

Creating value in networks: A value network mapping method for assessing the current and potential value networks in cross-sector collaboration

Daniela Grudinschi

Lappeenranta University of Technology, School of Business, P.O. Box 20,
FI-53851 Lappeenranta, Finland

Jukka Hallikas

Lappeenranta University of Technology, School of Business, Technology
Business Research Center, P.O. Box 20, FI-53851 Lappeenranta, Finland

Leena Kaljunen

SOCOM Oy – Expertise on Social Welfare, Laserkatu 6, 53850
Lappeenranta, Finland

Antti Puustinen

Skanska Oy, PL 114, Nauvontie 18, 00101 Helsinki, Finland

Sanna Sintonen

Lappeenranta University of Technology, School of Business, P.O. Box 20,
FI-53851 Lappeenranta, Finland

**Creating value in networks:
A value network mapping method for assessing the current and potential
value networks in cross-sector collaboration**

Daniela Grudinschi, Jukka Hallikas, Leena Kaljunen, Antti Puustinen, Sanna Sintonen

ABSTRACT

How to manage value creation and how to maximize the potential of collaborations are challenging issues in the management of cross-sector collaborations. One strategic tool for addressing these areas of concern is value network mapping; this serves as the starting point for value network analysis, which is used to maximize innovations by forging stronger value creation links with strategic partners. The objective of this study was to design and implement a method for value network mapping that would increase our understanding of how new value can be created in cross-sector collaborations. The proposed mapping method also permits the assessment of current and potential value networks; e.g., what value is exchanged in the current collaborative state and what new value can be created through the proper management of a value network? Using the case study of a collaboration among the public, private, and non-profit sectors for elderly care, this paper describes, step by step, how the proposed value network mapping method can be applied in practice to help managers and experts understand how to develop complex value network maps, how new values can be created, and how to maximize the potential of a collaboration.

Key Words: Value network, value network mapping, value creation, cross-sector collaboration, conceptual framework, elderly care

Introduction

How to manage value creation and how to maximize the potential of collaborations are challenging issues in the management of cross-sector collaborations. In today's dynamic economic environment, which is facing complex socioeconomic problems, cross-sector collaborations have continuously increased (Handy, 1996; Lipman-Blumen, 1996; Cleveland, 2002; Le Ber and Branzei, 2010; Øystein et al., 2012). However, despite sustained efforts to find or develop innovative and powerful methods for effective management and value creation within the context of cross-sector collaborations, this remains a challenge.

Collaborations and partnerships enable people and organizations to support each other by combining and leveraging their complementary strengths and capabilities (Dyer and Singh, 1998; Adegbesan and Higgins, 2011). The power of a partnership is determined by the value network that results from the collaboration, and managing value creation in a knowledge economy

requires a strong appreciation of the intangible aspects of a business model and an understanding of network dynamics (Allee, 2002).

Traditionally, value creation has been seen as a linear process (i.e., value is created through a value chain) (Vargo, Magliob, and Akakaa, 2008). In a knowledge economy, however, the situation is much more complex. Organizations themselves are highly complex systems consisting of many variables that cannot easily be controlled, which complicates the management of value creation (Chatain and Zemsky, 2011). Managers will often use visual tools like strategic maps to more easily piece together a huge amount of information (de Benedetto and Klemes, 2009). Value network maps (Allee, 2011) are one such visual tool used to manage value creation. Value network mapping is the starting point in value network analysis, which is used to maximize innovations by forging stronger value creation links between strategic partners (Allee and Taug, 2006).

Although the literature on value networks and value network analysis has reached an increasingly interest (Allee, 2002, 2006, 2008; Lock Lee, 2007; Meggitt and Allee, 2011; Optimice Pty. Ltd., 2008; Anger, 2008; Plambeck and Denend, 2008), there is not a specific method for describing in detail how to map a value network. Allee (2011) has described the basics of value network mapping but provides no details about how to identify the added value that every partner brings to a network or how to identify the participants' assets (e.g., the value flows within the network). Therefore, more research is needed in this area.

The objective and benefits of the study

The main objective of this study was to design a method for value network mapping that provides increased understanding of the value creation process. The investigation process started by delineating the theoretical foundations of this issue to clarify the context of value networks in collaborations and how value networks can be modeled (i.e., mapped). However, the value network mapping method proposed in this study does not simply focus on the mapping process of current value networks—it can also be used to enhance these networks and develop new networks. The method emphasizes the identification of participants' assets, as well as the challenges encountered in collaboration activities. In addition, new value can be created while focusing on these issues, which is an important factor for all types of collaboration.

The empirical step of the study showed how the proposed mapping method can be applied in practice. By using a case study of a cross-sectoral collaboration for elderly care, the applicability of the method is shown in a step-by-step manner. This provides managers with a better understanding of the value network mapping process, as well as how new value can be created in collaborations.

This study contributes to the collaboration management literature and practice (for both managers and collaboration participants). First of all, the research proposes a way to model, map, enhance, and develop the value network in cross-sector collaboration. It also takes a future perspective of value networks, as it is a relatively new issue in the field of research. New value can be created by solving existing challenges, and an enhanced value network map can be used as a performance measurement tool for cross-sector collaborations. Furthermore, by dividing a

value network into two different stages (i.e., the current value network and the potential value network), managers are better able to understand how the value creation process can be managed in collaborations. Additionally, this study provides all collaboration participants with an understanding of the value creation process in cross-sector collaborations by comparing current and potential value networks. This understanding is seen as a factor for motivating organizations to collaborate with each other.

Outline of the paper

The structure of this paper is as follows. In the second section, the concepts of value network and value network mapping are introduced. The next chapter is dedicated to a description of the value network mapping method, using specific steps to outline the different stages of a value network. Then, the research methods section describes the case study, as well as the data collection and data analysis methods. The empirical section describes, step by step, how to apply the mapping method proposed in this study. Thereafter, the discussion and conclusion are presented, emphasizing the theoretical and managerial implications of the study. Finally, limitations and suggestions for future research are discussed.

Theoretical background

This section introduces briefly the theoretical background of the study. More specifically, it explains what value networks are in the context of collaboration. It also presents the basics of value network mapping and the role that strategic maps play for the performance of organization.

Collaboration and value networks

Collaboration can be described as “the linking or sharing of information, resources, activities, and capabilities by organizations to achieve jointly an outcome that could not be achieved by the organizations separately” (Bryson et al., 2009: 6). When different people and organizations engage in collaboration, they are aware that they receive some advantages or benefits from the collaboration. If there are no benefits, then the motivation to collaborate disappears (Gazley, 2008). Therefore, understanding the importance and the benefits of collaboration may play a crucial role in building healthy partnerships and motivating organizations to become involved in collaborations. A true partnership should create value for all partners involved in the collaboration (Grudinschi et al., 2013). This is called a value network.

Verna Allee (2002: 6) has defined a value network as “any web of relationships that generates tangible and intangible value through complex dynamic exchanges between two or more individuals, groups, or organizations.” The research of intellectual capital in recent decades has shown the huge impact that both tangible and intangible assets have on organizational action. In particular, they have highlighted the awareness of the importance of intangible assets (Edvinsson and Malone, 1997; Wallman and Blair, 2000; Eccles et al., 2001). Tangibles assets refer mainly to goods, services, and revenue. Intangible assets include knowledge and benefits (Allee, 2002). Allee (2011) has highlighted the importance of the value network map for the strategic level of partnership management.

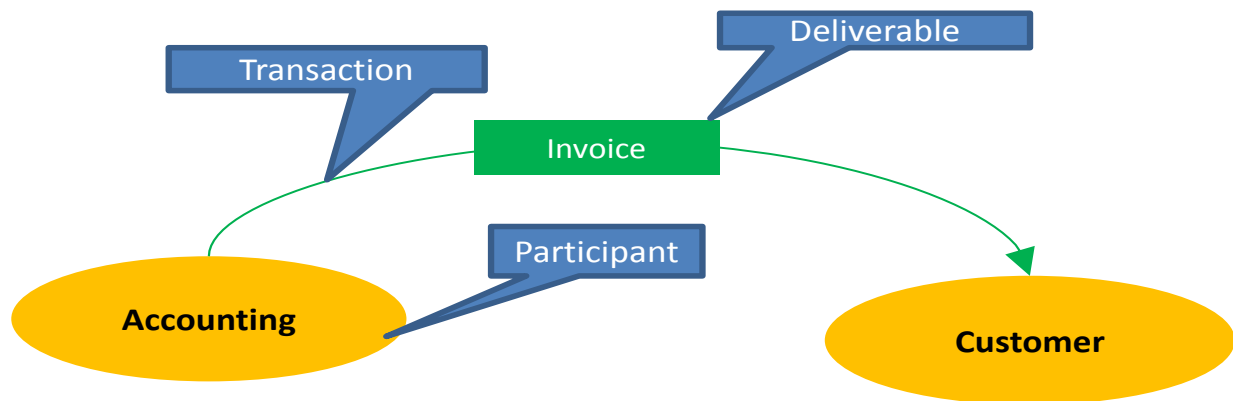
Value network mapping: A strategic visual tool

Performance measurement in business determines action and acts as a motivator of behavior (Drucker, 1959). Ridgway (1956: 247) has argued that “even where performance measures are instituted purely for purposes of information, they are probably interpreted as definitions of the important aspects of that job or activity and hence have important implications for the motivation of behavior.” In relation to organizational performance, Kaplan and Norton (2000) have introduced strategy maps as a visual tool to help understand how intangible assets can be converted into tangible outcomes. They argue that strategy maps “give employees a clear line of sight into how their jobs are linked to the overall objective of the organization, enabling them to work in a coordinated, collaborative fashion toward the company’s desired goals” and that they “provide a visual representation of a company’s critical objectives and the crucial relationship among them that drives organizational performance” (2000: 168).

As a strategic visual tool, value network mapping is a powerful mechanism to monitor, predict, and influence performance (F). Mapping a value network is a technique that is based on traditional business process mapping but also identifies the flow of intangible assets between participants in a network (Allee, 2008, 2011).

When mapping the value network, Allee (2011) introduced a mapping method with three basic elements, namely roles, transactions, and deliverables (Fig. 1):

Figure 1: Basic Elements Used When Mapping a Value Network (Allee, 2011)



- Roles* represent real people or participants in the network who carry out distinct functions and provide contributions (the blue ovals in the figures 3, 4 5).
- Transactions*, represented as arrows between roles, consist of the flow of tangible and intangibles assets. Tangible flow is expressed as solid green lines, while intangible flow is expressed as red dashed lines.
- Deliverables* represent the actual “thing” that moves between the two roles. A deliverable can be physical (e.g., a document) or nonphysical (e.g., a verbal message or a specific type of knowledge, information, or advice).

Building on these value network mapping basics, the next chapter presents the method for value network mapping developed in this study. This method explains how a value network can be mapped and how it can be enhanced (e.g., how new value can be created in a network).

Mapping and enhancing a value network in cross-sector collaborations: A framework

“A value is not a value unless it is perceived to be one. No matter how real a value may be, it has no value at all until the value is perceived” (de Bono, 2006, p.2). In the article “The Partnership Scorecard” from Open Value Networks, value network it is defined as the following: “Each role is identified with both creating value flows for other roles as well as assessing value from the value flows that it receives” (Optimice Pty. Ltd., 2008: 2). In the mapping method proposed in this study, the value network mapping is based on these two premises: Identifying the perception of each participant regarding his own added value as well as his received value from the other participants in the network.

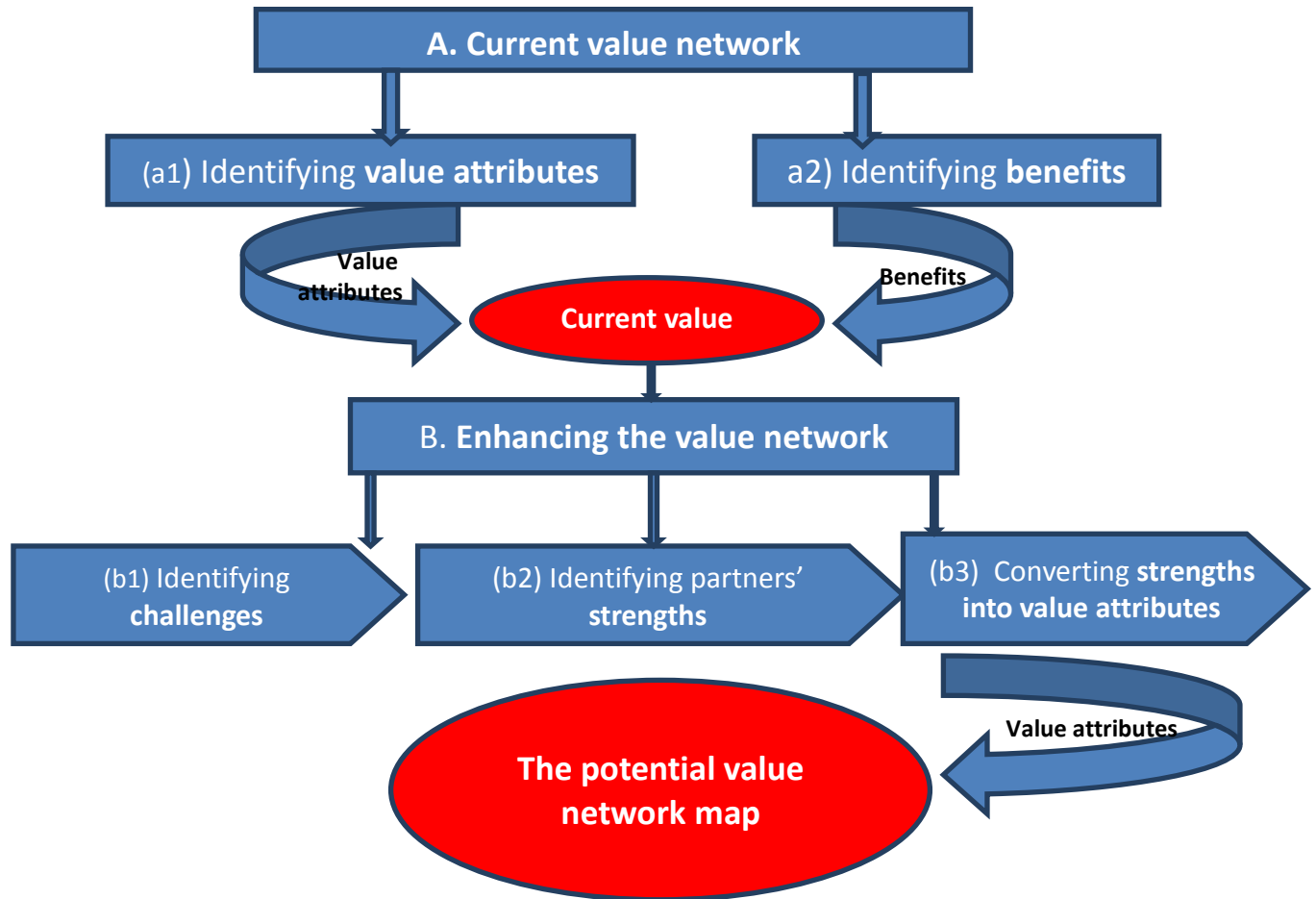
The mapping method proposed in this paper can be implemented using specific steps. The idea is to first map the value network of the current state of collaboration. Then, by trying to enhance the value network map and creating value for all participants in the collaboration, the potential value network is mapped. Studies on successful collaborations have found that solving problems and challenges in collaboration requires joint discussions and decision-making, as well as a large degree of mutual engagement (Rogoff, 1990). One of the key motives in a successful collaboration is a shared desire to solve a challenge. Therefore, while aiming to enhance the value network, a starting point has to be finding solutions for particular challenges. Furthermore, when taking on the various necessary roles for solving these challenges, each partner’s assets (i.e., strength and resources) have to be considered. A particular challenge can best be solved (and with minimum effort) by the partner who has the most competencies in the most relevant area. In this way, new value can be created in the network.

The process of the proposed value network mapping method consists of the following steps (Fig. 2):

- A. Mapping the value network of the current state of collaboration:
 - (a1) Identifying current perceptions of added value in the network; and
 - (a2) Identifying current perceptions related to the perceived benefits of the collaboration.

- B. Enhancing the value network to maximize the potential of the collaboration (mapping the potential of the value network):
 - (b1) Identifying challenges in the activity of partnership;
 - (b2) Identifying the strengths and resources (intangibles and tangibles assets) of every partner (or participant in the collaborative network); and
 - (b3) Converting these strengths and resources (intangibles and tangible assets) into value attributes to respond to the challenges.

Figure 2: Value Network Mapping Process



In Figure 2, it can be seen that the mapping process can produce two different maps: the current value network map and the potential value network map. By comparing these two maps, the process of value creation can easily be assessed. The first map (of the current value network) demonstrates the exchange of values among participants in the current state of collaboration (i.e., what kind of value every partner brings to the network). Similarly, the second map (of the potential value network) shows what additional value can be created if the collaboration is properly managed and existing challenges are solved.

By following the mapping steps presented in detail in Table 1, the value creation process can be easily understood. New value is created by trying to find optimal solutions for specific challenges and by assigning roles based on each partner's assets (strengths and resources).

Table 1: The Steps of the Value Network Mapping Method

MAPPING STEP	QUESTION TO BE ASKED	EXPLANATIONS
A. MAPPING THE CURRENT VALUE NETWORK		<i>Determining what kind of value everyone brings to the collaboration</i>
a1. Identifying perceptions related to added value in the network	<ul style="list-style-type: none"> ▪What do you offer to service customers? ▪What do you offer to every partner in the collaboration? 	<ul style="list-style-type: none"> ▪The perception of the types of value that every partner offers to customers, as well as to all other partners. ▪The question should be asked separately of each partner. ▪After this step, the value attributes (value types) are introduced on the map.
a2. Identifying perception related to the perceived benefits of the collaboration.	<ul style="list-style-type: none"> ▪What kind of benefits do you received from every partner? 	<ul style="list-style-type: none"> ▪New types of value may be identified; the perceptions of benefits received from the collaboration may be different. ▪After this step, new value attributes (perceived as benefits) will be added on the map.
B. MAPPING THE POTENTIAL VALUE NETWORK		<i>Enhancing the value network to determine the full potential of the collaboration</i>
b1. Identifying challenges in the partnership activities	<ul style="list-style-type: none"> ▪What kinds of challenges are involved in providing services to customers? ▪What kinds of challenges are involved in the collaboration? 	<ul style="list-style-type: none"> ▪The outcome is a list of challenges regarding the specific service domain that needs to be procured.
b2. Identifying the strengths and resources (intangibles and tangibles assets) of every partner (or participant in the collaborative network)	<ul style="list-style-type: none"> ▪What are your organization's specific assets: <ul style="list-style-type: none"> -from the perspective of customers in providing services? -from the perspective of the collaboration? 	<ul style="list-style-type: none"> ▪The outcome is a table delineating every partner's assets (core abilities and specific resources)
b3. Converting the strengths and resources (intangibles and tangible assets) into values to respond to challenges.	<ul style="list-style-type: none"> ▪How can every challenge be solved so that it creates value to the customers and the other partners? ▪Who has the best capabilities and resources to solve the challenge? ▪What type of value can be created by the network participants to solve the challenges in a specific way? 	<ul style="list-style-type: none"> ▪Every challenge discovered in step b1 will be analyzed separately, also using information gathered in step b2. ▪The results of this step will be put into a table that specifies what actions (tasks) are required to solve the challenge. ▪The table will also specify who creates the value and to whom it is offered. ▪The information from the table will then be added to the value network map.

Research methods

To show how to apply the proposed method in practice, a case study of a collaboration among the public, private, and nonprofit sectors for elderly care was used in this study.

Case description

In many European countries elderly care has become a challenge; this is primarily due to the fact that the average length of life is becoming longer, leading to an aging population. In Finland, the situation is even more challenging because the aging rate is higher than the average rate within the European Union. According to Statistics Finland (2012), the percentage of the Finnish population over the age of 65 year is currently 17%, and it is estimated that this number will increase to 23% by 2020 and 27% by 2030. The municipalities of Finland have the legal responsibility to provide welfare services for their citizens. However, although the public sector has this responsibility, the private and non-profit sectors have also played important roles in the welfare service system, because specific services are procured by the public sector from private and third sector organizations through public procurement contracts.

Each year all elderly welfare service professionals and organizations are expected to function more effectively with fewer resources. Currently, the welfare services for the elderly are highly resource oriented and do not always satisfy their customers. Their main goal in the long term is to provide customer-oriented services for the elderly people. Also, the welfare service system is currently decentralized. Therefore, if the objective is to reduce costs, effectively use resources, and improve the quality of care, an integrated service system is needed.

In the last few years in the elderly care domain (and in the whole welfare service system), the collaboration between all three sectors has intensified to increase the quality of services.

However, this collaboration is not organized, and there are many gaps. In fact, many private and non-profit organizations do not see any benefits from the collaboration. Understanding the importance of collaboration and motivating organizations to collaborate with each other is a strategic issue that can be managed through partnerships. A solid partnership between the three sectors is also crucial to respond to current challenges in welfare services for the elderly. An optimized use of resources, integration of the service system, and improvement of customer satisfaction can be attained via a partnership and will increase the quality of life of the elderly (Grudinschi et al., 2013). All these objectives can be achieved through the proper management of a partnership to create value via a collaboration.

Data collection

When applying the value network mapping method in practice, the first step is to map the current value network. This process allows the participants in the collaboration process, who all have experience and in-depth knowledge of the field of elderly care, to express their opinion about the benefits of collaboration. In this case study, key representatives from the public, private, and non-profit sectors were chosen for interviews (three persons from each sector). All of these individuals had experience in elderly services delivery, and many of them also had direct contact with elderly clients in their day-to-day activities. The representatives from the public sector were selected from mid- and lower-level management. The private sector interviewers

were all managers of small and medium-sized companies that provided care services for the elderly. The non-profit sector representatives were a manager of a non-profit organization that provided care services to the elderly, the manager of a volunteer organization that provided friendship services to elderly; and a representative of the church who had direct contact with elderly clients in her daily activities.

The aim of the interviewees was to recognize and map the current value network to increase their understanding of their collaborative partners' perceptions related to customer value, customer needs, and challenges in the provision of welfare services to the elderly. Every sector's value contribution to the collaboration was identified, as well as the perceived benefits that every sector received from the collaboration. Based on interviews, the current value network was mapped.

To map the potential value network, a workshop with eight experts from all three sectors was organized. The participants selected for the workshop session had wide experience with the delivery of welfare services. Top managers were selected from the public sector, while managing directors were selected from the private and non-profit sectors.

The aim of the workshop was to determine the strengths and resources (intangible and tangible assets) of every sector and the challenges in the cross-sector collaboration. A ready list of challenges based on the interviews was offered to the workshop participants, who were then asked to complete the list, which revealed new challenges.

To gather trustworthy information, the workshop session was conducted through a group decision support system using the ThinkTank software application. This allowed the participants to answer all questions anonymously, but their answers were seen (on a big screen and on their own computer) in real time by all participants. The ability to answer the questions anonymously encouraged the participants to give honest feedback. Based on the data gathered during the workshop, the potential value network was mapped.

Data analysis

The data from both the interviews and workshop were then analyzed, and the interviewees' perceptions of the added value and the benefits of the collaboration were organized into two different tables. In the first table, the answers of the representatives of each sector regarding their perceived added value were grouped by sector. In the second table, their perceived benefits of the collaboration were grouped by sector. Then, using the data from the two tables, the current value network map was drawn. In the map, the perceived added value and perceived benefits were represented in the form of arrows. The direction of each arrow indicates for whom the added value was offered by a specific partner or, in reverse, from which partner a specific benefit was received.

Based on the workshop data, an analysis was conducted of how new value can be created in the network. The outcome of the workshop was a list of challenges and a table including every partner's assets (strength and resources). Then, every challenge was analyzed separately to determine how the specific challenges could be solved in a way that was both efficient and created value for the other network partners. This investigation was based on the table of each

partner's assets, and it focused on what kind of resources or capabilities were needed to solve the identified challenges. Based on this information, the various roles for solving the challenge were given to different partners.

To make it easier to draw the map, all the data from the analyses were placed in a table, with the first column listing the challenges and the second column specifying the assets needed to solve the specific challenge and which partners owned the specific assets. In the third column, the assets were converted into value attributes, indicating what kind of value could be created while trying to solve a specific challenge. In the same column, the data were codified, specifying who created the value and to which partner the value was offered (e.g., *Funds for volunteer activity*, Public -> Non-profit). This information was then added to the map.

Applying the value network mapping method in practice:

The value network of a cross-sector collaboration for elderly care

This section shows how the value network mapping method proposed in this paper can be applied in practice and describes the results obtained in the elderly care case study. Then, all the steps of the mapping method are looked at separately, followed by the main results of every step.

Table 2: Perceptions of Value Added to the Network by Sector

Public sector	<ul style="list-style-type: none"> • Provides primary resources for welfare services for the elderly • Helps elderly safely live independently at home • Knows exactly what services are needed • Has expertise in law
Private sector	<ul style="list-style-type: none"> • Demonstrates innovativeness • Provides complementary services
Non-profit (third) sector	<ul style="list-style-type: none"> • Provides feelings of safety to the public sector staff • Offers more time to the elderly • Cares for the spiritual needs of the elderly • Provides consultant services to the other sectors • Brings more value through volunteer workers • Provides recreation and friendship services • Provides free labor (volunteer workers)

A. Mapping the value network of the current collaboration

In this step of the study, the current collaboration was mapped based on the interviews.

a1. Identifying the public, private, and nonprofit sectors' perceptions of each others' added value to the network

One objective of the interviews was to identify the perceptions of experts in elderly care from the public, private, and nonprofit sectors regarding their current collaboration. The aim was to figure out the value that every sector brings to the network as well as what their perceptions of the benefits that every sector could receive from the cross-sector collaboration. Their perceptions of the value added to the network by every sector are summarized in Table 2.

The representatives from the **public sector** identified the following value attributes that their sector can bring to the network:

- *Provides primary resources for elderly care:* In Finland, the municipalities have the responsibility to provide social and healthcare services prescribed by the law. The municipalities also have a financial responsibility to protect the welfare of their citizens. Welfare services are usually provided through non-commercial activities of local and joint authorities, as well as nongovernmental organizations. Furthermore, the Finnish municipalities work in cooperation with the government to ensure the sustainability of funding for all necessary services for elderly (Local and Regional Government of Finland, 2009). Customers' fees cover only one-tenth of the costs of services; most services are subsidized from public funds (municipal taxes and state subsidies).
- *Helps the elderly safely live independently at home:* In Finland there is a national framework for high-quality care and services for the elderly. Most of the municipalities have policies and strategies regarding the welfare and care of older people. The Social Welfare Act of Finland (710/1982) states that "the main policy aim is that as many older people as possible should be able to live independent lives in their own homes, and in a familiar social and living environment. Living at home is supported with rapid-access professional social welfare and health care services." Primary services include support for informal care, guidance and preventive services, home-help services, various support services, housing services, 24-hour home care for those that need permanent assistance and health care in health clinics for those who cannot live alone in their own homes.
- *Knows exactly what services are needed:* The public sector has also the responsibility to provide preventive home visits for the elderly. The main aim of these visits is to get information about the welfare services that elderly people need to live safely at home Social Welfare Act of Finland (710/1982). After these preventive home visits, the public sector is able to provide information to the other sectors about needed service.
- *Has expertise in law:* Abiding by laws and regulations is the responsibility of the public sector, and law experts are a resource of the public sector. Therefore, the public sector brings more value to the collaboration process from the perspective of law knowledge and law regulations.

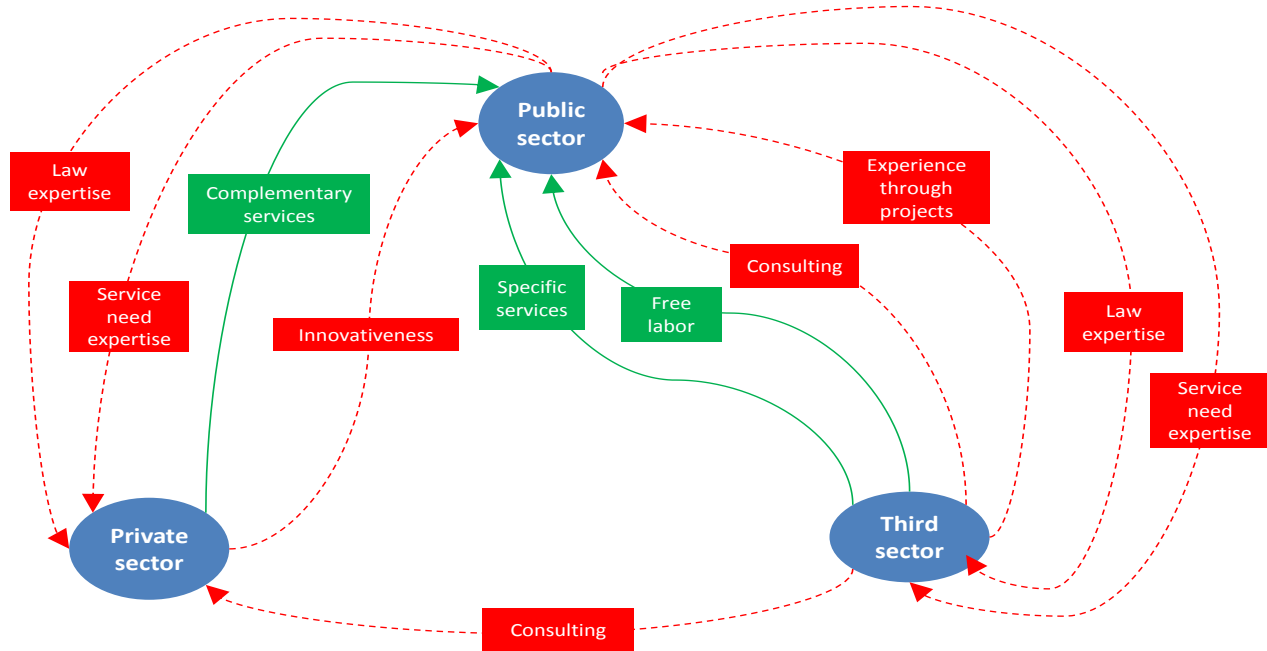
The non-profit (third) sector's key representatives that were interviewed identified the following **value attributes** their sector can bring to the collaborative process:

- *Provides feelings of safety to the staff of the public sector:* The nonprofit sector's volunteer workers provide friendship services to the elderly and are thereby able to spend more time with the elderly. Due to the limited resources of the public sector, volunteer workers provide safety for the staff from the public sector as well as for the customers and their families, by spending time with elderly, when public sector's workers are not available.
- *Offers more time to the elderly:* One of the biggest challenges in home help and health care services is that the staff from the public sector seems to always be in a hurry when they are working with the elderly. The elderly think that this is as a big problem, as they do not share their problems with the staff because they are afraid of taking up too much of their time. On the other hand, volunteer workers have plenty of time to spend with the elderly.
- *Cares for the spiritual needs of the elderly:* The elderly seem to have more spiritual needs than other people. The church is expert in caring for the spiritual needs of the elderly and is perhaps the most trusted organization for meeting these needs.
- *Provides consultant services to the other sectors:* Many of the non-profit organizations were pioneers of many welfare service concepts. Furthermore, due to the empathy of volunteer workers, the elderly people confess to them. Therefore, voluntary workers absorb a lot of information from customers (elderly people), many times in the form of tacit knowledge that can be used to develop and improve welfare services for the elderly.
- *Brings more value through their volunteer workers:* Non-profit organizations use volunteer labor to conduct and develop new projects. In the interview we conducted with a leader of a nonprofit organization, she described the "Widow project." For this project, recreational activities and get-togethers were organized for widows to make they feel more safe and to forget their loneliness. The goal was to keep them from becoming depressed and suffering from other health problems, which could result in more costs to the public sector. When the project was finished, one widow described how the project had benefited her: "We were like shipwrecks in the middle of the ocean and you threw us a life preserver." These kinds of projects mean a lot to the elderly and bring financial savings to the public sector.
- *Provides recreation and friendship services:* Non-profit organizations provide different kind of recreation and friendship services to the elderly. Services provided by the non-profit organizations mean also a lot to the public sector that have the responsibility to provide high-quality welfare services to the elderly. With an intensive and planned collaboration between all organizations engaged in welfare of the elderly, a higher quality of life may be assured to the elderly.
- *Provides free labor (volunteer workers):* Volunteer workers represent a huge value to the public sector because their efforts results in significant financial savings. When a manager of a small volunteer worker organization was interviewed, it was discovered

that the volunteer workers from that organization offered over 3,500 work hours in friendship services for the elderly during the last year.

After the first phase of the research, the perceived value that every sector brought to the collaborative network was discovered. These results were then added to the first part of current value network map (Fig. 3).

Figure 3: Current Value Network Map – Part 1 (Includes Every Sector’s Perceived Added Value to the Network)



During the research process (especially during the interviews), value attributes related to the customers were identified; e.g., the nonprofit sector’s value of “Offering more time to elderly”. However, they were not included in the value network map in Figure 3 because this study was only focused on the value network of three sectors. In future research, customer values should be linked to the value network map.

a2. Identifying the perceived benefits that can be attained through collaboration

For this step in the study, the aim was to determine the perceptions related to the benefits that all sectors can receive through the collaboration. It was discovered that all of the three sectors could identify many benefits from the collaboration. For example, the public sector’s key representatives perceived many benefits from the collaboration even though the private sector’s representatives could not identify many value attributes that they brought to the network through the collaboration process. Based on every sector’s perceived benefits, new value attributes were included on the current value network map (part 2). Table 3 summarizes the perceived benefits of all sectors related to the cross-sector collaboration for elderly care.

Table 3: Perceptions of the Attainable Benefits of the Cross-Sector Collaboration

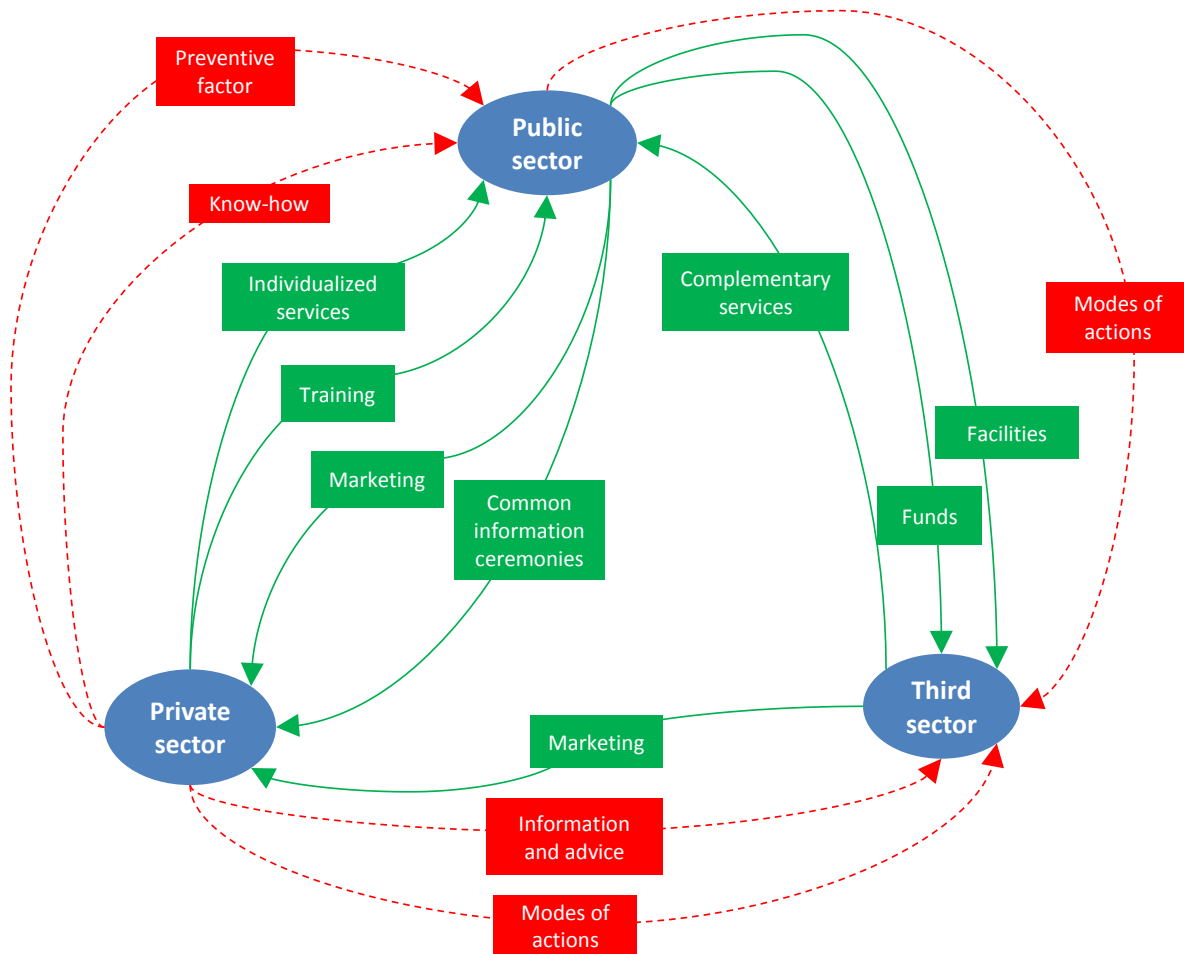
Public sector	<p><i>1. Benefits from collaborating with the private sector</i></p> <ul style="list-style-type: none"> • Complementary services • Private sector works as a preventive factor in home visits • Adoption of innovations and knowledge • Advice • Know-how • Individualized services <p><i>2. Benefits from collaborating with the nonprofit sector</i></p> <ul style="list-style-type: none"> • Complementary services for both the public and private sectors • Church provides special help that the public sector cannot provide
Private sector	<p><i>1. Benefits from collaborating with the public sector</i></p> <ul style="list-style-type: none"> • Public sector works as a marketing channel • Common trainings offered by the public sector • Common informative seminars organized by the public sector <p><i>2. Benefits from collaborating with the non-profit sector</i></p> <ul style="list-style-type: none"> • The nonprofit sector is a marketing partner • Being part of the same network, important information about customers is gotten from non-profit sector. • Advice related the similar activities (how they organize similar activities)
Non-profit (third) sector	<p><i>1. Benefits from collaborating with the public sector</i></p> <ul style="list-style-type: none"> • Project funding • Can compare the modes of action in specific situations • Facilities for different activities <p><i>2. Benefits from collaborating with the private sector</i></p> <ul style="list-style-type: none"> • Can compare the modes of action in specific situations

Figure 4 shows the current value network map (part 2), which includes only the perceived benefits attained from the collaboration. To get a clearer picture of the collaborative process, the current value network map is shown in this paper in two parts (part 1 and part 2), but they should be treated as the whole picture of the current value network.

B. Enhancing the value network to maximize the potential of the collaboration

To create a map of the potential value network, how the collaboration between all three sectors could be enhanced so that new value could be created for all partners was considered.

Figure 4: Current Value Network Map - Part 2 (Includes Only the Perceived Benefits of the Cross-Sector Collaboration)



b1. Identifying challenges in elderly care service delivery from the perspective of collaboration

During the interviews, the interviewees’ knowledge and experience in elderly welfare service delivery were utilized to identify the challenges of the system. The list of challenges obtained during the interviews was completed during the workshop session by the workshop participants (Table 4).

Table 4: The Challenges of Elderly Care

Challenges of Elderly Care
<ul style="list-style-type: none"> • <i>More time spent with the customers</i>: the public sector’s personnel seem to be always in a hurry • <i>More activities for the elderly are required</i>, especially during the day, but also during the evening and weekends

Challenges of Elderly Care

- *New operation models* for elderly services to provide more active lives for the customers
- *Volunteer sector requires more support*, such as recruiting and commitment policies, expanding activities, financial support, etc.
- *Limitation of resources* (financial, personnel, and leadership) means that we cannot provide customer-oriented services
- *Fragmentation of services*: There is a need for service integration
- *Individualization of services* to meet customer needs
- *Changing the attitudes of people* so that the elderly welfare service staff embrace the new modes of action and to increase the clients' willingness to pay for services
- *The multiculturalism of the clients* has to be taken into consideration when designing services
- *The management of partnerships*, including leadership, strategic goals, strategies of actions, information sharing, etc.
- *Quality control*: There is a need to develop programs for quality control
- *Wide networks* and the limitation of common modes of action
- *Sparse populated areas* where customers are dispersed make service availability and effectiveness difficult
- *Collaborative projects with continuity* must be planned
- *Common rules and modes of action* are required for services effectiveness and customer satisfaction.

b2. Identifying the strengths and resources (intangible and tangible assets) of each sector in elderly care

The strengths and resources (intangible and tangible assets) of every sector were also identified during the workshop. The results are summarized in Table 5.

Table 5: Strengths and Resources (Intangible and Tangible Assets) of Every Sector

Public sector's assets	<ul style="list-style-type: none"> • Flexibility • Certainty of service delivery • Nearness of services to customers • Democratic service supply • Responsibility to organize services (quality control) • Taxing power • Financing/funding opportunities • Opportunity to govern the costs of the process • Legitimacy know-how, law regulation, law making • Wide collaborative network • Continuity of activities • Certainty of activities • Variety of know-how • Steady and trusted employers • Public services' ethics • Officials' ethics
-------------------------------	---

<p>Private sector's assets</p>	<ul style="list-style-type: none"> • High educational level and technology know-how • Innovativeness • Collaborative capacity • Advanced welfare services • Customer-oriented services • Flexibility of open times • Effectiveness of action • Financing know-how • Well-defined core tasks • Individuality/quality of services • Transparency of earnings and expenses
<p>Non-profit (Third) sector's assets</p>	<ul style="list-style-type: none"> • Timetable flexibility • Regional know-how • Human resources • Customer-oriented services • Special know-how • Light organization structure • Free labor (volunteers) • Church is expert in spiritual needs and crisis situations • Large collective facilities (of nongovernmental organizations) • Huge amount of personnel • Ideology is value based • Pioneer role in concept development

b3. Converting strengths and resources (intangible and tangible assets) into value attributes to respond to challenges

The information gained in the previous steps was then used for further value analysis and for the value network map enhancement process. The data for this step are listed in Table 6. The challenges discovered in a previous step are listed in the first column.

The second column shows which sector's asset may be made use of to solve a specific challenge in the collaboration process. In the first example, to solve a challenge in the volunteer sector, the public and private sectors' assets can be used. The public sector can make use of its funding opportunities to offer financial support to the volunteer sector. Furthermore, the public sector's assets of a "variety of know-how" and "wide collaborative networks" and the private sector's "innovativeness" can be used in the collaborative process to develop new recruiting and activity-expanding policies and strategies.

The last column of the table specifies how the asset can be converted into a value or what value can be derived from the specific asset, as well as which sector delivers the value and which sector gets the benefit. For example, the value "funds for volunteer activity" is delivered by the public sector, and the non-profit sector is the beneficiary of the value. Finally, the value attributes obtained were transferred to the value network map, thereby enhancing the value network. For more accurate outcomes, this procedure requires its own workshop session, but for the purpose of this paper, this task was realized by using the triangulation of researchers. Table 6 presents and explain a short example of how the assignment must be solved.

Table 6: Converting Assets Into Value Attributes to Solve Specific Challenges

Challenges	Using an Asset to Respond to a Challenge	Converting an Asset Into a Value
<p><i>1. Volunteer sector requires more support</i></p> <p>-financial support -recruiting policies -activity expansion</p>	<p><i>Financing/funding opportunities</i> (Public sector) <i>Wide collaboration network</i> <i>Variety of know-how</i> (Public sector) <i>Innovativeness</i> (Private sector)</p>	<p><i>Funds for volunteer activities</i> Public→Third <i>Development policies</i> Public →Third Public →Private <i>Development strategies</i> Private→Third</p>
<p><i>2. Collaborative projects with continuity must be organized</i></p>	<p><i>Financing/funding opportunities</i> (Public sector) <i>Financing know-how</i> (Private sector) <i>Special know-how</i> (Third sector)</p>	<p><i>Funds for projects</i> Public→Third Public→Private <i>Financing know-how</i> Private→Public <i>Special know-how</i> Third→Public Third→Private</p>

To respond to these two challenges listed in Table 6, we included specific assets of certain sectors and then converted the assets into value attributes. The actual list of challenges was much longer. In Figure 5, the newly identified value attributes from the Table 6 are added to the value network map. Due to the limitations of this paper, it was not possible to show the analysis for the entire dataset. Nonetheless, when all the challenges were analyzed, it was realized that much value can be created. The potential of the collaboration is huge if the partnerships are properly managed.

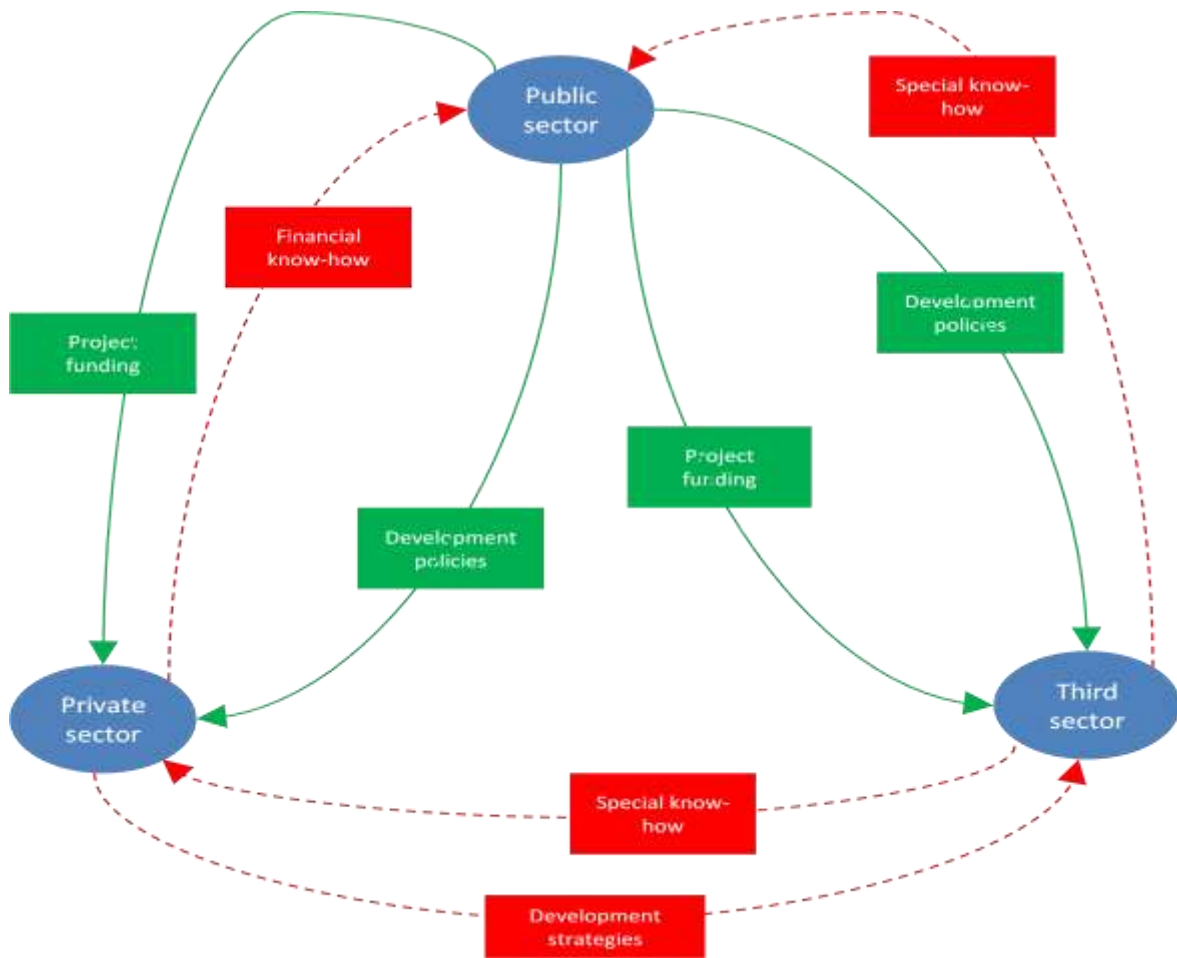
Discussion

This section presents in details what are the theoretical and managerial implications of this study. Additionally, limitations and future research are discussed.

Theoretical implications

The present study offers a framework for value creation in cross-sector collaborations. Managing value creation is a challenging task (Payne, Storbacka, and Frow, 2008). In cross-sector collaborations that involve complex issues, managing value creation is even more challenging (Grudinski, 2013). The value network mapping method proposed in this study provides new insights for the management of value creation because the method enables the assessment of both current and potential value networks and the determination of how a collaboration can be enhanced. The most important theoretical implication of this paper is related to the understanding of the process of value creation in cross-sector partnerships. Because the mapping method consists of clear steps, it makes it much easier to understand the value creation process.

Figure 5: A Short Example of the Extended Value Network of the Collaboration (Including Only the Newly Identified Value Attributes)



In addition, managing the value creation process helps with the performance measurement of a partnership (Gazley, 2010). Value network maps are used for different kinds of network analyses, like defining roles in a network, exchange analyses, or impact analyses (Allee, 2008). The better the maps are done, the better the analyses are. This study offers a clear step-by-step value network mapping method to create better value network maps and to understand the concept of value networks. Therefore, this study contributes with concrete guidelines by taking steps toward a deeper understanding of value network analysis and performance measurement in cross-sector partnerships.

Managerial implications

The management of cross-sector collaborations is a challenging issue, as it consists of a multitude of complex tasks. At the strategic level, one of the tasks is managing value creation and determining how to maximize the potential of collaboration. This study provides some answers and guidelines to managers involved in cross-sector collaborations who are trying to solve these kinds of problems.

A value network is established for two different states: current collaborations and future collaborations. Comparing these two states will help managers understand how new value can be created and who has important roles in solving specific tasks. The future state of value network (the potential value network) is also an answer to how challenges can be solved and who should have the main role in solving specific challenges. Furthermore, the potential value network map can be successfully used as a performance measurement tool once the challenge-solving tasks have been performed.

The value network may be enhanced and developed if there is a systematic way to manage it. Value network mapping is a complex task that requires meticulous attention to gain the full benefit. However, it helps people from organizations that collaborate to better understand easier the benefits of the collaboration, thereby motivating them to engage with and take responsibility for the collaborative process. Furthermore, the value network map is the starting point for many value network analyses. The better a value network map is done, the greater the effect on the results of the analyses. This study can serve as a starting point for future research, as the results have great implications for the strategic management of partnerships in cross-sector collaborations.

Limitations and future research

One important issue that was not covered in this study is customer value. Customer value creation is a central aspect of any partnership. The data obtained from the interviews and the workshop included many aspects of customer value, but this study only focused on the value network of the partners involved in a collaboration. Additional research that includes the customer and customer value as central aspects of a value network is needed.

During the research process, it was discovered that while trying to find solutions for challenges in a team setting, the task can be solved in different ways and different kinds of value attributes can be discovered. Therefore, while trying to enhance the value network, it may be a better approach to have each analysis performed separately by different researchers or collaborative partners.

If the enhanced value network map is intended to be used as a performance measurement tool in the future, the management team members should validate the enhanced value network map, agreeing on the roles. From the enhanced value network map can be see who has the main responsibility for solving a specific challenge. When a partner deliver a value attribute to other partner (while solving a challenge), it means that the partner who deliver the value has the responsibility to solve a specific challenge. The partners should agree on the divided roles established on the map.

It has been specified that a value network map can be used for the following purposes:

- As a motivator tool for organizations to engage with and take responsibility for the collaboration process;
- As a performance measurement tool in cross-sector collaborations; and
- As a starting point for many value network analyses, such as establishing roles in the network, exchange analyses, impact analyses, and value creation analyses.

Related to the issues listed above, the following questions arise:

- To what degree will understanding the value network affect a partner's motivation to collaborate? (How will new organizations be motivated to engage in the collaborative process and how will organizations that are already involved in the collaboration be motivated to be fully committed to the collaboration process?)
- What kind of information sharing model should be used for this purpose? How can one assure that the information is passed on, received, and applied responsibly?
- Can the enhanced value network map be used simply as a performance measurement tool or does it need improvements?
- To what degree can the collaboration be improved based on value network analysis?
- Could the proposed mapping tool be generally applied to any collaborative network or is its applicability reserved only for cross-sector collaborations?

Conclusion

This study has proposed a method for value network mapping in cross-sector collaborations. The method allows the assessment of the value network of a current collaboration and the value network of a potential collaboration. In collaborative settings, the value network consists of a set of connections among organizations (and/or individuals) that interact with each other to achieve certain benefits. Each network member relies on the others to foster growth and increase value. Value networks can be visualized using a value network map, on which all the value attributes that every participant brings to the network, as well as the benefits every participant receives from the collaboration, can be easily seen.

Additionally, the value network gives people a way to define their roles and to determine the best way to handle the routine tasks and challenges while working together (Allee, 2011). Value is an abstract term, and it is usually difficult to define or identify. The mapping method helps collaboration partners more easily define and understand the concepts of value and value creation. The method consists of specific steps to identify what issues a value network map should include and how value can be identified.

Based on the interviews in this study, it was a little surprising that the private sector's representatives struggled to identify the many value attributes that they brought to the network (Table 2), even when the public and nonprofit sectors' representatives found many benefits from collaborating with the private sector (Table 3). This shows once again that a visual map can help network actors understand and be aware of the value they can bring to a network and the benefits they can get through collaboration.

Furthermore, tackling a future perspective, the proposed mapping method aims not only to map the current value network, but also to enhance the value network and to map the future enhanced value network. By evaluating and pondering how to get the full potential of collaboration, the value network can be enhanced. Particularly in the social domain, the purpose of a collaboration is to solve challenges, thus creating new value and enhancing the value network. This is the main purpose for mapping the potential of a value network.

From the current value network map, both, the cross-sector collaboration managers and also the collaborative partners, can easily see the benefits of the collaboration and the contributions of each partner. Similarly, from the potential value network map, what additional benefits could be attained through the collaboration and what additional contributions every participant could bring to the collaboration if the partnership is properly managed, can be seen. Following the mapping process makes it easier to understand how new value can be created in a collaboration.

The short example of a potential value network in Table 6 shows only a few new value attributes. When the task of enhancing the value network (or mapping the potential value network) was eventually achieved by this research team, it was easier to see how much value can be created if all the challenges can be solved. Comparing the current value network and the potential value network map allows an assessment of the full potential of the collaboration. In that sense, proper partnership management is needed to allow the management of value creation as well.

When applying the mapping method in practice during this study, it was realized that mapping and enhancing the value network involves many complex issues that require meticulous thinking and are very time-consuming. At least a few workshop sessions are required to analyze and ponder such complex issues. In this study, functional working practices were used during the workshop session, and the individuals who participated in the workshop had good problem-solving skills. The value network was enhanced considerably after every step, and it was determined that the value network mapping method used was efficient.

About the Authors:

Daniela Grudinschi, M.Sc. (Econ. & Bus. Adm.) & M.Sc. (Tech.), is a junior researcher and a PhD student in the School of Business, Lappeenranta University of Technology. Her research interests include value networks, value network mapping, strategic management of value networks, cross-sector collaboration, cross-sector partnership management, elderly care, sustainable public procurement, public procurement innovation. She can be reached by email at daniela.grudinschi@lut.i.

Jukka Hallikas, D.Sc. (Tech.), is a Professor of Supply Management at the Lappeenranta University of Technology, School of Business. His research interests focus on the supply management and networks, risk management in supply networks, and service innovation and design. He has published several scientific articles, books, and book chapters on inter-firm relationships and supply management. He can be reached by email at jukka.hallikas@lut.fi.

Leena Kaljunen, D.Sc. (Econ. & Bus. Adm.), is a Managing Director at Socom Oy, the Centre of Expertise on Social Welfare in South-East Finland. Her research interests include public management, public-private partnerships, welfare service systems, and empowerment. She can be reached by email at leena.kaljunen@socom.fi.

Antti Puustinen, M.Sc. (Tech.) & M.Sc. (Econ. & Bus. Adm.), is a purchasing development manager in Skanska Oy. His research interests include strategic supply management, supply performance, supply management capabilities, and supply chain measurement. He can be reached by email at antti.puustinen@skanska.fi.

Sanna Sintonen, D.Sc. (Econ), Post Doctoral Researcher, Project Manager, in the School of Business, Lappeenranta University of Technology, Finland. She can be reached by email at sanna.sintonen@lut.fi.

References

Allee, V. 2002. A Value Network Approach for Modeling and Measuring Intangibles. Accessed October 30, 2014 at: <http://www.vernaallee.com/images/vaa-a-valuenetworkapproach.pdf>

Allee, V. 2002. *The Future of Knowledge: Increasing Prosperity through Value Networks*. Boston, MA: Butterworth-Heinemann.

Allee, V. 2008. Value network analysis for accelerating conversion of intangibles. *Journal of Intellectual Capital*, 9(1): 5-24.

Allee, V. 2011. Value network mapping basics. Accessed August 16, 2015 at: <http://www.valuenetworksandcollaboration.com/mapping/networkmappingbasics.html>

Allee, V. and J. Taug. 2006. Collaboration, innovation, and value creation in a global telecom. *The Learning Organization*, 13(6): 569 – 578.

Alter, C. and J. Hage. 1993. *Organizations Working Together*. Newbury Park, CA: Sage.

Anger, S. 2008. Testing the Limits. Boeing Frontiers. Accessed August 16, 2015 at: <http://www.valuenetworksandcollaboration.com/cases/theboeingcompany.html>

Burt, R. 1995. *Structural Holes: The Social Structure of Competition*. Cambridge, MA: Harvard University Press.

Bryson, J. M., B. C. Crosby, M. M. Stone and E. O. Saunoi-Sandgren. 2009. *Designing and Managing Cross-Sector Collaboration: A Case Study in Reducing Traffic Congestion*. Washington, DC: IBM Center for The Business of Government.

Cheadle, A., W. Beery, E. Wagner, S. Fawcett, L. Green, D. Moss, A. Plough, A. Wandersman and I. Woods. 1997. Conference Report: Community-Based Health Promotion – State of the art and Recommendations for the Future. *American Journal of Preventive Medicine*, 13: 240-3.

Cleveland, H. 2002. *Nobody in Charge: Essays on the Future of Leadership*. New York, NY: John Wiley.

Coase, R. 1937. The nature of the firm. *Economica*, 4(16): 386-405.

Crosby, B. C. and J. M. Bryson. 2005. A leadership framework for cross-sector Collaboration. *Public Management Review*, 7 (2): 177 – 201.

- Das, T. K. and B. Tseng. 2000. A Resource-Based Theory of Strategic Alliances. *Journal of Management*, 26(1): 31-61.
- de Benedetto, L. and J. Klemes. 2009. The environmental performance Strategy map: an integrated LCA approach to support strategic decision-making process. *Journal of Cleaner Production*, 17: 900-906.
- de Bono, E. 2006. Perceived Value: When considering value, perception can be as important as reality. In *From Visual- to Value Perception: The Impact of a New Class of RGBW Display on Mobile Application Statistics Paper*. Accessed August 17, 2015. de bono at: <http://researcharticlebase.blogspot.fi/2011/08/from-visual-to-value-perception-impact.html?detail=yes>
- Drucker, P. F. 1959. Challenge to management science. *Long Range Planning*, 5(2): 238-42.
- Easton, G., "Industrial Network: A Review". Pp. 3-34 in Axelsson, B. and G. Easton (Ed)., *Industrial Networks: A New View of Reality*. London, U.K.: Routledge.
- Eccles, R. G., R. H. Herz, E. M. Keegan and D. M. H. Phillips. 2001. *The Value Reporting Revolution*. New York, NY: Pricewaterhouse Coopers.
- Edvinsson, L. and M. S. Malone. 1997. *Intellectual Capital: Realizing Your Company's True Value by Finding its Hidden Brainpower*. New York, NY: Harper Business.
- Fawcett, S. B., R. K. Lewis, A. Paine-Andrews, V. T. Francisco, K. P. Richter, E. L. Williams and B. Copple. 1997. Evaluating Community Coalition for Prevention of Substance Abuse: The Case of Project Freedom. *Health Education and Behavior*, 24: 812-28.
- Gazley, B. 2008. Intersectoral collaboration and the motivation to collaborate: Toward an integrated theory. Pp. 36-54 in *Big ideas in collaborative public management*. Armonk, NY: ME Sharpe.
- Gazley, B. 2010. Linking collaborative capacity to performance measurement in government—nonprofit partnerships. *Nonprofit and Voluntary Sector Quarterly*, 39(4): 653-73.
- Grudinschi, D., L. Kaljunen, T. Hokkanen, J. Hallikas, S. Sintonen and A. Puustinen. 2013. Management Challenges in Cross-Sector Collaboration: Elderly Care Case Study. *The Innovation Journal: The Public Sector Innovation Journal*, 18(2), article 7.
- Gulati, R. 1998. Alliances and Networks. *Strategic Management Journal*, 19(4):293-317.
- Hakanson H. and J. Johanson. 1992. A model of Industrial Network: A Review. Pp. 28-34. In Axelsson, B. and G. Easton (Ed). *Industrial Networks: A New View of Reality*. London, U.K.: Routledge.

- Handy, C. 1996. *Age of Uncertainty: The Changing Worlds of Organizations*. Boston, MA: Harvard Business School Press.
- Kaplan, R. S. and D. P. Norton. 2000. Having trouble with your strategy? Then map it. *Harvard Business Review*. September/October: 167-176.
- Kreuter, M. W., N. A. Lezin and L. A. Young. 2000. Evaluating Community-Based Collaborative Mechanisms: Implications for Practitioners. *Health Promotion Practice* 1:49-63.
- Lipman-Blumen, J. 1996. *Connective Leadership: Managing in a Changing World*, Oxford, U.K.: Oxford University Press.
- Lock Lee, L. 2007. ITIL (Information Technology Infrastructure Library) and Value Network Analysis. Accessed August 17, 2015 at: http://www.valuenetworksandcollaboration.com/images/VNA_and_ITIL.pdf
- Madhok, A. and S. B. Tallman. 1998. Resources, Transactions and Rents: Managing Value Through Interfirm Collaborative Relationships. *Organization Science*, 9(3): 326-339
- March, J. G. 1991. Exploration and exploitation in organizational learning. *Organization Sciences*. 2(1): 71-87.
- Mayo, M. 1997. Partnerships for Regeneration and Community Development. *Critical Social Policy*, 17: 3-26.
- Meggitt, D. and V. Allee. 2006. Will the Real Project Please Stand Up? Getting Organized with Value Network Analysis. Accessed August 17, 2015 at: <http://www.vernaallee.com/images/VAA-WillTheRealProjectPleaseStandUp.pdf>
- Mitchell, S. M. and S. M. Shortell. 2000. The Governance and Management of Effective Community Health Partnerships: A Topology for Research, Policy and Practice. *Milbank Quarterly*, 78(2): 241-89.
- Optimice Pty Ltd. 2008. The Partnership Scorecard. Accessed August 17, 2015 at: <http://www.optimice.com.au/documents/ThePartnershipScorecard.pdf>
- Payne, A. F., K. Storbacka and P. Frow. 2008. Managing the co-creation of value. *Journal of the Academy of Marketing Science*, 36(1): 83-96.
- Plambeck, E. L. and L. Denend. 2008. Wal-Mart Value Networks. Accessed October 30, 2014 at: http://www.valuenetworksandcollaboration.com/images/wal-mart_value_networks_1.pdf
- Ridgway, V. F. 1956. Dysfunctional consequences of performance measurements. *Administrative Science Quarterly*, 1(2):240-7.

Rogoff, B. 1990. *Apprenticeship in Thinking: Cognitive Development in Social Context*. Oxford, U.K.: Oxford University Press.

Selsky, J. W. and B. Parker. 2005. Cross-Sector Partnerships to Address Social Issues: Challenges to Theory and Practice. *Journal of Management*, 31:849–73.

Social Welfare Act of Finland ,710/1982. Accessed August 17, 2015 at: <http://www.finlex.fi/en/laki/kaannokset/1982/en19820710.pdf>

Statistics Finland. 2009. Population projection 2009–2060. Accessed August 17, 2015 at: http://tilastokeskus.fi/til/vaenn/2009/vaenn_2009_2009-09-30_tie_001_en.html .

Teece, D. J., G. Pisano and A. Shuen. 1997. Dynamic Capabilities and Strategic Management. *Strategic Management Journal*, 18(7):509–533.

Uzzi, B. 1996. The Sources and Consequences of Embeddedness and Economic Performance of Organizations: The network effect. *ASR*, 61: 674-698.

Value Networks. 2011. Value Network and the true nature of collaboration. Accessed August 17, 2015 at: <http://www.valuenetworksandcollaboration.com/home.html>

Vargo, S. L., P. P. Magliob and M. A. Akakaa. 2008. On value and value co-creation: A service systems and service logic perspective. *European Management Journal*, 26(3): 145–152.

Wallman, S. and M. Blair. 2000. *UnSeen Wealth: Report of the Brookings Taskforce on Understanding Intangible Sources of Value*. Washington, DC: The Brookings Institution.

Wandersman, A., R. M. Goodman and F. M. Butterfoss. 1997. Understanding Coalitions and How They Operate. Pp 261-77. In M. Minkler (Ed). *Community Organizing and Community Building for Health*. New Brunswick, NJ: Rutgers University Press.

Williamson, O.E. 1975. *Markets and hierarchies, analysis and antitrust implications: a study in the economics of internal organization*. New York, NY: Free Press.

Zuckerman, H. S., A. D. Kaluzny and T. C. Ricketts. 1995. Alliances in Health Care: What We Know, What We Think We Know and What We Should Know. *Health Care Management Review*, 20: 54-64.