

# Management of boundaries in the network era – what do managers really think about networks?

A work-in-progress paper submitted to the IMP 2016 Conference, Poznań

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**Abstract:** The aim of this study is to enhance our knowledge of managerial thinking and perceptions of relational business practices in the context of the manufacturing industry, where network studies have typically been limited to the traditional supply networks. This paper is focused on building and testing balanced and indicative metrics for network perceptions through interviews, thematic group discussion, and a pilot survey with 22 companies participating in an industry-academia research program that develops relational practices in business networks. Our results indicate that managers' overall view of the business networks is distinctively positive. The networks are considered an especially important means to access new markets, knowledge and resources.

**Keywords:** network, inter-organisational relationship, management, qualitative research,  
manufacturing industry

## INTRODUCTION

The shift from transactional to relational business practices (e.g., partnerships, alliances, networks) is a 'paradigmatic' shift from one dominant business logic to another. The roots of the change can be traced back to the 1990s. Since the 1998 IMP Conference, the special issue of management of inter-organisational relationships in the *Industrial Marketing Management* journal (Möller & Halinen, 1999) research on the subject has grown steadily in distinct disciplines of organisation and management research. In the relationship marketing literature there are two streams of studies: relationship marketing research and business network research. In the former approach, networks are studied as buyer-seller dyads and in the latter as broader constellations of firms as well as network actor relationships (Möller, 2013).

Thus, networking as a phenomenon manifests itself in various forms whereas scholarly work in this area typically focuses on particular forms of inter-organisational relationships (Parmiagiani & Riviera-Santos, 2011; Möller, 2013). Against this very fragmented understanding of networking, there is a need for a more comprehensive and actor-driven knowledge of what really drives firms and managers to build networks and relationships. Furthermore, it can be stated that the positive elements (such as trust and commitment) of business-to-business relationships is broadly discussed, whereas research on negative effects is scant (Abosag et al., 2016). In this study, the aim is to explore what managers see as important in networking and how they consider the effects of networking on the firm's success. Therefore, both the networks' positive and negative effects (i.e., the advantages and disadvantages of relational business practices) are considered, i.e., that praxis managers need to balance between them.

The aim of this study is to enhance our knowledge of managerial thinking of different drivers of networking in the context of the manufacturing industry, where earlier studies have typically limited to the traditional supply networks (Valkokari, 2015). The focus of this paper is on building balanced and indicative metrics for network perceptions through interviews, thematic group discussion and a pilot survey with 22 companies participating to our research programme. Based on a focused frame of literature and intertwined with case data from interviews and thematic discussions, a networking barometer has been constructed to highlight the negative and positive effects of inter-organisational relationships. Based on qualitative data gathering techniques and analysis the barometer enables recognition of the critical dimensions and attributes of inter-organisational relationships in different kinds of firms, functions, markets and industrial sectors. Moreover, the barometer highlights the managers' insights about the usefulness of networking practices in support of company strategies and operations.

This work-in-progress paper is structured as follows; we first look through the theoretical background of dynamics of business networks and challenges in their management. The conceptual framework of the study is also presented. The second section presents the research methodology and the case data. Then results of the pilot survey are presented. The paper concludes by summarising the present contributions based on the pilot survey pointing out the needs for further development of framework and research ideas.

## CONCEPTUAL FRAMEWORK

In business networks and relationships, the positive forms of impact on the network participants are transmitted through complex co-effects of relational practices (such as informal interaction) between actors, and transactional practices (such as explicit contracts) between collaborating firms (Poppo & Zenger, 2002; Halinen et al., 2012; Valkokari, 2015). Thus, network management is a

highly complex issue as numerous actors interact in many different ways, increasing the chances of suboptimal outcomes for one or more of the parties. Therefore, it can even be stated that gaining mutual benefit from collaboration for all actors involved is unlikely (Chowdhury et al., 2016).

Based on earlier literature on network management (Kohtamäki et al., 2006; Dyer & Nobeoka, 2007; Möller & Rajala, 2007; Järvensivu & Möller, 2009) we have defined a unifying theoretical framework (Figure 1) for relational network practices generating collaborative advantage. It is based on a systemic view whereby a firm considers networking attractive as it is expected to foster innovation, growth and profitability of the firm. As reflections of networking performance, these expected outcomes are shown in the middle of the triangle in Figure 1. Accordingly, firms have a higher capability to prosper and survive if they belong to well-functioning and competitive networks. Anyhow, managers need to balance between the advantages and disadvantages of networks and therefore, this study also considers the less explored darker side of business relationships (see the recent special issue of *Industrial Marketing Management*, May 2016), i.e., management of uncertainty, opportunism and tension in business relationships and networks.

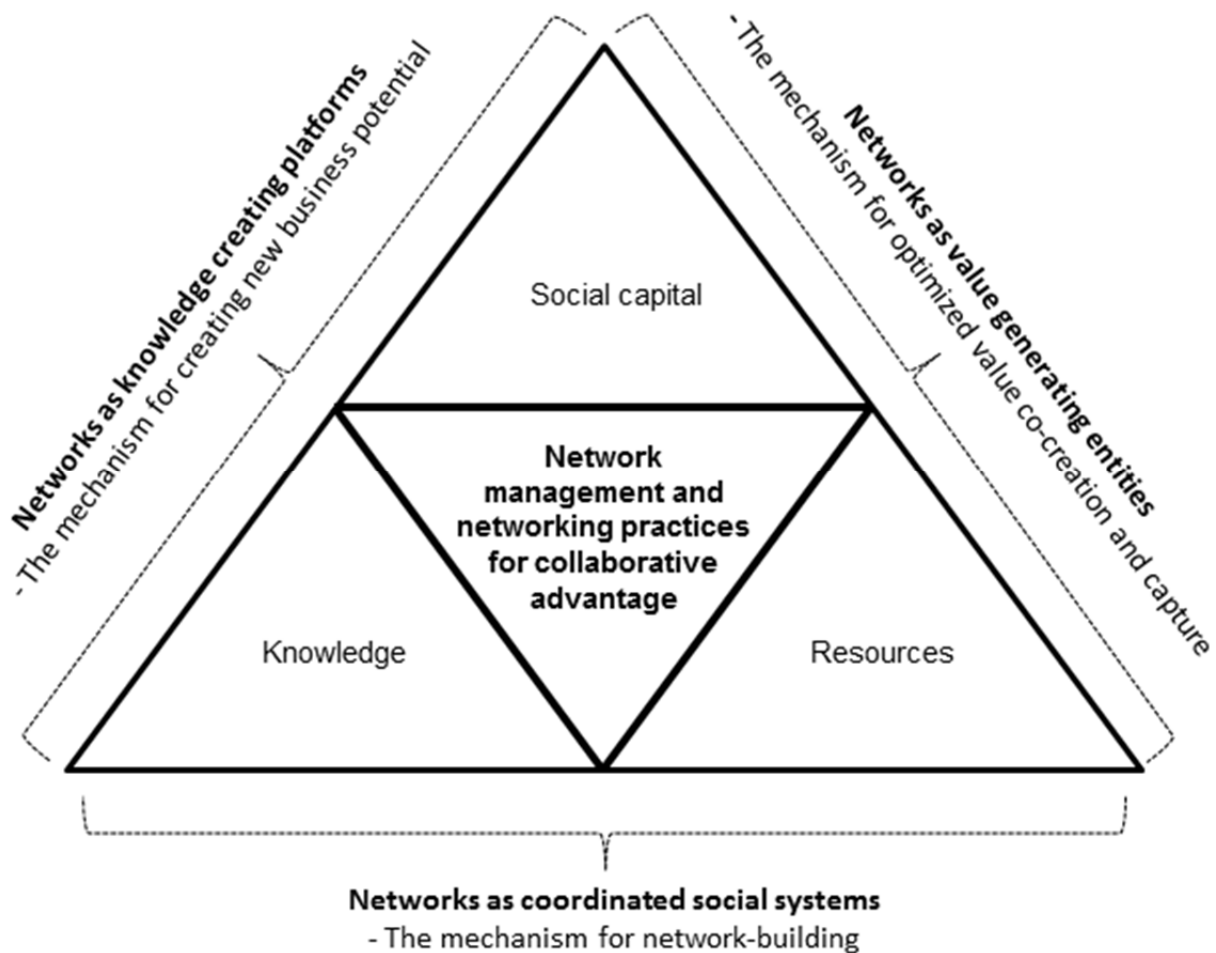


Figure 1. A systemic frame of business networks and relationships

The framework presents *three* general mechanisms through which the network effects enhance firm-specific competitive advantage. The three mechanisms are: networks as controlled social systems, networks as goal-oriented entities and networks as knowledge creating platforms. Managerial activities are at the core of the framework and give networks their goal-oriented and intentional character (Möller & Rajala, 2007). Thus, the mechanisms help us to understand network

dynamics and the managerial challenge to balance between the advantages and disadvantages of networking and relational business practices.

Social-psychological aspects of business highlight the fact that networks of organisations are basically social systems where individuals are the key actors. Today, social media has considerably condensed social networks and intensified interpersonal interaction. Thus, social networks have become even more important platforms for any business activity. In our frame, **networks as controlled social systems** relate to the fundamental problem of boundary-spanning (Carlile, 2002), i.e., how to create networks' social context (or shared purpose as defined by Ghoshal & Moran, 1996) to overcome cultural (different behavioural norms), social (e.g., trust), knowledge-based (differences in conceptual systems), disciplinary (varying terminology), functional (different focus of activity) and other boundaries emerging between distinct communities of practices.

To appropriate potential synergies, networks need a common understanding of the strategic and operative goals to be achieved and the means to implement the objectives set (Dyer & Nobeoka, 2007, Kohtamäki et al., 2006; Möller & Rajala, 2007). Network management at several organisational levels differs from the management of organisations in that it does not possess such ownership and authority-based power as organisations do. **Networks as goal-oriented entities** in Figure 1 considers networks as value-creating systems to avoid the sub-optimisation of goals and means with the closest partners in the value chain. From the management point of view, central issues are linked to the enhancement of effective division of labour between the network participants, mobilisation of highly competitive and complementary external resources, and use of efficient contracting.

The third important mechanism of networking consists of various practices of information and knowledge management. A great deal of business development is related to technical aspects of information systems integration. Along with systems integration, we highlight the importance of non-technical boundary-spanning tools, which range from joint planning platforms and inter-organisational structures, e.g., steering groups, quality teams to coordinate and run network activity and support learning (Dyer & Nobeoka, 2007). Hence, the third sub-system in our framework treats **networks as knowledge creating platforms**. Inter-organisational information systems (collaboration platforms, etc.) and cooperative practices (e.g., value-engineering processes) involve people in purposeful interaction to create and revise existing general, network- and relationship-specific knowledge.

## METHODOLOGY

On the basis of the conceptual frame (presented in Figure 1), our aim is to examine whether, and the extent to which networking is considered important in the business strategy and operations of the manufacturing companies, and whether the outlined trichotomy of networking dimensions is useful to explain managerial thinking and perceptions about networks. The bulk of network theories and empirical studies has focused on the positive (expected) impacts of networking manifested, e.g., in the potential synergies and complementary resources. In this study, we take a more holistic perspective, also accounting for the possible negative views and experiences of networking. Therefore, our framework involves a dual construct, i.e., it explores both positive and negative managerial views of the network outcomes and their determinants. These dimensions are depicted in Table 1.

Table 1. Network statements

	Positive	Negative
Performance of network	1) strengthen growth of business and profitability 2) enhance access to new markets	1) increase the risks of our business 2) increase the expenditures of our business
Practices - networks as goal oriented entities	1) enhance an effective division of labor with our partners 2) increase available resources and capabilities 3) enable more flexible contracts	1) hamper new business ideas and innovations 2) decrease willingness to renew and develop 3) increase dependency on network members
Information - networks as knowledge creating platforms	1) enhance integration of ICT systems with our partners 2) enhance access to knowledge that is critical to our business	1) lead to the concealment of information and information-dependency 2) cause knowledge leaks and the risks thereof
Socialisation - networks as controlled social systems	1) increase mutual trust in our business relationships 2) enhance comradery with our partners	1) hamper our independent decision-making 2) weakens our position in business relationships

The preliminary empirical research data was gathered by in-depth interviews and thematic discussions with key managers representing 22 companies. These 22 firms have participated in an industry-academia research program that develops relational practices in business networks. Some of the firms have business relationships between each other, but they belong to a variety of business networks in several industrial sectors (e.g., power solutions, shipbuilding, construction).

Based on the preliminary data and the research framework, a survey has been designed to investigate managers' opinions about positive and negative effects of networking in the context of the manufacturing industry. To advance unambiguous and easy interpretation by the respondents, business networks have been defined as "a set of companies and potentially other organisations (a minimum of three network actors) connected to each other for the purpose of doing business on a relational basis" (e.g., Halinen and Törnroos, 2005). The questionnaire, consisting of 18 statements (presented above, nine positive and nine negative statements) was sent to the key persons of the 22 companies. In addition, the questionnaire included a basic demographic section regarding respondents' age, gender, position in the company, the business unit in which they work and background data of the company. A summary of respondents' demographic data is presented in Table 2. The preliminary (test) survey generated 27 responses by the beginning of April 2016.

Table 2. Summary of respondents' demographic data

	Alternatives	number of respondents
Size of the company	<50	1
	50 – 249	7
	>250	9
	part of a larger corporation	11
Respondents' position	Top management	3
	Middle management	16
	Supervisor	-
	Expert	8
	Other	-
Respondents' business unit	Sourcing	5
	Sales	8
	R&D	6
	Production	2
	Services	1
	Other	5
Respondents' age	<25	-
	25-35	5
	36-45	11
	46-55	6
	56-65	4
	>65	1
Respondents' gender	female	1
	male	26

## RESULTS

The questions were constructed by using Likert scaling, from 1 (totally disagree) to 5 (totally agree) for each statement. Based on the 27 answers, it can be concluded that the respondents have distinctively positive view on networks and their effects on business performance. In the positive statements the average value of all the respondents' answers was over 4 (agree), whereas in the negative statements the average remains under 2,5 (between 3= don't know - 2= disagree). Figures 2 and 3 represent the rank from the most supported to the least supported positive and negative statements.

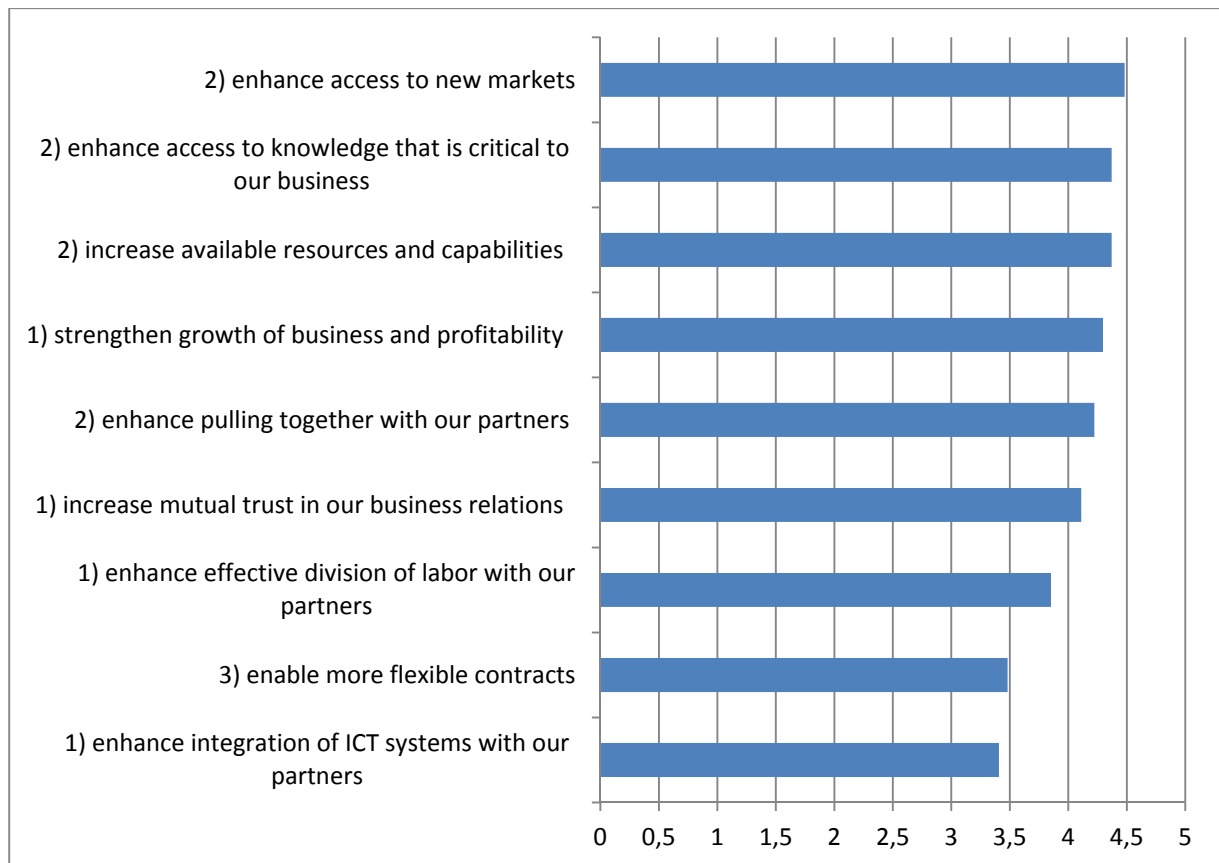


Figure 2. Positive statements

The three most supported statements are as follows: business networks 1) enhance access to new markets, 2) enhance access to knowledge that is critical to our business and 3) increase available resources and capabilities. On the other hand, the least supported positive statements are: business networks 1) enhance integration of ICT systems with our partners, 2) enable more flexible contracts and 3) enhance effective division of labour with our partners. This may support a more general conclusion that potential drivers of networking – based on relational practices – lie more in intangibilities, i.e., the effects on future competitiveness. The technical or tangible enablers in turn, are assigned lower importance by the respondents.



Figure 3. Negative statements

The three most supported negative statements are as follows: business networks 1) cause knowledge leaks and the risks thereof, 2) increase dependency on network members and 3) hamper our independent decision-making. On the other hand, the least supported negative statements were: business networks 1) decrease willingness to renew and develop, 2) hamper new business ideas and innovations and 3) weaken our position in business relations. The results indicate tentatively that managers, while believing in the growth-boosting effects of networks, also acknowledge that this may be associated with specific costs of ‘losing’ something valuable. However, networks do not seem to weaken a firm’s position or the ‘incentives’ for business development.

## FINDINGS

When comparing the negative and positive statements, it can be concluded that the respondents consider knowledge and resource sharing an important reason for operating in business networks. This is in line with the relational view (Dyer & Singh, 1998), highlighting competitive advantage created in interfirm exchange. Furthermore, the risks related to knowledge leaks were considered an important issue, which also highlights the importance of joint rules for knowledge management practices in business relationships and networks.

Based on the survey results, it can tentatively be concluded that practitioners recognised the three groups of mechanisms presented in our preliminary research framework (Figure 1) that are associated with positive business performance of the firms. Table 3 summarises the respondents’ answers and valuations regarding our framework. Thus, acknowledging the potential of the detrimental effects of networking to the overall view of the networks among the respondents is distinctively positive.



Table 3. Network statements

	Positive	Negative
Performance of networks	1) strengthen the growth of business and profitability (4,3) 2) enhance access to new markets (4,5)	1) increase the risks of our business (2,7) 2) increase the expenditures of our business (2,5)
Practices “as goal oriented entities”	1) enhance effective division of labour with our partners (3,9) 2) increase available resources and capabilities (4,4) 3) enable more flexible contracts (3,5)	1) hamper new business ideas and innovations (2,0) 2) decrease willingness to renew and develop (1,7) 3) increase dependency on network members (3,0)
Information “as knowledge creating platforms”	1) enhance integration of ICT systems with our partners (3,4) 2) enhance access to knowledge that is critical to our business (4,4)	1) lead to the concealment of information and information-dependency (2,4) 2) cause knowledge leaks and the risks thereof (3,3)
Socialisation “as controlled social systems”	1) increases mutual trust in our business relations (4,1) 2) enhances pulling together with our partners (4,2)	1) hampers our independent decision-making (2,8) 2) weakens our position in business relations (2,0)

## DISCUSSION AND CONCLUSIONS – WHAT DO MANAGERS REALLY THINK ABOUT NETWORKS?

Business networks as well as other collaborative settings, such as partnerships and alliances, are characterised by the co-existence of negative effects (several tensions, uncertainties and opportunism) positive (trust, commitment) elements. The aim of this study is to explore managers’ perspectives related to the advantages and disadvantages of relational business practices associated with the operations in business networks. The practitioners’ insights highlight how collaborative relationships in business networks have concurrently positive and negative influences on innovation, business development, learning and knowledge accumulation of involved actors. This is in line with paradoxical frameworks identified in knowledge in organisations (Chae & Bloodgood, 2006) as well as literature of inter-organisational relationships (Parmigiani & Rivera-Santos, 2011). Although, collaboration in networks seems to provide distinctive opportunities for future business, these benefits need to be balanced against the potential losses and risks of firm-specific advantages. In line with Abosag et al. (2016), it can be stated that typically “business relationships are neither bright nor dark, but rather represent a combination of the two”.

While the respondents in our case recognised the potential hazards, they clearly have a positive view of the influence of networks on business performance, i.e., the managers perceive the overall outcome of networks and relational business practices as clearly positive. There can be several reasons for this. First, the respondents have participated in a research program developing relational business practices and they could therefore have a more positive view of networks than manufacturing industry practitioners in general. Additionally, the fact that the majority of respondents were from larger companies may influence positive views, as larger firms in the Finnish manufacturing sector typically operate as focal firms in business networks, and thus they are powerful enough to manage the network according to their own interests. Finally, our sample of

22 firms may represent the industry view (in the context of Finnish manufacturing) more generally and the managers' experiences and perceptions on networks are typically more positive than negative. Accordingly, more extensive data is needed to validate our results, and to see whether and how differences between companies (size, network position, industry, functional units), as well as cultural, geographical and industry-structural factors' influence on managerial views of relational business and networks.

To sum up, the results of the study indicate that our framework enables us to characterise the above suggested transition from transactional to relational paradigm and build holistic understanding of what managers really think about relational business practices. In line with its aim, this study didn't develop IMP theory, but complements IMP-grounded research with insights on business-to-business network practices in the context of the manufacturing industry. As a managerial implication, the study suggested that as you can't always live on the bright side of business networks, the consideration of the negative effects is needed and it should be done transparently with the business partners. Therefore, one avenue of future research is to utilise the framework in order to explore managerial perceptions of several firms within the same business network.

## REFERENCES

- Abosag I., Yen, D.A. & Barnes, B.R. 2016. What is dark about the dark-side of business relationships, *Industrial Marketing Management*, Vol. 55, May 2016, pp. 5-9
- Chae, B. & Bloodgood, J.M. 2006. The paradoxes of knowledge management: An eastern philosophical perspective. *Information and organization*, Vol. 16, pp. 1–12.
- Chowdhury, I.N., Gruber, T. & Zolkiewski, J. 2016. Every cloud has a silver lining — Exploring the dark side of value co-creation in B2B service networks, *Industrial Marketing Management*, Vol. 55, May 2016, pp.97–109.
- Dyer, J.H., & Singh, H. (1998): The relational view: Cooperative strategy and sources of inter-organizational competitive advantage. *Academy of Management Review*, Vol. 23, pp. 660–679
- Dyer, J.H. & Nobeoka, K. (2007). Creating and managing a high-performance knowledge-sharing network: the Toyota case. *Strategic Management Journal*, Vol. 21 (3), 345–367.
- Ghoshal, S. & Moran, P. (1996). Bad for practice: a critique of the transaction cost theory. *Academy of Management Review*, Vol. 21 (1). 13–47.
- Halinen, A., Medlin, C.J. & Törnroos, J.-Å. (2012). Time and process in business network research. *Industrial Marketing Management*, Vol. 41 (2), 215–223.
- Halinen, A. & Törnroos, J.-Å. (2005). Using case methods in the study of contemporary business networks. *Journal of Business Research*, Vol. 58 (9), 1285–1297.
- Järvensivu, T. & Moller, K. (2009). Metatheory of network management: A contingency perspective. *Industrial Marketing Management*, Vol. 38, 654–661
- Kohtamäki, M., Vesalainen, J., Varamäki, E. & Vuorinen, T. (2006). The Governance of partnerships and a strategic network. Supplier actors' experience in the governance by the customers. *Management Decision*, Vol. 44 (8), 1031–1051.
- Möller, K. & Halinen, A. (1999). Business Relationships and Networks: Managerial Challenge of Network Era. *Industrial Marketing Management*, 28 (5): 413–427
- Möller, K. (2013). Theory map of business marketing: Relationships and networks perspectives. *Industrial Marketing management*, 42 (3), 324–335
- Möller, K. & Rajala, A. (2007). Rise of strategic nets – New modes of value creation. *Industrial Marketing Management*, Vol. 36, 895–908.
- Parmigiani A & Rivera-Santos M (2011). Clearing a Path Through the Forest: A Meta-Review of Interorganizational Relationships. *Journal of Management*, 37 (4), 1108–1136.
- Poppo, L. & Zenger, T. (2002). Do formal contracts and relational governance function as substitutes or complements? *Strategic Management Journal*, Vol. 23 ( 8), 707–725.
- Valkokari, K. (2015). Describing network dynamics in three different business nets, *Scandinavia Journal of Management*, 31(2), 219–231