Right Service & Service Right. How collaborating heterogeneous networks at the front end of service development benefit the process to get the service right.

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Abstract

The development of services is a process in which heterogeneous networks of organizations, designers, and customers collaborate. In this paper we argue that getting a service right at the end of such a development process will be easier when at the very beginning of the process already is started with a collaboration of these networks aiming at getting the right service. To get the right service the co-creation of value, and deployment of actual experiences of users as drivers for service innovation, are seen as important ingredients. This discussion is based on the findings in an on going project, with the aim to develop a framework for conceptualization and implementation of services. The collaborations are addressed from both the organization and design perspectives.

KEYWORDS: Product-Service Systems, networked collaboration, multi-perspective co-creation, co-creation of value.

Introduction

Industry is facing the challenge to transform their tradition of mass-producing and mass-marketing products. Offering products is not longer enough to be competitive, just adding features or finding new target groups doesn't work anymore in the growing complexity in society. Offering products is extended to the offering of combinations of products and services: Product-Service Systems (PSS). Manzini, Vezzoli and Clark (2001) outline the potential of the concept of PSS to shift production and consumption patterns into more sustainable patterns. PSS development could make industry look for products and services jointly capable of fulfilling a client's needs and/or wants - with higher added value and a smaller environmental impact as compared to an existing system or product.

Products and services differ in a number of ways. The main implication of those differences is that services, as opposed to products, rely on the interactions between the users and providers of the service. This has consequences for the development process since all aspects relevant to these interactions (e.g. product, brand, customer-facing staff, environments, sales and communications materials and channels) have to be jointly developed (EngineGroup).

Product development is already a complex process because of all parties involved. However in the case of development of PSS often networks of Small and Medium Enterprises (SMEs) and/or departments of larger organizations collaborate with their customers who are networked as well. Gummesson (2004) explains that because of all these networks (of organizations, customers, citizens, and of employees) the communication of organizations with their customers has changed from one-to-one to many-to-many.

It can be said that PSS development is a heterogeneous networked collaboration.

The authors of this paper are part of a recently started project focused at understanding the networked nature of PSS development. The project aims to develop a framework of methods, techniques and tools that improves the conceptualization and communication among all those involved in design and development, across industries. The project is described in Henze Mulder and Stappers (2011) where it is argued that the user's experience serves as the central instrument to orchestrate the complexities of Product Service networks. A user-centred focus promotes outcomes that fit the needs of the user and could improve communication and collaboration among the multi perspective parties involved. The focus of the current project is on how to develop product-service systems in heterogeneous networks. The project team is a heterogeneous network in itself because of the expertise of the project partners (academic and industrial professionals from various disciplinary backgrounds among others such as industrial design, change management, software and service engineering, human-centred design, organizational development, product development, service design, business strategy, networked collaboration). All team members participate in all activities throughout the project, joining and confronting their experience, knowledge, and skills and enabling them to look beyond traditional paradigms. The activities concern case studies that give the opportunity using retrospective analyses and interventions, during which both theory and application evolve in parallel. A variety of application areas are researched in the project (health care services, financial services, document services and ICT services).

A first attempt to draw the map of Product-Service Networks and their collaborations has lead to the initial framework in figure 1. The diagram shows collaborations between provider organizations (in the Service Organization Network), in between designers (in the Service Design Network) and in between the people using and experiencing the PSS (in the Service Experience Network). An emphasis lies on the collaboration of these networks (the overlapping fields in the initial framework)
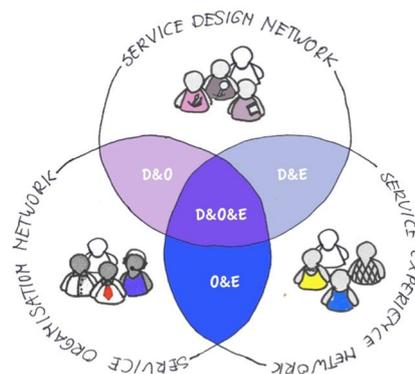

Figure 1   The initial Product-Service Networks framework stresses the interactions on the boundaries of the networks.

A first question is what methods, techniques and tools are available to enhance the collaborations and lead to the mix of products and services that meets the needs, values and ambitions of the people using and experiencing the PSS?

The collaborations are addressed from both the organizational and design perspectives.

Two of the findings in the first phase of the current project are reflected upon in this paper:

It was concluded that a paradigm shift towards cooperation seems required: instead of cooperation in order to meet individual targets cooperation should be based on a balance between users value, organizations value, and service systems value. This is in keeping with Parker and Heapy (2006) who stress a similar approach where it is less about competition and contestability. They stress there is a need for a vision (public) services that put people and places instead of targets and key performance indicators at its heart.

A main challenge seems to be deploying actual experiences of users as drivers for service transformations.

The balance among users value, organizations value, and service systems value is discussed from the organization and design perspective in section 2 of this paper on the co-creation of users value and value for organizations. In section 3 deploying actual experiences of users as drivers for service transformations is discussed. One of the cases, retrospectively reviewed in the project, is used as an illustration how this deployment could lead to co-creation of the right service.

Co-creation of value

Much has been written on co-creation and on creation of value. For the purpose of this paper co-creation is referred to as the act of collective creativity of people working together in the product-service development process. Sanders and Stappers (2008) reflect upon co-creation and co-design from the design perspective. They discuss the consequences of the evolution from a user-centred approach to co-creation for the design practice, and one of their conclusions is that new tools and methods will be required for researching and designing.

Ramaswamy (2009) discusses co-creation from an organization perspective and feels that co-creation always begins inside the organization. Co-creation is changing the very nature of engagement and relationship between the institution of management and its employees, and between them and co-creators of value – customers, stakeholders, partners or other employees. Organizations have been designed around their internal activities and have to develop the capacity to co-create (Ramaswamy, 2009).

As a next step, co-creative strategy can be summarized as creating value by enhancing experiences of all stakeholders, focussing on the interest of all stakeholders, and achieving advantage through the increased engagement of stakeholders and by continually building new interactions and experiences, which lead to higher productivity, higher creativity, and lower costs and risks (Ramaswamy and Gouillart, 2010).

Ramaswamy and Gouillart (2010) advocate 4 principles of co-creation: value for all stakeholders, focus on experience of all stakeholders, stakeholders interacting directly, and provide platforms for interaction.

To put it differently: PSS development from the organization perspective seems to be about co-creating value in a heterogeneous networked collaboration, and seems to begin in adapting the organization. From the design perspective the emphasis seems to be on the collaboration of users and designers. In this, the terms co-creation and values are central terms, which are used loosely by some authors, and better defined by others.

Co-creation of value: the organization perspective

Vargo and Lusch (2004) promote a new dominant logic for marketing, one in which service provision rather than goods are fundamental to economic exchange. One of their premises is that goods are a distribution mechanism for service provision. From the marketing perspective, in relation to PSS and value co-creation, Grönroos (2011, forthcoming) says that being a service business is a strategic choice and a function of the dominating mental model in the organization ('culture'). To his accordance service is to facilitate and support another party's practices in a way that helps this other party achieve its goals in life or business. He thoroughly discusses the Service Dominant Logic of Vargo and Lusch (2008), especially their premise that the customer is always a co-creator of value. The starting point of Grönroos is that the customer's value is always value-in-use. Value-in-use is the value creation by customers during their usage of products and services. Design and production may influence and engage with this value creation process (Grönroos, 2011). Grönroos concludes that provider organizations cannot create value for their customer, but they are value facilitators. Based on that he explains that co-creating value is not possible without direct interactions. Only when direct interactions occur the provider organization has an opportunity to co-create with its customers.

But also co-creation of value between organizations takes place. Den Ouden and Valkenburg (2011) explain that for collaborative social innovation it is needed that the various participating companies and organizations get insight in, and create, their shared value. This value is defined in different terms e.g. economical value, knowledge and reputation. A first step in the collaborative innovation process Den Ouden and Valkenburg (2011) suggest is defining a suitable value proposition for future needs of the users. In the adaption of this proposition new value propositions arise for the participating organizations and need to be defined in the early phase of the innovation process. These new value propositions often require reconsidering the current business model and context.

For the purpose of this paper co-creation of value refers to the creation of value propositions in close collaboration (direct interaction) between (networks) of organizations and (networks) of customers, adapting the theory of Grönroos of value-in-use and the customer as the value-creator. This co-creation of value starts with the creation of value propositions in the earliest stages of the PSS development process in order to enhance the collaboration between the different networks.

Co-creation of value: the design perspective

Looking at the co-creation of value from the design perspective the concept of Design Thinking is key. According to Brown (2008) design thinkers are people that have a designers' sensibility and use methods to match users' needs with what is technologically feasible and what with a viable business strategy can convert into customer value and market opportunity.

Brown (2008), and many designers with him, believes that business would do well to incorporate design thinking into their innovation process. In contrast to the organization perspective it seems that designers take the user as the starting point of innovation.

Stickdorn and Schneider (2010) apply this design thinking to service design. The service design process is sketched here in 4 stages: Exploration, Creation, Reflection and Implementation. The Exploration stage is very much an understanding of the state of the art (what are the company's culture, goals and view, what are the consumer's problems). The Creation stage focuses on the enjoyable experiences before, during and after the central service experience. In the Reflection and Implementation stage the service concepts are tested and implemented. What seems missing is the notice of the network relations and a direct interaction between customers and organization to the co-creation of the PSS vision and value propositions. Kimbell (2011) proposes a process of enquiry during which meaning is constructed with diverse stakeholders in the service design process. Kimbell (2011) sees service as the fundamental basis of creating value. In her research, design practitioners indicate they facilitate the involvement of managers, customers, service personnel and other stakeholders. The understanding and facilitation of networked collaboration is not mentioned.

Lu, Keijzers and Dorst (2011) explore the use of tangible value modelling to motivate stakeholders to participate in multi-stakeholder innovation. They make a link to the tangible business model sketches from Mitchell and Buur (2010). These sketches are to stimulate discussions concerning how businesses create and capture value and include professionals (like designers), who do not understand the language and logics in business models, in these discussions. Both tangible value modelling and tangible business model sketches seem to be promising attempts that could facilitate co-creation of value.

The examples in this section show how/that the co-creation of value from the design perspective refers to the creation of services and business models. Service design is about creating value for both customers and organizations by facilitating the development and design of valuable propositions for customers and organizations. Understanding customers, designing services and facilitating organizations in developing their business models is what (service) designers do. Methods for facilitating collaboration of heterogeneous networks seem still under construction.

In the next section we elaborate on the deployment of experiences of users as drivers for service transformations. The emphasis is on collaboration of all PSS networks at the very beginning of the co-creation process.

Co-creating the right service

Co-creation in the very beginning of the PSS development makes it possible to deploy actual experiences of users as drivers for service transformations. However, only when a clear vision of the right service is taken as a starting point it will lead to detailed solutions for each point of contact between the user and the service provider that make the service right. We refer to the right service in this paper as: the best fit between the facilitating possibilities of the organisation and needs and goals of the customers. This in keeping with the definition of service of Grönroos (2011).

The following 'case of the Insurance Company' (one of the retrospective cases in the project) illustrates collaboration among customer networks, designers' networks and organization networks. We use this case as an illustration because it is an example of a development process with the potential of the joint development of user network centred services and the development of the new business model (required to facilitate networked collaboration).

The case of the Insurance Company

In 2007 a cooperative Insurance Company agreed to invest in 'Social Innovation' for a period of 3 years. Four C, a 'Social Innovation' consultancy, would support the Insurance Company during this period and commit itself to deliver innovative concepts that would precisely fit the context of use by the end customers. The key concept of Social Innovation (SI) is the focus on the users, and how they perceive value within their context, interests, needs and experience.

The Insurance Company selected the small and medium enterprises, exemplified by restaurant owners, as the end customers the innovative concepts should fit.

The first step in this project was discovering, analysing and understanding customers' needs. The outcome of these qualitative & quantitative customer research determined restaurant owners all worked closely together with a network of local entrepreneurs often consisting of local greengrocer's shops, bakery, butchers, carpenters, painters, book keepers, carriers, cleaners, etc. Looking from the perspective of restaurant owners, their business goals and their ultimate commercial success depended more on cooperating with their local network of entrepreneurs than on the Insurance products and services. So, focusing only on Insurance products and services would not have been a clever decision, since it was calculated that restaurant owners paid 3 times more for their toilet paper than they would pay for Insurance products. Insurance products were not at their priority list, at all! It was more adequate to examine, understand and enforce the existing

relationships among these local networks to discover which role risk-related products play in the networks of local small businesses.

In the following stage Four C collaborated with their designers' network to facilitate context mapping and co-creation sessions to understand the latent en implicit desires of the customers (see also Visser, Stappers, Van der Lugt and Sanders (2005)).

One of the outcomes was a target for the Insurance Company: 75% of the questions the customers asked the Insurance Company, would be answered within 24 hours. This simply expressed the frustration many customers experienced with any ordinary Insurance Company.

Within the Insurance Company the customers are attracted by the Marketing departments, the product is ultimately sold by the Sales department, the commercial balance in results of sales volume and the expenses (for instance as a result of damage) is the responsibility of the Portfolio management department, the claims are handled by Claims department and finally when a damage has occurred, the Damage department sends specialists to recover the damage. These departments do work together occasionally, but based on other parameters subjected to internal politics and individual interests, for different reasons than to satisfy the need of the customers.

Consequently, Four C requested both the insurance specialists, and the management of the Insurance Company, which set of competencies, skills, data, software, process, etc. would be needed to reach the target. The answer was a complete new business in which specialists of several departments would closely work together to answer the customers' questions.

Everybody who knows the complexity of the personnel management, budgeting, IT, data warehousing, business processes, etc. of Insurance business knows that this would be a lost battle, before it has even started. So, the concept of the mini-company was created as a first step towards the final goal. Management agreed upon a pilot to put the required Insurance specialists in a team for a half a day each week who could answer the customer questions by cooperating as a team working for the same client groups. A team consisting of consultants, data specialists and designers facilitated the cooperation between these internal (mini-company) and external (client groups) networks.

The complex problem within the Insurance Company (like any large company) is that specialists are managed, their outputs are coordinated, and targets are defined from an efficiency and cost perspective by their department manager. Within this model, the manager 'owns' the output of one specific 'link in a chain' that is needed to answer/fulfil the entire question/need of the customers. We discovered two things: firstly a cooperative team of specialists from several departments within the Insurance Company was needed. Secondly, and that was even more challenging, we discovered that it would maximally motivate the specialists to coordinate the outcomes when they themselves (and not the manager of the team) would own the mini-company! In this way we were able to put a social mechanism in place that would value the specialists who are the best in helping the clients. The results of this first step of the mini-company concept were unexpectedly good, both for the customers' satisfaction and organizational results as well as the cooperation within the Insurance organization.

Where the clients' team builds relations between customers with the same needs by co-creation sessions, the mini-company builds relationships between specialists on the base of insights in customers' needs, derived from the outcome of the clients' team. In the further development of the concepts the clients' team was involved in testing the different concepts (interfaces) while the mini-company worked on the business model.

Before all innovative concepts were implemented and could proof the benefits of Social Innovation, the budget for the entire Social Innovation trajectory was suddenly stopped, as the financial crisis was affecting the economy in the beginning of 2009. Management did what they often do in case of crises: cost cutting instead of further investment in innovation. The SI team, and their designers' network, did not succeed in convincing management to continue investments in the Social Innovation.

Lessons learned from this case

Old institutional habits are difficult to change, especially in the case of emergency as a financial crisis. Management use their existing value propositions to decide on investments in PSS development and developing new business models and context. The co-creation and application of new value propositions seem difficult, apparently because of the lack of methods and designers' skills to collaborate with executives and management in the co-creation of a shared vision for a PSS proposition and in the end bring that vision into action. Measuring the benefits of the new value propositions is proven difficult in this case on the relatively short (14 months) notice.

Building relationships among the different networks seem possible and beneficial in the co-creation process of the PSS in this case. The clients' team, the mini-company and the collaboration between the two showed this.

The new collaborative business model designed for the Insurance Company, which was experimented successfully for the SME client groups, was based on a simple strategy called Tit-For-Tat (Axelrod, 1987). The Insurance Company would initially choose an Internet strategy for building relationship with client groups, as Internet is a very cost efficient distribution channel. As we experienced the importance of social contact among local entrepreneurs, which is the base of doing business with each other, we realized that doing business requires both, easy to access platform (internet) and it also depends crucially on the probability that local entrepreneurs (SME's) will meet again. This last aspect came forward as the most significant parameter for the local SME's to trust each other and do business with each other.

Conclusions

In this paper, within the context of the current project on developing a framework for service development, we discussed the co-creation with customers at the very beginning of the development process in order to formulate a shared vision for a PSS proposition. The co-creation of value, where the consumer is the creator of value and the provider organization is the facilitator of values (Grönroos, 2011), starts with understanding the future needs of the customers (Den Ouden and Valkenburg, 2011). The co-creation activity in the front end will build relationships in and between the heterogeneous networks, important for the further development of the right service into the right service outcomes.

However, we learned from the case of the Insurance Company that designers seem to lack methods and skills in co-creating with executives and management in the organizations networks necessary to create a shared vision and bring this vision into action. From the design perspective there is a low attention on the understanding and facilitation of networked collaboration. Methods for facilitating collaboration of heterogeneous networks seem still under construction.

Limitation of this study is that the findings are based on only one case, a limited literature review and several project team workshops. We are only at the beginning of a journey that will be continued the coming 3 years with further research through design, case studies and literature study. At the end of the journey we have not only developed a framework of methods, techniques and tools to enhance the collaboration of heterogeneous networks, improve conceptualization and communication of PSSs, but also reached a consistent link between theory, skills and practice.

Acknowledgement

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