

Towards network paradigm¹

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Introduction

Cooperation between organizations is presently a logical reaction to the turbulence of the environment that forces companies to participate in two competitive races: for the global market and for the future. Such coalitions are the consequence of activities in knowledge-based economy where numerous skills and resources essential for the company's success are located outside its boundaries and beyond the management's direct control to an extent greater than ever before [Doz, Hamel 2006: 7]. The database of strategic arrangements has thus changed – since the 1990s we have been observing a shift of interest towards cooperation ties based on the most protected, core skills, technologies and markets [Sulejewicz 1997: 48], the so-called „soft alliances”. According to one estimate, 1/5 of the entire revenue generated by 1,000 of the largest global companies comes from this type of partner relationships. According to other research, 500 of the largest global corporations concluded 60 significant strategic alliances on average each [Low, Cohen 2004: 114].

Therefore, the purpose of the study is to discuss the essence of cooperation from the perspective of management sciences, indicating its levels and forms. The main part of the discussion is dedicated to the presentation of the evolution of interorganizational cooperation in the context of the company's strategy of action (analysis from competition to cooptation) as well as the structure (inference of organizational forms of collaboration – from bilateral alliances to networks of alliances).

The essence of cooperation

The etymology of the word cooperation derives it from Latin – *cooperatio* – cooperation, interaction (<http://www.slownik-online.pl/kopalinski>). According to the interpretation of *Słownik wyrazów obcych*, the Polish equivalent of this concept should be assigned the meaning interaction (economy) or cooperation (social studies) [Kaczmarek 2012: 139].

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Inspired by the spheres of social life, we may refer the issues of cooperation to three levels – micro, meso and macro. According to this convention, an analysis should cover interaction in the micro area – between units, in the meso area – at the level of groups, as well as in the relations: group – unit, unit – organization, group – organization and in the macro area – between organizations.

Therefore, collaboration at the macro level takes the form of the collaboration of companies. The essence of cooperation at the macro level comes down to the presence of interorganizational bonds, namely mutual, multi-level impacts. They make companies take one another into account, they adapt to one another and take this into account in their decisions. In organizational terms, these impacts take place at the level of resources, people and actions [Kaczmarek 2012: 142].

Collaboration itself, on the other hand, may be perceived in a dichotomous manner. First, from the perspective of the organization's strategy but also from the point of view of the organizational structure, form.

Evolution from competition to coopetition

Cooperation relations between companies are centuries old. The first documented economic alliances³ date back to the 15th and the 16th century when merchants in Great Britain established *joint ventures* with capitals for trading and mining deposits in overseas colonies. In the 18th and the 19th century alliances were also established in navigational transport to gradually develop in the 19th century (mostly in the mining industry, the chemical industry and the metallurgic industry). The climax of this type of arrangements is the 20th century and the beginning of the 21st century, especially in high technology [Cygler 2013: 15–16]. Therefore, the collaboration strategy is currently one of the most often development options used by organizations.

Establishing a partner company on the basis of a strategic alliance is thus recommended in situations in which permanent competitive advantage may be built only after the partners combine their strengths. The company's weak position in the manufacturer's matrix may be improved by creating a strategic arrangement and supplying the company's potential with features of the partner's basic competitiveness. Three areas of using strategic alliances as the optimum type the growth strategy may be distinguished.

The first two areas refer to conducting business activities of a medium or high strategic significance, and the features of competitiveness of parent companies are inadequate. The third area corresponds to a situation when the company's activities are of a medium strategic significance and the organization at the same time has only average competitiveness features. In such a situation, it is best to create a strategic alliance with a partner with complementary competitiveness features as well as such needs [Faulkner, Bowman 1996: 114–115].

The literature on the subject presents clear discrepancies in defining the concept of strategic alliance. Alliance – from the French concept *alliance* – means a covenant,

³ For the majority of authors, the concepts cooperation and alliance are synonyms.

a coalition [Kopaliński 2000: 29], and researchers of the issues define it using the following synonyms: cooperation, coalition, relation, collaboration, mutual agreement, partnership, alliance, association, contract, participation [Kuglin, Hook 2002: 3]).

However, studying literature makes it possible to distinguish two positions dominating in the theory, namely the wide and the narrow approach to defining strategic alliances.

According to *the wide* understanding, strategic alliances may be concluded both with suppliers and recipients, as well as with present or potential competitors. Enthusiasts of the wide position perceive the strategic alliance as a long-term cooperation agreement between at least two companies in order to connect, exchange and/or integrate the partners' specific resources to achieve the assumed objective [Hung 1992: 346].

In the aspect of contemporary conditions for the functioning of companies according to the requirements of knowledge-based economy, the strategic alliance in the wide meaning is perceived by T. Lendrum [2000: 7] who defines this form of cooperation from the long-term perspective (at least 5 years) of the development of strategic collaboration, based on mutual trust, aimed at the creation of permanent competitive advantage resulting from the partners' essential intangible resources and significantly changing the rules of functioning in the environment of the arrangement.

Representatives of the second, *narrow*, understanding of the definition of the strategic alliance characterize it as an association regarding a limited number of companies constituting actual or potential competitors [Zembura 2002: 18].

The review of the definition performed by the author of this study also inspires to confirm the opinions of the representatives of the wide position in the characteristics of relations of the strategic alliance formula.

To sum up, interorganizational cooperation, apart from competition and co-existence, is one of a company's development options, especially under the conditions of knowledge-based economy. It is usually connected with functioning in various alliances. Depending on the adopted perspective, the alliances may be competitive or non-competitive. In the case of the narrow approach to defining the coalition – competition and cooperation are of a separable character. On the other hand, if partnership treated from the wide perspective, competitive alliances are consistent with the concept of co-competition or cooperation between companies established in the late 20th century (Fig. 1).

The concept co-competition comes from the combination of the concepts *cooperation* and *competition* and R. Nord is considered its author [Fraś, Świątkowski 2013: 32]. It defines the simultaneous relations of competition and collaboration connecting the competitors. The complexity of the phenomenon results from the simultaneous presence of two contradictory logics between the parties: trust and conflict, as well as the presence of a relation of an economic and extra-economic character. Managing these relations is expensive, and achieving the objectives for which co-competition was implemented – uncertain [Cygler 2013: 16 19]. Therefore, the ability to function in cooperative arrangements and building competitive advantage is the primary challenge for contemporary companies.

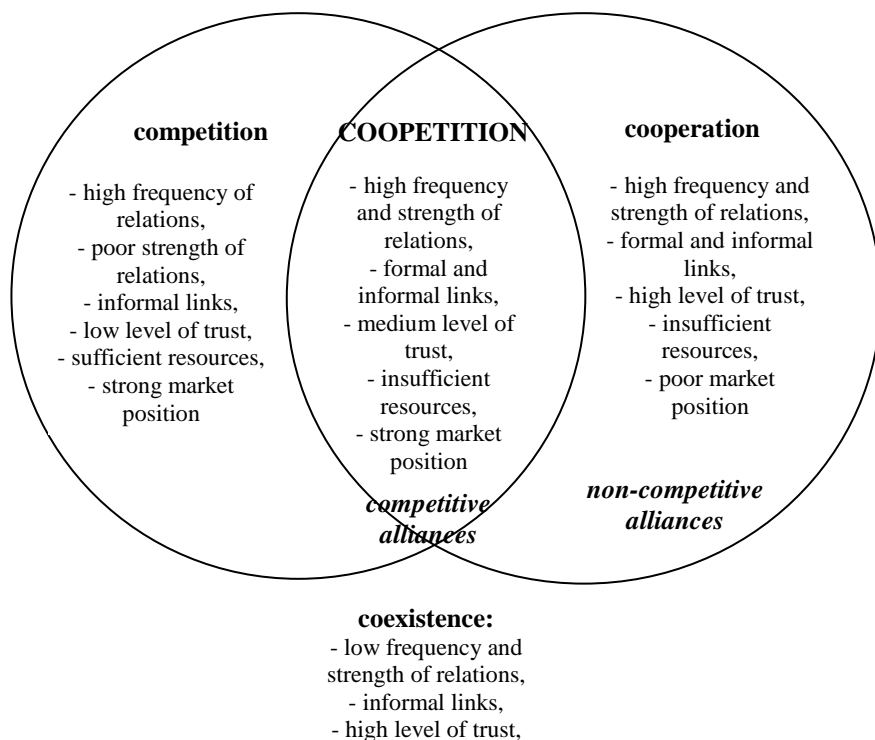


Fig. 1. Coopetition between companies as compared to competition and cooperation

Source: prepared by the author on the basis of: [Cygler 2013: 19]

Development of cooperation between organizations

The analysis of literature on the subject regarding the character of contemporary cooperation arrangements leads to the reflection that alliances have also evolved in time. In the 21st century, due to the growth in the significance of intangible resources of the organization, currently determining the source of competitive advantage, the dominating importance and desired status was achieved by the cooperation model based mainly on building long-term and effective partner relations.

Currently the primary objective of collaboration is to blur the boundaries between the islands of parent companies, create platforms of mutual cooperation. Partner arrangements are mostly aimed at the simplification of complicated conditions of functioning for individual companies in a turbulent environment. As a consequence, they introduce the category of mutual competition that refers to the market behaviors of competitors (in the form of more than one company) functioning on the market on which there is more than one actor [Gomes-Casseres 1996: 7]. The emphasis from bilateral arrangements is thus shifted towards multilateral arrangements in the continuum: from bilateral to multilateral (links through third-party partners) to a network of alliances.

Additionally, collaboration between numerous partners may take the form of a network of alliances (links between numerous similar companies), a portfolio of alliances (a set of separate, bilateral alliances) or a web of alliances [Sroka 2012: 53] (Fig. 2).

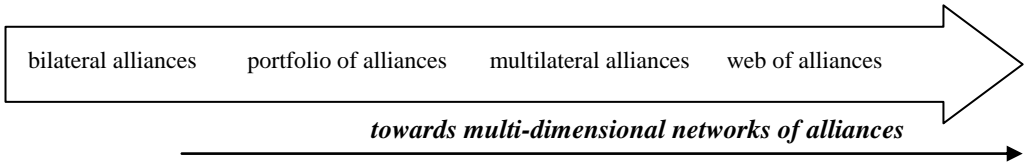


Fig. 2. Evolution of cooperation arrangements between organizations

Source: prepared by the author

The analysis of the essence of the network of strategic alliances as compared to mutual dependences between companies conducted according to this convention leads to a conclusion that constellation change the principles of competition in at least four ways. First, the network of alliances combines companies into constellations that later act as new units of competitive strength. Second, the constellation's competitive behaviors depend on the arrangement's internal structure, they are specific for a particular alliance and differ from typical behaviors of an individual company. Third, the constellation's evolution and the scope of collaboration change the method of managing competences in the sector. Fourth, the distinguished template of competition, in the form of mutual competition, is in many aspects more intensive than is suggested by traditional models of competition between individual companies [Gomes-Casseres 1996: 7].

The main challenge for contemporary organizations are their roots in the resource-based concept and the pursuit to function in a network of relations, preferably non-symmetrical and dominated by the company as the main navigator offering unique, core competences. Therefore, the natural consequence of the evolution of interorganizational cooperation is the emergence of a network of alliances that, being a higher form of development of cooperation arrangements, is substantially different from bilateral alliance arrangements, namely:

- networks of alliances may consist of several or numerous companies differing in size, model of growth, organization, degree of internal competition, management structure,
- companies in the network are connected by agreements for cooperation, while not all of them need to be connected with one another – an indirect connection is possible, through a third-party ally,
- the majority of the „networks of alliances” does not start their activities only after their complete structural shaping, but is built step by step,
- the speed with which networks expand and the scheme according to which new companies are accepted to the network affects its competitiveness on the market,
- the degree of internal competition between partners depends both on the number of members and the structure of relations between them.

Network perspective of collaboration

The evolution of the form of cooperation arrangements fits in with the network-holistic trend in management sciences and determines network thinking [Piekarczyk, Zimmiewicz 2010: 28]. Its consequence is an intensified interest in the issues of networks that may be perceived as structures describing a specific form of interaction between entities or as forms being new structures created by the said entities in the pursuit of a mutual objective [Niemczyk, Jasiński 2012:9].

Therefore, by analogy, networks may be analyzed on three basic levels – at the level of the entire network (macro), at the level of particular parts of the network (meso), at the level of particular units of the network (micro). The levels of collaboration analysis in the network perspective may also take the form of researching the community of companies (business network – e.g. researching the network's competitiveness, reasons for their development, particular structure of cooperation – e.g. analysis of cluster competitiveness), researching individual companies (analysis of business connections) as well as the inference of individual relations (researching features typical of relations, e.g. strategic alliances) [Małys 2013: 48].

The convention of the network approach developing since the 1970s also includes cooptation. A more and more common phenomenon in the contemporary global economy is complex (network) cooptation which may take two forms – relations inside network structures or between them [Cygler 2013:43].

All these premises thus draw the attention of contemporary researchers towards the emerging omnipresent paradigm of networking, which assumes that the present main point of reference is the complex and multi-dimensional interorganizational network.

According to the network perspective, networks of organization relations are constructive for its identity and status. Networking means not only sharing resources but also sharing risk, especially with new and uncertain projects. Network theories also introduce new ways of coordination into the language of the analysis of interorganizational relations, based on social and informal bonds [Latusek-Jurczak 2014: 61].

However, we should remember that, according to the model by C. Brito and S. de Silva [2009: 289], the condition for an effective collaboration is the implementation of four „Cs” – mutual interest, sharing resources, coordination of actions and trust.

Conclusions

Along with the development of economies and a change in the philosophy for conducting business activities, the methods of functioning on the market have been transformed. First, the concept of cooperation as an alternative for competition emerged (at the micro, meso and macro level) and then a hybrid was created on the basis of competitive alliances – cooptation. Second, the forms of cooperation themselves evolved – from bilateral collaboration to multilateral arrangements in the form networks and webs of alliances. Finally, the paradigm of networking determining net-

work thinking in management emerged – again at all possible levels (units, groups, organizations).

Knowledge-based economy treated as „new economics” does not raise any objections of researchers and is used by the whole academic community – thus, it can be perceived as symbolic generalizations as defined by the disciplinary matrix by T.S. Kuhn. It has components which are relatively easy to be identified. Most often, the turbulence of the environment, never-ending changes and hypercompetition are indicated.

The proposal can be treated as a general paradigm – the metaparadigm of knowledge-based economy. Partial paradigms – models, templates – are the dynamic approach and the concept of sustainability.

If models are elements of disciplinary matrix which provide the group with preferred analogies, the idea of knowledge-based organization may be one of them. Then, both partnership and knowledge-based work can be treated as specimens. Additionally, partnership perceived in the perspective of interorganisational macro-cooperation, also in the network formula as well as micro-cooperation at the individual and team level. On the contrary, knowledge-based work as the attribute of the winner in the market game of new economy- organization type of the knowledge-intensive firm [Pietruszka-Ortyl 2015: 20].

In the similar way system of management paradigms in contemporary network expanse presents B. Woźniak-Sobczak [2015:56]. Paradigms systems consists of a metaparadigm, a holistic paradigm and potential paradigms. Namely, metaparadigm is the rapidly changing environment, the holistic paradigm is the concept of network organization and partial paradigms are:

- the objective of the action – the economical network’s rent,
- organizational form – network’s organization,
- relational competence – cooperation, cooptition,
- information technology – network of information.

To sum up, within the emerging paradigm of the network, the researchers propose exploring four main areas of inquiry: structural social capital, social access to resources, infecting and shaping the environment. Three theories of reference determining the correct identification of the components of the paradigm of the network include so: a sociological theory of social networks, resource-based theory and the theory of transaction costs [Czakon 2011:3–6].

Critical review of literature leads to emerging of following assumptions [ibidem]:

- environment of the organization is not randomly ordered,
- functioning of actors depends on structures of intra and interorganizational relationships,
- structural variables describing the structure of the network and the position of the actors explain the competitive advantage,
- way of coordinating activities of companies in the network is a variable that explains the competitive advantage,
- research methods refer to structures, changes in structures and flows between players.

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W kierunku paradygmatu sieciowego

Streszczenie

Opracowanie jest teoretycznym studium koncentrującym się na przedstawieniu ewolucji współpracy w perspektywie nauk o zarządzaniu.

Punktem wyjścia jest dyskusja nad istotą terminu współpraca oraz prowadzenie rozważań w kontekście poziomów mikro, mezo i makro.

Kolejno, w ogólnym zarysie, scharakteryzowano rozwój form koegzystencji organizacji w środowisku międzynarodowym – od konkurencji po współpracę i koepetycję. Następnie dokonano prezentacji ewolucji form współpracy międzyorganizacyjnej – od aliansów bilateralnych przez porozumienia multilateralne aż po sieci aliansów.

W konkluzji zaprezentowano podstawowe założenia wyłaniającego się współcześnie paradygmatu sieciowego.

Słowa kluczowe: współpraca, koepetycja, alians strategiczny, paradygmat sieciowy