Giving Voice to Service Design in the Management Boardroom

Strengthening the Connection between Service Design and Management

Lia Patrício, Raymond P. Fisk

lpatric@fe.up.pt,

University of Porto, School of Engineering,

R. Roberto Frias, 4200-465 Porto, Portugal

Ray.Fisk@txstate.edu

Texas State University, McCoy College of Business Administration

601 University Drive, San Marcos, Texas 78666, USA

Abstract

Service design is an interdisciplinary field with significant potential to improve service innovation, but it is still not a well-established practice in most organizations and the management implications of service design are still not well understood. Better integration of design and management perspectives is needed for a wider diffusion of service design. This paper explores how Multilevel Service Design (MSD), an interdisciplinary service design approach, can better connect management concepts and tools with design concepts and tools. A case study of redesigning a bank's mortgage service is presented, using MSD Customer Value Constellation and the Service System Architecture models. The case study illustrates how this approach can help service designers and managers navigate between service concept and service system design levels, and better understand the interconnections between the design of the service at the frontstage and the design of support processes and technologies.

KEYWORDS: service design, interdisciplinary service design, multilevel service design

Introduction

The growing importance of services in the global economy and the need to improve corporate competitiveness has brought service innovation to the forefront of research and practice priorities. Companies need to go beyond merely improving efficiency and refining existing service models, and focus on service innovation by finding new ways of value co-creation for customers and the firm (Patrício and Fisk, 2011).

Service design has been identified as a research priority and plays a key role in service innovation because it brings service strategy and innovative service ideas to life (Ostrom et al., 2010). Service design is an emerging interdisciplinary field that integrates different contributions from interaction design, management, marketing, operations or technology (Kimbell, 2011, Meroni and Sangiorgi, 2011, Ostrom et al., 2010, Stickdorn and Schneider, 2010). As an interdisciplinary field, different service design approaches have been developed. Research and practice from interaction design has approached service design with a strong focus on enhancing the customer experience through the design of service interfaces and customer journeys (Meroni and Sangiorgi, 2011). From this perspective, service design can be defined as a process that involves understanding users and their context, understanding service providers and social practices, and translating this understanding into evidence and service systems interaction (Evenson, 2008). . Service Science provides a broader view of service design, involving all stakeholders and service system components. From this perspective, service design can be defined as the orchestration of clues, places, processes, and interactions that together create holistic service experiences for customers, clients, employees, business partners, or citizens (Ostrom et al., 2010).

Service design has gained increased attention, but it is still not a well-established practice in most organizations and the management implications of service design are still not well understood (Gorb and Dumas, 1987, Ostrom et al., 2010). Managers frequently engage in design activities, as they study the customer experience and make decisions on service concepts and service systems, but they don't recognize them as such, nor do they use formal design methods and tools. According to a study of UK companies, this form of silent design, i.e., the undertaking of design activities by those not trained as or recognized to be designers (Gorb and Dumas, 1987), appears to be the dominant approach to design in service firms (Tether, 2008).

A wider diffusion of service design practices in organizations has significant potential to improve service innovation. However, further work is needed to strengthen the connection between management and service design. This paper shows how Multilevel Service Design (MSD) (Patrício et al., 2011), an interdisciplinary service design method, can contribute to integrate the concepts and tools from these approaches. A case study of applying MSD to redesigning a bank mortgage loan illustrates how the customer value constellation and the service system architecture models of MSD can be used to integrate management and design decisions and to navigate across different levels of service design. The last section discusses research and practice implications and future research.

Service design models

Service design requires orchestrating a set of integrated components, which together enable customers to co-create valuable experiences. Designing for services involves designing the service value proposition the company will offer to its customers; designing the service interfaces in the frontstage that will enable customers to co-create their service experiences; designing the support processes in the backstage that will enable service provision in the frontstage; and designing the technology solutions that will support both frontstage and backstage activities.

Service design can also be addressed at different levels: (1) the service value proposition and its positioning in the value network (service concept); (2) the service system that enables the customer to co-create the service experience across the customer journey; and (3) the service interaction at each touchpoint (Patrício et al., 2011). These different levels should be integrated, as it is necessary to make recurrent leaps between designing in detail and designing holistically (Stickdorn and Schneider, 2010). Models are especially useful for designing these complex service systems, as they help interdisciplinary teams visualize and understand the different elements of the system and how the elements interact. This makes it easier to bridge different points of view and address higher levels of complexity (Dubberly et al., 2008).

The service concept can be defined as the set of benefits that a service is expected to offer a customer (Edvardsson et al., 2000). Several models have been developed to support this level of service design. From strategic management, the value constellation model represents the network of actors and their relationships that jointly create an offering (Normann, 2001), but its main focus is the company's strategy and not service design. More recently, Morelli and Tollestrup (2007) developed the actor network mapping, which gives an overall perspective of the network of actors and components of the system, focusing on roles, grouping, and relations. Evenson (2008) has developed a systems approach to service design, which involves the development of the stakeholder map. However, these models are used to map the existing contextual situation, and are not used as a tool for designing the service concept and positioning the firm's value proposition.

Based on Maglio et al. (2009), the firm's service system can be defined as the configuration of resources, such as people, processes, artifacts and technologies, that enable customers to co-create value. To support its previously defined service concept, the firm needs to design the service system, which includes defining the mix of service interfaces, support processes, people, physical evidence, and their interconnections. In service design, the customer journey is used to map how the customer experiences the service across different touchpoints and service interfaces (Miettinen, 2009, Stickdorn and Schneider, 2010). However, the customer journey does not map how the service system should be designed to enable the desired service experience. Managers need to analyze the implications of how different customer journeys affect the multi-interface mix, backstage processes or supporting technologies.

Existing service design methods have a significant potential to improve innovation and enhance the services offered. However, a closer connection between the language and tools of design and management is needed to make this contribution more widespread and

effective in the management boardroom. This paper explores how Multilevel Service Design can integrate the perspectives of design and management for service design.

The Multilevel Service Design (MSD) Method

The Multilevel Service Design (MSD) method has synthesized contributions from interaction design, service science, management and engineering to build an interdisciplinary approach to service design. The Multilevel Service Design (MSD) method enables integrated design of service offerings at three hierarchical levels with a strong focus on the customer experience (See Figure 1): designing the firm's service concept; designing the firm's service system; and designing each service encounter (For a more detailed description of the MSD method see Patrício et al. (2011)).

The MSD process involves four steps (Patrício et al., 2011). Following a service design approach, Step 1 starts with an in-depth study of the customer experience, but it does so at different levels. In-depth studies with customers enable the decomposition of the different activities and context of the customer experience and the identification of the most important experience factors.

- The value constellation experience is co-created through the interactions between the customer and all service organizations that enable a given customer activity, such as buying a house.
- The service experience is co-created through all interactions between a customer and a firm's service system to accomplish a given service activity, such as mortgage loan service experience. This service experience comprises all the different service encounters with the firm across different service interfaces, and can be seen as the result of the customer journey.
- The service encounter experience is co-created through customer interactions at a given service interface for a service task, forming a touch point. This concrete interface level has typically been the primary focus of interaction design.

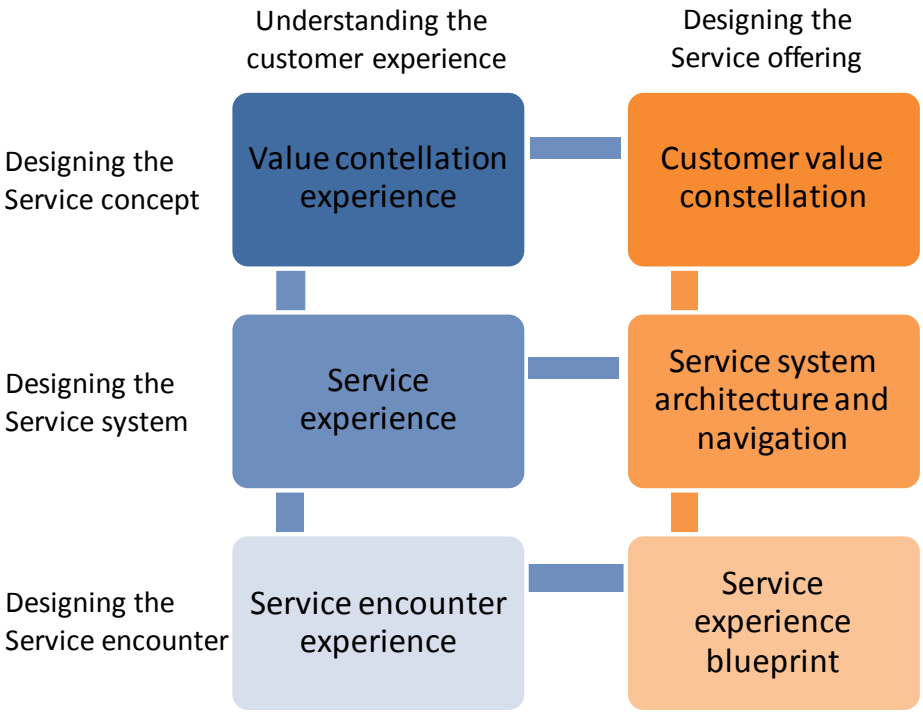

Figure 1: Multilevel Service Design

In Step 2, based on the study of the customer experience, the customer value constellation (CVC) model enables designing the service concept. The CVC represents the set of service offerings and respective interrelationships that enable customers to co-create their value constellation experience for a given customer activity. In Step 3, the firm's service system is designed through the Service System Architecture (SSA) and Service System Navigation (SSN). The SSA defines the structure of the service system, providing an integrated view of the multi-interface offering and support processes across the service experience. The SSN maps the alternative paths customers may take across different service encounters forming the service experience. Each path represents one possible customer journey across different touchpoints or service encounters. In Step 4, The MSD method uses the Service Experience Blueprint (SEB) diagram (Patrício et al., 2008) to design each concrete service encounter. With this multilevel perspective, the MSD method offers a holistic view, from the service concept level, to the multi-interface service system level, and to each service encounter.

By integrating the concepts and tools of design and management, MSD allows for better integration of these two perspectives for service design. First, by merging the stakeholder map and value constellation into the CVC, MSD allows mapping the value network from which the customer co-creates value, but also analyzing new service concepts and how they reflect the firm's strategic positioning. Second, by developing the Service System Architecture and Navigation, MSD allows mapping and analyzing potential customer journeys and shows how backstage processes and technologies need to be designed to support the customer experience. The next section illustrates how the CVC and the SSA can help bridge the gap between service design and management through a case study of a bank's mortgage loan service.

Case study of the redesign of a bank mortgage loan

Applying the Customer Value Constellation (CVC) to design a new mortgage service concept

In MSD, the service concept is defined as the firm's positioning in the Customer Value Constellation (CVC), including the service offered and the partnerships established (Patrício et al., 2011). As shown in Figure 2, the case of a bank mortgage loan, the CVC maps the set of service offerings and respective interrelationships that enable customers to co-create their value constellation experience for buying a house. Some of these services are offered by the bank (e.g. mortgage loan), and some are offered by other companies (e.g. real estate broker services). As such, the CVC represents the existing service solution in a broader context, highlighting other offerings that customers use to co-create their house buying experience, which can be reconfigured into innovative service concepts.

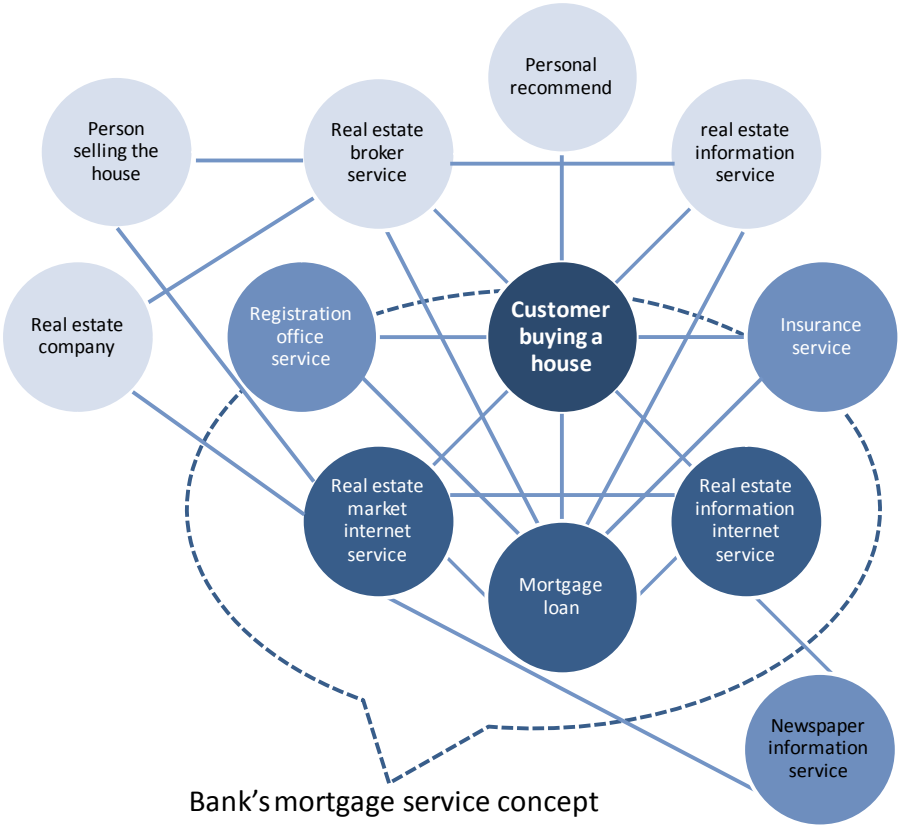

Figure 2: Bank's design of the service concept in the customer value constellation

By viewing mortgages as integrated within a value-creating network for buying a house, and by understanding that the process of house search and mortgage search are often done in parallel, the bank recognized the opportunity to investigate new possibilities for offering

service offerings and move beyond the boundaries of the basic mortgage service. In this case, the bank partnered with registration offices and insurance companies to facilitate the house buying process. The bank also partnered with an important newspaper to develop an Internet service that combines general real estate information, listings of homes for sale, and the mortgage information they had previously provided. The service supports individuals, real estate companies, and real estate brokers. The new service allows potential buyers to search for houses, specifying several characteristics such as location, number of rooms, or maximum price. For each information screen for a specific house, there is information about the bank's mortgage service with a simulation that allows customers to easily input their mortgage conditions and learn the monthly amount they would pay.

With this new service concept, the bank enhanced the customer experience while strengthening its strategic position. The CVC helped expose this opportunity, reconfiguring and repositioning the bank's service offering by integrating service offerings that were previously beyond the bank's boundaries..

Applying the Service System Architecture and Navigation to redesigning the bank's service system

The design of the service system operationalizes the value proposition. To offer the set of benefits defined in the new mortgage service concept, the bank needed to orchestrate a set of service interfaces, processes, tangible evidence, technology and people, which enabled customers to co-create their desired service experiences.

The MSD method uses the Service System Architecture (SSA) and Navigation (SSN) to design the service system. As shown in Figure 3, the top row of the SSA depicts the main tasks customers perform to acquire and use a mortgage loan. The column of the SSA depicts the service interfaces (in the frontstage) and the support processes and technologies (in the backstage), that enable customers to co-create their experiences. The body of the matrix shows the service interfaces and backstage activities that support each customer service task. Each cell depicting a service task performed in a given service interface represents a touchpoint. The sequence of touchpoints across the different tasks and service interfaces forms the customer journey. With this matrix view, the design team can explore and map different possible customer journeys, forming the Service System Navigation (SSN), and can then analyze their implications in terms of backstage processes and technologies. In the case of the mortgage loan, the study showed that some customers preferred to conduct their customer journey online. However, the existing service system did not allow it, because there was no online advice and the contract had to be signed in the physical bank branch. Based on the work of the multidisciplinary team, telephone advice was added, but due to legal constraints, the contract formalization continued to be performed in the physical branch. On the other hand, a smooth service experience across different stages and interfaces required the integration of legacy information systems for an integrated view of the customer. The visualization of the interconnections between the customer journey and backstage processes and technologies therefore enabled a clearer understanding of service system design possibilities by all member of the multidisciplinary team.

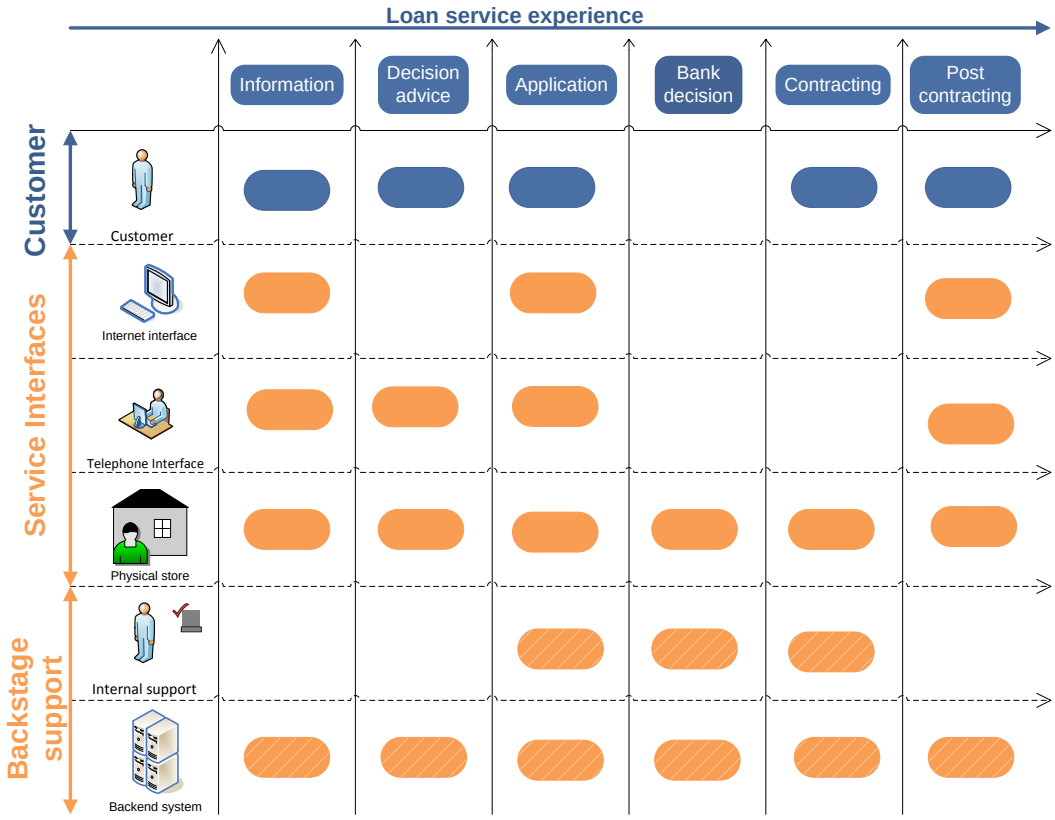

Figure 3: Service system architecture for the mortgage loan service

Conclusion

Service design plays a crucial role in service innovation, and has evolved significantly in the recent past. As an interdisciplinary field, it requires an integration of different perspectives to address the richness of customer experiences and service complexity. However, further work is still needed to synthesize design and management perspectives so that service design becomes a well-established practice in organizations and has a strong voice in the management boardroom.

This paper explored how the interdisciplinary MSD approach integrates concepts and models to help service designers and managers work together for developing innovative service solutions and respective service systems. This interdisciplinary approach makes the service design process and outcomes more understandable and closer to management concerns, linking them to established concepts and tools. This interdisciplinary approach also allows better communication between members of the multidisciplinary team: operations managers can see the implications of design decisions at the interface level in backstage processes (example of online advice or online loan application). IT managers can see the impact on technologies and information systems of their design decisions (example of integration of legacy systems to provide an integrated view of the customer journey across

the different touchpoints). MSD also allows managers and designers to navigate across the different levels of service design, better understanding the interplay between strategic decisions at the service concept level and operational decisions at the service system level.

Understanding the crucial role of customer experiences and the growing complexity of service systems creates the need for interdisciplinary approaches to service design. This paper addressed the integration of service design and management, but hopefully encourages research on the integration of different areas of service design, towards a more holistic approach to service innovation.

References

Dubberly, H., Evenson, S. & Robinson, R. (2008). The Analysis-Synthesis Bridge Model. *Interactions,* 15**,** 57-61.

Edvardsson, B., Gustafsson, A., Johnson, M. D. & Sandén, B. (2000). *New Service Development and Innovation in the New Economy,* Lund, Studentlitteratur.

Evenson, S. (2008). A Designer's View of SSME. *In:* Hefley, B. & Murphy, W. (eds.) *Service Science, Management and Engineering: Education for the 21st Century.* Springer.

Gorb, P. & Dumas, A. (1987). Silent Design. *Design Studies,* 8**,** 150-156.

Kimbell, L. (2011). From Novelty to Routine: Services inScience and Technology-Based Enterprises. *In:* Meroni, A. & Sangiorgi, D. (eds.) *Design for Services.* Surrey: Gower.

Maglio, P. P., Vargo, S. L., Caswell, N. & Spohrer, J. (2009). The Service System Is The Basic Abstraction of Service Science. *Information Systems E-Business Management***,** 395-406.

Meroni, A. & Sangiorgi, D. (eds.) (2011). *Design for Services,* Surrey: Gower.

Miettinen, S. (2009). Designing Services with Innovative Methods. *In:* Miettinen, S. & Koivisto, M. (eds.) *Designing Services with Innovative Methods.* Keururu: Otava Book Publishing.

Morelli, N. & Tollestrup, C. (2007). New Representation Techniques for Designing in a Systemic Perspective. *Nordic Design Research Conference.* Stockholm, Sweden.

Normann, R. (2001). *Reframing Business: When the Map Changes the Landscape,* Chichester, John Wiley & Sons.

Ostrom, A. L., Bitner, M. J., Brown, S., Burkhard, K. A., Goul, M., Smith-Daniels, V., Demirkan, H. & Rabinovich, E. (2010). Moving Forward and Making a Difference: Research Priorities for the Science of Service. *Journal of Service Research,* 13**,** 4-36.

Patrício, L. & Fisk, R. P. (2011). Synthesizing Service Design and Service Science for Service Innovation. *Touchpoint,* 3**,** 14-16.

Patrício, L., Fisk, R. P. & Cunha, J. F. E. (2008). Designing Multi-interface Service Experiences: The Service Experience Blueprint. *Journal of Service Research,* 10**,** 318-334.

Patrício, L., Fisk, R. P., Cunha, J. F. E. & Constantine, L. (2011). Multilevel Service Design: From Customer Value Constellation to Service Experience Blueprint. *Journal of Service Research,* 14**,** 180-200.

Stickdorn, M. & Schneider, J. (eds.) (2010). *This Is Service Design Thinking,* Amsterdam: BIS Publishers.

Tether, B. (2008). Service Design: Time to Bring the Professionals? *In:* Kimbell, L. & P.Seidel, V. (eds.) *Exploratory Project on Designing for Services in Science and Technology-Based Enterprises*. Oxford: University of Oxford.