

DYNAMICS OF NETWORK RELATIONS: HOW ORGANIZATIONS EXPLOIT INTER-ORGANIZATIONAL NETWORKS TO GAIN SET BENEFITS

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Purpose: The main scientific purpose of this article is to identify the way organizations exploit network relations' features in order to gain set benefits, from the dynamic perspective of achieving another levels of network collaboration maturity.

Design/methodology/approach: Conceptual development and positioning of the research aim at providing a generalizable contribution to management science, at the same time being accessible to practitioners. The research was carried out using the interpretive method of a multiple case study, following its methodological rigor. It was divided into two stages: within-case analysis and cross-case analysis. According to the replication logic, case studies constitute series of independent research which provide data corresponding with set research questions.

Findings: The conducted research shows that as a part of a network organizations gain various types of benefit and its character evolves as the collaboration achieves another levels of maturity. At the same time, along with the evolution of the reasons for developing network collaboration, organizations exploit different features of network relations, in order to maximize the benefit.

Practical implications: The research leads to presenting a pattern of exploiting network relations' features in order to gain set benefits. The identified template serves as a tool for practitioners and allows more conscious planning and developing the interactions with business partners. Consequently, it supports maximizing benefits from the network collaboration as it achieves another levels of maturity.

Originality/value: The author adopts a dynamic perspective to the problem of intentional creation of network relations in order to gain set benefits. In the literature still very little attention is put on understanding the reasons for network development and the evolution of network relations' features as organizations achieve another levels of network maturity. Therefore, the author focuses on filling this gap by deepening the analysis of the network trend and increasing efficiency of realized tasks from the egocentric perspective of a network member.

Keywords: network, network collaboration, network relations' features, dynamics of network.

Category of the paper: Research paper.

1. Introduction

Nowadays organizations operate in the environment which is characterised by multi-directional co-dependence of business partners. These interactions constitute a network of relations (Kim et al., 2016; Mayne, Wileman, Leeuw, 2003). The theory of a network abandoned an atomic approach to explain reality in favour of a holistic perspective of a network collaboration (Bryson, Crosby, Stone, 2015; Sakai, Kang, 2000; Gebo, Bond, 2019). The network itself is understood as a collection of long-term, formal and informal, direct or indirect relations between two or more units (Håkansson, Snehota, 1989; Camagni, 1995; Kilduff, Tsai, 2003; Edelenbos, Klijn, 2007). Regarding the inter-organizational network collaboration, it is characterized by free-will access, awareness of common objectives, partnership and trust (Newman et al., 2004; Goerdel, 2006). Such networks allow achieving objectives which are not attainable either by individual units or through traditional administrative hierarchies (Hu, Khosa, Kapucu, 2016). In today's turbulent, highly unpredictable environment (lately with the substantial impact of the pandemic and the conflict in Ukraine) possibilities of securing market position by exploitation of network relations become a great value.

Scrutinizing an inter-organizational network from the *structural* perspective (Tatarynowicz, Sytch, Gulati, 2016), however, does not allow reaching in-depth conclusions regarding the efficiency of networks (Czakov, 2012; Lucidarme, Cardon, Willem, 2015) and benefits achieved by collaborating partners. Thus, the analysis should focus on the essence of *relations* between units (Pedersen, Clausen, Jørgensen, 2022; Choi, Lee, 2022). Consequently, organizations ought to treat relations in an instrumental way by conscious exploitation of different kinds of relations as the network collaboration develops, in order to achieve set objectives (Saz-Carranza, Iborra, Albareda, 2016; Kilduff, Tsai, 2003; Zaheer, Gozubuyuk, Milanov, 2010). Therefore, presented analysis concentrates on a dynamic perspective of inter-organizational network relations.

The paper provides both theoretical and practical contribution. The author concentrates on depicting a concise theoretical construct which allows more in-depth understanding of the network collaboration dynamics from the relational perspective. Such an approach leads to the conceptualization of a pattern showing the reasons for network development and the evolution of network relations' features as organizations achieve another levels of network maturity. This theoretical background serves as a template for practical use by managers; it allows more conscious planning and developing network relations with business partners, in order to maximize benefits from the collaboration.

The author answered the research questions:

1. What are and how to classify the features of network relations?
2. What is the nature of the process of achieving another levels of network collaboration maturity?
3. How do the network relations' features evolve as an organization achieves another levels of network collaboration maturity?
4. What are the reasons (driving forces) for network relations development (getting to another levels of maturity)?

Identifying the way organizations exploit network relations' features in order to gain set benefits (as the network collaboration develops) constitutes the main objective of the paper. Understanding the dynamics of the relations allows more concise development of interactions between partners (Srivastava, 2015; Sharkey et al., 2021) and the increase in efficiency of the process of creating value by each member of a network.

2. Dimensions of network relations

Identification and final operationalization of three dimensions of network relations and classification of the network relations' features were done after a semantic and comparative analysis of features presented in the literature. The author adopted the classification presented by Czakon. He proposed three following attributes of network relations: exchange, involvement and reciprocation (Czakon, 2005; 2007). Additionally, in order to ensure the full scope of possible interactions, the author included the views and divisions presented by Anderson, Hakansson and Johanson (1994) and Easton (1992). It also corresponds with the network relations typology proposed by Ford, Gadde, Hakansson and Snehota (2003). Each dimension includes a set of relations' features which correspond with the idea of the dimension:

Dimension I. Exchange:

features:

- information exchange,
- material exchange,
- energy exchange.

Dimension II. Involvement:

features:

- expectation of continuing and deepening relations,
- investing in co-specialized resources,
- developing informal relations,
- developing formal relations,

- embeddedness,
- building mutual trust,
- building loyalty,
- building shared values,
- avoiding/de-escalation of conflicts.

Dimension III. Reciprocation:

features:

- expectation of equal efforts,
- identifying common objectives,
- common planning and making decisions,
- common solving problems,
- adapting to partners' needs.

Three forms of exchange (Dimension I) should be perceived as an element of interactions between an organization and its environment. They constitute a sort of exchange which is characterized by repetitiveness, organizational autonomy and lack of hierarchy. It appears together with market transactions and allocation of resources within an organization (Czakon, 2005). What is important, this exchange is mutual – it is realized in both directions between collaborating units.

Dimension II (Involvement) is oriented on deepening and widening relations of exchange (Anderson, Hakansson, Johanson, 1994). Within inter-organizational networks, involvement has a multi-level character and it constitutes a vital factor which allows avoiding opportunistic behaviour. The above-presented classification of the network relations features in the involvement dimension was operationalized basing on the typology of involvement proposed by Dyer (1997). He set a list of four basic types of involvement: operational, informational, invest and social. As a result, the attention was put on the expectation of continuing relations, increasing their frequency and investing in co-specialized resources. The dilemma whether an organization ought to develop formal or informal bonds constitutes another key issue. The social aspect of network relations was related to embeddedness. Further, that led to the question of building trust, loyalty and shared values. Finally, the list includes avoiding or de-escalating conflicts between members of a network.

Reciprocation constitutes a natural completion of the involvement dimension; it regards expectation of symmetry (balance) between collaborating units. Each member of a network assesses their own effort put into cooperation and they expect that the other organizations will make similar effort (reciprocation). This mutuality regards both symmetry in exchange as well as coordinated planning, making decisions, solving problems and adapting to partners' needs. All these elements constitute features in the third dimension.

It is vital to recognize that these three dimensions of network relations correspond with the idea of bonds dynamics (Srivastava, 2015; Kickert, Klijn, Koppenjan, 1997). As the network relations develop (in the process of achieving another levels of maturity), all the features evolve. Each member of a network assesses them, which constitutes a natural process of learning, adapting or withdrawing from collaboration within a network.

3. Levels of network collaboration maturity

Researchers stress that creating an optimal, cohesive structure of a network requires time (Cavalcanti, Giannitsarou, Johnson, 2017) and this evolution constitutes a natural process of achieving network collaboration maturity (Siciliano, Wang, Medina, 2020). Most often, it begins with information exchange, which has multi-directional and mostly informal character. At this stage organizations make an attempt to understand mutual needs, expectations and competences of other network participants. Sometimes information exchange may have a form of consultations.

If such informal information exchange and consultations lead to identification of common objectives and benefits, partners will get to another level of collaboration maturity by initiating first formal ventures. Mostly they are operational projects, which are characterized by limited capital engagement and generally low risk. Partners get involved in planning and coordinating tasks which are aimed at achieving consistency and synergy. Members of a network search for fields of cooperation which would allow gaining benefits for all. At this stage of collaboration it is still important to signal good will and strengthen trust. If operational projects bring expected benefits, a network will achieve the ultimate level of maturity – a formal partnership. At this phase relations are based on a formal agreement, in which the fields of collaboration and responsibilities of all partners are clarified. Such a strategic partnership allows achieving long-term objectives common for all members of a network.

Those collaboration forms reflect the process of achieving another levels of network collaboration maturity. At the initial stage bonds are loose, mostly informal, and common actions do not generate considerable risk. Organizations can get to know one another better and understand partners' needs, their expectations and possibilities of gaining mutual benefits. As the units realize another common tasks and projects, relations evolve and ultimately they may achieve the stage of partnership. Ties become more tight, realized tasks generate more risk and they are more complex. In the literature researchers present different classifications (stages) of the process of achieving network collaboration maturity, stressing its different aspects and conditions. However, the essence of the process is always very similar. Therefore, it allows a synthetic generalization of three levels of the process:

Level I. Informing (consulting)**Level II. Common operational projects****Level III. Strategic partnership**

Thus, becoming conscious of the fact that competing or being in a conflict may decrease chances to achieve own objectives by a potential network partner constitutes a crucial moment which may become a starting point of network relations. All parties of a network can gain more benefits if they join forces and resources. Such a synergy effect allows creating unique value for both the whole network and individual participants (Lo, Chiao, Yu, 2016).

4. Research approach and methods

The research follows the interpretive research paradigm. It entails the epistemological position of the researcher; reality ought to be analysed contextually by acknowledging interviewees' subjective opinions and interpretations. Such an approach allows in-depth comprehending of the phenomenon in some particular context (Eisenhardt, Graebner, 2007). This situational context determines research results in each case study, but at the same time it constitutes a fundament for presenting characteristics of the whole class of researched objects (Yin, 2014).

Therefore, the author used the qualitative research method of a multiple case study, , adopting its methodological rigor presented by Yin (2014), Miles, Huberman, Saldana (2014), Eisenhardt (1991) and Hu, Khosa, Kapucu (2016). The qualitative research lets identifying and describing new concepts, categories or relations. It is useful especially when there is no theory or the existing one is not sufficient to explain a particular issue (Graebner, Martin, Roundy, 2012). Thus, the choice of the method resulted from the set research objectives and the phase of knowledge development in the analysed research area. Operating of inter-organizational networks is still a relatively new phenomenon, which develops in a very dynamic way and is conditioned by numerous variables. Hence, there is a need for a thorough examination which would lead to formulating propositions of features and dynamics of the phenomenon in question.

The analysis within a multiple case study was carried out in two stages: within-case analysis and cross-case analysis. According to the replication logic, case studies constituted a series of independent research which provided data corresponding with set research questions. The results of each individual case study served as a base for cross-case comparisons. It allowed theoretical generalizations of the pattern of exploiting network relations' features in order to

gain set benefits (in a dynamic perspective of achieving another levels of network collaboration maturity).

The author used the statistical method of clustering, in order to operationalize dimensions of network relations developed by organizations. Hence, all network relations' features were clustered according to three dimensions: exchange, involvement, reciprocation.

The paper presents results of 22 case studies. Basing on the criteria of choice proposed by Flyvbjerg (2012), the author's key criterion was the clarity of case – the final selection of the cases was done after a series of pilot interviews which aimed at diagnosing which organizations have rich experience in initiating and developing network collaboration with various partners. The access to crucial data (the will to share data, experience and opinions) constituted additional criterion.

What is important, the organizations are very diverse, which results in different conditions of operating. Characteristics of the cases was presented in table 1. They represent different types and scale of business. Moreover, they are located in different parts of Poland. Regarding the type of partners with which they develop network collaboration, apart from dominating business units, some companies collaborate with public organizations and NGOs. Such a diversity of cases allowed complex and consistent analysis of the evolution of network relations' features and identification of the main driving forces of network collaboration development.

Table 1.
Characteristics of researched cases

Criterion	Variant	Number of cases
Location	Great Poland	9
	Lower Silesia	7
	Silesia	6
Type of business	production	6
	trade	4
	services	12
Size	1-9 employees	3
	10-49 employees	13
	50-99 employees	6
Type of partners	business	22
	NGO	7
	public	11

Source: own study.

Considering complexity of the phenomenon and variety of information characteristic for the multiple case study method, the author implemented the strategy of triangulation of gathering data methods, which included an expert interview and a documents' analysis. In-depth group interviews were carried out between October 2021 and February 2022. In order to minimize subjective assessment, the author interviewed from 2 to 3 representatives of each organization (triangulation of informants). Depending on the case, they were: a managing director, a vice-managing director, a manager of department (or other organizational unit),

a spokesperson. The interviewees filled in a relational matrix which allowed identifying the evolution of network relations' features, according to the levels of network collaboration maturity (which corresponds with the results presented in table 2). Moreover, semi-structured forms were used, which included questions regarding the reasons (driving forces) for network relations development (which corresponds with the results presented in table 3). The analysis of documents (development strategies, operational and statistical reports) allowed confronting gathered data with the opinions and information provided by interviewees.

The interviews were transcribed and analysed (Miles, Huberman, 2000). The qualitative data was:

- reduced – all interviews were transcribed and the whole material was coded according to adopted conceptual frames (*a priori* codes),
- displayed – the codes (network relations' features - table 2) and driving forces of network relations development (table 3) were particularized and ordered,
- verified – the empirical data was interpreted with reference to the concepts and theories presented in the literature.

Finally, following the methodological rigor of qualitative research evaluation (Mason, 2018), correctness and trustworthiness of the research was ensured by fulfilling three evaluation criteria: credibility, transferability and confirmability.

Credibility (presenting a real picture of the investigated phenomenon) was ensured by:

- interviewing people who possess in-depth knowledge, since they are the ones who actively participate in initiating and developing network relations with partners,
- conducting interviews in time and places convenient for interviewees, in this way providing conditions to speak freely,
- iterative collection of data and detailed analysis of the material.

Transferability, understood as a possibility of formulating some recommendations for other organizations, was achieved by presenting the contextual aspect of the research and indicating in what way the research results may be useful for other units developing network collaboration.

The last criterion (confirmability) means demonstrating and ensuring that the findings are strictly correlated with the collected data and that the risk of potential subjective assessment of the researcher is minimized. It was ensured by using triangulation of methods (interviews, a documents' analysis) and triangulation of informants. Additionally, this criterion was met by detailed description of methodological perspective in relation to the research results.

5. Discussion and results

5.1. Dynamics of network relations' features

Features in dimension I (exchange) generally were assessed high or medium at all maturity levels, but the highest degree was identified at the levels of common operational projects and strategic partnership (table 2). The results show that the flow of information between partners constitutes the key element of relations. At all levels it is absolutely crucial to build and develop effective communication channels; they constitute some sort of a 'blood system' which ought to provide right information at the right moment for all participants. Also, it supports both material and energy exchange, which are most important when realizing operational projects. The reason for the highest ranks at the second maturity level is that being involved in operational collaboration requires most efforts, it is most time and energy consuming. At the same time majority of researched organizations stressed that within their network activity mostly they concentrate on an operational perspective; they realize numerous short-term common projects, whereas long-term (strategic ones) are in minority.

In case of dimension II (involvement), there are three network relations' features which outstand and received the highest ranks: expectation of continuing and deepening relations, building mutual trust and avoiding/de-escalation of conflicts. These results seem very interesting because all these features have a substantial impact on developing and strengthening bonds in a long term. Thus, for organizations it is crucial to eliminate potential barriers of collaboration and to make sure that relations are getting tighter. At the same time embeddedness plays a significantly less important role. Having social relations with potential business partners does not influence development of network relations much. Organizations present a strong business-like orientation and are eager to join and develop network relationships if only they recognize some economic potential. Finally, it is worth to mention that as network relations develop according to another levels of maturity, shared values become a more important aspect of strengthening bonds. Thus, when organizations achieve a strategic partnership, they explore deeper levels of cooperation and make an attempt to unite people by building a community which altogether focuses on some higher goals (apart from business, economic ones).

Regarding an expectation of symmetry (balance) between collaborating units (dimension III), most features were ranked very high, with the exception of adapting to partners' needs. The moment organizations get involved in network relations, there appears a strong expectation that potential partners will participate actively in identifying common objectives, making decisions and solving problems. The research results show that problems are solved mainly in the form of informal meetings. Organizations also stressed a great importance of identifying common objectives, since such consultations constitute the key element of avoiding misunderstandings and, as a consequence, allowing effective development of relations. The reason for giving lower ranks for adapting to partners' needs is that network members

expect other partners to provide resources which can increase a synergy effect. It means that effective collaboration depends less on adapting to needs of individual members, more on identifying resources which individuals have and which can be exploited within a network. It reflects a strategy of looking for (concentrating on) similarities and avoiding differences (perceived as potential barriers of collaboration).

The dynamics of network relations' features' change, with the division into three levels of collaboration maturity, was presented in table 2. In addition, it is possible to diagnose which dimension dominated at each maturity level (a dimension was ranked as dominating when it achieved the highest average rank of its features at a given level). It appeared that dominating dimensions were as follows:

Level I – Reciprocation.

Level II – Exchange.

Level III – Exchange/Reciprocation (equal average ranks).

Table 2.

Evolution of network relations' features

Dimension	Network relations' features	Level I	Level II	Level III
Exchange	information exchange	***	***	***
	material exchange	**	***	**
	energy exchange	*	***	***
Involvement	expectation of continuing and deepening relations	***	***	***
	investing in co-specialized resources	*	***	**
	developing informal relations	***	**	**
	developing formal relations	**	***	**
	embeddedness	*	*	*
	building mutual trust	***	***	***
	building loyalty	*	**	**
	building shared values	**	**	***
	avoiding/de-escalation of conflicts	**	***	***
Reciprocation	expectation of equal efforts	***	***	***
	identifying common objectives	***	**	***
	common planning and making decisions	**	***	***
	common solving problems	***	***	***
	adapting to partners' needs	*	*	*

Degree of appearance: *low; **medium; ***high.

Source: own study.

5.2. Dynamics of network relations' benefits

As many researchers indicate, organizations gain various types of benefit as a member of a network (Hopkins et al., 2019; Horn, 2018) However, its character evolves as network collaboration achieves another levels of maturity. Searching for another benefits (and maximizing existing ones) constitutes main reasons for development of network collaboration (Klaster, Wilderom, Muntslag, 2017; Silvia, 2017; Mu et al., 2018). Thus, it is crucial to identify these driving forces. The reasons for network relations development, understood as the reasons for getting to another levels of network maturity, were

identified and presented in table 3. At the same time it allowed diagnosing the dynamics of network relations' benefits.

The results show that organizations present two key reasons for developing network relations, which are important at each level of network maturity: 1) expanding access to partners' knowledge resources and a multi-directional flow of knowledge, 2) participating in a network of value (a synergy effect). These two types of benefit were also presented as main reasons for initiating collaboration within a network by Vangen and Huxham (2010) and Peteraf (1993), which supports value of the findings. Gaining and diffusing knowledge (organizations have a possibility to learn from others, but also to share (diffuse) knowledge) can be supported by both formal hierarchies and informal networks (Whetsell, Kroll, DeHart Davis, 2020; Paruchuri, Awate, 2017; Peterman, Kourula, Levitt, 2020). In case of the researched organizations, at the initial stage of network collaboration the diffusion process is hierarchical. However, there is an expectation to expand and to make the knowledge flow easier, so partners tend to exploit a *holistic* approach to multi-directional flows. That constitutes the main driving force to develop relations into taking up common operational measures and ultimately strategic projects (accordingly level II and III). Then relations are tighter, partners build trust and loyalty, which support sharing knowledge substantially.

For individual participants of a network, collaboration most of all allows creating value through a synergy effect. It results from summing partners' key resources and actions. Making an attempt to increase synergetic value constitutes the main force which stimulates development of a network. At the first level (informing/consulting) the synergy refers to non-material resources (knowledge, competences, experience of persons representing different sectors). However, organizations also look for possibilities to create value using *material* resources and at the same time to expand a potential for re-configuring all resources available within a network. Therefore, they initiate common ventures and get engaged in operational projects (level II). Later, the will to strengthen a synergy effect leads to developing a long-term partnership (level III). It ought to be stressed that integrating, building and re-configuring resources constitute one of the key elements of creating dynamic abilities. Also, apart from the value created for an organization (network's knot) itself, the importance of participating in the process of co-creating value for the *whole* network is underlined. The value appears as a result of both planning future projects and their realization.

Reducing transactional and hierarchical costs becomes one of the main reasons for development of a network mainly when partners initiate operational projects (level II). The key benefit stems from integrating common resources and limiting hierarchical relations with partners in favour of network coordination. In this way network members are able to reduce costs of tasks and projects. Therefore, after getting to know one another (at level I, which still does not allow minimizing costs *ex post*), the need arises to start gaining this kind of benefit by taking up common ventures (getting to level II). However, as network collaboration develops into the third level of maturity, this sort of advantage becomes a less important incentive.

At the level of a strategic partnership, this type of benefit is dominated by others, such as: a synergy effect, knowledge diffusion and a network effect.

As network collaboration develops, there appears a very interesting phenomenon of appropriating value created by other participants of a network. Although theoretically network collaboration ought to be based on partnership, equality and striving to achieve common goals, the research shows that distributing value between network members is not equal and with time organizations develop mechanisms which allow appropriating value from other units (this mechanism was explained thoroughly by Najda-Janoszka (2016)). As a result, they are able to achieve benefits bigger than gained by other partners. Appropriating value becomes an important reason for developing relations especially when partners start realizing operational projects (level II). However, the phenomenon in question is less important at the highest level of network maturity. In this case, an interesting paradox appears – on one hand as the collaboration develops an organization has a bigger possibility to master appropriating mechanisms, on the other - network members strengthen partnership relations, trust and sense of community. In a long term, such a dualism can lead to conflicts.

The moment network members start building a strategic partnership (which means they are heading for the highest level of maturity), they are able to achieve two another benefits: 1) rent from a network effect and 2) rent from convergence processes. However, the first one is perceived as the main reason for developing collaboration, and the latter one as an additional benefit.

The network effect refers directly to the size of a network; the value from being a part of a network grows as the number of its participants increases (Church, Gandal, Krause, 2008). That is why this effect is correlated with a structural dimension of network development. Thus, network participants search for gaining advantage from additional value stemming from the bigger size of a network. The value refers to having better access to partners' resources, mostly knowledge and experience, but also material assets. Another vital advantage of a network effect, stressed by researched organizations, is that the bigger number of network members, the bigger possibilities to choose an optimal partner to realize business projects. Consequently, it leads to the increase in scale of operations and quality of business activity outcome.

The convergence effect appears together with the mechanisms and features of a network which are characteristic for a strategic partnership. Thus, at the highest level of network collaboration maturity it is possible to spot a phenomenon which shows that the network member who has a weaker position on a market will be able to develop relatively faster and ultimately catch up with more developed partners (Cavalcanti, Giannitsarou, Johnson, 2017). It happens mostly by exploiting a benchmark concept. What is important, these convergence processes have a multi-directional character.

Table 3.*Reasons (driving forces) for network relations development*

Level I. Informing (consulting)	Reasons for network relations development (to level II)	Level II. Common operational projects	Reasons for network relations development (to level III)	Level III. Strategic partnership
<i>Dominating dimension:</i> Reciprocation	Main reasons: <ul style="list-style-type: none"> - Expanding multi-directional flow of knowledge - Building synergy of experience, competencies and material resources - Expanding possibility to re-configure resources - Reducing transactional costs <i>ex post</i> (by integrating resources) - Lowering hierarchical costs (thanks to network coordination) - Appropriating value from partners - Increasing scale and quality of fulfilling clients' needs Additional reasons: <ul style="list-style-type: none"> - Developing competences of managers (including entrepreneurial skills) - Better organization of internal operations (implementing new methods and concepts of management using benchmarking) 	<i>Dominating dimension:</i> Exchange	Main reasons: <ul style="list-style-type: none"> - Expanding multi-directional flow of knowledge - Strengthening synergy of various resources (increasing efficiency of gaining, integrating and re-configuring resources) - Achieving network effect (increase in value from being part of local network as number of participants grows) - Increasing efficiency in fulfilling clients' needs Additional reasons: <ul style="list-style-type: none"> - Catching up other organizations (convergence effect) - Reducing transactional costs <i>ex post</i> - Lowering hierarchical cost - Appropriating value from partners - Increasing efficiency in creating organization's image 	<i>Dominating dimension:</i> Exchange/ Reciprocation

Source: own study.

6. Conclusions

The research results presented in the paper allowed identifying the way organizations exploit features of network relations in order to gain set benefits from the collaboration. Thanks to adopting a dynamic perspective, it was possible to present the problem through the process of achieving another levels of network collaboration maturity. As a result, the author identified a pattern which explains the dynamics of the phenomenon in question. The general conclusion is that along with the evolution of the reasons for developing network collaboration (gaining various types of network benefit), organizations exploit different features of network relations, in order to maximize the benefit. It appeared that there are a very few main reasons for getting into another levels of network collaboration. The crucial ones seem to be the benefit from

a multi-directional flow of knowledge and from a synergy effect. Depending on the level of network relations' development, organizations also look for re-configuring resources, reducing transactional and hierarchical costs, appropriating value and achieving a network effect. What is important, in order to gain the benefit, organizations modify the features of network relations as the collaboration develops. The research showed a following pattern of the evolution of dominating dimensions: Reciprocation > Exchange > Exchange/Reciprocation. Consequently, these results show the dynamics of network relations' development, and they provide an insight into the mechanisms which allow managers to increase efficiency of collaboration. The template may serve as a tool for practitioners; it supports more conscious planning and developing interactions with network members and, ultimately, optimizing network rent.

These considerations lead to another vital conclusion – when deciding to initiate and develop network collaboration, managers ought to analyse the process from a *holistic* perspective, taking into account how different features of network collaboration influence possibilities of gaining set benefits. Thus, managers face the dilemma what strategy of developing network collaboration features to implement as network relations reach another levels of maturity. They should decide which features are to dominate, which are to be explored (strengthened as the collaboration develops), exploited (not changed), limited or not used at all. The pattern identified in the paper clearly shows that indeed this evolution takes place.

Concerning the limitations of the study, it ought to be stated that although implemented research methods provided all expected data which allowed achieving research objectives, natural character of case studies requires cautiousness regarding the scale of generalizing the results. The author's intention was to provide data and information which lead to understanding of some phenomenon which has not yet been fully identified and explored. Therefore, the limitations ought to be treated as a starting point for further scientific explorations. In the author's opinion the research should concentrate on creating hypotheses which would be verified with quantitative methods ensuring statistical representativeness. Ultimately, this direction would lead to more generalizable results regarding the dynamics of network collaboration.

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