

Welfare Service Innovation Network

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Abstract

This work-in-progress paper presents a service innovation process of a welfare service network developed to offer a new kind of service infrastructure especially to elderly people and to people with disabilities. The paper presents the particular service development process by building on a four-stage model by Edvardsson, Gustafsson, Johnson and Sabdén (2002). Each stage, incorporating the elements of the ARA-model of the IMP Group (Actors, Resources and Activities), is then discussed in-depth and connected with empirical evidence from a case study with the company that has developed the actual service system. The service innovation process described in the paper illustrates the multidimensional nature of the development process, where the service development stages overlap with one another and progress simultaneously and where some actors play a different role during different phases of the project. Although the Edvardsson *et al.* (2002) model offers a valuable tool to summarise the various resources, actors and activities in different stages of the innovation process, it does not provide the required flexibility to explain the interconnectedness of the various network actors in different stages of the development continuum from idea generation to service implementation. The paper concludes with the notion that in order to understand the plurality of simultaneous development processes and the development networks within networks, more research needs to be carried out with the decision-makers of the network member organisations and other actors in the innovation process.

Introduction

Services play a crucial role in the global economy and the service sector has been of great interest to many academics and practitioners due to its increasing importance and growth. One of the rapidly growing fields within the service sector are welfare services, which consists of services from fundamental care of special groups (e.g. children, disabled and elderly people) to providing leisure time activity for all consumers. Innovative developments in service industries seem to be difficult to explain in terms of traditional innovation theories and typologies (Hipp and Grupp, 2005). Innovation research has primarily shown interest in products and production processes in manufacturing companies and thus left service innovation processes in minor attention (van der Aa and Elfring, 2002). Nevertheless, the advancements in the field of technology enable companies to develop innovative new service solutions, which exploit synergies of service firms and their customers co-operating in a technology-mediated network. One key standing of this work-in-progress research is highlighting the need for research on service innovations, which constitute an increasingly important share of market growth worldwide. A literature review reveals especially a need to analyze the service innovation process in a network context when firms aim at creating competitive advantage through technology-mediated co-operation (Klischewski and Wetzell, 2003; Kandampully, 2002). By presenting and analyzing a case study of a service firm network that develops and provides a wide offering of welfare services to customers from special groups, the research seeks to shed light to the understanding of the process of creating service innovations.

Purpose and Research Object

The purpose of the research is to illustrate a service innovation and to describe the stages and crucial actors of the service innovation process in the particular regional case of a technology-mediated welfare service. The discussed service innovation consists of a network of service firms interacting with their customers and with each other. This is made possible via an online user interface, made easily accessible to special groups, such as people with disabilities, the elderly and their caretakers and relatives (see Figure 1). The nature of the particular network service innovation differs from those more traditional services, which either include human interaction or solely exist online. The purpose of the service innovation is to help its customers to live independent life in their own homes by offering tailored services and assistance with everyday tasks when needed, and enabling their interaction between various supporting service functions. Along with an easy access interface to a variety of services, peer groups and family, the technological interface innovation that lies at the core of all network interaction in this case, consists of additional integrated intelligence that enables the use of reminders, calendars, tracking, alarms and automatic data collection to allow service providers and other network members to fully support the people from special groups to have overall control of their own lives. The innovator's view, presented more extensively further on in this paper, is that the networking concept described in Figure 1. can extend the period of time that aging people can live an independent life before inevitably moving to institutional care, which is costly to the society. Figure 3. will present the current stage of the service innovation process of the "eVita" service network based on a model developed by Edvardsson (2002).

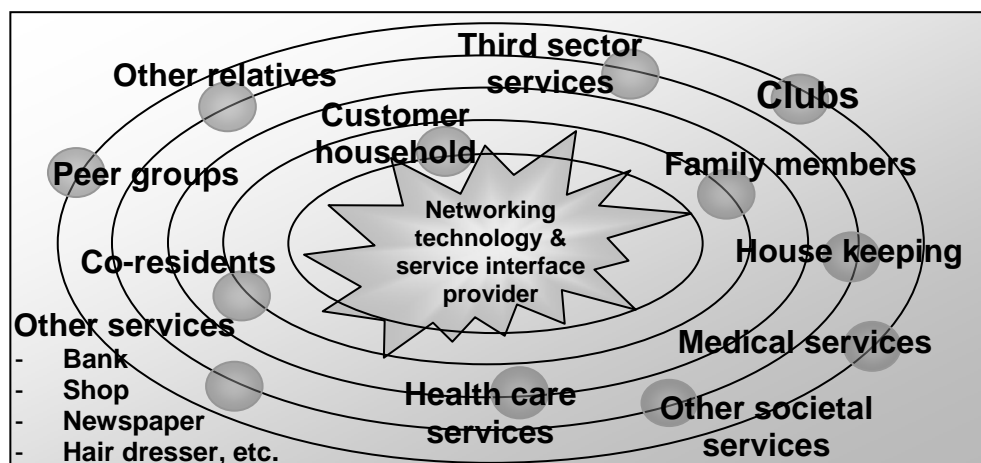


Figure 1. Welfare Service Innovation Network

(Adapted from http://www.softsizing.fi/eng/eVita_eng.pdf, 2004)

Methodology

The research uses a case-study approach to analyze the service innovation process within a service network context using the ARA model (actors, resources, activities) of the IMP Group. The model is considered suitable for describing, in a holistic manner, the actors and resources of the service network, and the overall configuration that has led to the creation of the network. Research questions include: Who initiates the service innovation process? How does the innovation process progress and develop after the idea creation? At what stage of the process is the influence of which actors most crucial? What terms and conditions apply to the different stages of the process of service development and network expansion? At the first stage of the work-in-progress research the objective was to get an overview of the innovation process from the company's point of view (see Figure 3.) that has developed the service concept illustrated in Figure 1. that they call eVita system.

The main data collection method are tape-recorded personal interviews, first, with the CEO of Softsizing Oy Mr Berg, and later with all the network members that take part in the innovation process of the service concept. To deepen the understanding of the innovation process of eVita, further research is needed with the network member organisations' decision-makers. As stated previously, this work-in-progress paper presents the first stage of the research aiming at understanding the role of the entire network of participants in the service innovation process. The concepts *service innovation* and *service development* are used synonyms in this paper as the difference between the two processes is really in the eye of the beholder. What is seen an innovation in one company may be a natural evolution of an existing service in another company. The authors argue the service concept presented in this research has clearly some innovative characteristics that justify the use of the term *innovation*, whereas the innovator's perspective is that the eVita system is virtually a natural continuum to the company's previous service offerings (Berg 2006).

Contribution and focus

This case study builds on the research field of service innovations that acknowledges previous research on innovations been primarily influenced by research traditions that emphasize the nature of product and production innovations (Hipp and Grupp, 2005). The aim of the paper is to describe a radical welfare service innovation in a technology-mediated network context that fades away the boundary between online and offline services. By doing this, the research seeks to create understanding of how the service innovation process is initiated and how it progresses. Considering the lack of research in the field of service innovations (Alam, 2005; van der Aa and Elfring, 2002), shedding light to the understanding of how service innovations are created and how the innovation process progresses, may attract attention among academics and practitioners alike.

eVita's development process is reflected upon a model of New Service Development Process by Edvardsson, Gustafsson, Johnson and Sabdén (2002) that has four generic phases: service idea generation, the service strategy and culture gate, service design and service policy development. (see Figure 2) Edvardsson *et al.* (2002) have put the development process within a framework of company strategy and culture. Their view stems from a perspective that service culture and service strategy are intrinsically linked. The premise is that a company's culture determines what services the company can feasibly develop and maintain. In this paper the development process of the welfare service innovation, eVita concept, will be built on and discussed through this framework in Figure 3.

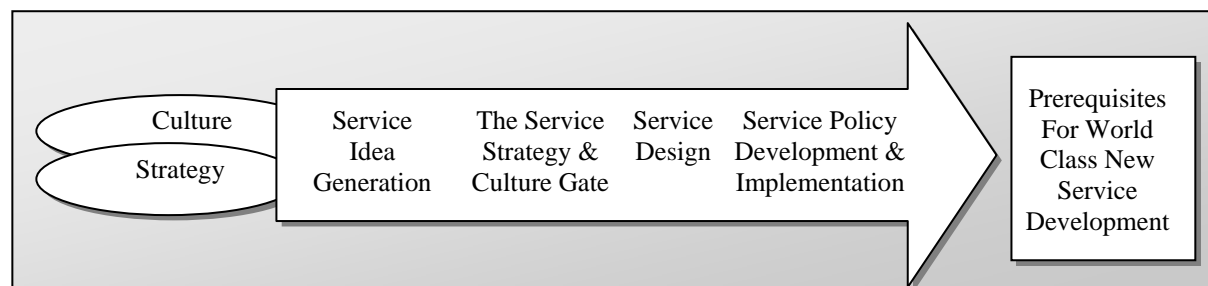


Figure 2. Model of the service development process (adopted from Edvardsson *et al.* 2002)

The model (Figure 2.) builds on a notion of culture, both corporate and service culture, being the most decisive factors influencing just what strategies, improvements and innovations are possible. Strategy is linked to service culture and the goal is to make a series of linked service activities a truly seamless system through both differentiation and focus. The differentiation is provided by the fact that, once the culture is established and the activities linked, the system becomes extremely difficult to replicate. The focus is provided by concentrating on a particular market segment and learning to say no to opportunities that are inconsistent with the established service strategy and culture.

The first stage of the actual service development process is the Service Idea Generation. Ideas can be generated in many different ways and from many different sources including new technology, competitors and front-line employees, without forgetting the role of customers as perhaps the most important source of new ideas. Second stage, the Service Strategy and Culture Gate concerns the formalization process and initiation of the development project where resources are allocated, the project is formed and its composition defined, and the common values of the project organisation are implemented. According to Edvardsson *et al.* (2002) there are usually three groups of people in the project organisation: the patron, which is the business unit in charge of the project once it is developed, a control group that supervises the project and the project team, a multi-functional team composed of demanding customers, external actors and different expertise, that actually designs and implements the service.

Third stage, the Service Design, concerns the phase where the service concept, service system and the service process are designed, i.e. the concept is developed into a service during a number of parallel and integrated activities. In this phase a needs analysis has to be conducted to specify the service content. Prior to develop the service process, resources are allocated and structures designed to support the delivery of the service. In order to develop an administrative system, the responsibilities and authorities of the personnel need to be determined within the organisation. Here also information, education and marketing have to be developed and communicated through to prepare customers and staff. At the fourth and final stage, Service Policy Deployment and Implementation, the service is launched, service staff is trained and internal and external marketing is carried out. Introducing and integrating a new service into a current service system plays a crucial role at this stage. Edvardsson *et al.* (2002), following Tax and Stuart (1997), argued that any change to the service system that requires new or different competences can be considered a new service. Next a model will be presented (Figure 3.) that builds on Edvardsson *et al.* (2002) with empirical data collected by an in-depth interview with the CEO of Softsizing Oy.

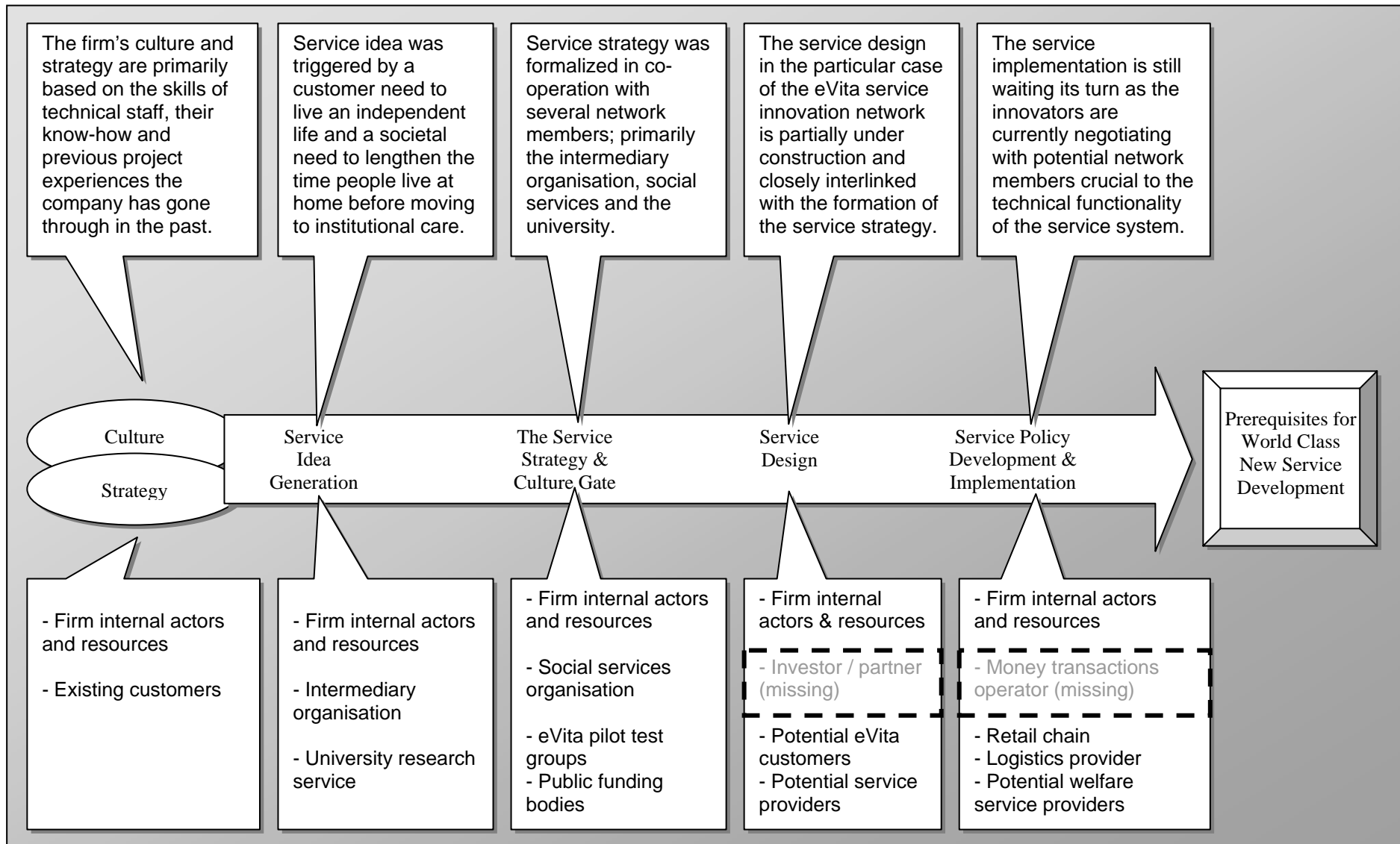


Figure 3. The current stage of eVita Service Innovation Process by Berg (2006). Model developed further from Edvardsson *et al.* (2002)

The case-study

Softsizing Oy is a small-size Finnish software development company that produces electronic business solutions for public and private organisations. The company has developed a computerized service infrastructure, "eVita" that initially was designed for the disabled and elderly people, which is made easy to access and enables the networking (Figure 1.) of the elderly and disabled people, their nurses and relatives. The information on the stages of the innovation process of this particular service concept was obtained from Mr Kari-Erik Berg, CEO Softsizing Oy, who initiated the idea of the eVita system in 2002. It should be noted here that the eVita solution that the company develops and markets includes both the networking system software and hardware for easy access e.g. for people with disabilities. However, the functionality of the system is by no means restricted to the special touch-screen equipment use only, but can be accessed via any computer running on the MS Windows platform that is connected to the Internet. Thus, potentially, the service system could be introduced to any home or to a group of customers in the future if they would find it benefiting. As described earlier, this research focuses merely on the wider service innovation process of eVita (presented in Figure 3.) and leaves the technological issues, such as usability, to lesser amount of attention.

Company culture and strategy

The focal company in the service innovation process, Softsizing Oy, is primarily a software development company that has focused on designing business solutions on customers' specification and that is driven by the needs and wants of its existing customers. The company's main virtue is in managing its scarce resources and technical competences to complete IT projects that meet customer expectations and demand. In its essence the company is purely a software development company and it is only recently, since the eVita system was developed in 2002 that the management, namely the CEO, has shifted his interest towards wider service infrastructure maintenance. As will be explained further on, the initial service idea, the eVita concept, received wide support early on among others in private and public funding organizations, the municipality's social service and intermediary organizations, private welfare service firms, retail companies and banks. This encouraged Softsizing Oy to proceed with the concept development although, further on in the innovation process crucial funding dried up as the eVita service system was considered by some network members a too vast entity to manage and orchestrate solely by Softsizing Oy. This has not changed the firm's strategy to attract the necessary network members to eventually introduce eVita to elderly people and people with disabilities although Mr Berg (2006) recognizes the unbeneficial view from the company's perspective that especially the key public organizations and funding bodies evaluate the market potential of the eVita concept through the existing competences of Softsizing Oy. In other words, they see Softsizing Oy a traditional software development company, which does not possess necessary capacity and competence to operate a complete service infrastructure, "a network of networks (Berg 2006)". This has led the company to prepare eVita's launch in a simplified form consisting a retail chain, a money transactions operator and a bundle of private welfare services providers.

Service Idea Generation

According to Berg (2006), the preliminary idea of the service system was triggered by a piece of news in 2002 on the increasing proportion of elderly people in Finland, the insufficient number of vacancies in nursing homes and the lack of nursing staff in hospitals and institutions. This is a widely discussed phenomenon in Finland today (see e.g. Kerola 2005) and it has also created pressure and high expectations to private sector organisations in the country to develop efficient welfare services in respond to the increasing regional needs (Väkiparta 2005). It was Mr Berg's vision in 2002 to use his company's existing competencies in IT-networks, touch-screens and interactive technology to develop an IT solution that would allow the elderly people to extend their stay at home by offering them an easy-to-use solution to control their lives before the stage when they need, from a societal perspective highly expensive institutional care. Due to the history of the company as a developer of complete business solutions, including electronic commerce, Berg (2000) sees the development of eVita system technologically a natural prolongation of the software and systems solutions they had developed before eVita. In very early on the idea generation process a regional intermediary company came to financially support Softsizing Oy in gathering a required service development network around it. The regional intermediary organisation works in co-operation with other regional actors such as the university, which was able to offer its market research services to assist Softsizing Oy to develop a marketing strategy for eVita.

Service strategy and culture gate

The technical staff in Soft sizing Oy played a crucial role in developing a demo version of the eVita system. First the company utilised touch screen technology to create a piece of equipment suitable for running the early version of eVita network environment and the user interface. Already in the early stage of the development process it was clear to the company that the system needs to be flexible in allowing all network members (customers, their relatives and both private and public service providers) to interact with each other in the virtual environment if needed. The functional logic of the service system was initially built the special customer groups in mind that would benefit from a service network, which they could manage and utilise to order services home, contact family and friends or access various services online. In 2002 Soft sizing Oy took part in a welfare sector seminar where they presented the idea of the eVita concept. It was there that the representatives of the regional intermediary company initially approached the firm and offered it seed funding to develop a pilot version of eVita. The development project went well but this was so far the last time the company was given public funding as the service systems has been considered a too large network entity to control by any one counterpart.

Soft sizing Oy is currently waiting for research results from their pilot test concerning the usability of eVita, evaluated by two people with disabilities, their families and nursing staff. The preliminary findings are promising for the firm and should assist it to attract the missing network members needed in the final commercialisation and launch of the system. A last-minute withdrawal of some key participants, namely the money transactions operator whose task would be to organize and maintain a secure payment system when eVita is running, is currently causing the project halt. Mr Berg is trusting that eVita will be well and running in six months time after the company finds the partner to carry the project through with, as so much time has already been put into developing the core processes of eVita. The company has faced backlashes in negotiations with public health care organisations, which according to Berg (2006), willingly invest in technological gadgets to rationalise the existing service provision but, seeking new comprehensive solutions to provide services and to solve the aging problem in welfare sector with systems like eVita has not yet been found necessary. Soft sizing Oy has decided to use a market entry strategy that first attracts the more wealthy customers and then moves down to larger customer groups and aims at becoming the market standard.

Service Design

Service strategy and service design stages (Figure 3.) go hand-in-hand in eVitas case. The service innovation being the multi-dimensional networking concept, i.e. a service infrastructure or a comprehensive service system, means that a new way of thinking needs to be implemented in the market before the adoption of the service system takes place. It has been clear from the start that there are a great number of interested private welfare service providers that could take part in the eVita network when the system is launched. As such, the membership in the network does not require radical internal changes in the service provider organisations. The only requirement is that they have an access to the system. In the early stages of the innovation development process the municipality's social services were offering resources and assistance in designing the eVita concept first with the management level people and last on the operational level with the social service field staff. After the determination of the system's features and functioning logic with the social service organisation the final service productization of eVita was turned down by the high level social service decision-makers, who saw it was more important to invest in the existing service system.

The real challenge for Soft sizing Oy has been to keep the largest and most vital network members: a retail chain and a money transactions operator convinced that the project is viable despite of recent drawbacks and will be a success among customers when launched to the market. To accelerate the commercialisation process the company would need a partner, purely an external private investor or an organisation willing to become a member and an actor in the service network. Although the company has kept its focus on groups with special needs prior to the service system implementation, Soft sizing Oy has simultaneously widened the service scope and considers any household a potential customer in the future. This gives the company more room to think strategically and consider alternative implementation scenarios. (Berg 2006)

Service Policy Development and Implementation

It is vital to the company to be able to bind the most crucial network members to the project. The implementation cannot be made before all the actors and resources of the network have been confirmed and the required last-stage activities have been carried out. (See figure 3.) Softsizing Oy sees the willingness of the retail chain to co-operate a major victory in the development process. Berg (2006) believes strongly that in order the service system to be desirable to the customers and other stakeholders, it needs a fully-functional infrastructure with a logistics company and with a company that takes care of the secure money transactions in eVita environment. Additionally, the service system has to offer everyday services such as an option to shop groceries; hence Berg (2006) considers that the retail chain's presence in the project will assist to overcome the barriers currently restraining the implementation of the service system.

Despite the fact that public organisations currently remain outside the future implementation plans of eVita, Softsizing Oy strongly believes, once the service system is introduced to the market that public welfare service providers will also need to join the network eventually. The company still needs resources to finalise the service concept to turn it into a service product that is ready for the market. What services does the system offer when it is implemented, to whom, when and where? are questions that still needs to be answered. Along with these rather vital questions Berg (2006) also mentioned the importance of semiotics of the service interface in determining the future success of the system.

Conclusions

The authors have presented the concept of a new and innovative welfare service network that was developed initially for the purpose of delivering various services for the elderly people and people with disabilities and enabling these special groups to interact with their personal network and to have more control of their lives. All the four service innovation development stages presented in Figure 3. overlap in eVita's case and in many ways the Edvardsson *et al.* (2002) model was found inadequate to illustrate the interconnectedness of the four phases and networking linkages of the actors explained throughout the case. In order to fully understand the service innovation process prior to the service implementation, more in-depth research needs to be carried out with different network participants. In order to understand the role and motivations of the various network members in giving their input in different stages of the service development process, we also need to understand the participants' interconnectedness and memberships in other networks in the region.

This case has clearly illustrated how the nature of the service development process cannot be fully understood if the different stages are embraced forming a clear-cut linear process, which phases are considered separate from each other. Just like the nature and idea of the presented service innovation is flexible, incorporating processes within processes and thus networks within networks, likewise is its multi-dimensional service development process, progressing simultaneously in different stages of Figure 3. The resources the different actors possess and the activities that result from and affect the interconnectedness of the network in different service development stages play an important part in the development *continuum* from the idea generation to the service implementation.

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