INTER-ORGANIZATIONAL DESIGN FIT IN INTER-ORGANIZATIONAL KNOWLEDGE MANAGEMENT

ABSTRACT The purpose of this paper is to analyze existing knowledge on how organizations learn using multilevel comparison perspective of intra- and inter-organizational learning and to offer deeper understanding of the role that organizational design properties have in inter-organizational learning. Using Argote and Ophir (2005) findings on similarity vs complementarity fit developed for intra-organizational learning as an anchor, we analyze the role similarity vs complementarity fit of organizational configuration and coordination properties in inter-organizational settings. Our intention is to explicitly express the role of inter-organizational design fit in inter-organizational knowledge management. Framework developed here systematizes and explains how strategic objectives of network creation (exploration or exploitation) should be aligned with learning mechanisms (learning by doing or learning by listening/observing) and organizational design properties. From the point of organization theory, this paper advances knowledge about the influence organizational design as intra-organizational property has on knowledge transfer between organizations and inter-organizational learning. Our framework helps managers understand how inter-organizational design fit can influence inter-organizational learning within the network. With regard to policy making, knowledge networks are becoming increasingly important as a mechanism of industrial development support, economic growth, increase of employment and poverty reduction and this paper points to mechanisms of inter-organizational design that can be used in managing these networks.

Keywords: inter-organizational learning, design fit, networks, complementarity fit, similarity fit.

APSTRAKT Cilj ovog rada je da analizira postojeća znanja o tome kako organizacije uče, koristeći komparativnu perspektivu učenja na inter–i intra-organizacionom nivou, kao i da prodbi znanja o ulozi koju organizacioni dizajn ima u procesu
inter-organizational learning. Koristeći rezultate do kojih su došli Argotova i Ofir (Argote, Ophir, 2005) analizirajući uticaj slaganja elemenata organizacionog dizajna na bazi sličnosti vs komplementarnosti na inter-organizaciono učenje, u radu je analizirana uloga slaganja na bazi sličnosti vs komplementarnosti organizacionih konfiguracija i mehanizama koordinacije na inter-organizacionom nivou. Namerna nam je da ukazemo na direktnu ulogu koju slaganje na interorganizacionom nivou ima za inter-organizaciono upravljanje znanjem. Okvir koji je razvijen u radu svestanizuje i objašnjava kako strateški ciljevi u kreiranju interorganizacionih odnosa (istraživanje ili eksploatacija) treba da budu uskladieni sa mehanizmima učenja i karakteristikama organizacija koje su uključene u proces učenja. Sa aspekta teorije organizacije, ovaj rad unapređuje naša postojeća znanja u pogledu uticaja koji organizacioni dizajn kao inter-organizaciona varijabla ima na transfer znanja i učenje između organizacija. Okvir razvijen u radu može biti od pomoći menadžerima da razumeju kako dizajn interorganizacionih odnosa može da utiče na interorganizaciono učenje u mrežama organizacija. Sa makro aspekta, interorganizacione mreže zasnovane na znanju postaju sve značajnije kao mehanizam podrške industrijskom razvoju, ekonomskom rastu, povećanju zaposlenosti i smanjenju siromaštva i ovaj rad ukazuje na mehanizme dizajna interorganizacionih mreža koje treba koristiti kako bi se njima efektivno upravljalo.

**Ključne reči:** interorganizaciono učenje, slaganje organizacionog dizajna, mreže, komplementarno slaganje, slaganje po sličnosti.

**Introduction**

Organizational learning is a process through which organizations change as a result of experience. Intra-organizational learning involves the processes through which organizational units change as a result of experience, their own or the experience of the other units. Inter-organizational learning is a process through which organizations change by exposure to (listening or observing) other organization's knowledge base or through experience by completing task (doing) together with another organization.

Organizational learning as a result of organization's own experience is widely discussed and analyzed in referential literature (Argot and Ophir, 2005; Argote et al, 2003; Argote and Ingram, 2000). Significant volume within the existing body of knowledge about organizational learning is dedicated to explaining importance that various organizational properties have on intra-organizational learning (see Dierkes et al, 2001 for a review).

Late 20th century management literature and practice has recognized importance of learning in organizations for the sake of their survival and growth. Today, the need for learning in organizations is even greater, but expands beyond organizational borders. Companies are encouraged to search for ways to learn from their strategic partners, business associates, suppliers, buyers, and most of all, their competitors. The learning paradigm calls for reconsideration of the
concept of organizational boundaries – going beyond traditional transaction cost explanations (Burton, 2013; Baldwin, 2012; Tushman et al, 2012). Boundaries of many newer organizational forms extend beyond that of the single firm, as inter-organizational cooperation through networks proves to be adequate organizational response for achieving better knowledge, enhancing and accelerating organizational learning (Inkpen, Ramaswamy, 2006; Child, 2001; Lyles, 2001). Consequently, the scope of organization design needs to expand to include ecosystems, collaborative communities, industries, and other supra-firm architectures (Burton, 2013).

On the other hand, the body of knowledge about inter-organizational learning is more fragmented and less systematized than for intra-organizational learning. The existing research does not comprehensively explain the importance of various organizational properties for inter-organizational learning. Nonetheless, researchers have tried to explain a number of aspects of learning and knowledge transfer in inter-organizational networks (see Aleksić Mirić, 2013 for a review); only few have discussed it in the context of organizational design and associated concepts (Lewin et al, 2011; Volberda et al, 2010; Lane and Lubatkin, 1998).

The purpose of this paper is to analyze existing knowledge on how organizations learn using multilevel comparison perspective of intra- and inter-organizational learning and to offer deeper understanding of the role organizational design properties have in inter-organizational learning. Using Argote and Ophir (2005) findings on similarity-complementarity fit developed for intra-organizational learning as an anchor, we analyze the role similarity – complementarity fit of organizational configuration and coordination properties in inter-organizational settings.

We organize the existing literature using three dimensions. The first dimension refers to two fundamentally different approaches to learning – exploration and exploitation. Explorative approach is oriented towards experiments, new and unexplored behavior, risk and innovations, while exploitation relies on efficiency and application of familiar, routine ways of behavior. The second dimension refers to learning mechanisms, or how organizations learn, by doing or listening/observing. The third dimension is inter-organizational design properties of configuration and coordination. Along the line, we use knowledge about intra-organizational learning as an anchor.

Our intention is to explicitly express the role of inter-organizational design fit in inter-organizational knowledge management. This paper advances knowledge about the influence organizational design as intra-organizational property has on knowledge transfer between organizations and inter-organizational learning.

**Conceptual Framework**

Our work builds upon the ideas of Argote and Ophir (2005) developed for inter-organizational learning, with an intention to widen it onto inter-
organizational paradigm. Argote and Ophir (Argote, Ophir, 2005) argue that intra-organizational learning involves the processes through which organizational units change as a result of experience, their own or from the experience of other units. Learning within organizations manifests itself through change in either the knowledge or the performance. Learning from the experience of other units occurs at all levels within and between organizations. Units can learn from other units within a firm, firms can learn from other firms. Therefore, the definition of Argote and Ophir on intra-organizational learning can be applied equally well to the inter-organizational context.

We organize the knowledge about inter-organizational design and organizational learning comparatively, using two-dimensional model. The first dimension defines that organizations (both on intra- and inter- organizational level) can learn by being exposed to (listening or observing) someone else's knowledge base, or by completing specific task by themselves (by doing). The second dimension defines basic organizational design properties: configuration and coordination. Along the line we use knowledge about single organization design fit and learning as an anchor.

Comparative systematization is given in the Table 1.

**Inter-organizational networks**

Inter-organizational networks have been increasing in importance and presence in the global business scene from 1980s, proving to be efficient, effective and highly flexible ways to achieve various organisational goals (Gulati et al, 2012). Knowledge networks are networks that aim to share information and create knowledge, strengthen communication capacity among members and identify and implement strategies to engage network members more directly. Inter-organizational knowledge networks are aimed at connecting organizations through mutual interaction with an explicit focus on knowledge creation, retention or transfer (Bolisani, Scarso, 2012).

Design of a network can be described from the point of network configuration and network coordination. Network configuration explains how the big task network is supposed to achieve is partitioned into smaller sub-task allocated onto network participants. Network configuration also explains the logic of borders established between network members and how knowledge capabilities between network actors are combined. Network coordination explains mechanisms that are used to integrate activities of network members in order to perform the task of the network.

Significant work within organization design area is based on the concept of fit (congruency, alignment). Principles of design fit emphasize that different components of organization design should be mutually aligned, further, that organization design should be aligned with other important elements of organization, such as technology, age, size, organization climate and alike; and finally, that organization design should be aligned with the conditions of external
environment. This principle of fit was accepted and respected in the work of Woodward, Perrow, Lawrence and Lorsch as early as in 1950ies and 1960ies. During 1970ies this approach was further developed with the work of Miles and Snow (1978) who develop strategic fit model, Mintzberg (1979) structuring model, Galbraith’s (1973) Star Model, Nadler and Tushman (1984) with congruency model, and Burton and Obel (2004) with strategic organizational diagnosis and design fit.

The concept of fit has been mostly analysed from single organization perspective, while in the area of inter-organizational cooperation, the concept of fit has not been applied to explain various phenomena regarding network functioning (Toulan et al, 2007). Lorange and Roos (1991) recognized the importance of mutual adjustment of partnering organizations in strategic and organizational sense by identifying three fundamental reasons why strategic alliances are so difficult to manage. According to them (1) shared decision making, (2) separate corporate cultures and (3) different (conflicting) strategic interests are the main reasons for difficulties in managing strategic alliances.

Strategic fit refers to the strategic complementarities between partners: does the combination of skills and resources allow alliance to perform a task that could not be performed that well by the partners acting alone. Strategic fit also deals with the question whether partners see the aim and intentions of the partnership in the same way, and do they recognize the same objectives as the goals of partnership creation. Organizational fit refers to the ability of partners to work together and is defined by these authors in terms of factors that stand for it and promote it, such as: common or similar corporate cultures and values, convergence of strategic goals, good chemistry between key managers, partners that value public reputation, compatible control and decision making systems, common time horizons, partners that discourage secretive behavior in their own operations. Toulan et al (2007) investigated the importance of inter-organizational fit in global account management programs in multinational corporations. They found a support for a conclusion that greater fit between vendor and customer on variety of strategic as well as structural aspects will result in higher performance of the relationship.

Investigating global strategic linkages and industry structure Nohria and Garcia Point (1991) explain that through strategic linkages with others, firms can gain access to desired strategic capabilities by creating linkages with firms that have complementary capabilities (ie. complementarity fit) or by pooling their resources with firms with similar capabilities (ie. similarity fit).

**Inter-Organizational Learning**

The literature in learning among organizations expands as new forms of inter-organizational cooperation are emerging and more and more companies are becoming aware of the importance of the productive use of their existing
knowledge, and the need for its continuous enhancement through learning. Inter-organizational learning occurs in the process of interaction among firms. Even in cases when inter-organizational relations are not shaped with learning as a lead motivation, learning processes spontaneously emerge as firms interact.

Inter-organizational learning involves the processes through which organizations change as a result of experience gained through inter-organizational relations, either by being exposed to other organization's knowledge base and/or learning processes (learning by listening or observing) or performing certain task together with another organization (learning by doing together).

The early literature on intra-organizational learning built upon the knowledge about how individuals learn, similarly the inter-organizational learning literature also benefited from how knowledge is created, retained and transferred within single organization\(^2\). Still, our knowledge about inter-organizational learning is more fragmented and less systematized than about intra-organizational learning.

**Learning by doing**

„Organizational learning is a change in the organization that occurs as the organization acquires experience. Experience is what transpires in the organization as it performs its task.\) (Argote, Miron-Spektor, 2011)

Organizations can learn one from another as they perform a joint task. The experience of performing a task can enrich their individual knowledge bases. However, the way they structure their relationships while performing a task can significantly influence learning outcome (Aleksić Mirić, Burton, 2012; Aleksić Mirić et al, 2013)

Network configuration explains the way the network partitions the big task onto network members. From the perspective of individual actor or network member, this creates the position on the hierarchy-market continuum. Organizational boundaries represent an important barrier to inter-organizational learning flows.

Network configuration can also be analyzed from the aspect of competitive overlap between network members (Child, 2001; Khanna et al., 1994). Child (2003) as well as Khanna et al (1994) analysing strategic alliances report that learning in alliances can take either the form of competitive or collaborative learning. Competitive learning within strategic alliances is best illustrated by a situation in which one partner enters an alliance with a clear intention to learn as

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\(^2\) Review of single-organization learning in relation to organizational design properties is given in the Table 1. Although we will rely on findings about single-organization learning, we will not review extensive literature on this topic within this paper. Sistematization within the Table 1 gives grounds for corresponding comparisons.
much as possible from the other partner, imposing its individual learning on the mutual learning within alliance. The starting point of competitive perspective of organizational learning is that partners do have to make their own organizational knowledge available to the other side in order to obtain learning from the other. However, at the beginning or in the process of cooperation one or both partners can come to the conclusion that it is more lucrative to take as much as they can as fast as they can from the partnership, and then abandon the project and continue doing business independently.

Alliances, for example, manifest as a sustainable mechanism for linking companies when a desired effect is flexible and gradual approach in the implementation of new technology, and when there is uncertainty about future development of technology. They are also commonly used in the situations when acquisition is not possible or cannot meet the developmental needs of a company. This is one of the dominant motives today in case of rapidly growing economic branches, especially those based on high technology platforms. Examples of collaborative learning can be found among competitors striving to provide cutting-edge innovation. Such example is cooperation among Nokia, Philips and Sony who formed an alliance in order to promote the RFID communication standard. The main idea of Near Field Communication Technology is to enable people to access contents and services, to transfer data from one machine to another by their physical closeness (for example, a cell phone or a lap top).

Mechanisms of network coordination also influence learning outcome. Drawing on social exchange theory, Muthusamy and White (2005) examined the effects of social exchange processes between alliance partners on the extent of learning and knowledge transfer in a strategic alliance. Their empirical examination showed that social exchanges such as reciprocal commitment, trust, and mutual influence between partners are positively related to learning and knowledge transfer in strategic alliances. Reciprocal commitment (as a form of moral obligation that guides behaviour), trustworthiness and power struggle as the elements of social exchange between partners influence learning in the partnership.

Learning by listening

Inter-organizational learning can also come from firms being exposed to other firm's knowledge base by listening to others' experiences. Here, the literature on single organizational learning is far richer than on multi-organization or network learning. The rotation of knowledgeable individuals from one group (unit) into another, building informal and formal social networks proved to be powerful learning mechanism (Almeida, Kogut, 1999; Grunfeld et al, 2000; McEvily et al, 2003; Rulke et al, 2000). In the domain of inter-organizational learning inter-firm personnel movements as a form of knowledge transfer remain as well (Song et al, 2003). Our studies on organizational learning through
international strategic partnerships and joint ventures in transition economies also confirm this. For example, when European media giant WAZ (Westdeutsche Allgemeine Zeitung) created strategic partnership with Serbian traditional newspaper-publishing company, WAZ took over active role during the transformation of the advertising sector in Politika Newspapers and Magazines (PNM). They identified one publishing company in Thuringia, Germany, which the German partner considered to be like PNM in some organizational properties, as a similar to– model for comparison. In addition, a WAZ consultant was allotted to PNM, who was assigned to assist and apply the WAZ’s experience in organizing advertising sector to a newly formed sector. At the same time, this consultant had been in charge of advertising sector of a newspaper published in Thuringia for years. However, apart from this consultant, there was one more consultant-person involved with an important role in the implementation of the new organization – a WAZ’s retired employee and an experienced expert in selling advertisements. In the PNM’s Advertising sector there is an overall impression that he understood the Politika’s role better than any other WAZ representative. He was aware that similarity is important, but that organizational solutions which proved to be successful in one organization cannot be taken and automatically applied in another.

Learning by observing

Learning by observing occurs when an actor in the role of the student observes the actions of another actor in the role of teacher with attention, and repeats this behavior when found in its own context.

Learning by observing requires both student-organization and teacher-organization to manifest adequate competences: teacher to manifest adequate teaching capabilities, and learner to manifest willingness to learn and capacities to „absorb”.

Investigating international joint ventures’ capacities to learn in the context of transitional Hungarian economy, Lyles (2003) found that learning depended on both the teacher’s teaching capabilities (Lyles, 2001), and the absorptiveness of the learner as its receptivity for a new knowledge.

Familiarity of the overall context might also prove to be important characteristic of inter-organizational learning by observing, as Zeller and Bruhn (2003) found that units are more likely to transfer best practices from units that are part of the same organization than from units that belong to different organizations. This can be associated with the belief about learner’s intentions and trustworthiness (Muthusamy and White, 2005; Lyles, 2001).

Not rarely, partners within an alliance start behaving in an opportunistic way and follow the principle „learn as much as you can and run away!” In this case, alliances lose their main role of the polygon for cooperation and mutual learning and become „learning races” (Khanna et al, 1994).
Table 1: Literature review on learning mechanisms comparatively for single and network structural properties

<table>
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<tr>
<th>Learning mechanisms or how we learn</th>
<th>Single organizational structure</th>
<th>Network design</th>
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<td></td>
<td>Configuration</td>
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<tr>
<td>Learning by doing</td>
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<td></td>
<td><strong>Specialization</strong> <em>(Smith, 1776/1937)</em> -</td>
<td>Pin-making example: specialization promotes experience-based learning</td>
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<td></td>
<td><strong>Bureaucracies</strong> <em>(Weber, 1922/1978)</em></td>
<td>Bureaucracies have ability to learn from experience.</td>
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*Ana Aleksić Mirić: Inter-organizational design fit in inter-organizational knowledge management*
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<tr>
<td><strong>Single organizational structure</strong></td>
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<td>Learning by listening</td>
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<tr>
<td>Social Networks – Bridges over structural holes (McEvily, Zaher, 1999)</td>
<td>Effective mechanism of knowledge transfer between organizational units.</td>
<td>Moving members to other organizational units (Almeida, Kogut, 1999)</td>
<td>Moving members powerful mechanism of knowledge transfer.</td>
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<td>Informal Networks</td>
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<tr>
<td>Trust (McEvily et al, 2003)</td>
<td>Level of trust affects the extent of knowledge disclosure, screening and sharing.</td>
<td>Moving members from one group to another led to the creation of a new knowledge</td>
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<td>Social Networks (Rulke et al, 2000)</td>
<td>Relational channels (newsletters, training programs) contribute more to the development of new knowledge than non-relational channels.</td>
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<td>Brainstorming (Paulus, Yang, 2000)</td>
<td>Brainstorming groups created more novel ideas per person than individual working alone.</td>
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<td>Routines and metaroutines</td>
<td>Facilitate knowledge transfer</td>
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<td><strong>Alliance organizational structure</strong></td>
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<td>Interfirm personnel movements (Song, Almeida, Wu, 2003)</td>
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<td>Interfirm personnel movements as a form of knowledge transfer generate new knowledge</td>
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<td><strong>Configuration</strong></td>
<td><strong>Coordination</strong></td>
<td><strong>Configuration</strong></td>
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<tr>
<td><strong>Configuration of the unit based on similarity principles</strong> (Argote, Ophir cite numerous sources)</td>
<td>Heterogeneous groups are more creative than homogeneous groups.</td>
<td>Experience (Nadler et al 2003; Nonaka, 1991)</td>
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<td><strong>Task design</strong> (Nadler et al 2003)</td>
<td>Individual within organization accumulates knowledge by watching another person performing a task</td>
<td>Tacit knowledge transfer</td>
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<tr>
<td><strong>Configuration – as a task design – influences proximity</strong> (Borgatti, Cross, 2003)</td>
<td>Proximity provides people with opportunity to know who know what – and to know where to search for an information</td>
<td>By making knowledge more proximate, informal ties promote vicarious learning</td>
<td></td>
<td></td>
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<tr>
<td><strong>Configuration defines Organizational Boundaries</strong> (Argote et al, 2003)</td>
<td></td>
<td>Units are more likely to transfer best practices from units that are part of the same organization than from units that belong to different organizations</td>
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Transactive memory systems (Wegner, 1986; Liang et al. 1995; Borgatti and Cross, 2003; TMS facilitate knowledge retention and transfer.

Similarity in organizational configurations (Lane, Libatkin, 1998)

Experience (Nadler et al 2003; Nonaka, 1991)

Tacit knowledge transfer

By making knowledge more proximate, informal ties promote vicarious learning

Organizational Boundaries (Zellmer Bruhn, 2003)

Similarity of lower management formalization and similarity of research centralization with interorganizational learning.
<table>
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<th>Learning mechanisms or how we learn</th>
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<tr>
<td></td>
<td>Configuration</td>
<td>Configuration</td>
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<tr>
<td>Learning by listening &amp; observing (in case of an alliance when teacher-student relationship exists)</td>
<td>JV’s absorptive capacity (Lyles, 2001)</td>
<td>Teacher’s teaching capabilities (Lyles, 2001)</td>
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<td>Coordination</td>
<td>Coordination</td>
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<td></td>
<td>Hierarchy (on the hierarchy-market continuum) (Mowery et al, 1996)</td>
<td>Hierarchy supports knowledge transfer (technological capabilities)</td>
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<td></td>
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<td>JV’s absorptive capacity (Lyles, 2001)</td>
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<td></td>
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<td>Trustworthiness (Muthusamy, White, 2005)</td>
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<td>Double-loop learning culture (Simononi, 2004)</td>
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Source: Author
Importance of Inter-Organizational Design Fit for Inter-Organizational Learning

Having analyzed conceptually important dimensions, we re-state the research questions: What is the role of network design properties in inter-organizational knowledge management?

If knowledge is a focal point of network creation and learning is a network goal (and a goal of network members individually), are managers advised to make links with similar ones, or the ones that complement with? We discuss complementarity inter-organizational fit as complementary alignment in strategic and organizational capabilities and similarity inter-organizational fit as alignment in similar strategic and organizational capabilities.

Both similarity and complementarity fit are important for both exploration and exploitation. It is not uniform that exploration calls for a fit of one kind, while exploitation would call for a fit of another kind. It is not the case. Let us explain in more details:

Knowledge exploitation within the network, network design it and learning strategies

Networks can be created for the purpose of the exploitation of the existing knowledge base. If partners intend to exploit their existing knowledge bases, complementarily fit is more important that the similarity fit. Partners should use their combinative capabilities as to enable exploitation. On way to do so is to form a network of organizations with competitive knowledge within their field of expertise, and combine them within a network. In that case:

- Network should be configured using low-competitive overlap logics.
- Competencies should be used in a way to be combined on a Lego principle.
- Combinative capabilities should be used as to enable exploitation: each actor within the network does what knows best.
- Specialization of partners should provide adequate partitioning of the network task (division of activities by low competitive overlap, everyone does what knows best)
- Coordination should be managed by formal mechanisms, formalization and standardization.

Complementarity fit is compatible with learning by doing strategy.

However, exploitation of the existing knowledge base can be allocated only to one, or several actors within the network, who serve as knowledge sources to other partners, who listen to or observe the knowledgeable actor with an intention to achieve knowledge transfer. In that case:

- Network should be configured using the principle of similarity of organizational configurations of partners.
- Similarity in formal organizational configurations among network partners is a preferred characteristic if a network goal is direct knowledge transfer.
- Similarity in formal organizational configurations among network partners is a preferred network characteristic if network partners recognize mutual relationship as “teacher-student” relationship. Similarity of internal organizational characteristics of the receiver (student) with organizational configuration of a provider (teacher) can help knowledge being transferred implement with more success, as the probability of misfits to appear decreases.

- If partners are not equivalent in existing knowledge bases and if one of them has competitive superiority over the other, similarity fit is more important that the complementarity fit.

- Rotation of employees should be used as a leading mechanism of coordination.

- Similarity fit is compatible with learning by listening and observing strategy.

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<th>Table 2: Exploitation of the existing knowledge base and inter-organizational design fit</th>
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<td><strong>SCENARIO 1: Purpose – exploitation of the existing knowledge base and direct knowledge transfer</strong></td>
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<tr>
<th>Network structure</th>
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<tr>
<td><strong>Learning by doing</strong></td>
<td>Combinative capabilities used as to enable exploitation: everyone does what knows best. Specialization of partners: division of activities (low competitive overlap, everyone does what knows best) Dominance of formal interorganizational configuration.</td>
<td>Formalization Standardization Dominance of formal interorganizational coordination</td>
</tr>
<tr>
<td><strong>Learning by listening and observing</strong></td>
<td>Similarity of organizational configurations of partners is important to help knowledge transfer.</td>
<td>Rotation of employees (teacher-learner relationship)</td>
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Source: Author

**Knowledge exploration within the network, network design it and learning strategies**

Networks can be created for the purpose of the exploration of new knowledge. Faced with the borders they cannot overcome easily and need new, in some cases multidisciplinary knowledge, organizations may decide to create alliance with other knowledgeable actors to provide synergy. If that is the case:
Tasks should be designed to enable combinative capabilities to enhance exploration.

Formal configuration should be based on informal (behavioural) mechanisms of coordination: culture and trust, so behavioural (informal) inter-organizational configuration dominates formal.

Coordination is of critical importance. Investigating three partnerships created by Serbian organizations (Aleksić Mirić et al, 2013) we came to the conclusion that learner-learner relationship should be allowed by the use of “soft” (behavioural, informal) methods of coordination, suitable for inter-organizational learning, without being a barrier for direct knowledge transfer. Soft methods of coordination enhance transfer of tacit knowledge. Coordination should be based on:

- Building trust through individual ties;
- Interactions, especially through mechanisms with high-information richness;
- Mutual visits;
- Reciprocal commitment;
- Trustworthiness;

Learning by listening and observing with explorative intentions can be found in series of evidence about transferring “best-practices.” In that case, similarity of contextual parameters is important for adequate implementation of knowledge being a subject of transfer.

Table 3: Exploration and inter-organizational design fit

| SCENARIO 2: Purpose – exploration for a new knowledge, intention to increase knowledge bases |
| Network structure |
| Configuration | Coordination |
| Learning by doing | Trust through prior individual ties |
| | Interactions, especially through mechanisms with high-information richness |
| | Interactions among members |
| | Mutual visits |
| | Reciprocal Commitment |
| | Trustworthiness |
| | Prior individual ties important. |
| | Dominance of behavioural (informal) inter-organizational coordination. |
| Learning by listening and observing | Similarity of organizational configurations of partners |
| | Employees exchange (learner-learner relationship) |
| | Informal networks |
| | Metaroutines |

COMPLEMENTARITY FIT

SIMILARITY FIT
Conclusion

This paper provides framing for understanding importance and influence of inter-organizational design fit for inter-organizational learning. Building upon the idea of exploration and exploitation as two fundamentally different approaches to learning, and using Argote and Ophir (2005) findings on similarity-complementarity fit developed for intra-organizational learning as an anchor of understanding organizational fit, we analyze the role similarity – complementarity fit of organizational configuration and coordination properties in inter-organizational learning.

Existing research confirms that the awareness of and the intention to learn from the partnership are pre-conditions for organizational learning. Strategic alignment between partners about organizational learning as one of the goals of partnership creation is seen as a prerequisite for effectiveness of the mechanisms used for organizational learning and knowledge transfer. Similarity in formal organizational configurations is not a prerequisite, nor preferred organizational characteristic for inter-organizational learning in networks. Organizational learning and knowledge transfer can be achieved even when configurations of formal organizations of the partners are completely different, provided that through network evolution partners create compatible structures and design information-flow channels to enable knowledge transfer and organizational learning (complementarity design fit). Heterogeneity and homogeneity in configuration of organizational structure are properties of the similarity construct, but not of the complementarity construct. Therefore, creation of knowledge is enhanced by components that fit each other on complementarity basis, though not being necessarily similar in their dominant characteristics or properties.

Implications for theory

Our intention is to express explicitly the role of inter-organizational design fit in inter-organizational knowledge management. This paper advances knowledge about the influence organizational design as intra-organizational property has on knowledge transfer between organizations and inter-organizational learning. Our findings imply that whether similarity fit or complementarity fit will be the preferred inter-organizational design property depends on the strategic goal of the network and network actors, characteristics of the existing knowledge bases of the actors and the way through which learning will happen. While similarity fit is compatible with learning by listening and observing strategy, complementarity fit is compatible with learning by doing strategy.

Implications for practice

From the aspect of management practice, our framework helps managers understand how inter-organizational design fit can influence inter-organizational learning within the network. This framework can help managers systematize and align strategic objectives of network creation (exploration or exploitation) with
learning mechanisms (learning by doing or learning by listening/observing) and organizational design properties.

Implications for policy makers

With regard to policy making, networks in general, and knowledge networks in particular are becoming increasingly important as a mechanism of industrial development support, economic growth, increase of employment and poverty reduction. Nowadays, policy-makers increasingly recognize the potential of knowledge sharing through networking and cooperation as essential tools to create jobs through economic growth and prosperity. From a historical perspective, this field has been severely underestimated and under-researched, but recent studies show its relevance and direct impact in economic development (Kitaoka et al, 2012) and economic growth (Bolisani, Scarso, 2012), so policymakers are expected to recognize their particular usefulness, while this paper points to mechanisms that should be used in managing these networks.

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