

Roles of change management in interactive inter-firm relationships

Zsuzsanna Szalkai, PhD, (szalkaizs@mvt.bme.hu)

Budapest University of Technology and Economics, Department of Management and Business Economics,

Béla Pataki, PhD, Budapest University of Technology and Economics, Department of Management and Business Economics,

Katalin Pádár, Eötvös Loránd University, Department of Management and Business Law

Abstract

Our paper fits to the topic of managing inter-firm relationships and managing change in supply chains. Change management and the interaction approach of business relationships mean the theoretical background for our work. The research objective is to apply the theory of change roles and configurations in inter-organizational context, and analyze inter-organizational change roles in supply chains. We adapted the change role structures to different power-based behaviors of supply chain partners and introduced the possible change role structures in each power-based behavior situations.

Our aim is to contribute to the deeper understanding of the nature of some change management problems of inter-firm relationships.

Keywords: supply chain, IMP, roles of change

Introduction

Nowadays, the importance of collaboration between companies is greater than ever. Our work-in-progress paper deals with theoretical issues, namely the theory of change management roles and a specific approach of business relationships.

Problems of cooperation in inter-firm contexts can be paralleled to intra-firm role problems known from change management. Roles of sponsors, agents, targets, and advocates are interpretable not only within organizations, but also in relations of cooperating ones, for example in supply chains, open innovations, strategic alliances, or other types of inter-firm collaborations. Typical relations between organizations also occur in business partnerships: linear and triangular ones in hierarchical, rectangular ones in flat forms of governance. Similar problems are raised by the Internet of Things (IoT) that brings the redefinition of industrial boundaries along.

Beside the theory of change management, the other theory we apply in our paper is the IMP approach of business relationship, where the interaction between organizations is the bases for a business relationship. A further important recognition of theirs is the interdependence between organizations being in business partnerships.

Starting from the bases of change management and the IMP approach of business relationships and networks, the purpose of our paper is to reveal how change fits into thinking in networks, how it affects the company's supply chain. To what extent do interactions in a business partnership inhibit or facilitate

collaborations, which are necessary for a change that is vital for given organizational changes due to interdependence.

First, we introduce the interaction model of the IMP Group (Håkansson, 1982) and the basic theory of change management concerning the change roles and the configurations of these roles. In order to apply both into inter-organizational context, we briefly compare these theories with each other. Our aim is to apply both the interaction model and change management roles to the power-based behavioral archetypes of supply chain partnerships by Gölgeci et al. (2018) in such cases when one of the partners proposes a change at the other company. We highlight of these change role problems in manufacturing processes in IoT-based systems of systems. Our paper ends with some conclusions and future research questions.

The interaction model of the IMP Group

Industrial Marketing and Purchasing (IMP) Group is an informal international group of researchers from all over the world, but mostly from Northern and Western Europe. It was founded in 1976 to conduct a huge research project to understand and model business relationships. Their previous academic and teaching experiences showed that a business relationship—between buyers and sellers—is a complex phenomenon, which could hardly be explained by the state of the art marketing theories of that time. Starting from this, they analyzed inter-firm relationships and not the firms themselves. According to their thinking, a business relationship is a separate entity. Their fundamental assumption is that in the business world firms are not separate, isolated, independent organizations but their operations are affected by a number of different complex phenomena (Ritter and Ford 2004). Accordingly, “an understanding of what happens between companies, or even within a single company itself, can only be achieved by employing a unit of analysis beyond that of the individual firm” (Ritter and Ford 2004: 105). Their famous phrase originated from one of their basic articles: “No business is an island” (Håkansson and Snehota, 2006) is also the title of their latest book of recent research results (Håkansson and Snehota, 2017).

The interaction model (Figure 1) is the outcome of their first research in 1976 and is based on the assumption that “The marketing and purchasing of industrial goods is seen as an interaction process between two parties within a certain environment” (Håkansson, 1982:14).

The four major parts of the model are: the interaction process itself (with its short-term and long-term dimensions); the interacting parties (on organizational and on individual level); the atmosphere; and the environment, which affects the interaction. The detailed description of the model can be found in Håkansson (1982).

The interaction approach has established further important findings regarding business relationships. One of these findings is the notion of mutual interdependence: “Regardless of the type of industry, a company always operates within a texture of interdependencies that affects its development” (Håkansson and Snehota, 1995:12-13). Mutual interdependence can emerge along the following factors: technology, knowledge, social relations, administrative routines and systems, legal ties (Håkansson and Snehota, 1995: 13). Mutual interdependence is extremely important regarding the activities of a company. “Activities carried out by a company are related to those of others. Activity links that develop in certain business relationships have important consequences for the economics of the companies involved. The links affect the activity structures of the companies and the activity

pattern in the business network. At the same time, activity links in a relationship between two companies are affected by adjustments in the activity structures of the companies involved” (Håkansson and Snehota, 1995: 50).

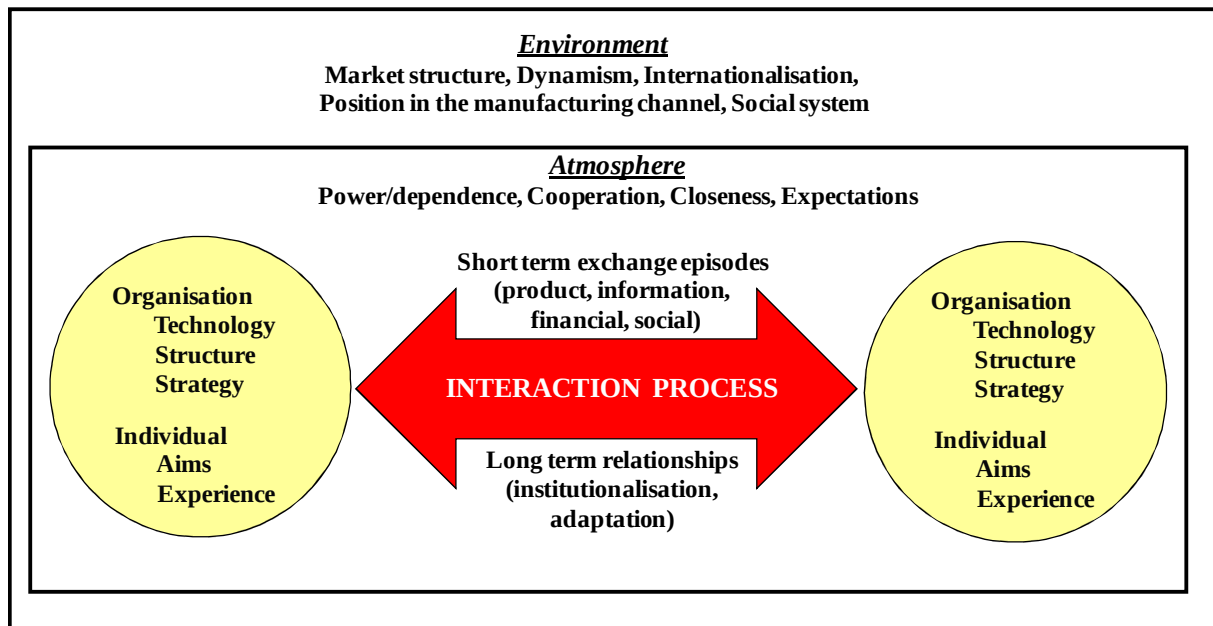


Figure 1 – The interaction model
Source: based on Håkansson (1982)

It follows that if a change occurs in an organization, it is not separated but the company’s business relationships will affect the company’s effort to change: “a company’s relationships are the basis of its current operations and development. But, those relationships also restrict that development” (Ritter and Ford 2004:111). The efforts for a change will cause confrontation or conformation. Such interactions can exist for instance in supply chains between different organizations.

Change management versus the interaction approach

Change management basics

There are two types of changes: first-order and second-order changes (Levy, 1986, Mink et al., 1993, Smith, 1982, Watzlawick et al., 1990). First-order, or morphostatic changes modify some parameters of a system using the built-in controls without altering the structure of the system, that is the morphology of the system is static. Second-order, or morphogenetic changes modify the structure of the system, that is, they generate a new morphology. Both types of changes can happen either in just some part(s) of the system or in the whole system. Change management deals with the management of second-order changes. The system to be changed can be a lot of different things: a manufacturing process or system, workforce headcount or composition, a quality management system, business or technology strategy, organizational structure or culture, etc.

Change management and the interaction approach

In order to contrast the interaction approach of business relationships with the roles in change management it is necessary to deal with the major differences between the two scientific fields.

Change management is traditionally an intra-organizational issue, while the IMP approach concentrates on inter-organizational relationships. Concerning the topic of our paper the most important differences can be noticed along the following factors: the company, the market, and the relationship(s) between them.

According to the IMP approach companies are not independent, separate organizations, but they are in close relationship with each other. Through their business relationship they are mutually independent organizations. In this conception „what happens between business companies is not within the complete control of either of them, but it is the outcome of the interactions between them” (Ritter and Ford, 2004:99).

The second large research project of the IMP Group enlightened the connectedness of business relationships. It means that a company always evaluates its business relationships comparing other business relationships of the company, thus business relationships of a company have effects on each other. (Håkansson and Snehota, 1995). „Generalized connectedness of business relationships implies existence of an aggregated structure, a form of organization that we have chosen to qualify as a network.” (Håkansson and Snehota, 1995: 19)—this is the description of the network in the IMP approach. The IMP views markets as networks and this concept of a network is not equal to the definition of a market from economic or management point of view.

Change management is traditionally linked to standalone organizations, not to a network of organizational relationships; it is being relied upon when changes are implemented within a single organization. Since in the IMP approach activities in a business relationship—and in the network—are connected to the activities of the partners in the relationship, a change starting from one company will most probably have effects on the business relationships of the company and through these relationships it will likely have an effect on the operations of the partners.

According to the interaction model, a change can be interpreted as a series of interactions where both short-term exchange episodes and long-term relationships—for example through routines—play important roles. The stability of the relationship would significantly determine the willingness of adaptation which is necessary in case of a change. The fluency of the change is influenced by the elements of the atmosphere: the power and dependence relations, the cooperation or conflict characteristic of the relationship, the closeness of the relationship, and companies’ mutual expectations toward each other (Håkansson, 1982). The behavior of the organization and that of the individuals—and the success of the change—are highly determined by inter-organizational power and dependence relations. Also, the positions of the companies in the supply chain (the interaction environment) have influence on power and dependence and ultimately on the change.

In the followings we introduce the typical change management roles and their possible relationship configurations in an organization in order to be able to analyze these roles in inter-organizational context.

Typical change management roles

Typical roles of change

There are four distinctive roles of the change process (Conner, 1993:105-107).

- **Sponsor:** sponsors are those persons or groups who has the necessary power to decide about, communicate, legitimize and sanction the change. Their scope of authority must cover the scope of the change.
In large, multi-layered organizations there can be initiating and sustaining sponsors. The latter ones report to the former one. Sustaining sponsors are closer to the targets (see below) so they can maintain the targets' motivation regarding the change more effectively.
- **Agent:** agents are those persons or groups who are responsible for the actual implementation of the change.
- **Target:** targets are such people or groups who are involved in the change or who are affected by the change. They have to take part in the implementation process and/or have to work in a different way after the change.
- **Advocate:** advocates are such people or groups who want change but lack the power that would be necessary for making that change happen. They have to find a sponsor with appropriate power, who can approve and legitimize their initiative.

If the change initiative comes from a sufficiently high level of the hierarchy, then advocates don't exist, since the initiator has the necessary power to become the sponsor of the change. If the change initiative comes from a lower organizational level, then the initiator can only be an advocate until he/she can find a sponsor. Until then the other three roles do not exist. When the advocate finds a sponsor, he/she may be appointed to be an agent, but not necessarily.

One often has to play more than one role in several change projects. It is necessary, for example, to be the agent for our boss and the sponsor to our subordinates. It depends on the situation and the circumstances which role one should play during the given change effort.

Configurations of role relationships

There are three basic types of role relationship configurations, shown on Figure 2 (Conner, 1993:107-111).

The linear configuration is the most common form: the target reports to the agent, and the agent to the sponsor. (Figure 2) The sponsor delegates authority and responsibility to the agent who deals with the targets. This is not necessarily successful but easily understandable because it reflects the typical organizational hierarchy.

The triangular form is more complex and less effective in most cases. Both the agent and the target reports to the same sponsor, but the target is not the subordinate of the agent. (Figure 2) The usual mistake in this relationship is that the sponsor attempts to delegate power to the agent to authorize the change. In the case of major changes, targets, who do not report to the agent, rarely accept when the agent wants to tell them what to do. Sponsors should delegate only the responsibility of putting the change into effect, but not the sanctioning power to people without the appropriate status with the targets. The sponsor must always endorse the change with the targets before telling the agent to begin the implementation. The targets must realize that the agent has a sponsor, who is their superior. Agents should not take full responsibility for such changes when they have to give orders to targets, who are not their subordinates. In such cases agents can only facilitate the change,

but only after the sponsor had communicated the change and his/her sponsorship to the targets.

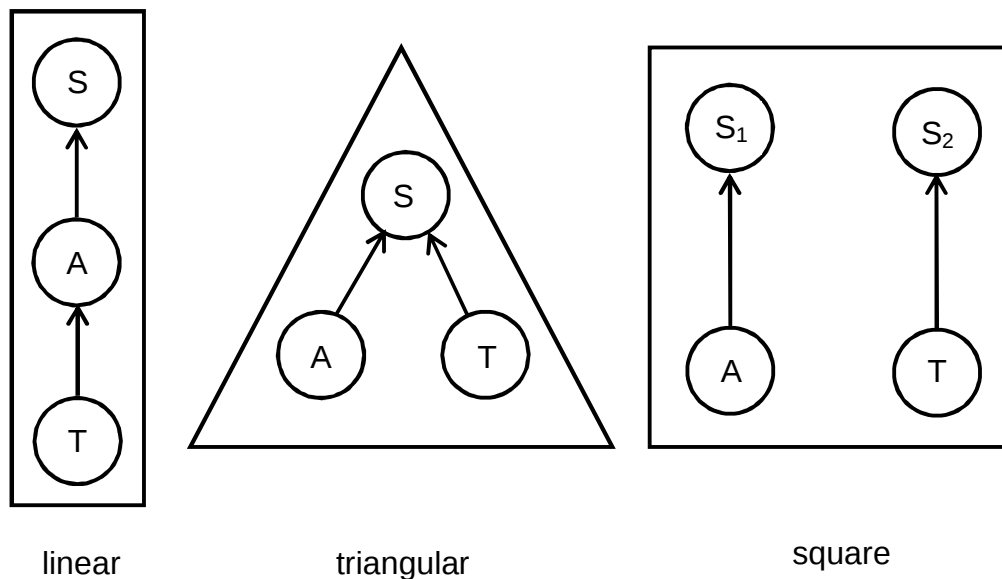


Figure 1 – The three basic structures of role relationships
Source: Conner (1993, 108, 109, 111)

In the square structure (Figure 2), the agent and the targets report to different sponsors. This relationship is dysfunctional in most cases. The problem is that when Sponsor One (S_1) directs the agent to gain the targets' compliance for a major change, the targets rarely respond positively without the directive from their own sponsor. In such situations, S_1 and the agent are actually advocates since they do not have the sanctioning power with the targets.

Formal and informal power of the role players

While Conner (1993) focused on the formal power of the sponsor and the agent (or the problems of lacking formal power), Battilana and Casciaro (2012, 2013a, 2013b) showed that informal status and influence are vitally important for the agent. Without informal power the agent would always have to ask the sponsor for powerful sponsorship. But he/she can substitute his/her lack of formal power with good informal relationships with the targets if he/she is deeply involved in the informal networks of the organization and builds friendly relationships with a lot of people.

Not only the agent's network position matters, but also the network type (Battilana and Casciaro, 2012, 2013a, 2013b). In a *cohesive network* the members of the organization are connected not only to the agent, but also to one another. This social cohesion leads to trust and support. In a *bridging network*, by contrast, people are connected only to the agent but are not connected to one another. The agent can control when and how people pass information along.

Which network type is better depends on how much the change causes the organization to diverge from the status quo. A cohesive network works well when the change is not particularly divergent because most people will trust in the agent's intention and can convince others in the network to cooperate more easily since the

change is not very disruptive. But for a more divergent transformation a bridging network is better because unconnected resisters are less likely to form a coalition, and the agent can vary the timing and framing of messages. (Battilana and Casciaro, 2012, 2013a, 2013b)

Managing change in business collaborations

Inter-organizational change roles in supply chains

The role relationship structures described above can take different forms in collaborations, depending on the power/dependence relationships of the interacting companies. According to the interaction model, mostly the personality, experiences and motivation of the individual determine how they behave in a relationship. (Håkansson, 1982). These are also important factors when we examine how successful were some individuals in their change roles.

In inter-firm business partnerships different collaboration structures (Figure 2) can be observable, depending on the type of (submissive or equal) power relationship between the companies. Gölgeci et al. (2018) presented three power-based behavioral archetypes in supply chains: dominance, egalitarian, and submissive behaviors.

Dominance behavior means such actions when a firm in the supply chain expects a partner company to comply with the dominant firm's interest. This can be either an amicable or an aggressive behavioral tendency. *Egalitarian behavior* relates to reciprocity, searching for mutually acceptable compromises between partners who treat each other as equals. *Submissive behavior* denotes adaptive, accommodating actions, conformity to the requirements of another company. This can be done either in willing or in resentful ways, that is with an intrinsic motivation and low resistance or by feeling compelled and desiring (but not feeling able) to resist, respectively.

Table 1- Change role structures in supply chain power relationships based on Gölgeci et al.'s (2018) dimensions

	Supply chain partner responding behavior			
	Dominance	Egalitarian	Submissive	
Supply chain partner initiating behavior	Dominance	contentious square	conflict between the initiator's triangle-type and the respondent's square-type intention	quasi-linear or quasi-triangle
	Egalitarian	conflict between the initiator's square-type and the responding's triangle-type intention	synergistic square	awkward for both parties because of the initiator's square and the responding's triangle intention
	Submissive	quasi-linear or quasi-triangle	the initiator is puzzled because of its triangle and the responding's square intention	awkward square

Gölgeci et al. (2018) examined the relations between the behaviors of supply chain partners when one of them acts as initiator and the other as respondent. Either the initiating or the responding behavior can be dominant, egalitarian or submissive. They described the typical relational outcomes of the nine possible pairings of the three possible initiating and responding power-based behaviors. Our aim is to apply

change roles relationships to the same nine possible pairings between the supply chain partners in such cases when one of the partners proposes a change at the other company. Based on Table 2 by Gölgeci et al. (2018) we assembled Table 1 comprising the possible change role relationship patterns.

The dominant firm has got (or at least wants to appoint) the sponsor and the agent, the submissive organization has the targets. If the submissive partner is the initiating party then it has the advocate as well. In case of egalitarian partners, both can have all the three essential change roles.

Change role problems in manufacturing processes of IoT-based systems of systems

In the era of the IoT-based transindustrial ‘systems of systems’ (Porter and Heppelmann, 2014) it is inevitable to collaborate with other companies from various industries. For instance, a tractor manufacturer finds itself within a farm equipment system, which contains planters, combine harvesters, and tillers as well. And this farm equipment system is a component of a farm management system of systems, comprising a weather data, a seed optimization and an irrigation system as well (Porter and Heppelmann, 2014). And what is more, “manufacturing now goes beyond the production of the physical object, because a functioning smart, connected product requires a cloud-based system for operating it throughout its life” (Porter and Heppelmann, 2015:103). It requires close collaboration between the manufacturers of the physical components of the systems of systems and the IT-company developing and running the cloud system. These examples demonstrate that typical intra-organizational change management role problems also appear (and possibly turn out to be determining in the success of the change efforts) under such complex interactional inter-organizational circumstances.

Let us take the example of two collaborating organizations of equal power in a supply chain (or any other kind of interaction) in which collaboration some kind of major change seems to become necessary and both organizations have their own simple linear change role structures. For instance, company 1 can be a supplier of company 2, and if company 1 proposes some change that would affect company 2 as well—therefore a more complex and difficult square structure arises. It can be seen on Figure 3 that there will be two sponsors of the change, S_1 and S_2 , with two agents, A_1 and A_2 . The supplier company’s A_1 has no sanctioning power over T_2 in this egalitarian relationship, consequently, it cannot be easy or it can be even impossible for A_1 to gain T_2 ’s compliance for a major change because they do not have a common sponsor. In this case S_1 should work as a quasi-advocate to gain S_2 ’s sponsorship at first.

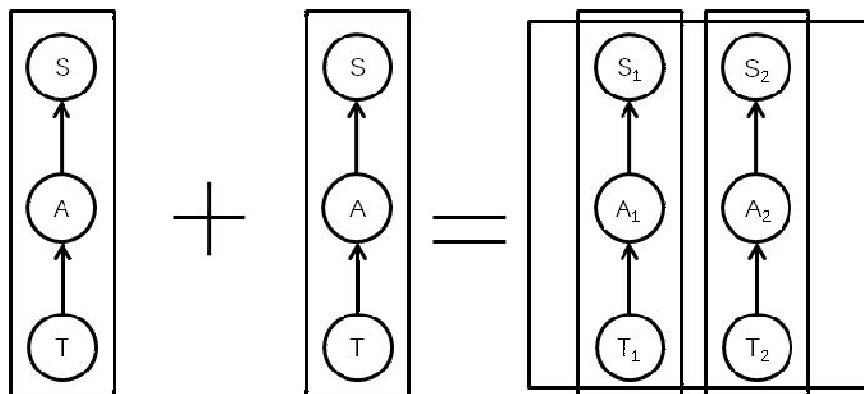


Figure 3: Square structure from linear ones in inter-organizational collaboration

Conclusions and potential research directions

Our findings show that problems in business relationships for example in supply chain networks can be drawn parallel with the role problems known in change management which problems can and should be adapted to inter-organizational changes. Sponsor, agent, target and advocate roles are comprehensible not only within a single organization, but also in the collaborations of separate organizations. The typical relationships of the change roles occur in inter-firm business collaborations as well: linear and triangular structures in hierarchically governed collaborations, and square structures in flat governance forms. We adapted the change role structures to different power-based behaviors of supply chain partners and introduced the possible change role structures in each power-based behavior situations.

We pointed out that using IoT-based systems in supply chain demonstrate that typical intra-organizational change management role problems also appear (and possibly turn out to be determining in the success of the change efforts) under such complex interactional inter-organizational circumstances.

Adapting change role theory to interorganizational relationships also seems to be a promising research direction. It is a key question how connections between organizations can be broken down into connections between individuals. The individual level is the one where the conventional role model of change management can be used effectively, and the operative implementation of changes take place mostly at this level as well. Or using the terminology of the interaction model of business collaborations: how can organization to organization interactions be broken down into person to person interaction types?

Another problem that is worth further research is the “pure cases” of theoretical change roles in practice because real life situations are more complex than the theoretical models. How does the power relationship between organizations affect the role relationships between members of the two organizations? What are the most relevant basic role relationship structures in practice?

References

- Baraldi, E., Brennan, R., Harrison, D., Tunisini, A., Zolkiewski, J. (2007), “Strategic thinking and the IMP approach: A comparative analysis”. *Industrial Marketing Management*, Vol. 36, No. 7, pp. 879-894
- Battilana, J. and Casciaro, T. (2012), “Change Agents, Networks, and Institutions: a Contingency Theory of Organizational Change”. *Academy of Management Journal*, Vol. 55, No. 2, pp. 381-398
- Battilana, J. and Casciaro, T. (2013a), “Overcoming Resistance to Organizational Change: Strong Ties and Affective Cooptation”. *Management Science*, Vol. 59, No. 4, pp. 819-836
- Battilana, J. and Casciaro, T. (2013b), “The Network Secrets of Great Change Agents”. *Harvard Business Review*, Vol. 91, No. 7/8, pp. 62-68
- Conner, D. R. (1993), *Managing at the Speed of Change*. Villard Books, New York
- Gadde, L., E., Huemer, L., Håkansson, H. (2003): “Strategizing in industrial networks”. *Industrial Marketing Management*, Vol. 32, Issue 5 pp. 357-364
- Gölgeci, I., Murphy, W. H., Johnston, D. A. (2018): “Power-based behaviors in supply chains and their effects on relational satisfaction: A fresh perspective and directions for research”. *European Management Journal*, Vol. 36, Issue 2, pp. 278-287
- Håkansson, H. (ed.) (1982), *International Marketing and Purchasing of Industrial Goods – An interaction approach*. John Wiley and Sons, Ltd. New York
- Håkansson, H. and Snehota I. (ed.) (1995), *Developing relationships in business networks*. Routledge, London and New York

- Håkansson, H. and Snehota I.(2006): No business is an island: The network concept of business strategy. *Scandinavian Journal of Management* 22 (3), pp. 256-270
- Håkansson, H. and Snehota I. (eds.) (2017), *No Business is an Island – Making Sense of the Interactive Business World*. Emerald Publishing Limited, UK
- Levy, A. (1986), "Second-Order Planned Change: Definition and Conceptualization". *Organizational Dynamics*, Vol. 15, No. 1, pp. 5-20
- Mink, O. G., Esterhuysen, P. W., Mink, B. P., Owen, K. Q. (1993), *Change at Work*. Jossey-Bass, San Francisco, California
- Pisano, G. and Verganti, R. (2008), "Which Kind of Collaboration is Right for You?" *Harvard Business Review*, Vol. 86, No. 12, pp. 78-86
- Porter, M. and Heppelmann, J. E. (2014), "How smart, connected products are transforming competition". *Harvard Business Review*, Vol. 92, No. 11, pp. 64-88
- Porter, M. and Heppelmann, J. E. (2015), "How smart, connected products are transforming companies". *Harvard Business Review*, Vol. 93, No. 10, pp. 96-114
- Ritter, Th. and Ford, D. (2004), "Interactions between suppliers and customers in business markets". In: Håkansson, H., Harrison, D., Waluszewski, A. (eds.): *Rethinking marketing – Developing a new understanding of markets*. John Wiley and Sons, Ltd, Chichester pp. 99-116
- Smith, K. K. (1982), Philosophical Problems in Thinking about Organizational Change. In: Goodman, P. S. and Associates: (eds.): *Change in Organizations*. Jossey-Bass, San Francisco, pp. 316–374
- Watzlawick, P., Weakland, J. H., Fisch, R. (1974), *Change: Principles of Problem Formation and Problem Solution*. W. W. Norton, New York