achieve, and thus enabled actors to better integrate their knowledge, skills and competence so as to support the defined customer experience. In this regard, the author suggests this proposition:

> **Proposition 4:** Service Design can support the NSD process by facilitating human-resource production in a way that the actors better support users' value creation.

The fifth Service Design contribution is that the Service Design practitioners built organizational capabilities to continue user-centred innovation on a day-to-day basis. In the studied cases, the service designers trained the clients to learn the user-centric mind-set and approach through a range of design sessions. Service Design scholars discussed how service designers can transform organizations in a human-centred way through collaborative design practices and tools (Junginger & Sangiorgi, 2009; Pinheiro et al., 2012). For example, Wechsler (2012) stated co-design can provide organizations with knowledge and tools to enable themselves to develop their own Service Design capabilities required for service delivery and maintenance. The service designers' competence of organization's capability building can be interpreted as a contribution to NSD, considering the new marketing concept argued in the Service Logic (Grönroos, 2006). The Service Logic requires the shift of the marketing concept from persuading people to buy an offering to facilitating and managing interactions with customers (Grönroos & Gummerus, 2014). The success of service marketing thus relies on the knowledge, skills and motivation of people who are involved in interactions with customers

rather than a specialist marketing function (Grönroos, 2006). In this regard, staff need to be offered a proper knowledge base to perform their tasks in a value-creating way for the customers (Grönroos & Gummerus, 2014). As seen in the studied cases, the design documentation and human-centred user research and methods served as a training tool for staff to be oriented toward the customer experience. From the viewpoint of the Service Logic, service mindedness and customer-oriented performances have to permeate all business functions and extend to every actor, system, and resources that have a direct or indirect impact on the customers' perception (Grönroos, 2007). In this sense, Service Design practices to help service providers to nurture a customer-centric attitude and approach across organizations can bring meaningful changes into the NSD process. Therefore, this proposition is developed:

> **Proposition 5:** Service Design can advance the NSD process by fostering the provider's attitudes and communications towards service mindedness and customer-oriented performances.

8.4 Summary and discussion

In this chapter, the Service Design intervention areas and key activities were converted into Service Design contributions to NSD processes through positioning them in the NSD process model and associated knowledge. Furthermore, the contributions were interpreted through Service Logic principles. The interpretation of the Service Design practice through the Service Logic principles generated five research propositions. The propositions formed initial insights for the improvement of the current NSD process towards better reflecting the Service Logic, which is oriented towards better supporting the users' value creation process and increasing opportunities for the provider's value co-creation with users. To summarize the five propositions, the first proposition was concerned with bringing users' unique and personal contexts and experience into the organization's NSD practices and process. The second one was related to the need of proactively engaging users in the process of resource production. The third one suggested that the organization can optimize the user's service experience through iterative simulations of the configuration of resources and processes. The fourth proposition was concerned with the need of facilitating human-resource production in a way that the actors better support the users' value creation process. The fifth proposition suggested the potential of embedding the user-centric perspective and approaches into the staff and organization.

While the traditional NSD processes were framed to effectively produce services from the firm's perspective, new NSD processes may be reshaped in a way that users' value-in-use information always informs actors' perspective and activities, while being embedded in every phase and activity. This assumption is in keeping with the argument of Klaus & Edvardsson

(2013, p. 11) saying "when analysing value co-creation from a SDL (the Service Dominant Logic) perspective, the unit of analysis shifts from development and offering output (goods and services in the production view) to formulation of value propositions and design of aligned service systems." In this chapter, the author discussed the role of Service Design as a potential enabler to infuse the contemporary business logic into the NSD practice and process. That is, Service Design thinking could be integrated with NSD processes in a way to facilitate the shift of NSD from provider-oriented activities geared towards producing value-laden offerings to customer-oriented performances aiming at supporting the customers' value creation process. The finding of this chapter therefore can offer a chance to re-position Service Design in NSD as a higher order perspective or approach to permeate the NSD process beyond the narrow design function for 'rendering' activities.

9. Discussing and evaluating research findings

In the previous chapters, the main findings of the case studies (Chapter 6 and 7) were presented, and then interpreted in the context of NSD process. Chapter 9 aims to discuss and validate these findings on the basis of both theoretical and empirical foundations. Two approaches have been adopted for this chapter: comparing research findings to literature (Eisenhardt, 1989); and expert audit reviews (Patton, 2002). The comparison of the empirical findings with the extant literature is considered as a crucial feature of theory building as it can improve "internal validity, generalizability, and theoretical level of theory building from case study research" (Eisenhardt, 1989, p. 545). On the other hand, expert audit reviews can be used "to assess the quality of analysis or where the stakes for external credibility are especially high" (Zhang & Wildemuth, 2009, p. 562). The two approaches will address the following questions:

1. How are the findings similar to the extant literature, or how do they contradict it?
2. To what extent do the findings reflect the reality of Service Design practice?

For the first question, the two main findings: Service Design intervention areas, and different qualities and impacts of Service Design practices depending on the type of designer-client relationship are discussed in the context of Service Design process models and service operations management models respectively. The former comparison is mainly for demonstrating the value of the Service Design intervention areas based on their difference from and contribution to the existing Service Design process models. The latter comparison focuses on employing service operations management models as a lens through which to understand different typologies of Service Design contributions to organizations. For the second question, Service Design professionals were asked to review the research findings and to assess if and how much the findings were representative of Service Design practice. This experts' review helped to enhance empirical validity and the applicability of the findings to other cases.

The remainder of this chapter is structured as follows. In section 9.1, the two key research findings are compared to the existing theory, divided into two sub-sections. Next, an expert audit review on the research findings is described in section 9.2. This chapter concludes with a summary of the discussion and evaluation in section 9.3.

9.1 Comparing research findings to literature

9.1.1 Service Design processes and Service Design intervention areas

Service Design publications provide some descriptions of design processes that characterises service designers' activities and outputs alongside the service development process. As one of the frequently used Service Design processes, the Double-Diamond model created by the UK Design Council defines four main design stages for service development: Discover, Define, Develop and Deliver (Technology Strategy Board & Design Council, 2015). Other models seem to be adapted from the Double-Diamond model. For example, according to Stigliani & Fayard (2010), service designers undertake their project along with a 'Research' phase using ethnographic methods, a 'Definition' phase for generating ideas based on the insights from the research phase, a 'Development' phase for generating, testing and refining solutions, and finally a 'Delivery' phase for finalizing and launching the service. Stickdorn & Schneider (2010) adapted the model into a new framework consisting of four phases: Exploration; Creation; Reflection; and Implementation. Meroni & Sangiorgi (2011) simply identify four main activities that qualify a Service Design process: Analysing; Generating; Developing; and Prototyping. More recently, Curedale (2013) defined the Service Design process as Defining a vision; Knowing people and their context; Framing insights; Exploring ideas; Prototyping and iterating; and Implementing the outcomes.

Despite the variation in terms of the label or the number of stages, most of those models share commonalities. That is, while these Service Design process models provide insights on design activities, deliverables, and methods regarding service development from ideas generation to service delivery, considerations on how these design practices actually affect the organization's service development practices are not necessarily incorporated into the models. The existing Service Design processes and activities tend to be discussed within the boundary of the designers, and seem to be disconnected from the organizational process and practices. For example, Table 9.1 documents how the Double-Diamond model describes main design activities and methods in each of the stages (key activities are underlined by the author). Most of the descriptions are about what designers do and generate without further considerations on how the design activities and methods interact with and benefit the organization's practices. Therefore, the model seems to be separated from organizational NSD processes. Most of the models introduced above actually have the same limitation in this sense.

Table 9.1 Service Design activities in the four phases of the Double Diamond design process. Adapted from Technology Strategy Board & Design Council (2015, p. 7).

Discover	Define	Develop	Deliver
The start of a project is a period of discovery, gathering inspiration and insights, identifying user needs and developing initial ideas. Designers gather insights, developing an opinion about what they see, deciding what is new and interesting, and what will inspire new ideas. Specific methods include: market research, user research, managing and planning and design research groups.	The second quarter represents the definition phase, in which designers try to make sense of all the possibilities identified in the Discover phase. Which matters most? Which should we act on first? The goal here is to develop a clear creative brief that frames the fundamental design challenge to the organisation. Key methods during the Define phase are: project development, project management and project sign-off.	The third quarter marks a period of development where solutions are created, prototyped, tested and iterated. This process of trial and error helps designers to improve and refine their ideas. Key activities and objectives during the Develop phase are: brainstorming, prototyping, multi-disciplinary working, visual management, development methods and testing.	The final quarter of the double diamond model is the Deliver phase, where the resulting product or service is finalised and launched. The key activities and objectives during this stage are: final testing, approval and launch, targets, evaluation and feedback loops.

The lack of considerations on the organization's practice in the existing Service Design process models is more obvious in the implementation stages in NSD process. The current Service Design process models provide a challenge in understanding design practices for the implementation and delivery of the service. Some models are ending with Prototyping (Meroni & Sangiorgi, 2011), not providing descriptions of design practices for service delivery. Others have a dedicated stage to prescribe design practices for the implementation or delivery of the service, but the descriptions are very abstract and obscure, missing a clear explanation of whether the delivery means handing over the design work to the client, or rolling out the service to the market. Even in the models articulating that the Delivery phase means a delivery of a service, the role or contribution of design work for the delivery of a service is not described in a clear manner to distinguish it from the client's role and practices. As just one example, in the Table 9.1, the description of "the resulting product or service is finalised and launched" does not provide any critical insight of what designers do for service implementation and delivery, and another description of "The key activities and objectives during this stage are: final testing, approval and launch, targets, evaluation and feedback loops" is vague to understand what is the designer's role and what is the client's role. Therefore, when mapped against the NSD process model, the Service Design process model seems to represent a gap between the 'Develop' and 'Launch' phases of the NSD model. (Figure 9.1) Against this limitation of the models, the model of Stickdorn & Schneider (2010) seems to advance to a certain extent by containing developed descriptions of the need of change management for the delivery of the service, and how designers can contribute to the management of change with the collaboration with their client and employees. However, the description still seems normative, lacking empirical evidence.

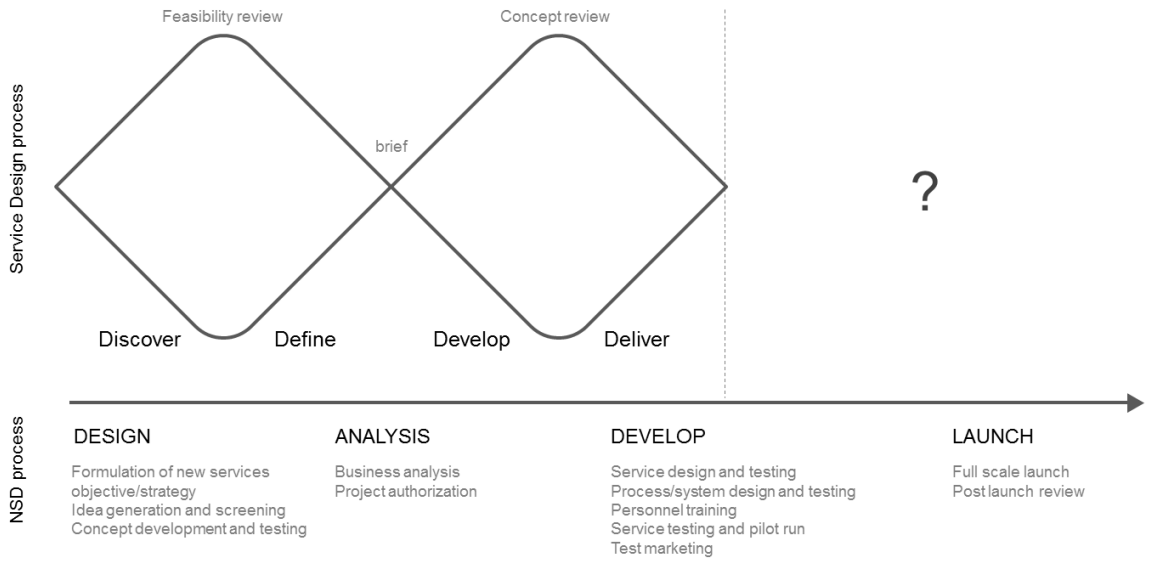


Figure 9.1 The Double Diamond design process and the NSD process of Johnson et al. (2000)

These limitations of the Service Design process models can be overcome by empirical research to understand service designers' approaches and activities in conjunction with the client's process and practices for service development. Unlike the manufacturing process, the "service innovation process is less tangible and more interwoven with the capabilities embedded in the processes and routines throughout an organization" (Den Hertog et al., 2010, p. 491). Therefore, the design practice and deliverables in service innovation projects should be integrated with the client's practices. There have been continuing needs to engage service designers' competences and skills with an organization's practice. Service designers have been critiqued for their limited skills in matching their creative ideas with service implementation; their ideas are said to stay "on the drawing board" due to the "lack of attention to economics–ensuring that ideas are cost effective–and lack of attention to organizational issues and cultures" (Mulgan, 2014, p. 4). Similarly, the AHRC funded networking project into 'Service Design Research in the UK' has suggested the need to clarify the core of Service Design and to conduct research into how Service Design projects can be better implemented and embedded in the organization. The existing design-activity-oriented models could be complemented by the outcome-oriented perspective on the design practices, providing a better description of Service Design for the organization's NSD process.

In this regard, the Service Design intervention areas developed from the case studies can fill the gap of the general Service Design processes as they are describing the conceptual domains that the design practices are geared toward. Thus, the design practices were organized in the light of their actual outcome or contribution to clients' internal development practices. Therefore, the outcome-oriented Service Design intervention areas can be valued as an initial effort to

understand Service Design practice in conjunction with organizational NSD processes, overcoming the limitation of the stand-alone design process (Figure 9.2). However, the Service Design intervention areas should be understood as conceptual domains to offer an overview of potential Service Design contributions to NSD processes rather than sequential stages or phases to comprise a process model as described in the end of Chapter 6.

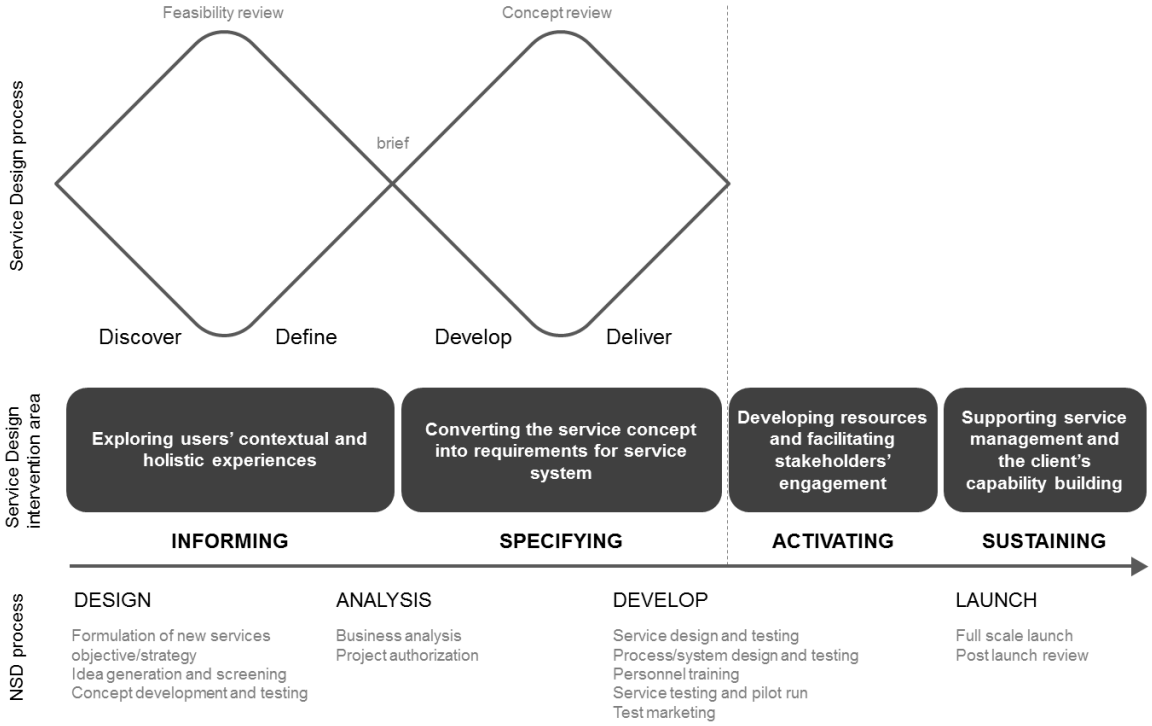


Figure 9.2 Service Design intervention areas as a bridge to connect the Service Design process and the NSD process

Another value of the Service Design intervention areas is that it can reflect on the strength and weakness of Service Design contributions to the NSD lifecycle. The findings of the case studies indicated that although the four Service Design intervention areas appeared to cover the full phases of the NSD process at a high level of abstraction, the service designers' activities did not necessarily support all the NSD activities. Specifically, while the design practices in the INFORMING area supported most of the client's activities in the 'Design' and 'Analysis' stages of the NSD process (e.g., formulation of new services strategy, idea and concept development, and project authorization), the design practices in the SPECIFYING, ACTIVATING, and SUSTAINING areas seemed to be relatively limited in terms of their variety and frequency in the studied cases. For example, although service designers to a certain degree intervened in the 'Development' phase of the NSD model mainly by influencing actors and developing physical and online resources, only few clients reported the designers' explicit contribution to the actual process of resources deployment. Thus, Service Design contributions to developing and

launching services still seemed to be weaker than to planning and designing services. This imbalance in Service Design competences and contributions has been confirmed and further discussed in the expert audit review in section 9.2 of this chapter.

9.1.2 Service Design contributions to organizations from the service operations perspective

In Chapter 8, the four Service Design intervention areas and corresponding Service Design activities were positioned alongside the NSD process cycle of Johnson et al. (2000) to contextualize the service designers' practices in the organization's NSD process and practice. The four Service Design intervention areas were fully mapped against the stages of the NSD process, indicating that Service Design practice can engage with the full NSD lifecycle. However, to what extent the designers' outside-in perspective and practices have been absorbed by the organization, causing the transformation of the staff and the organization's routines diverged into three types in accordance with the designer-client relationships as identified in Chapter 7. To summarize, while the Service Design practice in the 'Delivering' mode supported the client's NSD practices and process, not necessarily bringing about any change to the clients and organizations, the service designers in the 'Assisting' and 'Facilitating' mode contributed to transforming the clients and organizations. This section reflects on the different extent of transformation of organizations by Service Design from the service operations perspective. The reason why the service operations perspective was adopted is that service operations models provide an analytic framework to enable an understanding of an organization's elements to make up the service delivery system, and the mechanism indicating how the service delivery system would be acting continuously after the NSD process. Since the main purpose of this section is to reflect on how Service Design practice can transform the staff and the organization in a way that they may successfully and sustainably operate and manage the service beyond the NSD process, the theory of service operations seemed to be relevant.

Service operations require the conversion of the formulated service concept and specifications into the acting service system involving human actors, physical resources, technologies, processes, and routines. Service operations management models specify an organization's components required for the construction and management of the service delivery system, and describe the mechanism of how service operations are processed into service experiences for customers. Johnston & Clark (2008) defined service operations as a configuration of resources and processes. According to them, service is operated through a sequence of activities involving organization's resources: materials, equipment, staff, technology and facilities in order to deliver service experiences to customers. Meanwhile, Blackmon (2008) described a mechanism of service operations as a collaboration between resources (human and non-human) and capabilities (routines and processes). According to her, a strategic intent, which can be a service

concept is processed and actualized through the integration of the resources with the capabilities into service outcomes for customers (Figure 9.3). The insights from those studies are that physical resources/technologies, human actors, processes, and routines are important elements to enable service operations, and the resources should be integrated with the organizational capabilities for successful service operations. The organizational capabilities are manifested in the human actors' processes and routines to operate and manage the service.

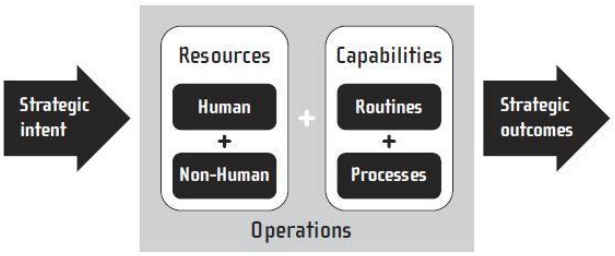


Figure 9.3 The relationships between resources and capabilities (Blackmon, 2008, p. 27).

Based on the insights from the models, the different qualities and impacts of Service Design practice in the three types of designer-client relationship can be discussed in terms of how it can contribute to the organization's service operations. Specifically, how the three ways of practicing Service Design affected the organizational elements defined in the service operations management models (physical resources/technologies, processes, human actors, processes, and routines) is considered. First, in the ***Delivering*** relationship, the service designers mainly contributed their expertise to defining service processes and producing physical resources, but they did not affect human actors. While designing and developing design deliverables based on the user-centred perspective, they informed the client's NSD practices and process, providing background data that the client can refer to in their internal practices. However, as the service designers did not have many chances to engage with the client and stakeholders, it was not guaranteed that the design practices could change their actual service operations practices and their daily routines of working in the organization. Second, in the ***Assisting*** relationship, Service Design contributed not only to creating physical resources and developing service processes but also to affecting human actors. The service designers' practices were focused on getting the client and stakeholders on board and working with them in partnership, and they organized collaborative workshops in which design materials were used as communication tools. As the designers' activities and outputs were co-developed with the clients, they were incorporated into the clients' development practices, affecting the client' service operations practices. Third, in the ***Facilitating*** relationship, Service Design affected human actors and their routines beyond formulating service processes and physical/online resources. As part of the consideration of the service designers was how to smoothly implant the user-centred perspectives into the client and

the organization, design activities and outputs were used as part of training and learning sessions. The collaborative design process between designers and clients served as a long period of transition for the shift of the ownership and responsibility from the design side to the client side. Figure 9.4 visualizes the different extent of Service Design contributions to the organization's service operations.

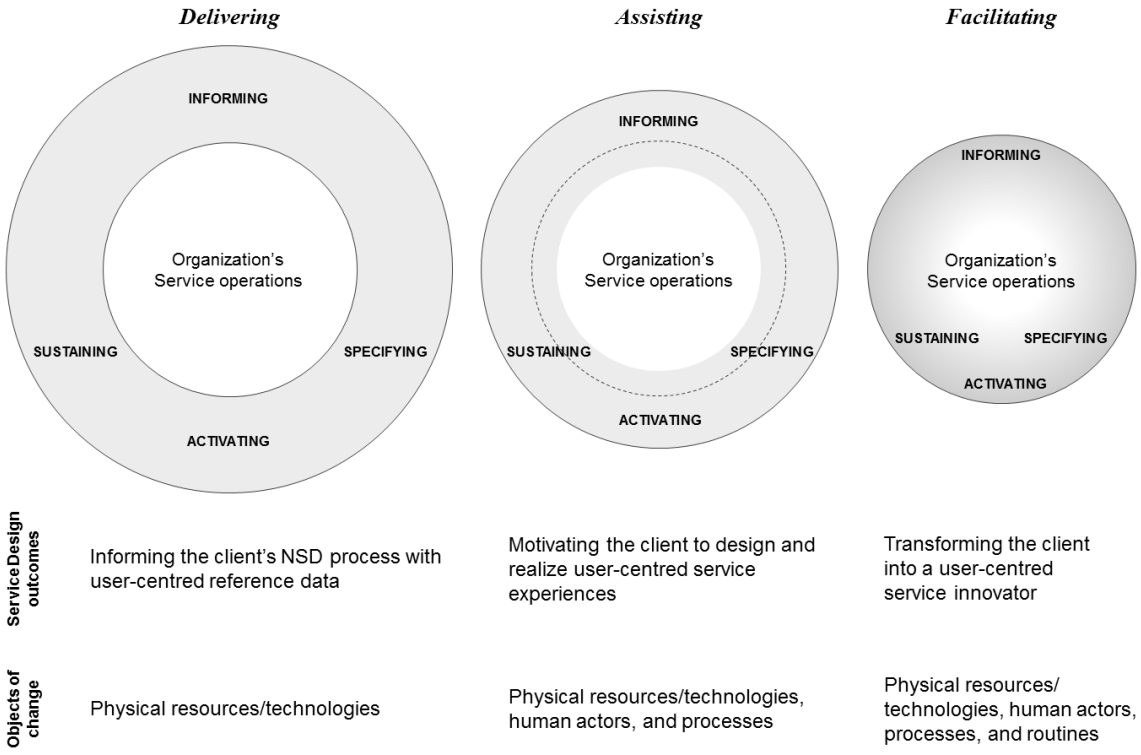


Figure 9.4 Three typologies of Service Design contributions to service operations

As the designer-client relationship shifted from the 'Delivering' mode through the 'Assisting' mode to the 'Facilitating' mode, the Service Design perspective and approach seemed to better permeate the organization at a deeper level, affecting both the organization's resources and its capabilities as specified by Blackmon (2008). These differences in Service Design contributions to the organization seem partly in accordance with the three degrees of organizational change by Service Design defined by Junginger & Sangiorgi (2009). The authors framed the three levels of Service Design inquiries, namely "service interaction design", "service design intervention" and "organisational transformation", and argued how the different Service Design approaches can result in different degrees of organizational change for: "artefacts and behaviours"; "norms and values"; and "fundamental assumptions." According to them, while service designers only focus on designing service interactions, their contribution to the organization may be limited to affecting artefacts or service behaviours. In contrast, if they engage in organizational systems by

involving the client, their contribution can extend into affecting the organization's fundamental assumptions. Similarly, Akama (2014) stresses when service design practices only focus on defining service concepts or values, and improving service interactions or touch points, they may not bring a transformational impact to the organization. The existing literature has paid attention to the service designers' conscious efforts to change the organization, and tended to imply that the object of design interventions needs to shift from service interfaces or interactions to organizational structures or systems. However, the findings of this research have specifically considered the implications of a closer working relationship between designers and clients as a factor to maximize the potential of Service Design, not necessarily relating with the object of Service Design interventions. In other words, even though designers are only able to be involved in the narrow intervention area such as the INFORMING area (i.e., exploring users' experiences and contexts to generate service concepts), their practices can have a transformative impact on human actors and the organization's routines beyond handing over the user insights and associated design deliverables when they have an 'Assisting' or 'Facilitating' relationship with their client. Thus, the findings of this research put more emphasis on the need of designers' close engagement with the client and organization rather than the object of design intervention. The important role of designer-client relationship on the quality and impact of Service Design practice has also been confirmed by the expert audit review, and a driver or barrier for the close designer-client relationships has been further discussed in the review.

9.2 Expert audit review

9.2.1 Design

While the case studies contributed to understanding various Service Design practices, they might have some limitations in generalizing the results due to the limited sample size. Also, as the confidential issue restricted the case selection, the studies projects could not reflect sufficiently up-to-date practices of service designers. The expert audit review was planned and designed to overcome these limitations and to check how much the research findings reflect the current Service Design practice in the field. Originally 10 professionals who have been working at Service Design consultancies or agencies in the UK were contacted via email, being asked whether they could give the author their opinions or comments on the research findings via email or Skype. As all the 10 professionals agreed to become a reviewer of the case research report, the summary of the research findings was sent to all of them. Among them, 7 professionals provided their comments via email, while three persons could not send their responses due to their busy schedule. The responses of the 7 professionals via email were considered as their informed consent. The length of work experiences of the 7 reviewers in the Service Design field was reported to be between 4 and 8 years. This review relied on the experts'

personal experiences of service innovation projects rather than on an official perspective of a company. Therefore, the opinions of some reviewers from the same affiliation were considered as valid as they had different prior accumulated project experiences, and work on different projects even in the same consultancy. The profiles of the selected experts are listed in Table 9.2.

Table 9.2 Profile of experts (*at the time of review)

Expert	Job title*
Expert 1	Managing director
Expert 2	Design researcher
Expert 3	Design director
Expert 4	Service designer
Expert 5	Service Design consultant
Expert 6	Senior service designer
Expert 7	Design & communication director

The findings of the case studies were summarized in a 7 page report (Appendix E) that consists of two parts: the first part was about the four Service Design intervention areas and common characteristics, and the second part was about the influence of designer-client relationships on the quality and impact of Service Design practices. Each of the two parts ended with three questions respectively. The questions were designed in a way to assess the validity of the findings, and to further discuss the author's insight arising from the comparison of the findings with the literature in section 9.1. The questions about the Service Design interventions and characteristics are as follows:

- To what extent would you agree on the four Service Design intervention areas and characteristics?
- I found that while the service designers were involved in the four intervention areas, their contributions to SPECIFYING, MOBILIZING[26], and SUSTAINING seemed relatively limited compared to INFORMING. That is, their contributions to developing and implementing services still seemed weaker than to user research and concept design. What do you think about this? If you agree with my insight, why do you think this happens?
- Is there any critical element or point missing in this report?

[26] The 'ACTIVATING' intervention area had been originally named as 'MOBILIZING' until the time of the expert audit review. One of the experts was not convinced about the suitability of the label, 'MOBILIZING' in that while it seemed to be relevant for mobilizing human actors, it seem not to apply to developing non-human resources. Based on the expert's opinion, the author re-considered the relevance of the label, and changed the label from 'MOBILIZING' into 'ACTIVATING.'

The questions about the influences of designer-client relationship on the quality and impact of Service Design practices are as follows:

- To what extent would you agree on the model representing the influence of designer-client relationship on the quality and impact of Service Design practices?
- It was revealed that the impact of design work and deliverables was minimal in the 'Delivering' mode, whereas the design practice had a transformative effect on the clients and organizations in the 'Assisting' or 'Facilitating' mode of relationships. This may imply the benefit of a closer working relationship between designers and clients. Then, what do you think is needed to achieve this closer designer-client relationship? Or what might be the barriers to achieving it?
- Do you find any critical insight missing on this report?

The report was sent to the experts via e-mail, and the reviewers sent back to the author via e-mail the report with their responses to each of the questions (the key excerpt from the responses is shown in Appendix F). The following sections describe the synthesized findings from the analysis of their comments.

9.2.2 Results

Service Design intervention areas and common characteristics

Most of the experts generally agreed with the four Service Design intervention areas and characteristics, while some reviewers suggested their complementary perspective on the finding. For example, three reviewers pointed out that the 'DESIGNING' or 'DEVELOPING' area may need to be added to the current four intervention areas. According to one of the reviewers, the DESIGNING area is concerned with exploring a series of concept and design directions, and creating a customer-centred vision. Another reviewer defined the DEVELOPING area as the stages where new approaches, solutions, and ideas are created from an understanding of what users need. As another example for the complementary opinion, some reviewers suggested some further ideas to enrich the INFORMING area. One reviewer said that the INFORMING category could extend into including other methods for design research beyond user insights, for example, service safaris, expert interviews, and horizon scanning (i.e., looking at inspiring examples of services and organisations from around the world). Another reviewer emphasized the need for more empathic design research in the INFORMING area rather than just a pure ethnographic research.

In terms of the common characteristics, most of the reviewers agreed with the findings. Only one reviewer supplemented the four common Service Design characteristics with his opinion

about conceptualizations of ‘visualization’ in order to stress that visualization as a key skill and competence required in the Service Design field is more than artwork or illustration. Instead, it is a powerful instrument that can be used by design-trained Service Design professionals. What is especially valued for the Service Design approach is creative problem solving that is manifested in a coherent set of beautifully crafted interactions, touch points, process improvements, etc. Therefore, visualization should be the outcome of a strategic and creative view of the future with a deep understanding of the possibilities and limitations of the constraints.

The author’s initial insight on the weakness of design practices for the SPECIFYING, ACTIVATING, and SUSTAINING areas compared to the INFORMING area has been confirmed by most of the experts. While they mostly agreed with the limited involvement in the later three intervention areas, their opinions on the reasons behind that diverged into several ways. Some reviewers ascribed it to the current lack of skill sets or methods for the later intervention areas. According to them, the skill set required for the INFORMING area has a more natural fit with traditional competences and skills of current service designers. Another reviewer also related the reason to the service designer’s skills, but provided a different idea by saying that the studied cases seemed to happen at the embryonic stage of Service Design when design agencies did not possess enough skills required for the later intervention areas. But, Service Design agencies are recently more involved in the ACTIVATING and SUSTAINING area according to the expert’s experiences. Another reviewer provided a different idea by remarking that some young companies that specialize themselves in the INFORMING area may make the scope of Service Design narrow by promoting themselves as a ‘Service Design company.’ He considered this as a challenge to the Service Design field in general as those companies can weaken the potential of Service Design in the market. But, he expected the increasing fragmentation of the market will require more specified types of Service Design companies with different specialties and competences, and according to his perspective, the studied cases seem to occupy different spaces within the fragmented market. As another reason, considering the fact that small Service Design consultancies that work on large complex projects normally cannot proceed into the later intervention areas, developing specifications with more fidelity may be more feasible to support the client’s service implementation.

Some of the reviewers suggested several ways that Service Design companies could be better involved in the later intervention areas. One reviewer offered the opinion that two further areas of expertise might be required for the later categories of intervention areas: analytical skills to support quantitative data analysis, probably in the SPECIFYING phase; and change management skills, particularly in preparing for ACTIVATING or SUSTAINING categories. According to him, these skills and experiences are not normally found within design agencies,

but are increasingly important to the success of larger scale projects and business transformation projects. Another reviewer said that Service Design, unlike product design, requires shifts of the role of the designer from driving the initiatives to supporting members within the organisation. Therefore, service designers should be better equipped to understand how the organisation works and the processes and culture needed for Service Design to get traction. But, acknowledging that those competences may go beyond the design consultancy domain, he emphasized that developing design-led approaches for them would be key.

One of the important points found in the experts' review was that the reviewers tended to reflect on the author's intervention areas by mapping against their own Service Design process framework although the intervention areas were not originally intended to be a process model as discussed earlier in section 9.1.1 in this chapter. Therefore, some reviewers expressed their concern about the linearity of the intervention areas, assuming each of the areas as a stage of a process. This misunderstanding may be partly because the case research summary did not contain much information on the background of the Service Design intervention areas with a focus on the difference between the intervention areas and process models due to the limited space. Therefore, for better communications of the Service Design intervention areas, the need of much clearer conceptualizations of the Service Design intervention areas was highlighted especially in comparison to the generic Service Design process models.

Influences of designer-client relationships on qualities and impacts on Service Design practice

Almost all the reviewers agreed to a large extent with the three modes of designer-client relationships although some of them preferred to apply a more flexible perspective on them. For example, some reviewers remarked that the three relationships may not be always mutually exclusive or clear cut, and the designer-client relationship is evolving as Service Design is becoming more widespread. One reviewer said she had experienced the relationship with her client that began with the 'Delivering' mode, and evolved into the 'Facilitating' mode in some service innovation projects. Also, another reviewer said that some clients in the 'Assisting' mode may still expect documentation as a deliverable.

Most of the reviewers seemed to favour the 'Assisting' and 'Facilitating' mode of relationships as their way of working while saying that service implementation requires widespread stakeholder engagement. As there is inherently a resistance to change in complex organizations, particularly in the public sector, co-creation or co-design with clients is required for more successful service implementation. However, they also acknowledged each of the designer-client relationships has its own characteristics, and requires different skill sets. One reviewer specified the different skill sets that are highlighted in each of the relationships:

research/observation/empathy/creativity and ideas generation in the ‘Delivering’ mode; and coaching/mentoring/facilitating/change management, etc. in the ‘Assisting’ and ‘Facilitating’ modes. Furthermore, some of the reviewers said the ‘Delivering’ mode might have benefits depending on the context. For example, one reviewer said the ‘Delivering’ mode may work in the project-based working environment while the ‘Assisting’ mode may better work in larger programmes of work based over a longer term as the design process is so multi-faceted and far reaching. Some reviewers remarked on the benefits of working in the ‘Delivering’ mode of relationship. For example, it may give designers more space and time to be creative instead of spending a lot of time managing relationships with their client and stakeholders. Also, it could inject a better design approach into the problem.

Meanwhile, when asked about what may facilitate or hinder the collaborative or facilitative relationships, the reviewers’ opinions converged on mainly two factors: first, the client’s readiness and openness were pointed out. As many clients first become acquainted with Service Design in a more ‘Delivering’ type of relationship, their perception of Service Design needs to be changed. One reviewer said that service designers could facilitate this change process by helping the clients experience the value of Service Design firstly through working with them in the ‘Delivering’ mode, and then they could move into the ‘Facilitating’ mode once the clients are ready to invest more time and resources in the new way of working with service designers. According to another reviewer, when clients micro-manage projects, it is very difficult to get into a shared creative space. In this process, service designers’ efforts must be made to receive trust from their client. Some other reviewers emphasized the need of key persons on the client side who can exercise influence across the organization such as senior stakeholders or decision makers. As service designers can access the stakeholders at a higher level, it is much easier for them to set up the conditions needed for the ‘Assisting’ or ‘Facilitating’ mode of relationship. Especially, the relationships can be easily obtained when the lead or project manager on the client side feels the need to try new things and to work differently. Service designers can work with them to help create the recognition. In addition, as another factor, the level of the client’s maturity in commissioning design, and the state of the organisation of a whole were mentioned. If there are many internal changes happening within the client’s organization, this might obstruct the establishment of a deeper relationship with the Service Design team. While the procurement department of the client organisation may also be a barrier, the make-up of the internal teams of the client organisations may be a barrier when they do not have the right background or enough free capacity to do a design project.

Second, the attitudes of designers were also mentioned although the frequency of this factor was relatively lower than the frequency of the client’s readiness and openness. One reviewer stated that service designers need to build competences or capabilities for becoming a facilitator to

enable a wider set of people to become designers in the ‘Assisting’ or ‘Facilitating’ relationships. Another reviewer similarly pointed out the required competences of service designers saying that Service Design agencies need to be better equipped to understand the value they bring to the client organization and be able to discuss and demonstrate its impact. It requires a greater understanding of how to translate a design concept into the organization, and new ways of working that move the agency further away from the studio and into the client organization. Furthermore, it requires a more sophisticated maturing of the practice in that we can clearly understand what makes a quality service and how can that be built into the design with an understanding of the constraints and available resources.

9.3 Summary

In this chapter, the two main findings of the case studies: Service Design intervention areas, and different qualities and impacts of Service Design practice according to designer-client relationships have been discussed in comparison to existing literature regarding Service Design process models and service operations management models respectively. Through the comparison to the existing Service Design process models, it was found that while extant Service Design process models provide generic insights on design activities, deliverables, and methods regarding service development from ideas generation to service delivery, they lack empirical considerations on how these design practices actually affect the organization’s NSD practices. As the Service Design processes are design-activity-oriented, they seem to disengage from the organization’s processes. This can become a challenge to demonstrating Service Design contributions to NSD processes. The Service Design intervention areas were valued as an initial attempt to complement the limitation as the design practices were organized in the light of their actual outcome or contribution to clients’ internal development practices.

At the same time, while comparing Service Design practices and their impacts in the three types of designer-client relationship to existing literature, service operations management models served as a lens through which to analyse Service Design contributions to the organization’s service operations. The ‘Delivering’, ‘Assisting’, and ‘Facilitating’ mode of designer-client relationship influenced the extent of transformation of organizations in terms of physical resources/technologies, human actors, processes, and routines. Whereas the existing literature on the organization’s change by Service Design has focused on the object of design interventions as a key change agent, this research highlighted the need for service designers’ close engagement with the client and organization more rather than the object of design intervention.

Meanwhile, the research findings have been reviewed by Service Design expert practitioners. The experts assessed the validity of each of the findings, and provided further opinions on the author's insights regarding the findings. As a result, the four Service Design intervention areas and common characteristics were validated. Furthermore, the weakness of design practices for the SPECIFYING, ACTIVATING, and SUSTAINING areas compared to the INFORMING area has been confirmed by most of the reviewers. Although most of the reviewers agreed that the involvement of service designers in all the intervention areas is ideal and desirable, they recognized different specialties and skill sets possessed by different design agencies. One limitation of the Service Design intervention areas found in the expert review was that some of the experts tended to relate the intervention areas to linear stages of Service Design process models. Therefore, the need to better conceptualize the Service Design intervention areas and to clearly distinguish them from the Service Design process models was highlighted. Also, the influence of designer-client relationships on qualities and impacts of Service Design practice was validated. While some of the experts acknowledged the characteristics and benefits of each of the three types of designer-client relationship, most of them agreed that as Service Design as a design field for service innovation matures, design consultancies and agencies are increasingly moving from a traditional design studio towards becoming a facilitator that deeply engages in the client's practices and organization.

10. Conclusion

This thesis aimed to understand how Service Design practice is involved in service development, and how it can contribute to NSD theory. A theoretical foundation of Service Design and NSD was built through the comparative literature review with emphasis on the similarities and differences between both concepts. Expert interviews were then carried out to establish the relationships between Service Design and NSD. As a result, it was suggested that Service Design practice could help NSD be better aligned to the service-based perspective (e.g., Service Dominant Logic or Service Logic). As a main research, exploratory case studies on 10 contemporary Service Design projects were conducted. Through the case studies, Service Design practitioners' intervention areas and common characteristics underlying Service Design activities were identified. Also, how the designer-client relationship can affect the quality and impact of Service Design practice was explained. The comparison of the Service Design practices with the NSD theories resulted in five differences. Informed by the result of the expert interviews, the five differences were interpreted through the Service Logic theory and translated into five propositions to articulate how Service Design practice can contribute to implementing the core principles of the Service Logic into NSD processes.

The final chapter to conclude this PhD thesis reflects on the results of this research by summarizing how they answered the research questions in section 10.1. Also, it discusses the contributions and implications of this research for the main fields related to this PhD thesis in section 10.2 and section 10.3 respectively. Then, this chapter addresses the limitations of this research in section 10.4, and suggests the directions of future research in section 10.5.

10.1 Research questions and answers

This PhD research was conducted to answer two main research questions. In this section, where and how the research questions were answered is briefly summarized as follows:

1. How are Service Design practitioners involved in service development?
   The Service Design practitioners in the case studies were involved in four intervention areas that have been named as INFORMING, SPECIFYING, ACTIVATING, and SUSTAINING. The INFORMING area is concerned with exploring users' contextual and holistic experiences, aiming at creating service concepts. The SPECIFYING area is about converting the service concept into specifications by defining concrete elements to inform the design of service structures and functions. The ACTIVATING area is related to developing resources to constitute service systems, and facilitating

stakeholders' engagement for service development and implementation. Finally, the SUSTAINING area is concerned with supporting service management and the client's capability building, aiming at sustainable user-centred service innovation. While the intervention areas provide an understanding of where service designers can contribute to during the service development process, the common characteristics identified from the service designers' activities illustrate the specific attributes that qualify Service Design practices. In the case studies, the service designers applied four different characteristics to engage in the overall stages of the service development process. First, 'user experience centeredness' appeared in the service designers' practices alongside the whole service development process from the design stage to the implementation stage. It appeared to function as a guardian to keep the user's perspective and experience at the centre all the way through the service development process. Second, while the service designers were highly user-centred, they were also staff-centred. They aimed to understand their clients and the contexts of the organization throughout their involvement in the service development process. Third, the service designers used visual and tangible design materials throughout their involvement in the projects. The design materials were used to communicate service concepts and to facilitate the client's internal communications and briefing processes. Lastly, the service designers adopted a holistic perspective on what they were exploring and designing. This holistic perspective appeared at mainly three different levels: across multiple channels and different touch points; across different teams within the organization; and across service eco-systems. The Service Design intervention areas and common Service Design characteristics are illustrated in Chapter 6.

As the author aimed to overcome the limitation of the existing Service Design knowledge, which concentrates on describing design activities being separate from the organization's NSD process, the Service Design practices in the case studies were explored in relation to the client's practices. In this process, it was recognized that while the service designers were engaging in the identified intervention areas, designer-client relationships affected the quality and impact of the Service Design practices. Three types of designer-client relationships were identified: Delivering; Assisting; and Facilitating. In the 'Delivering' relationship, the designers as an expert with user-centred design competencies worked in parallel with their client as a recipient of the design outputs. The designers' activities and knowledge were mainly materialized in the form of tangible design documents or materials and delivered to the clients. While the designers' work supported the client's internal service development process with user-centric practices, their work and deliverables seemed to be somewhat limited in the impact on the clients and organizations. In the 'Assisting' relationship the designers as

an expert as well as a mediator between users and their client worked collaboratively with the client. In this relationship, the Service Design practices and outcomes were concerned with getting the clients on board and supporting them as a design partner for developing and implementing the service. As the designers' activities and outputs were co-developed with the client, they seemed to be better incorporated into the client's development practices. In the 'Facilitating' relationship, the designers as a coacher integrated themselves with their client's practices while training them during the development process. The Service Design practices and outcomes were explicitly concerned with embedding the fundamental change into the client's way of working and culture of the organization, leading to sustainable service innovation in the longer term. While the designers worked very closely with the client along the integrated process, the activities and outputs generated by the designers and client were institutionalized into the client's way of working. The Service Design practices thus indirectly resulted in transforming the client and the organization so that they may sustain user-centred service innovations. The designer-client relationships and their influence on the quality and impact of Service Design practices are illustrated in Chapter 7.

2. How can Service Design practice contribute to NSD theory?

From the expert interviews (Chapter 4), it was recognized that Service Design practice has potentials to enhance NSD in a way that it complements the limitation of traditional NSD theory in terms of the focus of developments. Many of NSD studies have been focusing on service products as a 'market offering', neglecting service as a 'perspective' on value (co-) creation that is underpinning the Service Logic and the Service Dominant Logic. The expert interviews implied that the human-centric nature of Service Design can be aligned to the fundamental thinking of the Service Logic and Service Dominant Logic, thereby enhancing NSD towards better reflecting the contemporary perspective on service. This finding of the expert interviews informed Chapter 8 in which the contributions of Service Design practices to the NSD process were interpreted through the Service Logic theory. In that chapter, the Service Design intervention areas and the associated activities were located into the NSD process model of Johnson et al. (2000) to contextualize the service designers' practices in the organization's NSD process and practice. While comparing the Service Design activities to the NSD literature, it was found that the Service Design practices can bring five changes into the NSD process: 1) while the creation of service concepts in NSD literature were mainly led by the general analysis of customers and market, the Service Design practitioners' in-depth understanding of users and their contexts was always a critical driver for idea and concept development; 2) while co-designing with users has been reported as the least preferred practice in NSD practices, the co-design approach with the users by

empowering them as a designer appeared to be a fundamental approach in Service Design practice; 3) while the NSD process seemed to lack sufficient evidence for agility and flexibility in terms of service development, the prototypes in Service Design that began at the early stages were used to explore service concepts and processes aiming at optimal user experience; 4) while in some NSD literature, network collaborations were considered from the supplier's perspective, the identification and mobilization of stakeholders in the Service Design practice were carried out based on the creation and operation of user experience; and 5) while NSD processes did not generally encompass activities for sustainable service innovation, the Service Design practitioners supported organizational staff to successfully implement the service and sustainably manage it. These changes were interpreted through the lens of the Service Logic principles, and translated into the five propositions to articulate the Service Design contributions to the NSD theory. The five propositions were:

1. Service Design can support the NSD process in developing value propositions to better fit users' idiosyncratic contexts in value-in-use over time.
2. Service Design can widen the joint value co-creation sphere in the NSD process by incorporating users in the resource production process while supporting them to better apply their own resources.
3. Service Design can support the NSD process in optimizing the provider's processes and resources so that the customers may better apply and integrate their own resources.
4. Service Design can support the NSD process by facilitating human-resource production in a way that the actors better support users' value creation.
5. Service Design can advance the NSD process by fostering the provider's attitudes and communications towards service mindedness and customer-oriented performances.

While the user-centred nature and approach of Service Design have been well known to service research communities, the actual contributions of Service Design to service development and innovation have not been much communicated and promoted within the service research communities. These five propositions can help to communicate the contributions and competences of Service Design to a wider audience beyond the design communities as they adopted the language and concepts that are commonly used in the service research ones (e.g., NSD and the Service Logic).

10.2 Contributions

This research contributes to demonstrating the potential of Service Design as an encompassing approach to support the overall NSD processes by integrating the fragmented Service Design practices and research. Extant Service Design studies have tended to focus on particular topics, not necessarily making a strong point for the identity and contributions of Service Design in conjunction with NSD practice. For example, researchers who were interested in methods and tools investigated how to apply the user-centred methods and creative tools to parts of the issues regarding service innovation (Blomkvist & Holmlid, 2010; Lee et al., 2014; Segelström et al., 2009; Steen et al., 2011; Tan & Szebeko, 2009). Another Service Design research topic was concerned with the object of design, for example, service interfaces and experiences (Clatworthy, 2011; Lo, 2011; Mager, 2008), service contexts (Maffei & Sangiorgi, 2006; Morelli, 2002), service system (Morelli, 2009), or organizational changes (Pinheiro et al., 2012; Sangiorgi, 2011). Although these studies contributed to Service Design knowledge from different angles like pieces of a puzzle, little literature has provided a bigger picture of Service Design. As an exception, Meroni & Sangiorgi's (2011) framework provides a systematic overview of the status quo of Service Design. But, there have not been many studies that integrate Service Design research with NSD processes especially in the interdisciplinary context. This research identified four main Service Design intervention areas that service designers' activities can contribute to, which were aligned to the overall NSD process from planning to implementation. Also, the Service Design practices were integrated with existing Service Design literature. By doing this, the practical and theoretical Service Design knowledge was aligned together in a way to discuss how Service Design can support service innovation processes. It was found that Service Design can provide its perspective and methods to help service providers incorporate the user's perspective, experiences, and resources into value propositions, resource and process configurations, and service management. As this research thus demonstrated the competences and capabilities of Service Design to support the overall NSD process, it can facilitate the shift of recognition of Service Design from rendering activities only supporting a certain phase of the NSD process, to the user-centred and creative design perspective and approach to inform or affect the whole NSD process.

Also, this thesis has developed non-design centric descriptions of Service Design processes and practices by considering their outcomes towards the client's NSD processes and practices. The contextualization of the four Service Design intervention areas in the NSD stages enabled a better understanding of the Service Design practices for the NSD activities as well as their strengths and weaknesses. In the literature review, it was found that the Service Design approach and activities alongside the service development process were only partly specified on the basis of empirical studies; despite the contribution to the fuzzy front end, the role of Service

Design for the later stage has not been clearly specified (see Chapter 2). The contextual descriptions of the Service Design practices in this thesis suggested that service designers are partly involved in the later stages of NSD processes mainly by mobilizing human resources and facilitating organizations' internal service development and management in a user-centred way. This finding can offer a foundational knowledge to articulate contributions and potentials of the role of Service Design practices for service development and implementation.

While the previous contributions were related to the Service Design field, this research also contributed to the wider service field by suggesting a way to improve the traditional NSD practices and processes using the Service Design approach. As traditional NSD studies have been based on the New Product Development paradigm considering a service as an (intangible) product to be designed and managed like goods from the firm's perspective (Barrett et al., 2015), they tended to neglect user-centred value creation. This PhD research showed how the Service Design activities, methods, and deliverables can guide the transformation of the NSD practices and process in a way to overcome the limitations of the traditional approach to NSD. The Service Design approach supported the service provider to develop the service concept driven by the user's contextual and holistic experiences, to empower users as co-designers, to utilize prototypes as a way to optimize user experiences, to organize and mobilize actors based on the user experience, and to build the organization's capabilities for user-centred service innovation. This means that Service Design can contribute to shifting the focus of NSD practices and process from developing a service (product) to making the conditions to facilitate users' value creation. As this shift is in line with the contemporary paradigm of service, which considers service as a perspective on value creation (Edvardsson et al., 2005), Service Design can be valued as a potential facilitator to enhance the NSD process in a way to accommodate the Service Logic principles. This point was manifested in the five propositions that articulated how the Service Logic principles can be enacted in the NSD process by the Service Design approach (see Chapter 8).

By relating Service Design to the Service Marketing theory, this research also responded to an increasing call for interdisciplinary service research from multiple disciplines for investigating service innovation (Fisk & Grove, 2010; Ostrom et al., 2010). There were some earlier studies to find a connection between Service Design and the Service Dominant Logic or Service Logic (Kimbell, 2009a; Wetter Edman, 2009; Wetter Edman et al., 2014). For example, Wetter Edman et al. (2014) discussed how Service Design can realize the Service Logic by analysing and envisioning service systems from the user's perspective. This PhD thesis is in line with the interdisciplinary service research stream as it understood the Service Design contributions in the context of NSD theory and the Service Logic principles. The user-centric nature of Service Design has been known to other service disciplines as confirmed in the expert interviews (see

Chapter 4). However, the actual contributions of Service Design to NSD or service innovation have not been explicitly articulated and communicated in the wide multidisciplinary service research communities. In this regard, employing the Service Logic as a conceptual instrument through which to demonstrate Service Design competences and contributions to NSD can contribute to enhancing the legitimacy and visibility of Service Design as a discipline in the service research field.

10.3 Practical implications

This PhD research has some implications for Service Design consultancies and practitioners. The Service Design intervention areas and common characteristics can form a basis for developing a convincing Service Design propositions for clients. In the studied cases, despite the appreciation of service designers' work and deliverables, some of the clients seemed to have no clear recognition of the concept of Service Design or the value of it. They generally tended to associate the designers' work with general design techniques (e.g., creative visualizations or design workshops) to resolve parts of issues for service development practices. However, very few clients recognized Service Design as an encompassing approach to be applied to the overall NSD process with distinguishing qualities if compared with other strategies. For example, one client in the case studies, despite his acknowledgement of the designers' contribution to the success of the project, was not completely sure about what the unique Service Design proposition was, and what its distinct benefit for his organization was:

> So to be very honest, Service Design has a certain definition, but the proposition is not very clear, after having this very successful case, still it's difficult for me to pinpoint exactly what is different, as a client it's very important to make the proposition clear.

As the Service Design intervention areas were developed based not only on the designer's practices but also on their outcomes for the client's practices, they can be used as parts of Service Design propositions to convince clients of the needs and benefits of Service Design. Particularly, the ACTIVATING and SUSTAINING areas indicated that the user-centred Service Design approach has potential to contribute to the later stages of NSD processes. The contributions of the Service Design approach in these intervention areas were mainly concerned with aligning service actors, facilitating their collaborations, and training staff in a way to support user experiences. The service designers, as a guardian of the user experience, effectively engaged in configuring and mobilizing human resources during the later stages of the NSD process, enhancing the overall user-centred qualities of the service. For example, in the studied cases, the service designers' coordination of different service providers' positions and interests and mediation of their conflicts were highly valued as effective support by some of the clients. Nevertheless, this aspect of Service Design did not seem to be intended by the designers, but

rather seemed to be considered as unexpected by-effects gained from the user-centred activities. For example, one designer in the case studies explained the unexpected usage of the design deliverables as a material for training the staff in the customer call centre, expressing it as "another interesting thing, it was not designed." Thus, the potentials of Service Design in mobilizing and training the human resources did not seem to be consciously recognized or explicitly communicated as specialized Service Design competences or skills. If service designers can further develop creative activities, approaches, or methods for the later phases of NSD processes with a clearer recognition of the value of them for the client's practices, these Service Design practices may be able to constitute more fully fledged Service Design propositions with already acknowledged Service Design competences for the fuzzy front end of NSD (Clatworthy, 2013). Selecting and training people, encouraging their motivation, clarifying their role, and reducing their stresses have been emphasized as important elements in Service Operations Management (Johnston & Clark, 2008). Nevertheless, service organizations generally lack creative strategies for changing stakeholders and organizations except for conventional strategies regarding strategies from Human Resource Management (e.g., training and reward) (Tatikonda & Zeithaml, 2002). The Service Design practitioners' creative and distinctive perspectives, approaches, and methods may contribute to the development of Service Design as a competitive approach against other professional strategies, e.g., the ones of business consultancies. In this context, the design director at Engine in the expert audit review emphasized the need for a designerly approach saying that "this (designers' expanded competency or capability required for the later phases of NSD) takes us (service designers) more into a consultancy territory which isn't necessarily a good thing, so creating a new form of approach that is design-led is key."

Also, this research highlighted the importance of designer-client relationships for the impact of Service Design practices on the client's organizations. As pointed out in the expert's audit review in Chapter 9, each type of designer-client relationships may have its merit and disadvantage. For example, in the 'Delivering' relationship between designers and clients, service designers may be able to exercise their creativity for user-centred activities to explore user needs and desires to the fullest with fewer constraints from the client's contexts while the limited interactions between the two parties might cause the limited exploitation or impact of the design work. On the contrary, while engaging with clients in the 'Assisting' or 'Facilitating' relationship may require designers to put considerable time and resources on the project all the way through the development process, the strong engagement with the client may be able to provide a chance to make a long period of transition in which the clients could learn the Service Design practices and build their capabilities to manage the service innovation. Service designers may be able to learn some insights from understanding the differences and practicalities of these three kinds of relationships. According to the case studies, the designers did not seem to

explicitly consider the designer-client relationship as part of their strategies for the given project. Generally, they seemed to attempt to approach their client more closely as they were aware of the benefit of stronger engagement with the client. One of the designers in the case studies explained this:

> Some clients want to keep a distance, and that makes it very hard for us to understand what it's like internally. Every time we had a Service Design challenge. We ask them to take us on a tour of how service works usually at the early meetings with them to understand their perspective. So yes, we do try as much as we can ask uncomfortable questions like can you tell us how your digital team works, we try to really get in there to see if they have capacity all the time. But some clients say don't worry about that.

The different contexts that different organizations have could be proactively utilized if service designers could understand the practicalities of the three different types of designer-client relationships, and develop the characteristics of the practices and the contributions of them as an explicit and strategic approach. Service Design practitioners may enrich or strengthen the model of the designer-client relationships and associated practices by discussing what could contribute to each mode of the relationships, and considering what could be the challenges and consequences. These practical consideration and exploration of the Service Design practices associated with the different ways of designers' collaboration with their client may help design agencies or consultancies to generate dedicated strategies to be applied to diverse projects with different marketing or social purposes and different organizational contexts.

10.4 Limitations

This PhD research has some limitations in terms of case selection of the case studies. As the goal of the case studies was exploring central patterns and themes in various practices of Service Design practitioners, the 'maximum variation (heterogeneity) sampling' strategy (Merriam, 2009; Patton, 2002) was adopted. The sample variation was maximized in a way that each case is different from others in three dimensions: 1) agency types; 2) service innovation dimensions; and 3) project areas. But, the overall balance within those dimensions was limited to some extent. First, as introduced in the methodology chapter (see Chapter 3), the case studies involved both external agencies, which work outside the organization and internal agencies, which work within the organization. But, compared to the external agencies, a relatively limited number of internal agencies was included as there were not so many organizations that have Service Design teams in the UK. It may be due to the limited adoption of Service Design within organizations. Indeed, while Service Design practice tends to have a strong presence in the UK (Sangiorgi et al., 2015a), only 1% of in-house teams in the UK was reported to work on Service Design according to the design industry research survey conducted in 2009 by the Design Council (Design Council, 2010). Future studies based on a broader geographical boundary might include more internal agencies, and they might generate more developed insights to

complement the findings of this PhD research. Besides, the balance of service innovation dimensions between new service concept, new customer interaction, new business partners, new revenue model, and new delivery system (e.g., personnel, organization, culture, or technology) was not very satisfactory. Whereas many cases were related to 'new customer interaction', and 'new service concepts', cases that can be categorized as 'new business partners', 'new revenue models', and 'new delivery systems' were relatively small in number. This was partly because most of the clients did not have a wide range of cases that can be shared for this research mainly due to confidential issues. The confidential issues also restricted the selection of sufficiently up-to-date Service Design projects. Although the professionals in the expert audit review offered further information based on their experiences of more recent projects, there is still a need for future empirical research better reflecting up-to-date Service Design practices. It will also help to fill the current gap (as reported in the expert interviews in Chapter 4) between the recognitions of academics and practitioners about the extent of Service Design contributions to the service development process.

Another potential limitation is that the theory developed from the case studies could need follow-up confirmatory studies to strengthen its generalizability. The case studies identified the Service Design intervention areas and associated design activities as regular themes across the ten cases. As the author, through the case studies, aimed to comprehensively understand not only what service designers generally contribute to service development but also what they particularly contribute, she also attempted not to ignore critical competences or contributions of service designers observed from parts of the cases. By doing this, this research could create an overall landscape to represent service designers' practice for service development. However, due to this approach, parts of the findings may have a limitation to some extent in applying to other Service Design projects in general. To mitigate this drawback, the expert audit review (see Chapter 9) was conducted to check the validity of the findings in order to expand its potential applicability. Nevertheless, further research to confirm the results of this research will be valuable and contribute to developing a more universal theory. Also, another finding from the case studies, which was the designer-client relationships and their influence on the quality and impact of Service Design practices, was context-sensitive knowledge confined to the limited number of cases. Therefore, this finding may have some limitations in the generalization of the theory to other cases although it was also evaluated as valid by the professionals in the expert audit review. However, that does not mean the theory of the case studies has less value. Rather, this type of knowledge generation that results in theoretical explanations entangled with specific contexts holds its own position and legitimacy as one way of theorizing from case studies (Tsang, 2013; Welch et al., 2010). The theory of this PhD study can, nevertheless, form a knowledge basis for follow-up research if there is a need for more generalizable theory.

10.5 Future research directions

This research took an interdisciplinary approach to investigate the contributions of Service Design to the NSD theory. Therefore, before undertaking the case studies, a preliminary understanding of how to make a theoretical connection between NSD and Service Design was needed. Expert interviews were conducted to understand whether and under which conditions NSD can be used as a frame of reference for studying Service Design. The interviews with 12 multidisciplinary experts resulted in a theoretical link between Service Design and NSD, while suggesting that Service Design can be related to NSD in two ways that correspond to two research directions. As the first direction, Service Design could complement NSD with its practice geared towards deeply understanding the contexts of users and stakeholders, and actively engaging with them. Those characteristics of Service Design could contribute to reframing NSD so that it may get closer to the Service Logic. As the second direction, Service Design could be reinforced by applying NSD theory to its practices and research especially in terms of understanding an organization's internal NSD practice and process. As the purpose of this PhD research was more related to exploring whether and how Service Design practice could contribute to NSD theory, the first direction was adopted to inform the overall PhD research direction. For future research, the second direction can be taken. To understand how Service Design can be improved by NSD theory in terms of its research and practice, it may need to be firstly identified whether and which NSD theory could be useful and applicable to Service Design practices and research. NSD refers to the overall process of developing new service offerings (Edvardsson et al., 2000). NSD theory has been focused on how the development process of services and products are different, and what general principles can be applied to developing services (Zomerdijk & Voss, 2011). As part of NSD theory, various dimensions of NSD, among others, key concepts, success factors, process models, tools and techniques, organizational factors and performance measurements have been studied. More recently, NSD studies are adopting a contemporary perspective on service and value creation such as the Service Dominant Logic, focusing on service systems as a frame for studying NSD, resource integration mechanisms, and customers as a key actor and resource integrator (Edvardsson et al., 2014). There are also discussions around innovative methods or instruments for NSD (Edvardsson et al., 2012) along with the need for exploring customers' complex life and their ecosystem with dynamic social communities. Service Design research may be able to utilize these theoretical contributions as a theoretical reference for understanding Service Design practice, and integrate the empirical insight from the practice with the NSD theory in order to enhance the theoretical qualities of Service Design research.

In addition, while this PhD research interpreted Service Design practices through the Service Logic principles, its focus was mainly placed on the user's perspective and experiences. If

future research instead adopts the Service Dominant Logic as an interpretive lens through which to understand Service Design practices, it may offer different angles from which to analyse Service Design practices. As introduced in Chapter 8, whereas the Service Logic considers that value is only created by customers except for the case that companies can participate in the customer's value creation process only through direct interactions, the Service Dominant Logic regards service providers as active value co-creators with customers all the time (Grönroos & Gummerus, 2014). In other words, whereas customers are the main agent of value creation in the Service Logic, both service providers and customers are important agents of value creation. Therefore, in the Service Dominant Logic, the stakeholders' perspective and experiences can also be considered as important factors for developing successful value co-creation platforms. Edvardsson et al. (2012, p. 427) suggested key elements regarding service development embedded within the Service Dominant Logic, i.e., "designing value propositions", "resource configurations that enable and support the realization of the value proposition", and "aligning the value proposition and the service resource configuration." Future research can concentrate on how the Service Design approach can better apply the stakeholder's perspective and experiences to the three elements. To focus on that, case samples would be only selected among Service Design projects that involve multiple stakeholder groups, or complex service provider networks. In this research direction, the potentials of Service Design for implementing the Service Dominant Logic in NSD could be demonstrated from the stakeholders-centred perspective. Longitudinal studies of investigating service development cases in more depth to understand different roles, influences and contributions of different stakeholders will also help to qualify the actual extension of Service Design practice into the advanced stages of the service development process

While the previous directions were mainly concerned with theoretical research, there could be some empirical research that tests and further develops the findings of the case studies in this thesis. Whereas this PhD research identified the four Service Design intervention areas and associated designers' activities in the NSD process through multiple case studies, these findings could be applied to and further developed in the practice to suggest possible Service Design approaches to NSD. Besides, while the different types of designer-client relationships provided initial insight of Service Design practices in terms of the dynamics between designers' practice and their client's practice, they could be further investigated in more depth, for example through longitudinal studies, to understand how the designer-client relationships are manifested in the NSD process. The in-depth longitudinal studies could enable an understanding of whether and how the designer-client relationships shift between the three types of relationships during the different stages of the NSD process. And if any change is observed, the reason why the change happens could be explored through the data from the designer's side as well as the client's side. This direction of further research may be able to provide both designers and clients with the

recognition of the importance of the designer-client relationships in Service Design practices, and suggest the need of conscious and mutual efforts for the management of the relationships for their intended outcome of the Service Design practices.

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Appendices

Appendix A. Ethics approval forms

A-1. Participant Information sheet (expert Interviews)

Dear Participant,

I would like to invite you to participate in my research. This sheet provides the brief information about my research. Please take the time to read this information to decide whether or not to take part in the research. With this information sheet, you will be given a consent form to confirm your participation in this research.

Research aim

Service Design has contributed to the design for enhanced service experiences with its unique strategy and approach that are underpinned in human-centred perspectives and multiple design methods and tools. However, these contributions of Service Design approach have been relatively confined to the earlier phase of New Service Development (NSD) process, while less attention has been paid to service implementation. While Service Design practices increasingly engage in service implementation, the empirical research to observe and interpret them is very limited. Therefore, this research aims to understand if the Service Design approach could contribute to the implementation of services, and if so, how. Also it will explore how the Service Design approach to service implementation could be positioned in the wide field of service innovation.

Why have I been invited?

You have been invited to participate in this research because you have been identified as a practitioner or academic who is knowledgeable about the field of Service Design and Service Innovation.

What do you need from me?

If you agree to take part in this research, you will be interviewed for around 1 hour about your views or opinions around some of the below topics:

- If designers are currently involved in service implementation and if so, how.
- Any specified dimension or aspect of service implementation that Service Design might be able to engage in.
- Key dimensions or aspects relating to service implementation in other service disciplines and their approaches.
- The role of Service Design in service implementation and further in service innovation.

And, after the researcher's analysis of the overall data for the thesis, you may be asked to comment on the findings of the research from your perspective.

What will be done with the gathered data and my personal information?

The interviews will be audio-recorded. The audio-recorded data will be deleted from the recorder as soon as possible once they are transferred to my password protected laptop computer. Then, any identifiable data will be encrypted. Your information, if requested, will be kept anonymous. The gathered data and your personal information (e.g. your consent form) will be stored in my locked office desk drawer for no longer than 5 years from the date you sign the consent form.

Where will the information be used?

It will be used in my PhD thesis, and could be used in future reports, academic papers and presentations accessible to academics and practitioners worldwide.

Do I need to participate?

Your participation would be very valuable for this research, but it is entirely up to you. You can choose freely whether to take part or not in this research and your decision won't affect you in any way. Also, although you do agree to participate, you will be able to withdraw without any detriment or consequences. In order to withdraw from this research, it will be sufficient to make the request to the researcher via email. If you withdraw within two weeks after the individual interview, your data will be destroyed and not used.

Who do I need to contact for clarifications?

Please feel free to ask any further question related to this research to Eun Yu, the researcher in this design project. Besides, in case of any concern or complaint, you can contact Dr. Daniela Sangiorgi, her main supervisor using the contact details below.

Researcher:

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A-2. Participant Information sheet (case studies)

Dear Participant,

I would like to invite you to participate in my research. This sheet provides the brief information about my research. Please take the time to read this information to decide whether or not to take part in the research. With this information sheet, you will be given a consent form to confirm your participation in this research.

Research aim

Service Design has contributed to the design for enhanced service experiences with its unique strategy and approach that are underpinned in human-centred perspectives and multiple design methods and tools. However, these contributions of Service Design approach have been relatively confined to the earlier phase of New Service Development (NSD) process, while less attention has been paid to service implementation. While Service Design practices increasingly engage in service implementation, the empirical research to observe and interpret them is very limited. Therefore, this research aims to understand if the Service Design approach could contribute to the implementation of services, and if so, how. Also it will explore how the Service Design approach to service implementation could be positioned in the wide field of service innovation.

Why have I been invited?

For the case studies, I have selected the Service Design project that engages with service implementation. You have been invited to participate in this research because you have been involved in the project as a project manager (designer/ stakeholder) who has experiences, knowledge, and perspectives about the selected project.

What do you need from me?

If you will agree to take part in this project, I would talk about the Service Design project with you for about one hour. The talk will be audio-recorded. You could share your experiences, thoughts or opinions on the project related to some of these themes:

What:

- Background information about the project
- Project aims
- Overall process of the project
- Identified key concerns of the project
- Achievements of the project
- If any, challenges or difficulties

Who:

- Key stakeholders for the project and the relationships with them
- Designers' roles and contribution

How:

- Key strategies for the project
- Design methods or tools used for the project

And, after the researcher's analysis of the overall data for the thesis, you may be asked to comment on the findings of the research from your perspective.

What will be done with the gathered data and my personal information?

The interviews will be audio-recorded. The audio-recorded data will be deleted from the recorder as quickly as possible once they are transferred to my password protected laptop computer. Then, any identifiable data will be encrypted. Your information, if requested, will be kept anonymous. Also, any confidential information related to the project will be protected according to the defined rules or policies by the organization. The gathered data and your personal information (e.g. your consent form) will be stored in my locked office desk drawer for no longer than 5 years from the date you sign the consent form.

Where will the information be used?

It will be used in my PhD thesis, and could be used in future reports, academic papers and presentations accessible to academics and practitioners worldwide.

Do I need to participate?

Your participation would be very valuable for this research, but it is entirely up to you. You can choose freely whether to take part or not in this research and your decision won't affect you in any way. Also, although you do agree to participate, you will be able to withdraw without any detriment or consequences. In order to withdraw from this research, it will be sufficient to make the request to the researcher via email. If you withdraw within two weeks after the individual interview, your data will be destroyed and not used.

Who do I need to contact for clarifications?

Please feel free to ask any further question related to this research to Eun Yu, the researcher in this design project. Besides, in case of any concern or complaint, you can contact Dr. Daniela Sangiorgi, her main supervisor using the contact details below.

Researcher:
Eun Yu
ImaginationLancaster, Lancaster University
Email e.yu@lancaster.ac.uk

Main supervisor:
Dr. Daniela Sangiorgi
ImaginationLancaster, Lancaster University
Email d.sangiorgi@lancaster.ac.uk

A-3. Participant consent form

Participant name

Research title

Researcher name

	Please Initial
1. I confirm that I have read and understand the information sheet for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily.	
2. I understand that my participation is voluntary and that I am free to withdraw without giving any reason.	
3. I understand that any information given by me will be used in the researcher's PhD thesis, and may be used in future reports, academic papers and presentations by the researcher.	
4. I understand that my name, if I want, will not appear in the researcher's PhD thesis, any report, academic papers or presentations, and any confidential information will be protected according to the given policies or rules.	
5. I agree to take part in the above study.	

Name of Participant	*Signature*	*Date*
Name of Researcher	*Signature*	*Date*

Appendix B. Sample questionnaire for expert interviews

For Marketing academics

NSD and Service Innovation:

- What is the relationship between NSD and service innovation?
- Could NSD studies be useful in understanding service innovation considering the evolving definition of service? (service as 'a market offering' VS service as 'a perspective to value creation')
- What are the recent key areas of investigation in NSD?

Service design from the different disciplines:

- What do you think Service Design is?
- How is SD understood in service marketing?
- How do you think SD has contributed to NSD? (in terms of NSD process)
- What do you think the limitation of SD for NSD?

Service implementation in service research

- How do you define service implementation?
- How is service implementation researched in service marketing?
- What is the relationship between planning phases and implementing phases?
- What specific aspects constitute service implementation?
- What (key) dimensions or aspects of service implementation have been researched in regard to service implementation?

Service implementation and service design

- How do you think service design could contribute to service implementation?
- What aspects of service implementation might be better covered by service design?
- How could the service design approach be different from other service disciplines?

For Design academics and practitioners

Service design from the different disciplines:

- What do you think Service Design is?
- How is SD understood in service marketing?
- How do you think SD has contributed to NSD? (in terms of NSD process)
- What do you think the limitation of SD for NSD?

Service implementation in service research

- How do you define service implementation?
- How is service implementation researched in service marketing?
- What is the relationship between planning phases and implementing phases?
- What specific aspects constitute service implementation?
- What (key) dimensions or aspects of service implementation have been researched in regard to service implementation?

Service implementation and service design

- How do you think service design could contribute to service implementation?
- What aspects of service implementation might be better covered by service design?
- How could the service design approach be different from other service disciplines?

Appendix C. Data display example (case 1: Quick Tap)

	2008~ (9 months)		(6 months)			May 2011
Activity	Concept development	Opportunity study	Detailed design	Development	Deployment	Launch and Improve
Description	- created the stories about what it would be like for customers as possible that pitches when they sell it, we wanted this project, this is what we will give our customers all the other stuff. So I think that was a concepts communication project. - communicate what the plan was and to sell the project to get it funded within the businesses. - commercial discussions and business case between the bank and the operator. - Orange looked at the concept of delivering NFC Payments early in 2008. In late 2008 a mature concept document was developed detailing potential partners (Barclaycard) & technical suppliers such as Samsung for device, Gemalto for SIM, Orange Business Services for TSM	- In Opportunity Study High level costs are proposed for the entire project but detailed funding costs (resources, etc.) need to be supplied for development of the concept & design of the product service)	- the project went on ongoing conversation between what should it be like and how can it be like between different parties. -then went into design aspect, looking at who would be suppliers, that sort of thing - In detailed design the main activity is creating the end to end design, and gaining commitment from various internal/ external suppliers and resources	We develop the applications, hardware, and then went into a period of integration testing, live testing, and deployment - Some Livework input on the market deployment activity that ran alongside the core technology development activities.	This is where they really learn. Because in the market, they think “can people use it?” “Is it happening?” That is where we should be cycling back around and engage with customers again and learning about what it is really like - Once we should get design delivery, some area change, so we just rolled it, let them roll out the project, one of the leading delivery project, how the business analyst or the project management team took Livework documentation, presentation, suggest change, we didn't really need Livework at that point. - 3 to 6 month Live testing period (E2E testing).	-we realize more issues, so we got Livework back in to refresh specialist documents, suggestions ways of doing it better. So they were kind of part of project team, we needed them, so it was all about facilitating meetings, being kind of referee sometimes cause we had telecom and bank staff come from completely different angles, so they helped facilitate discussions so we didn't fall out with each other. - We utilised Livework expertise again on the launch of the first Android NFC Device in Sept 2012.
Actors	Orange, Barclaycard	Orange, Barclaycard, Technical suppliers	Orange, Barclaycard, Technical suppliers, Livework	Orange, Barclaycard, Livework	Orange, Barclaycard,	Orange, Barclaycard, Livework
Methods			-Collaborative working sessions -design document			- facilitating meetings
SD	in the concept development,	Offer the clear service concept		Help internal communications	unknown	Work as part of the project

contributions	we were aware these are the ways that we can go…, there was a word saying ok on the marketing, awareness side, what are the concept, how we do this, what are we actually going to do, so someone is online, someone is in-store, someone is directing marketing, there is another party who is responsible for the marketing strategy. So there is an internal stakeholder set which is identified part of the project process.	to convince the decision maker to invest		by the visual document		team, facilitating communications between Orange and Barclaycard

Project focus:

- It was a mobile payment service which came into the market for the first time in the UK, so they focused on how this new service could be precisely understood and well perceived by users and stakeholders.
- The service had many procedures for customers to go through, so how to make customers engage with the service was an important factor.
- There was shared awareness that developing user experiences to overcome the technological complexity of the service would be the key to decide the success or failure.
- The SD agency emphasized their role as a guardian for keeping coherent user experiences alongside the service implementation process, and the client agreed to this.
- The client considered the visual documentation as a key contribution of SD for the success of this project.

Key categories and codes:

- [why SD agencies?] for management and facilitation of the service development
    - "We began to work internally first around what we tried to design a service to make sure, we tried to put the customer service and all that good stuff, and basically we then went out to use an agency to do the visualization just to make sure it was properly managed and facilitated in the right way. That is why we went to Livework to do that piece of work for us or at least help us develop that experience" Martin
- Provide visual documents for all the components and requirements needed for implementation
    - Written documents for the scenarios of interaction with clients: *Without such formal presentation of ideas, people could not react and thus, could not contribute to the improvement of the draft by adding their knowledge.*
    - Efficient internal communication and clear briefing: *Rather than remaining specialized within the same department, they had to exchange information and know-how in order to achieve a good performance.*

- Get stakeholders aligned with the new service offering

- Provide a clear understanding of the new service process
- Help them to get updated with the development progress: this is where we are, this is what we've done, this is how it fits into the bigger picture.
- Help to overcome resistance to a new service

- Help negotiations between two big companies
  - Facilitate discussions and clarify each part's role and responsibility as a referee.
  - Help them make a decision strategically who is in the lead and clarify the business relationships.

- Facilitate collaboration and build partnerships of stakeholders
  - A number of different agencies delivering different part: handset maker, IT builder, provider of a platform for the bank, package for the handset, marketing people, website developer.
  - Help each party understand what other parties are doing: "this is what marketing websites is gonna look like, here is what the PR could be, here is the information that might go in the shop to explain how it works"
  - An ongoing conversation between what should it be like and what can it be like between different parties.
  - The first version of this document, everything was just hand drawn and as it got more and more mature, we replaced the hand drawn pictures with the real visuals and the real processes.

- Help users to better engage with the new service
  - Help users to surmount the technical hurdle of the service (e.g., it was very possible that lots of people would buy us the phone, trying to set it up and then fail and they give up. So one of the ways to help people set up the phone would be to ensure the packaging is very clear. We initially had that as a concept and then test them)
  - Shape the user experience through the prototyping and user tests

- The visual documents influenced the client's traditional product management process
  - It was helpful for the service call-centre staff to understand how service works and to support customers with a clear understanding of the service.
  - Support clear communication and briefing, which were highly appreciated by organizations because they take a pain away from people in their job.

- Guardians for the consistent user experience throughout the implementation process
  - Represent the customer and be the customer experience guardians and to keep telling their story.
  - Micro view and macro view on user experience: we need a holistic view and from end to end, from aware to leave.
  - Keep things aligned to the coherent, consistent and well-connected service experience.
  - User experience helps to answer the question on who, what, and how from the beginning of the project.
  - Translate customer journey into key phases for the implementation process.
  - Refine business processes aligning it to user experience.
  - Help each party view its work in the context of service experience, relating it with other parties' work (e.g., so normally someone doing a packing then probably not aware of how that relates to the registration.)

- Prototyping and testing with users
    - “We learned very quickly through prototyping that activation was going to be a challenge.”

- Collaborative working sessions over 6 months
    - Have a design session on a regular basis where the service blueprint would go up on the wall and all the different parties were working on it together and come in and understand the big customer experience pictures.
    - Well-structured sessions aiming to receive feedbacks from the stakeholders rather than a creative session like for idea generation.

- helped them to create their own internal capabilities
    - They worked with the internal SD team in orange.

- Provide the roadmap for the service evolution
    - The service has been evolving after the soft launch due to the advancing technology.
    - The design document was used to manage the service when it is live.

- Barrier to the longer intervention of SD in implementation
    - There were different dedicated teams for launching the service and running the service.
    - Businesses hire service designers to do in a task during different phases.

Memos:

- Shape the user experience with stakeholders for 6 months through the ongoing conversation so that they could have ownership and responsibility for realizing the agreed service process.
- Service designers’ competency which is looking at user experience across different channels was combined with operational components to support implementation.
- From the conceptual level of customer journey to the operational level of it.
- SD’s holistic approach to service experience is helpful to better identify the operational requirements for each touchpoint or channel.

Appendix D. Cross-case comparison of ten cases

Case	Project contexts	Designer-client collaboration	Service Design approaches	Service Design contributions
Quick Tap	**Project aim:** as a new service to be rolled out to the market, the client needed to define a new service process based on an end-to-end customer experience, and to align operations teams, suppliers, and service provider companies to the defined service process. **Project scope:** to develop the end-to-end customer experience; to facilitate negotiations and agreements between the two provider companies in terms of their role and responsibility; and to capture barriers to the customer's engagement with the service through prototyping.	**Designer-client collaboration:** As the focal client had a very good understanding of Service Design, the overall collaboration between the service provider and the designers was very smooth, and the service designers' way of working was well received from the client.	**Key activities:** helping the client with concept communication; having regular collaborative working sessions; making prototypes for touch points and testing them with potential customers; and developing specification documents. **Methods/tools:** prototypes; customer journey; service blueprint; visualization; and workshops.	**Key deliverables:** service specification document; and collaborative working sessions over 6 months. **SD role:** a guardian to keep a consistent customer experience against stakeholders; a referee to reconcile the two companies; and a facilitator to make the communications among different parties and stakeholders clearer. **SD outcomes:** the workshops enabled the stakeholders and suppliers to be aligned and committed to the customer experience, and fostered their collaboration. The visual specification document supported service launch, and was utilized internally as a briefing tool, communication tool and a manual for operations team and live testers to train users.
ANA Airports	**Project aim:** ANA aimed to alter their business position from an infrastructure provider to a passenger service provider offering great customer services. **Project scope:** to create a vision of ANA for the new passenger services strategy and a customer-centred value proposition; and to realize the vision in key service areas and build the skills and capabilities of the ANA team and staff.	**Designer-client collaboration:** ANA was receptive to the new way of working thanks to the mission of ANA towards a customer service brand had already been communicated and shared across the organization with the board level support. Engine's prior experiences in the aviation sector helped the Service Design team to understand the industry knowledge and languages, and to better communicate with the staff in ANA	**Key activities:** ethnographic research into passengers' experiences in the airports; developing a needs spectrum according to passenger variability; defining ANA's vision and conceptual roles; developing nine work streams; defining the skill sets for the services management team and training the team; and delivering service specification documents. **Methods/tools**: shadowing; explorative interviews; customer journey; workshop; and visualization	**Key deliverables:** the ANA passenger services strategy including ANA's basic principles and required roles, skills and organizational culture; service propositions for project authorization; blueprints and actionable service specifications for the nine work streams; and 'ANA Basics' consisting of tools and guidelines for ANA's service management. **SD role:** an advocate for the customer experience to govern ANA's service delivery and collaboration with 3rd parties. **SD outcomes:** the design work and deliverables supported ANA to define and assess a consistent service quality over various service channels, and to train staff and build organizational capability within ANA; and the guide on the development of partnerships with 3rd parties and other partners supported maintaining consistent customer experiences.
Wheel of Wellbeing	**Project aim:** to share with the community knowledge of mental health and well-being; and to change people's behaviours toward improving their mental health and well-being. **Project scope:** to have an interesting conversation with the community, making use of design elements and activities with	**Designer-client collaboration:** Their long-term collaboration enabled them to think together about what needs to be developed as a next service offering. The client team was receptive to the designers' way of work and their methods and languages, and they thought the design approach could	**Key activities:** crowd-sourcing activities and having co-design workshops for idea generation; developing the physical game and piloting the game; developing the business case; developing the website; doing the launch events; creating communication strategies; and delivering the service management	**Key deliverables:** the Wheel of Well-being website; the DIY happiness game; brand guidelines; launch event concepts and communication strategies; event toolkits (e.g., resources and materials for event planners) etc. The business case for the client's business development; and marketing strategy and supporting tools (e.g., the customer segments, a catch up meeting structure, and a prioritization grid) for the client team members to develop and deliver their role with for service management.

	an aim of changing people's behaviour towards mental health and well-being.	contribute to the positive emotion by engaging with people in a creative and interesting way.	tools. **Methods/tools**: crowd-sourcing design activities; co-design workshop; and prototype and pilot.	**SD role:** a partner based on the same vision; and a coacher to offer inputs on service delivery and management. **SD outcomes:** the community's behaviour change towards mental health and well-being; and the client's business mind-set and capability for developing and managing sustainable business strategies based on a stable income stream.
National Rail Station	**Project aim:** to understand reasons behind the congestions of platforms; and to improve the situation to ensure train passengers' safety and comfort. **Project scope:** to understand the experiences of travellers using the platforms and stations with an empathic understanding of travellers and a range of visual materials; and to generate new service offerings to order to improve people's safety and comfort.	**Designer-client collaboration:** The Service Design practitioners put an effort on finding the right persons from NS and had a few meetings to be referred to proper staff. During the communication, the designers tried to understand the client's language and culture, but also they kept becoming a representative of customers, being aware that their biggest value is to be an outsider.	**Key activities:** ethnographic research into people's behaviours; doing a co-creation workshop; doing a pilot and quantitative and qualitative evaluation. **Methods/tools**: observation; interview; design probe; customer journey; video, co-creation workshop; quantitative survey	**Key deliverables:** insights into the passengers' behaviour; movement patterns; and their motivations that underpinned the final service ideas. **SD role:** a representative of users, concentrating on how to unearth the travellers' true needs and desires. **SD outcomes:** the design work and deliverables provided evidences to support the legitimacy and effect of the new service offerings based on the results of the pilot; and the user experience helped to identify and involve a new provider, and supported the client's internal communications.
Connect & Do	**Project aim:** to develop a service model for people with mental health problems that can make use of people's potential and resources aiming at making people less socially isolated in the community; and to learn how to do innovation sustainably for the implementation of community connecting principle. **Project scope:** to develop a new service model; and to teach the client innovation team a new way of approaching their users and a new way of innovating for their future towards realizing community connecting.	**Designer-client collaboration:** The relationship was described as partners, which means communicating and learning back and forth between both sides, and setting up and working on every session together. Their collaborative way of working enabled the informal but agile information and knowledge sharing. The client team was very open to the designerly approach taken by the Service Design team.	**Key activities:** a horizon scan collecting inspirational references; train the client innovation team to do a mini ethnography and co-design workshops; prototyping and developing the Connect & Do website; and an evaluation on the website. **Methods/tools**: observation; co-design workshop; prototype; and interview	**Key deliverables:** the Connect & Do website; recommendations on the community connecting team model with the team's function, roles and ways of working; and the capacity of the organization to do innovation projects along with positioning the service within the rest of the other services **SD role:** a trainer to support the client innovation team to learn and grow through the Service Design approach to the project. **SD outcomes:** the design activities were used as training tools for the Certitude innovation team; and the client team worked with the SD approaches and methods with the enhanced internal capabilities for the organization to sustain service innovation.
Care Information Scotland	**Project aim:** to enhance the existing Care Information Scotland in terms of its interaction and presentation with an aim of reaching the wider age groups. **Project scope:** to examine the users' current experiences and needs, and to suggest how the existing service could be improved based on the user research.	**Designer-client collaboration:** Snook had a range of co-design sessions with potential service users such as young carers and older people and presented the results back to the stakeholder groups discussing new insights with them. The main activities of Snook were undertaken closely with service users being in parallel with NHS 24. Snook led user research, design and part of	**Key activities:** holding co-design workshops with wide age groups and communities; co-creating prototypes for the new Care information Scotland website; doing a gap analysis workshop; and translating the service blueprint into detailed use cases **Methods/tools**: co-design workshop; prototyping; gap analysis; persona;	**Key deliverables:** service blueprint; personas; insight map; stakeholder map; final recommendation report; CIS deliverable map; information provision guideline; and information model (CIS website wireframe) **SD role:** to engage with users; and to represent users' experiences and needs to the client **SD outcomes:** the design work provided the client of NHS 24 with evidence to get buy-in from internal stakeholders and to get funding; it helped work stream specifications by generating use cases outlining the main interactions between the user and the service; and it

		development, but they did not directly engage in the organizational implementation process except for some influences on specific work streams.	customer journey; and use case	provided a series of principles to guide the provision of care information and support anchored in users' needs.
Fall Proof	**Project aim:** to seek innovative and creative approaches to make elderly people's home safer, reducing the risk of trips and falls within the limited finances **Project scope:** to further investigate the ideas from the workshop with the Design Council; and to prototype some of the ideas for new services.	**Designer-client collaboration:** The Teignbridge Council housing team members were very receptive to learning a service design approach, design languages, and creative methods. Sea communications and the housing team both were involved in every phase of the service development process, communicating not only through face-to-face meetings but also through an online platform in order to better share their ideas, visual materials and videos.	**Key activities:** interviews with older people, medical professionals, GPs, social workers, the housing team; developing prototypes of the awareness campaign materials and testing them; developing an online photo submission tool and home self-assessment toolkits; and holding the falls pathway workshop **Methods/tools**: interview; video; and prototype	**Key deliverables:** prototypes of three different awareness campaigns; the photo-submission website; the self-assessment tool; and the falls pathway workshop **SD role:** to get the client team experiencing designerly ways of working (e.g., user research, prototyping and falls pathway mapping); to get the client learning user-centred perspective on their service; and to get the client to work with other partners with a holistic perspective. **SD outcomes:** the housing team learned how to work with users to make sure they research people's needs properly rather than just come up with the idea and implement it; the client team could recognize the importance of prototyping and extend their perspective beyond the housing into working with other service providers through the falls pathways session; and they began the visioning event with other players for 'community hub'
Partner Zone	**Project aim:** to support college staff or training providers to introduce the 'My world of work' to their students or individuals as their curriculum for classes to achieve Curriculum for Excellence. **Project scope:** to take on idea generation based on user-centred design approach (e.g., co-design workshop) for the service concept; the development of some contents and supporting materials; and to design user experiences of the website.	**Designer-client collaboration:** While the SD&I team was working on concept generation and co-design sessions, they tried to involve not only partners but also as many internal stakeholders as possible, and it was helpful to get an agreement from the stakeholders. While the SD&I team was more focusing on the earlier phases for user research, service concept, contents generation and user experiences of the website, the PD&I team was responsible for defining audience priorities, piloting and evaluation, and liaison and communication with partners.	**Key activities:** focus groups and co-design sessions with customers and partners; developing the recommendation report; supporting the pilot by creating mock-ups and testing them; creating the web experience; and creating lessons and materials. **Methods/tools**: focus group; co-design workshop; mock-up; pilot; observation; and questionnaire	**Key deliverables:** the concept for Partner Zone; the recommendation report; mock-ups; the website; and the lesson plans with supporting materials **SD role:** to engage with users; and to represent users' experiences and needs to the client **SD outcomes:** the PD&I team was offered specifications of the Partner Zone (e.g., the progress of development and relevant stakeholders with their roles) to other internal teams (e.g., digital services team and PD&I team); and the PD&I team members had confidence to tell the education authorities and partners that the service was developed based on the real needs of the partners through their engagement.
Teachers' Pension	**Project aim:** to raise the customers' engagement with their pension; to help the customers perceive the value of the pension; and to encourage them to shift the channels for transactions into online self-serving themselves.	**Designer-client collaboration:** The design process, in its beginning period of the Service Design team was very detached from the organizational implementation processes. The Service Design team tried to integrate the	**Key activities:** user research (e.g., focus group and survey); creating personas with the target customer experience; and doing a prototype **Methods/tools**: focus group; quantitative survey; prototype; and	**Key deliverables:** a set of 'customer promises' based on the target customer experience as a vision to govern the development **SD role:** to develop the target customer experience and share it across different operational teams; and to embed the agile and collaborative development culture within the organization **SD outcomes:** the 'customer promises' based on the target customer

	Project scope: to develop the target customer experience; to align the target customer experience with the target operating model; and to nurture the agile, collaborative, and innovative employee behaviour within the organization.	Service Design process with the existing organizational processes by adopting an agile development approach entailing constant iteration cycles.	persona	experience oriented operational teams toward a clear vision and provided them with clear roles to achieve it; and the design activities are gradually contributing overcoming the traditional way of working in which different operational teams in silos operate under their own assumptions about what would be needed for the customers.
Kent Dementia Co-production	**Project aim:** to improve people's experiences regarding the diagnosis of Dementia and help their interactions with doctors. **Project scope:** to explore Dementia care pathways and identify opportunities areas; and to co-produce the solutions with professionals and people.	**Designer-client collaboration:** although the commissioning team supported SILK throughout the service development process, they kept a distance from the design activities, and the designers briefed them on the outputs from the co-production sessions with professionals and people.	**Key activities:** interviews with people; desk research; and having co-production workshops with professionals and people who are influenced by Dementia and their family and carers. **Methods/tools**: interview; mock-up; workshops; and SILK method cards	**Key deliverables:** Dementia checklist prototypes **SD role:** to engage with professionals and people and co-produce the solution with them. **SD outcomes:** While the service was valued in the care home setting, challenges were reported in demonstrating the real impact of using it. As many copies of the Checklist were distributed to the whole community, the tracking of its actual usage was difficult, and motivating doctors to embed the Checklist into their practice were another challenge.

Appendix E. Report of case research for expert audit review

Report of Case Research

This report is to summarize key findings of my PhD research on understanding *Service Design contributions to the service development process*. Ten companies in the UK participated in this research, involving 28 interviews with designers and clients.

Participants

Project case	Agency	Agency type	Project domain
Quick Tap	Livework	External	Telecom
ANA airports	Engine	External	Aviation
Wheel of Wellbeing	Uscreates	External	Mental health & wellbeing
Netherlands National Railway Station	STBY	External	Transportation
Connect & Do	Innovation Unit	External	Mental health & social care
Care Information Scotland	Snook	External	Social care
Fall Proof	Made Open	External	Housing
Partner Zone	Skills Development Scotland (SDS)	Internal	Employment
Teachers' Pension	Service Design team in Capita	Internal	Insurance
Kent Dementia Co-production	Social Innovation Lab in Kent (SILK)	Internal	Social care

As a result, two key findings and associated insights were derived:

1. Four Service Design intervention areas and common characteristics
   Service designers have been critiqued for their limited skills in matching their creative ideas with service implementation; their ideas are said to stay "on the drawing board" due to the "lack of attention to economics–ensuring that ideas are cost effective–and lack of attention to organizational issues and cultures" (Mulgan, 2014, p. 4). Against this doubt, this research demonstrated the Service Design practitioners intervened in four areas during the service development process: INFORMING; SPECIFYING; MOBILIZING; and SUSTAINING. However, the designers' activities in 'SPECIFYING', 'MOBILIZING', and 'SUSTAINING' seemed relatively limited comparing to 'INFORMING.' That is, their activities and contributions to developing and implementing services still seemed weak in terms of diversity and designerly unique approach.

2. The influence of designer-client relationships on the Service Design practices and outcomes
   Even if the designers worked on the same intervention area, the degree of impact that the design work and deliverables had on the clients and organizations was not the same. I found the mode of designer-client impacted on this. Three kinds of relationships were found in the cases: 'DELIVERING', 'COLLABORATING, and 'FACILITATING.' The impact of design work and deliverables was minimal in the 'DELIVERING' mode, whereas the design practice had a transformative effect on the clients and organizations in the 'FACILITATING' mode of relationships. This indicates the needs of designers' closer engagement with their client and organization for the maximized outcomes, and also implies the future direction of service design agencies, which is from traditional agency models to facilitator models.

Service Design intervention areas and common characteristics

Four Service Design intervention areas

The Service Design practitioners intervened in four areas during the service development process.

1. **INFORMING**: exploring users' contextual and holistic experiences
2. **SPECIFYING**: converting the service concept into requirements for developing service
3. **MOBILIZING**: developing resources and facilitating stakeholders' engagement
4. **SUSTAINING**: supporting service management and capability building

1. INFORMING

The designers' activities and deliverables from this area of intervention informed the clients' creation of service concepts. With the design outputs, the clients were informed of the user's individualistic experience and needs that they could have not gained from their own way of user research.

- *Ethnographic and empathic research into user experience*: e.g., in the Netherlands National Rail Station project, the designers observed and shadowed people to explore what was actually happening on the train platforms, specifically where, how and why people were moving around in the certain ways.
- *Mapping users' service journey*: e.g., in the Fall Proof project, the design team of Made Open mapped 'Falls Pathway' to explore the service journey of elderly people who have fallen.
- *Co-designing*: e.g., for the Care Information Scotland project, Snook held a range of co-design workshop sessions to understand what information people need and where they go for care information at a different level of urgent situations.
- *Prototyping*: e.g., in Quick Tap project, the designers at Livework looked through the service registration and activation process with users through prototyping sessions to discover potential challenges prohibiting the coherent user experience.

2. SPECIFYING

The service designers supported the service operations team to be prepared for the development of service system by specifying its components including detailed service processes, service channels, interactions, touch points, and staff who needs to deliver the service.

- *Identifying stakeholders for service delivery*: e.g., in the Netherlands National Rail Station project, while the designers were creating the traveller's experience journey, they recognized the need of involving another company to offer the travellers' information.
- *Validating service concepts and specifying requirements*: e.g., in the case of Quick Tap, Livework held regular collaborative working sessions with the stakeholders over 6 months to discuss the business process and discover operational challenges, while co-creating the service specification document.

3. MOBILIZING

The designers worked on creating non-human resources such as physical products, and online tools, and mobilizing the human resources by aligning stakeholders to the end-to-end user experience, and facilitating their communications and engagement.

- *Aligning stakeholders and mediating between providers*: e.g., In the Quick Tap and ANA airports project, the designers alleviated the conflicts between the different providers, aligning them towards the shared objective, which was creating the superior and coherent customer experience.
- *Facilitating briefing and communication processes*: e.g., in the Fall Proof project, the design materials and prototypes with high fidelity were helpful to the briefing and communication process for getting buy-in from the stakeholders.
- *Developing physical and online resources*: e.g., in the Wheel of Wellbeing project and the Kent Dementia Co-production project, the designers were involved in designing and manufacturing the physical touch-point in the form of game, and Dementia checklist form respectively.

4. SUSTAINING

The designers assisted the clients in implementing and managing the service following the original service concept and the user-centric approach in a day-to-day basis. The design practices were directed towards the clients' independent and sustainable service innovation.

- *Supporting service measurement*: e.g., in the Connect & Do project, Innovation Unit was directly involved in the evaluation of the service by looking at the quantitative aspects (statistics) and the qualitative aspects (user stories or experiences).
- *Providing service roadmaps for guiding further developments*: e.g., in the Partner Zone project, a hand-over report was developed by the design team and delivered to the other teams to help them to further develop and launch the service.
- *Building internal capabilities and capacities*: e.g., in the Wheel of Well-being project, the designers at Uscreates delivered "an implementation strategy tool" in order to guide the client team to manage the service on their own in a daily basis.

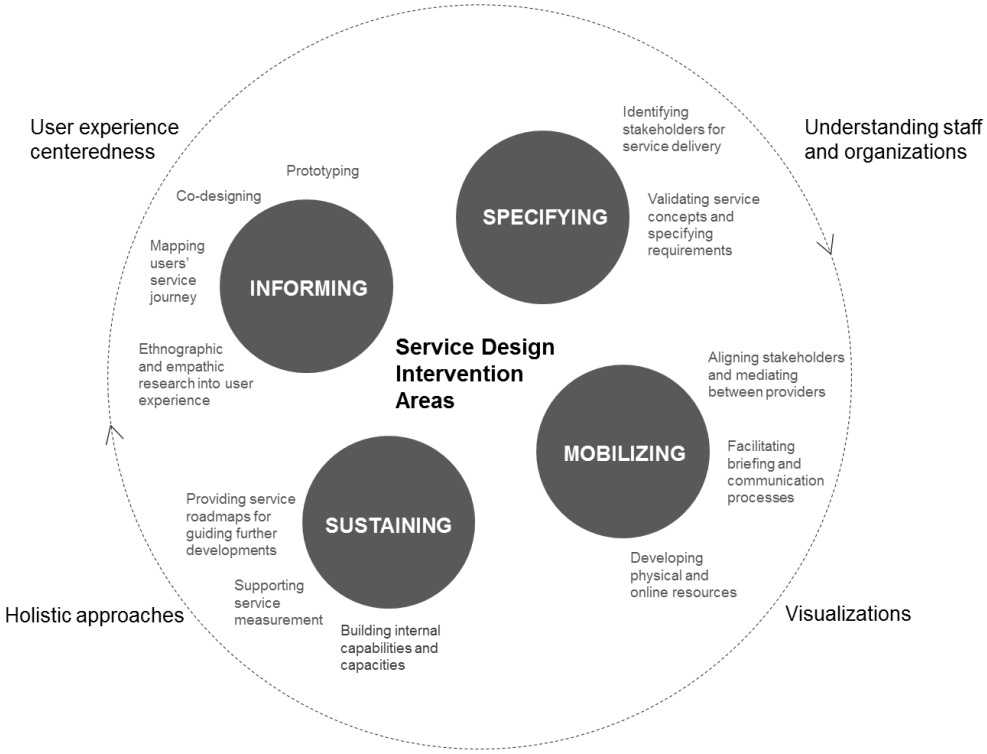
Four Service Design characteristics across the intervention areas

Four characteristics commonly appeared in the service designers' activities across the intervention areas.

1. **User experience centeredness:** the user experience centeredness appeared in the designers' practices alongside the whole service development process from the design stage to the implementation stage. The designers served as 'guardian' to keep the user's perspective and experience all the way through the service development process
2. **Understanding staff and organizations:** while the designers were highly user-centred, they were also staff-centred. They attempted to understand their clients and the contexts of the organization throughout their involvement in the service development process.
3. **Visualizations:** the designers used visual and tangible design materials throughout the intervention areas. The design materials (e.g. recommendation reports, service specification, posters or videos, and etc.) were used to communicate service concepts and to facilitate clients' internal communications and briefing processes.

4. **Holistic approaches:** the service designers held a holistic perspective on what they were exploring and designing. This holistic perspective appeared at mainly three different levels in the data: 1) across multiple channels and different touch points; 2) across different teams within the organization; and 3) across service eco-systems.

Figure 1. Service Design intervention areas and common characteristics.



Could you please give your opinions here?

Question. 1	To what extent would you agree on the four Service Design interventions and characteristics considering your own practice?
Your answer	
Question. 2	Do you have any critical element or point missing in this report?
Your answer	
Question. 3	I found while the service designers were involved in the four intervention areas, their contributions to 'SPECIFYING', 'MOBILIZING', and 'SUSTAINING' seemed relatively limited comparing to 'INFORMING.' That is, their contributions to developing and implementing services still seemed weak than to user research and concept design. What do you think about this? If you agree with my insight, why do you think this happens?
Your answer	
Etc.	If you have any other comments…
Your answer	

Influence of designer-client relationships on Service Design practices and outcomes

Three modes of designer-client relationships

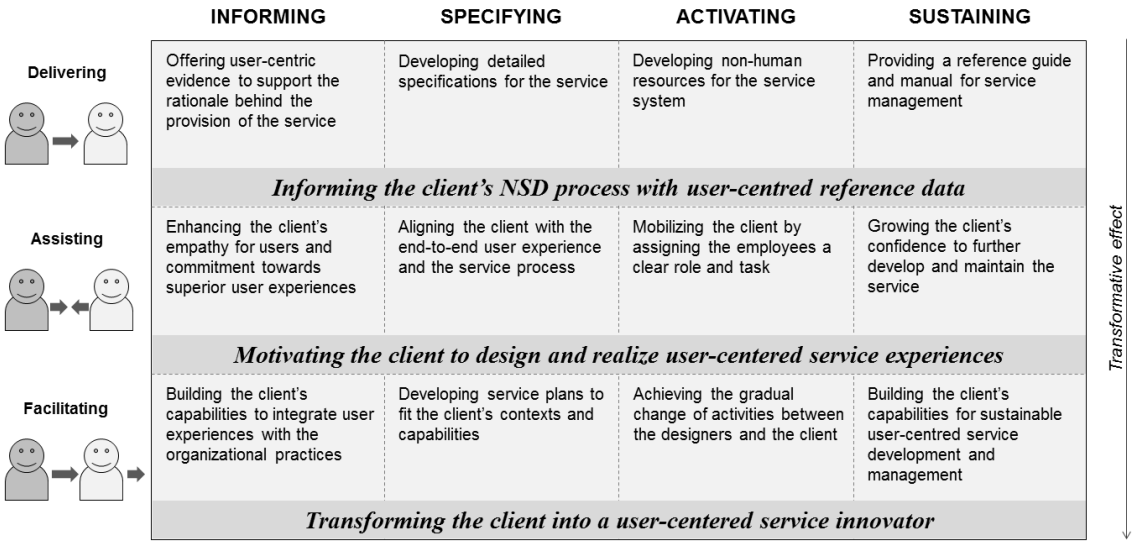
I found there are three kinds of way that the designers collaborate with their clients.

1. **DELIVERING**: the designers were tasked with a certain scope of solutions based on pre-defined problems by the clients, and the clients were the recipient of the designers' solutions. The two parties worked more in a parallel way, focusing on their own process.
2. **ASSISTING**: the designers were commissioned to contribute to innovation with an open scope of solutions, and the clients actively participated in exploring and making solutions with the designers, committing considerable time and efforts to a range of collaborative working sessions with the designers and users.
3. **FACILITATING**: there was a blurred distinction between the designers' role and the clients' role. The designers worked like a member of the provider's team while training the clients to be working like a designer. Innovation was facilitated by the designers in a way that they helped the clients do innovation independently after the designers disengage from the project.

Different Service Design practices and outcomes depending on designer-client relationships

Interestingly, it was found that even if the designers worked on the same intervention area, the degree of impact that the design work and deliverables had on the clients and organizations was not the same. I found one of the reasons of this is that their mode of collaboration with clients was different. Figure 2 encapsulates how the designers working in the three modes of designer-client generated different practices and outcomes in each of the four intervention areas.

Figure 2. An overview of the varied Service Design practices and outcomes.



The followings are overall insights into the influence of designer-client relationships on Service Design practices and outcomes.

In the DELIVERING mode of relationships, the Service Design practices and outcomes were mainly concerned with supporting the clients' internal development process with user-centric practices. The designers' activities and knowledge were materialized in a form of tangible design documents in order to be communicated with and transferred to the clients. Therefore, the role of those tangible design outputs was ever more critical throughout the process in this mode of collaboration. But, in this mode, the designers' work and deliverables were not necessarily incorporated into the client's practice and process. In the early intervention, users' stories through the designers' user research supported the providers' practices as useful background data, but they remained as just 'data' rather than an instrument to affect the mind-set or attitude of clients towards their users. During the intervention for system development, the designers' contribution was limited to offering non-human resources (e.g. physical touch points) without affecting human actors. In particular, during the implementation process, the clients reported a challenge of applying the design outputs to their daily practices for actually implementing the service, ascribing it to a lack of a period of transition. Thus, the designers' practices in this mode seemed to stay at a peripheral level without being entangled with organizational practices.

In the ASSISTING mode of relationships, the Service Design practices and outcomes were concerned with enlisting and growing the clients as a design partner for developing and implementing the service. As the designers worked in partnerships with the organization, they focused on getting the clients on board and establishing common ground for action. The designers generated tangible design materials or reports, but these were used more as a supporting tool for the collaborative workshops to orient the participants towards being user-centred, and to facilitate their communications and cooperation rather than a finite deliverable. As the designers' activities and outputs were co-developed with the clients, they were incorporated into the clients' development practices. In the early intervention of the designers, the rich and vivid user stories, beyond serving as background data, strengthened the providers' motivation towards creating the superior user experience, and aligned the stakeholders to the shared goal of creating superior user experiences. During the later intervention of the designers, the designers' activities and outputs were supporting the clients to develop and manage the service. Thus, the designers' practices in this mode were interwoven with the clients' development practices.

In the FACILITATING mode of relationships, the Service Design practices and outcomes were explicitly concerned with embedding the fundamental change to the client's way of working and culture of the organization, leading to sustainable service innovation in a longer term. The design work and outputs were partly generated by the clients with the support and facilitation of the designers. In this mode of collaboration, the tangible design outputs seemed to be more an ongoing result of conversations and discussions from the collaborative design sessions rather than a deliverable. While the designers worked very closely with the clients following a very integrated process, the activities and outputs generated by the designers and clients were smoothly institutionalized in the clients' way of working. In the early intervention of the designers where they involved the clients in exploring user insights, the users' experiences and stories allowed the clients' perspective on the service to widen. As the designers' intervention moved toward development and implementation, their activities and outputs gradually helped

the clients to be at the centre of the innovation of the service with confidence and ownership. As the training and learning were happening alongside the service development process, the overall development process served as a long period of transition during which the ownership and responsibility of the service gradually and smoothly shifted from the design side into the client side. The Service Design outcomes thus not only enabled the development of the specific project, but also transformed the organization toward an enabling platform for sustainable user-centred service innovation.

Could you please give your opinions here?

Question. 4	To what extent would you agree on the three kinds of designer-client relationships and their impact on designers' practice considering your own practice?
Your answer	
Question. 5	Do you find any critical insight missing in this finding?
Your answer	
Question. 6	It was revealed that the impact of design work and deliverables was minimal in the 'DELIVERING' mode, whereas the design practice had a transformative effect on the clients and organizations in the 'ASSISTING' or 'FACILITATING' mode of relationships. This indicates the needs of designers' closer engagement with their clients and organization. Then, what do you think is needed to achieve the intimate designer-client relationships, or what might be barriers to achieving it?
Your answer	
Etc.	If you have any other comments…
Your answer	

Thank you for your comments and opinions!

Appendix F. Key excerpt from the experts' comments

(These comments are just key parts of the experts' original comments.)

Part. 1

Q 1. To what extent would you agree on the four Service Design intervention areas and characteristics?	
Expert 1	I would agree with your general observations. These links generally to the four phases of the generic "Double Diamond" methodology of the accepted design process – Discover / Design / Develop / Deliver.
Expert 2	I recognize the four service design interventions. I think the "supporting service measurement" under "sustaining" also applies earlier (during informing). Often you need to quantify some effects of a prototype before being allowed to further develop and implement it.
Expert 3	Ironically I think the stage you miss out is 'designing' which I would understand as a different level of activity to 'specifying'. At the moment you have bundled these together and from our experience, there is a distinct difference between the two.
Expert 4	I think the service design intervention areas and characteristics generally reflect the work we do as service designers and process of developing services. The only thing the framework doesn't quite reflect is the fluidity involved in practice.
Expert 5	I do not agree with the model specially in regards to 'MOBILIZING.' Why is developing resources mobilizing? I don't understand the term in relation to the description.
Expert 6	The four areas of intervention are good. At first I thought they were linear, which made them seem limited, but the idea that they might happen concurrently makes them much richer.
Expert 7	The interventions make sense but they are not terms I would often employ to refer to our service design process. However we definitely do all of these things without calling them by these terms! The characteristics are definitely spot on however.
Q 2. I found while the service designers were involved in the four intervention areas, their contributions to 'SPECIFYING', 'MOBILIZING', and 'SUSTAINING' seemed relatively limited comparing to 'INFORMING.' That is, their contributions to developing and implementing services still seemed weak than to user research and concept design. What do you think about this? If you agree with my insight, why do you think this happens?	
Expert 1	I agree that your observations are correct. This is because your case studies are now quite old and were at the early / embryonic stage of service design; because the service design agencies did not possess the skills required for the latter stages; and perhaps because the case studies focus on the design phase if written from a designers perspective?
Expert 2	I think what you are saying is true. I would also be interested in learning more about tools & methods to support clients even more in "specifying" "mobilizing" and "sustaining". However the question remains: how much should designers be involved in this? What is their advantage compared to other stakeholders involved in this? What can they bring added value to these stages?
Expert 3	I would say you're correct. But I would also say that this is an outcome of some companies badging themselves as service design companies but not necessary fulfilling the definition of what one is. I think this is a challenge for service design in general as there becomes a dilution of the practice based on new entrants moving into the service design space.
Expert 4	I think the skill set required for user research and concept design has a more natural fit with traditional design and research skills than implementation. Intervention at the implementation stage perhaps requires more of an emerging skill set. Clients ask for help less frequently in this area. The level of maturity required of clients in commissioning service design is perhaps higher in this area.
Expert 5	'SUSTAINING' is probably the area where CURRENTLY we have less impact although we are moving towards providing more of this. Overall, I do not know why you have invented a completely different set of the four phases that are very well grounded already in service design practice: Discover (research), Define (concepts & specifications), develop (design) and deliver (implementation readiness)
Expert 6	Considering my practice at Innovation Unit, I think we do quite a lot of mobilizing (often more than designing), some sustaining (including training, partnership work, experiential learning, etc.), and very little specifying. I would agree that we probably do more Informing than anything else, but mobilizing comes a close second for us.
Expert 7	I agree. This is because usually services are designed with a focus on the user/beneficiary when service designers are involved, whilst the input of staff is limited. Understanding service providers is also fundamental to understand what services they can or cannot deliver and why, and the resource and capacity and culture necessary to embed a new service proposition.
Q 3. Do you have any critical element or point missing in this report?	
Expert 1	We have found that two further areas of expertise are often required to support the design process (1) analytical skills to support quantitative data analysis – more usually found in business graduates – particularly in the specifying phase;

	and (2) Change Management skills, particularly in preparing for and delivering the mobilizing / sustaining phases. These are skills and experience not normally found within the design agency, but are increasingly important to success of larger scale projects and business transformation projects.
Expert 2	Figure 1 is a bit odd. You identified 4 Service Design Intervention areas while you only have three columns in your table?
Expert 3	Apart from the above, you talk about visualisation being a key characteristic but this would suggest it is enough for there to be an artist or illustrator on the team. There is something powerful about service design being conducted by design-trained professionals. We talk about great design being the outcome of an optimistic view of the future with a deep understanding of the possibilities and limitations of the constraints. I also think that the informing phase could be more descriptive. The research used within the majority of commercial design agency is influenced by Ethnography but I would consider it to be more 'design research' or as you describe empathic design research as its peppered with the agenda to improve something and to build a hypothesis for a solution.
Expert 4	No.
Expert 5	I think there is a massive miss on the development phase (i.e. design) which is critical that isn't covered by any of the 4 named above.
Expert 6	I would expand the INFORMING category to include other kinds of design research beyond user insight. I think it should also include what we call 'horizon scanning', i.e. looking at inspiring examples of services and organisations from around the world. Expert interviews are likely to be part of it. And then service safaris and similar methods could be important extensions of the user insight piece.
Expert 7	I would say that 'developing' is missing. This is where we create new approaches, solutions, ideas from a great understanding of what users need. I don't feel that informing, sustaining, specifying or mobilising, do that – the innovation.

Part. 2

Q 4. To what extent would you agree on the model to represent the influence of designer-client relationships on Service Design practices and outcomes?	
Expert 1	I agree with your general observations and three stage model of designer-client relationships.
Expert 2	I recognize this very much. More and more educating Design Thinking/ Service Design principles to clients become part of our projects.
Expert 3	I think they broadly make sense. Although the roles aren't always mutually exclusive. Delivering is the injection of a design approach to a problem and is often project based working. The Assisting is often seen as a result of larger programmes of work that are longer term. Facilitator makes sense.
Expert 4	I think the different descriptions of the relationships and outcomes reflect my experience, however it is perhaps not always as clear cut. I think that in the Assisting mode some clients may still expect a report as a deliverable.
Expert 5	There could be more but these are probably the most common. Service Design is changing as a discipline so the focus of these relationships will change in the near future. I do not agree with your statement that "there was a blurred distinction between the designers' role and the clients' role. The designers worked like a member of the provider's team while training the clients to be working like a designer." I think designers provide the organisation with tools for them to know how to think about service design and how to be able to develop products and services more focused on customer needs, behaviours as well as business value – not just on the latter.
Expert 6	At Innovation Unit we only really work in the Assisting and Facilitating modes that you describe, so I can't really comment on the deliver mode. I would say that your paper comes across as very critical of the deliver mode, but I assume there must be some benefits. Presumably it gives the designers more space and time to be creative instead of spending a lot of time managing relationships? It could be worth going back to the agencies that work in this way to get more details.
Expert 7	Yes I agree, but I don't think facilitating is quite right. I would say coaching, supporting, mentoring or consulting is more accurate.
Q 5. It was revealed that the impact of design work and deliverables was minimal in the 'DELIVERING' mode, whereas the design practice had a transformative effect on the clients and organizations in the 'ASSISTING' or 'FACILITATING' mode of relationships. This indicates the needs of designers' closer engagement with their client and organization. Then, what do you think is needed to achieve the intimate designer-client relationships, or what might be barriers to achieving it?	
Expert 1	To implement something requires widespread stakeholder engagement. Complex organisations, particularly in the public sector, are inherently resistant to change. This means that co-creation and co-design WITH clients is much more successful in delivering successful transformation. However, as in my discussion above, in the Delivering mode the skill requirements are different from Assisting and Facilitating – In the former traditional designer skills are more important – research/observation/empathy/creativity and ideas generation – and traditional design studios do not possess the same depth in the different skills needed for Assisting and Facilitating –

	coaching/mentoring/facilitating/change management/etc.
Expert 2	In my experience two elements are key. First the client has to be ready for it. As I said above, it's very natural for a client to first become acquainted with Service Design/ Design research in a more "Delivering"-type of relationship. This can generally feel more safe since it's just another project and doesn't demand a lot of investment from the client. Gradually this can evolve to Facilitating-type, once the value of the type of work has been acknowledged and the client is ready to invest more in it. Second, "Trust" is very important. A facilitating mode of relationships means a whole new way of working for the client. This is quite disruptive and demands for "change management" skills.
Expert 3	I think we're doing it at Engine already. It requires service design agencies being better equipped to understand the exacting value they bring to organisations and be able to discuss and demonstrate its impact. It requires a greater understanding of how to translate a design concept into the organisation and it requires new ways of working that move the agency further way from the studio and into the client organisation. And lastly it requires a more sophisticated maturing of the practice in that we can clearly understand what makes a quality service and how can that be built into the design with and understanding of the constraints and available resources.
Expert 4	The level of influence the direct client has within their organisation is important. The more sway this individual holds, the easier it will be for them to set up the conditions needed for a 'Assisting' or 'Facilitating' mode of relationship. Of course their level of maturity in commissioning design is also important as well as the state of the organisation of a whole. Often a barrier to an intimate relationship can be something practical, like timing. If there are many internal changes happening within the organisation this might preclude a deeper relationship from forming. The procurement department of the client organisation may also be a barrier. The make-up of the internal teams of the client organisations may be a barrier. Perhaps they don't have the right background or enough free capacity to do a design project.
Expert 5	I think relationships already are formed very closely – at least from my experience in Engine. Some individuals in the business might be less accessible for some design teams – so I am referring for senior stakeholders / decision makers as in most cases designers deal with managers and not the highest level of stakeholders which can make building relationships a bit harder.
Expert 6	What helps/hinders collaborative or facilitative relationships? 1) Trust and freedom: it helps when there is trust between the two and effort must be made to develop this trust. When clients micro-manage projects, it is very difficult to get into a shared creative space. Probably the condition for this is that the lead or project manager on the client side must have the trust of their organisation to have the freedom to try new things and work differently. 2) Attitude of designers: we sometimes talk about Designers and designers. Designers with a capital 'D' are the hero designers like in fashion or architecture, the geniuses who know best. Designers with a small 'd' are really design facilitators. They have good knowledge and experience of the process, but their main role is to enable a much wider set of people to become designers and shape the things that are important to them. 3) Project planning and design: quite a simple point really, but it depends a lot on what opportunities designers and clients set up that enables them to work together. Do they plan a review and sign off, or do they plan a collaborative working session? At what stage in the process do they come together? How vulnerable are they prepared to be with each other? Or do they feel they have to show each other answers at each stage?
Expert 7	I think the optimum model for achieving sustainability is where the client is taking ownership and responsibility for the project with the designer supporting/coaching along the way – i.e. your 'Facilitating' relationship.
Q 6. Do you have any critical element or point missing in this report?	
Expert 1	I think that you should note that as service design as a discipline is evolving and becoming more widespread – perhaps you should reference the diffusion of innovation model since Service Design is a relatively new practice – then the designer-client relationship is also evolving. A good example is the growth of in-house service design teams in larger service organisations e.g. Telecoms; Banks; Business Process Outsourcers like Capita, Serco, Accenture (via their acquisition of Fjord), and IBM (developing 10 centres of service design excellence across the world with a total of 1,000 service designers to support their client needs).
Expert 2	The only thing I would add is that these are these are not "static" relationships. We often see the relationship with our clients evolving from "bringing user-insights" to facilitating them in their service innovation. That's really nice.
Expert 3	I think the roles described are pretty well understood as different models of consultancy working. This is a different model to traditional design agency practice that is often predominately studio based working. This could be made more of as for me this is the insight not necessarily the roles. For instance have designers always played these roles for their clients?
Expert 4	No, in general it reflects my experience.
Expert 5	Not that I can see here described as it is. I think if anything, it relates to my comment in the above question no.4.
Expert 6	I also felt that you combined description of each of the modes with analysis. I would be tempted to simply describe each of the modes and then maybe have a table with the pros and cons of each so that they can be quickly compared. A small and unrelated point, the last sentence of your first key findings says 'That is, their activities and contributions to developing and implementing service still seemed weak in terms of diversity and designedly unique approach.'

	It's not clear exactly what you mean and it doesn't quite seem supported by the rest of your paper. I can see what you mean if you're saying that service designers are not covering the four areas you've set out. It's hard to know what you mean about the 'designerly unique approach' because you haven't said what that is anywhere or why it might be important. Finally, one piece that feels missing, but might be beyond the scope of this paper, is the link between service design and other skills and approaches. It's probably not fair to ask service design to do everything since there are lots of other approaches that are much better at some of the elements.
Expert 7	None