
Network Rent as a Determinant of Collaborative Advantage for Public Organizations: A Case Study

Submitted 05/11/20, 1st revision 10/12/20, 2nd revision 16/01/21, accepted 15/02/21

Marcin Flieger¹

Abstract:

Purpose: This article's main scientific purpose is to identify the types of network rent that constitute determinants of collaborative advantage for public organizations, including the dynamic perspective of achieving another level of network collaboration maturity.

Design/Methodology/Approach: Conceptual development and positioning of the research aim to provide a generalizable contribution to management science and be accessible to practitioners. The research was carried out using a multiple case study's interpretative methods, 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 that provides data corresponding with set research questions.

Findings: The conducted research shows that as a part of the network, public organizations gain various types of network rent, and its character evolves as the network achieves another level of network collaboration maturity. Moreover, a considerable number of gained rent types is the benefit, which is characteristic only for public organizations, since their status, role, and objectives are very much different from organizations representing other sectors.

Practical Implications: The research allows presenting a pattern of gaining (by a local office) advantage from network collaboration as it achieves another level of maturity. The identified template serves as a tool for practitioners (public managers) who exploit network relations and build a commune's collaborative advantage. Conscious creation of collaborative advantage within public network supports more effective integration of regions.

Originality/Value: The author adopts a new perspective to the problem of intentional creation of network relations to gain set benefits. In the literature, still, very little attention is put on network relations' influence on the collaborative advantage of public organizations. Therefore, the author concentrates on filling this gap by deepening the network trend analysis and increasing the efficiency of realized tasks from the perspective of the public sector units.

Keywords: Network, network collaboration, network rent, collaborative advantage, local government office.

JEL classification: D85, H83, L14, L33.

Paper Type: Research case study.

Acknowledgements: The research was carried out within the confines of a research project financed by the Polish Ministry of National Defence (111/WZA/64/DzS).

¹Adjunct, Department of Management, General Tadeusz Kościuszko Military University of Land Forces, Poland, marcin.flieger@awl.edu.pl

1. Introduction

In the last two decades, the organizational environment has undergone considerable transformation, and the multi-directional co-dependence of business partners plays a key role. These interactions constitute a network of relations (Mayne *et al.*, 2003), in which an organization becomes one of the network's knots. It results in a network collaboration approach (Bryson *et al.*, 2015; Sakai and Kang, 2000). Networks are believed to allow achieving goals that are not attainable either by individual units or through traditional administrative hierarchies (Hu *et al.*, 2016). The efficiency of realized tasks is assessed not from an individual perspective but a relational one.

Although network collaboration issues are discussed widely, there is still a need to engage in more network-level research acknowledging and focusing on specific conditions of operating by units representing a public sector (Siciliano *et al.*, 2020; Whetsell *et al.*, 2020). It is so because the character of benefit gained from the network collaboration by a private and a public organization differs substantially. In private companies, participation in the network allows building (most of all) a competitive advantage. Public organizations, however, compete on the market to a minimal degree. Their character and objectives (providing public services and building public value) focus on collaborating, not competing. In this case, public problems are addressed by establishing inter-organizational partnerships, which bring together a range of stakeholders to improve the effectiveness of service delivery at a local level (Hopkins *et al.*, 2019; Gebo and Bond, 2019). Despite these distinct differences, relatively little interest is still put on the question of consciously creating collaborative advantage by public organizations. Hence the knowledge in this field is fragmentary. As Kapucu, Hu, and Khosa (2014) prove, "relatively few articles have examined the intersection of policy networks, governance networks, and collaborative networks...". Research on the substructures of networks and multilevel networks remains limited'. Simultaneously, although today collaboration constitutes the main approach to solving complex public managerial problems, questions concerning collaborative effectiveness persist, and they have become a vital challenge for both public managers and public administration scholars (Silvia, 2017).

Thus, initiating and developing collaboration within inter-organizational networks, including public networks, allow building collaborative advantage. However, to do it effectively, it is vital to building it consciously by identifying its determinants. Determinants of collaborative advantage ought to be related to the economic rent paradigm. Generally, economic rent constitutes some benefit gained as a result of realizing tasks. It is an income from resources and competencies, which depends on their strategic placement (Grant, 2005). Searching for and systematically gaining economic rent constitutes one of the key problems of strategic management. Concentrating on the network collaboration, collaborative advantage determinants should be related to all types of network rent.

The analysis presented in the paper provides both theoretical and practical contributions. The author focuses on depicting a concise theoretical construct that integrates collaborative advantage and network collaboration from the relational perspective. It is a new approach that leads to the conceptualization of the pattern showing what types of network rent public organizations gain as they develop network collaboration and achieve another network maturity level. This theoretical background serves as a template for practical use by public managers. It allows more conscious planning, initiating, and developing network relations with partners to make optimal use of the local public network and increase the quality of public services and public value.

The author used a research method of a multiple case study (Yin, 2014; Eisenhardt, 1991) on the example of local government offices (communes). These units contribute substantially to the economic and social development of a region. Therefore, it is crucial to gain the ability to adjust to changing needs and expectations of inhabitants, entrepreneurs, and other groups of local beneficiaries. One of the key aspects of increasing the efficiency of completing tasks is developing collaboration with other organizations that operate in a region (Gebo and Bond, 2019; Mu *et al.*, 2018). They include other public organizations, private companies, and non-governmental organizations (Hopkins *et al.*, 2019). In the case of a local government office, building relations and developing collaboration with other units is especially valuable since it is the office that most often constitutes the key organization in realizing local initiatives (Czernek and Czakon, 2016). Thus, the author answered the research questions:

1. What is the characteristics of each type of the network rent possible to gain by a network participant (from an egocentric perspective)?
2. What types of the network rent are gained by a public organization, including a dynamic perspective of achieving another level of network collaboration maturity?

Identifying these benefits for public organizations constitutes the main objective of the paper. Understanding these issues and phenomena allows more concise development of interactions between partners and the increase in efficiency of providing public services and creating public value. Consequently, building collaborative advantage within the public network in a well-thought-out, conscious way supports more effective integration of regions.

2. Collaborative Advantage

Collaborative advantage constitutes one of the key reasons for initiating and developing inter-organizational relations, within which value for stakeholders is generated. Literature provides various analyses that present different ways of creating value. For instance, very often, public and private organizations tend to collaborate within the confines of public-private partnerships (PPP), which is perceived as an effective way of planning and providing public services. However, this type of inter-

organizational relations requires meeting specific conditions by collaborating partners, and the risk of failure is relatively high. Therefore, scientists suggest that value ought to be generated by building added value and – consequently – creating collaborative advantage (Huxham and Vangen, 2005; 2000).

Achieving collaborative advantage needs creating synergy (Andrews and Entwistle, 2010; Vangen and Huxham, 2012). Synergy means something more than simple resource exchange; it constitutes a mix of various factors that allow creating more than only a sum of individual elements (Taylor-Powell *et al.*, 1998; Lasker *et al.*, 2001). Thus, successful collaboration ought to generate added value because of links between organizations, also the ones that represent different sectors. Each organization provides its unique set of skills and competencies. It constitutes the very idea of a synergy effect – a situation in which partners gain an ability to create added value, which would not be possible to achieve without being involved in collaboration (O’Leary, 2016; Klijn and Teisman, 2000).

In the literature which refers to inter-organizational collaboration, scientists define collaborative advantage in various ways, emphasizing its different aspects and elements (Huxham *et al.*, 2000; Blomgren, Bingham, and O’Leary, 2008). MacDonald (1990) believes that it is an advantage that is not determined by natural or historical causes but stems from different elements of a local economic system. These elements work more efficiently than in other towns or regions. It is important to underline that a synergy effect appears in all definitions. Huxham (1993) states that collaborative advantage concerns creating synergy between cooperating organizations, and the synergy will appear when they build something creative, which none of the organizations could achieve individually (Hibbert and Huxham, 2005; Lasker *et al.*, 2001). Thus, although definitions emphasize different aspects of collaboration, all of them assume that an advantage can be achieved only when organizations work together to do or create something that is not possible to achieve without cooperation (O’Leary, 2016; Huxham and Vangen, 2004).

When realizing tasks and projects within the inter-organizational collaboration, an organization gains a possibility to build a collaborative advantage, which further allows generating value for stakeholders (Huxham and Vangen, 2005; Huxham and Vangen, 2000). What is vital, the collaborative advantage is perceived as an important determinant of success and collaboration between organizations that represent different sectors (Vangen and Huxham, 2012). Thus, to make it possible for an organization to gain benefits from collaborative advantage, it ought to initiate and develop inter-organizational collaboration, including inter-sectoral relations, in situations when the partnership allows achieving own objectives faster and more efficiently than if an organization operated individually (Vangen and Huxham, 2010).

The presented analysis concludes that scientists explore different aspects of collaborative advantage, and they take different perspectives. Some generally refer to management (Kanter, 1994), but most of them concentrate on achieving set objectives of collaboration in an efficient way. Consequently, the effort is put into understanding

and mastering partnership relations (Vangen and Huxham, 2003; 2010; Lasker *et al.*, 2001). It proves that gaining benefits from building collaborative advantage constitutes one of the key reasons for developing inter-organizational collaboration, including collaboration within the network.

From an egocentric perspective of a local government office, understanding collaborative advantage should consider a unique role that such an organization plays in a region. Therefore, in this case, collaborative advantage has two complementary aspects. First of all, it means an advantage gained as a result of cooperation with other organizations, which would not be achieved without building close partnership relations (Huxham, 1996; Lank, 2007). Network relations allow access to information, transfer of knowledge, resources, and competencies (Uzzi and Dunlap, 2005), they lead to minimizing risk and more efficient creation of market credibility (Borgatti *et al.*, 2009; Lank, 2007). Secondly, the collaborative advantage is understood as an advantage over other organizations (Macdonald, 1990). Here, a local government office attempts to gain an advantage over other local offices (communes) in the context of building satisfaction of different groups of stakeholders, attracting new inhabitants, investors (entrepreneurs), tourists, students, and other groups, depending on the unique character of a particular commune. In this case, a local office is treated as one of the competitors on the market.

As stated before, determinants of collaborative advantage should be related to the paradigm of economic rent. In the network collaboration analysed from the egocentric perspective, the economic rent has a form of network rent. It concludes that for a network's knot, the determinants of collaborative advantage are constituted by different network rent types.

3. Identifying Network Benefit

Undisputedly, economic rent constitutes one of the crucial goals to achieve within strategic management. In other words, from an organizational, egocentric perspective, economic rent becomes one of the key determinants of implemented strategy effectiveness (Amit and Schoemaker, 1993). Historically, this benefit was understood in various ways; it was related to resource optimization, finding a better position on a market, increasing an organization's value, or innovative advantages (Horn, 2018; Niemczyk, 2013). However, understanding and measuring the network's effectiveness is more difficult (Lucidarme *et al.*, 2015; Mu *et al.*, 2018). Traditional measures such as resource use may not apply to networks since partners focus on building strong relationships and achieving intangible outcomes, such as trust and reciprocity (Klaster *et al.*, 2017). Therefore, there is a need to identify the benefits that reflect the network relationships' idea and correspond with motivations and expectations of the units that decide to join networks. Based on the literature review on this subject, in the case of network collaboration, we can identify two basic economic rent types: relational rent and network rent.

Regarding the relational rent, it stems from a synergy effect. It is created as a result of a collaboration between network members. Inter-organizational relations become an element of network resources, and they serve as a foundation for creating and appropriating value (Najda-Janoszka, 2016). Relational rent constitutes an advantage from the whole network's perspective, and it is understood in a few different ways. Most often, it is related to another kind of economic rent. Consequently, according to scientists, the whole network can gain the following rent: resource-oriented (Ricardian), monopolistic, innovative (Schumpeterian), entrepreneurial, managerial, organizational, and a so-called E. Penrose's rent.

However, the network rent relates to advantages that can be gained by an individual participant (a knot) of the network. Thus, it concerns a specific process of creating value by connected partners. An organization can gain different sorts of network rent, depending on the context of operating and the network's maturity. What is crucial is the possibility of joining different types of network rent (synergy effect), which allows a network participant to build a collaborative advantage. In the literature, the network rent is discussed from different perspectives. Therefore, the scholars focus on and stress different types of the benefit, depending on the research context. However, a thorough examination of the literature allowed identifying all potential types of network rent gained by a network participant. Taking into consideration different levels of network maturity and various contexts of operating, they are:

1. Rent from lower transactional and hierarchical costs.
2. Rent from participating in network of value.
3. Rent from appropriating value created by other participants of network.
4. Rent from creating and diffusing knowledge.
5. Rent from convergence processes.
6. Rent from creating dynamic abilities.
7. Network effect.

Rent from lower transactional and hierarchical costs constitutes one of the key types of benefits gained by a network's knot. Lower transactional costs are achieved due to network contracting (both formal and informal), replacing traditional contracts. The costs concern fields such as: comparing offers, verifying accessibility of goods on the market, controlling. Regarding hierarchical costs, they are gained to replace hierarchical structures by network coordination, which reflects a flat structure. It ought to be emphasized that the rent in question concerns only the potential advantages of decreasing operational costs, and it shall not be related to possibilities of generating surplus by the network.

Additional increase in an organizational effect is connected with the rent from participating in a network of value. Summing up key resources and actions of collaborating units allows generating a synergy effect, which leads to gaining value within the network. At this point, it ought to be emphasized that in the case of network rent, it is about a situation in which an organization (as a knot in-network) participates in activities of the whole network, and apart from co-creating value for the network,

it also creates value for itself. The value creation may concern either a value chain or network of value. Both these strategies stem from the idea of generating value within the network. They may be related to identifying and adopting a client's problems to decrease costs, increase the number of knots, or promote the network (Stabell and Fjeldstad, 1998).

Another type of network rent is related to the benefit from the appropriating value created by other network participants. Appropriation means taking over a part of a whole value generated by other participants of a network. It may also be understood as keeping for an organization (not sharing) the value created by the organization itself (Najda-Janoszka, 2016). This kind of benefit constitutes one of the key reasons for joining a network since it can contribute substantially to building a lasting competitive advantage. Within the network, appropriation is related mainly to taking over knowledge (not material assets). What is vital is that appropriating value is done legally (contracts, licenses, franchising) and illegally (taking over hidden knowledge). Appropriating a part of a whole value created by other participants of the process of generating value within the network is possible most of all by exploiting an advantage in negotiations. However, the sources of the advantage may be very different. The case of public networks seems especially interesting. Public networks are defined as networks within which at least one participant is a public organization. Such public units gain an advantage over other network members by joining a service function (providing clients) with a power function. The power function allows exploiting a public organization's dominator position, which regulates and sets operational conditions for other organizations (both private and non-governmental).

Rent from creating and diffusing knowledge constitutes another important advantage for a network's knot. The rent relates to creating hidden knowledge by an integrator and its diffusion to other knots. Knowledge sharing is supported mostly by a relational approach to collaborative work; partners are more effective when they have the possibility to come together and learn about each other and their work (Fu, 2015). Such diffusion will take place due to specific features of the network itself, especially in case of substantial differences between network members in terms of knowledge resources. Since collaboration within the network is forced (when an organization joins the network, it is expected to participate in it actively), access to knowledge resources is relatively easier.

A network's participants also can gain an advantage from convergence processes that take place within the network. At this point, it is important to explain the idea of convergence. Regarding economic growth, the theory of convergence states that in poorer countries, income per capita increases faster than in richer ones, and often less developed countries achieve growth rates higher than developed countries (De la Fuente, 1997; Evans and Karras, 1996). This phenomenon is called a catch-up effect, and it should result in a situation when all societies live at a similar, high level. In the case of the network rent, the catch-up effect ought to be perceived as a situation in which (thanks to being a part of the network) an organization with a weaker position

on a market develops faster than other network participants with a better position, ultimately achieving a similar market position. Of course, an objective assessment of the convergence effect scale requires identifying adequate criteria for assessing differences between organizations.

Thanks to a particular character of how the network operates, a knot gains substantial possibilities of creating dynamic abilities. They stem most of all from the network's flexibility, reconfiguration possibilities, lack of hierarchical dependencies, and coexistence of formal and informal relations. Although the idea of dynamic abilities is known for years in the context of organizational development conditions, there are very few analyses identifying what kind of benefit can be gained from the abilities in question. Dynamic ability ought to be understood as a skill of integrating, building, and reconfiguring both internal and external competencies of an organization to adjust to fast changes taking place in its environment (Teece *et al.*, 1997). They constitute organizational and strategic routines, thanks to which a company reconfigures its own resources (Eisenhardt and Martin, 2000). Thus, concerning inter-organizational networks, the rent from dynamic abilities means an advantage that derives from being a part of the network that possesses specific features supporting these abilities' development.

Network effect constitutes the last type of network rent gained by a network's knot. It means that the benefit for all members grows as the number of network participants increases. Thus, each new participant creates additional value for the whole network (Church *et al.*, 2008). The network effect is often analysed from a client's perspective, for whom the utility of some good increases when the number of its users grows (Wang *et al.*, 2010). Regarding network, there exists a crucial distinction between a single or mutual network effect. The first one takes place when (from the network's perspective) all users have similar needs and play similar roles within the network. In this case, when a new user joins the network, it results in a benefit increase for all its members. However, the mutual network effect refers to a situation when users differ in terms of played roles (functions). When one group increases in number, it results in gaining benefit from members of another group. It may also result in a so-called social network effect (local network effect). In this situation, a user of some product is under the influence of a relatively small group of connected users within a local social or business network. Concluding, although network effect most often refers to a client's (a user's) perspective, the analysis of inter-organizational relations brings a question of whether a similar effect appears concerning the number of knots within the network. In this case, the network effect would mean that the benefit for all network participants grows together with the increase in its members.

4. Network Collaboration: Levels of Maturity

Each network rent has a different character, and the possibilities of gaining these advantages refer to the type of relations between network participants. Inter-organizational collaboration bases on free-will access, awareness of common objectives, partnership, and trust (Newman *et al.*, 2004; Goerdel, 2006; Edelenbos

and Klijn, 2007). Therefore, gaining network rent ought to be related to the process of achieving network collaboration maturity. Creating an optimal network structure requires time (Baker, 1993), and every stage of its development offers new possibilities of gaining advantages.

Collaboration begins with information exchange, and within the network, the flow of information is multi-directional. Participants get to know the mutual needs, expectations, and competencies of partners. At this stage, relations are mostly informal. What is important, information exchange also may have a form of consultations. If common objectives and benefits are identified, informal relations become limited, and partners initiate first formal ventures. Most often, they are operational projects characterized by limited capital engagement and low risk. Common tasks may not be based on formal contracts; partners take up planning and coordinating initiatives to achieve a synergy effect and consistency. At this stage, it is still important to signal goodwill, get to know one another, and build trust. Network participants search for collaboration fields that would bring benefit to all partners. If an operational collaboration allows gaining expected benefit, the network will achieve another, ultimate maturity level – formal partnership. In this case, relations are based on a formal agreement that describes all partners' fields of collaboration and responsibilities. It initiates a strategic partnership that allows achieving common long-term objectives.

Depicted collaboration forms correspond naturally with the process of achieving another level of network collaboration maturity. Development of relations can be divided synthetically into three basic levels of maturity (Baker, 1992):



Becoming aware by potential partners that competing or being in a conflict can decrease chances to achieve own objectives constitutes a key moment that may initiate network relations. Joining forces and resources can appear more beneficial for all parties. Synergy effect appears, and partners create unique value for both the whole network and individual participants (network's knots).

In these initial, coordinating measures, ties are loose, often informal, and common actions do not generate considerable risk. Partners gain an opportunity to better and understand others' needs, expectations, and possibilities of gaining mutual benefit. Along with the realization of other common tasks and projects, relations evolve, and ultimately, they might achieve a stage of the partnership. Bonds become tighter, realized tasks are more complex, and they generate more risk.

5. Research Approach and Methods

The research was carried out using a multiple case study method, following its methodological rigor (Eisenhardt, 1991). The method was chosen to set research objectives and the stage of knowledge development in the research area. Inter-organizational networks operate still is a relatively new phenomenon, it develops in a very dynamic way and is conditioned by numerous variables. Therefore, there is a need for a thorough examination, which would allow formulating propositions of features and the analysed phenomenon's development. Hence, the carried-out research is interpretative (Eisenhardt and Graebner, 2007), and it allows an in-depth understanding of the phenomenon in some particular context. Although the situational context determines research results in each case study, at the same time, it constitutes a fundament for presenting characteristics of the whole class of researched objects (Yin, 2014).

Considering the complexity of the phenomenon and the variety of information typical for the multiple case study method, triangulation of gathering data methods was implemented (Yin, 2014). The triangulation included an expert interview and document analysis. The in-depth group interviews were carried out between August 2019 and January 2020. To minimize subjective assessment, the author interviewed a few representatives of each office. In each case in the interview participated an office secretary who (depending on a particular case) was accompanied by the mayor's deputy, director of Funds and Development Unit, director of Promotion and International Affairs Unit, an inspector for collaboration with NGOs, office spokesperson. The interviewees filled in the relational matrix, which allowed identifying each network's character according to levels of network collaboration maturity. Moreover, semi-structured forms were used, which included questions regarding the office's network collaboration specification at each level of maturity. The data were coded according to adopted conceptual frames (a priori codes) (Miles *et al.*, 2014). Analysis of documents allowed confronting the gathered data with the opinions and information provided by interviewees. Such an approach allowed a more profound understanding of developing network collaboration conditions, gaining network rent, and building collaborative advantage. The documents included: the office council's resolutions, commune development programs, collaboration with NGOs, and legal acts.

Analysis within 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 that provided data corresponding with set research questions. Results of each case study were a base for cross-case comparisons with results of other cases. It allowed theoretical generalizations concerning the pattern of building collaborative advantage by gaining different types of network rent.

The paper presents the results of eight case studies. The number of cases corresponds with a widely accepted opinion expressed in literature that multiple case studies should include 4 to 10 individual cases (Eisenhardt, 1991; Yin, 2014). The key

criterion of choice was the clarity of the case (Flyvbjerg, 2012) – the scrutinized offices initiate and develop network collaboration actively. As a result, collected data is very reliable since it bases on real experience at each level of network collaboration maturity. The access to crucial data constituted an additional criterion. It referred to the possibility of carrying an interview with public managers and analysing internal documents of the office.

Key characteristics of researched cases were presented in Table 1. All local government offices actively collaborate with public organizations, private companies, and non-governmental organizations operating on their territory. Moreover, each commune is a member of at least one commune (city) association and cooperates with a few partnership cities. Four cases are located in Lower Silesia province, another four in Great Poland province. Chosen cases have different conditions of operating. They differ regarding dominating economic features, which results in the various specification of organizations with which communes develop collaboration. Three communes (case A, B, and G) are situated very close to a big agglomeration, and they have a very well-developed road infrastructure. As a result, they are an attractive place for new inhabitants to settle down and for big, international companies to place their business. Other communes have a different character. Two of them (case C and F) have a very attractive localization from a touristic point of view, but they do not possess any unique assets for entrepreneurs (lack of proper infrastructure). Cases D, E, and H are represented by middle-size communes in which small, local businesses dominate. Such diversity of cases allowed complex and consistent analysis of conditions of developing network collaboration by local government offices, possibilities of gaining different types of network rent, and, as a consequence, building collaborative advantage.

Table 1. *Characteristics of researched cases (communes)*

Cases	Population	Number of enterprises	Number of NGOs	Cooperation with partnership cities	Participation in commune (city) associations
Case A	23907	2831	27	Yes (6)	Yes (3)
Case B	28059	3185	62	Yes (5)	Yes (2)
Case C	4209	650	18	Yes (8)	Yes (4)
Case D	26327	1766	75	Yes (4)	Yes (1)
Case E	30738	3985	169	Yes (4)	Yes (3)
Case F	10218	1035	25	Yes (5)	Yes (4)
Case G	40667	7812	96	Yes (2)	Yes (6)
Case H	32683	3648	90	Yes (4)	Yes (2)

Source: Own study.

6. Network Rent in the Dynamic Perspective

Being a part of the network, the public organization gains various types of rent. However, its character evolves as the network achieves another level of network collaboration maturity. The above considerations constitute a fundament for analysing network rent referred to each maturity level and, as a result, determining

which types dominate at each level. Characteristics of benefit (both dominating and gained to a limited degree) achieved by a local government office at all maturity levels were presented in Table 2.

Two types of network rent constitute the key advantage gained at each maturity level. They are rent from participating in a network of value and rent from creating and diffusing knowledge. In the literature, these two types are presented as the main reasons for initiating collaboration within the network (Vangen and Huxham, 2010; Peteraf, 1993). From the knot's perspective, being a part of a network allows most of all creating value as an effect of the synergy, which results from summing partners' key resources and actions. At the first level, the synergy refers to non-material resources (knowledge, competencies, the experience of persons representing different sectors); at another two levels, it also refers to material resources. Moreover, apart from the value created for the organization (knot) itself, in all cases, offices underlined the importance of participation in co-creating value for the whole network. Such an opinion results from the fact that participation in the network allows offices to increase efficiency and quality of provided public services, consumed by the whole local community, including organizations that are part of the network.

Access to partners' knowledge resources and a multi-directional flow of knowledge constitutes vital rent at each network's development level. Knowledge flows in public organizations can be supported by formal hierarchies and informal networks (Whetsell *et al.*, 2020; Paruchuri and Awate, 2017). The research results show that at the initial stage of network collaboration, the diffusion process is hierarchical. However, later partners exploit the system's holistic approach. An organization has a possibility to learn from others but also to share (diffuse) knowledge. Thus, local offices gain knowledge mostly from other public organizations (it concerns increasing efficiency of providing public services) and private companies (adapting and implementing principles of managing business organizations). On the other hand, knowledge is diffused to non-governmental organizations (mainly at the first level of maturity), and it is supposed to increase awareness of rules and legal regulations concerning making commissioned tasks and public donations.

Rent from lower transactional and hierarchical costs is important mainly when partners realize operational projects. The crucial advantage stems from integrating common resources and limiting hierarchical relations in favor of network coordination. Partners can reduce the costs of realized tasks and projects. However, at the first and third levels of network collaboration maturity, minimizing costs is less important. When informing (consulting), organizations do not realize common projects, so the rent concerns ex-ante costs, which refer to planning. This type of rent is dominated by another benefit at the strategic partnership level, such as the synergy effect, knowledge diffusion, and convergence.

Rent from creating dynamic abilities becomes important at the second and the third level of maturity. Realizing projects at the operational level allows developing abilities to integrate, build, and re-configure resources. Within the strategic

partnership, it allows mostly building competencies of public managers. At this point, it ought to be emphasized that the rent in question is achieved only by a few offices. The rest of them pinpointed one crucial reason for not gaining the rent. In local government offices, the possibilities of constant re-configuring of resources are limited by legal regulations. They constitute rigid frames of doing tasks and, as a result, force routine behavior.

Two last types of network rent – from convergence processes and network effect – appear at the highest level of network collaboration maturity. Network effect refers directly to the network's size – the more participants of the network, the bigger value from being a part of it (Church *et al.*, 2008). Therefore, the network effect is correlated with the development of the network in the structural dimension. Network participants gain an advantage from additional value stemming from the bigger size of the network. The value refers to bigger access to partners' resources, mostly knowledge, experience, and material ones. Analysed offices stressed that the network effect appeared mainly in the case of collaboration with non-governmental organizations. The bigger the number of NGOs in-network, the stronger the local office is to choose an adequate partner that would realize commissioned tasks. Further, it leads to an increase in scale and quality of tasks, which impacts the efficiency of fulfilling the needs of the local community.

An increase in the number of organizations representing the public sector allows lower realized tasks and public services. For instance, the network effect is often visible in building the touristic attractiveness of some regions. If a commune prioritizes developing touristic offers (including spa and natural health care resorts), the increase in several organizations that provide such services leads to bigger consistency and attractiveness of the offer at the whole commune level.

The convergence effect appears at the highest level of network collaboration maturity. The network participant who has a weaker position on a market will catch up with more developed partners only when mechanisms and features of network characteristics for strategic partnership appear. The convergence effect refers to relations with other public organizations, mostly other local public offices and units representing state administration (the highest level of public administration hierarchy). Exploiting benchmarking concept, local offices increase the efficiency of managing their own resources and providing public services. However, it ought to be stressed that in some cases, the convergence process within the network has the opposite direction. Thus, it is not the researched public office that catches up with other organizations, but other network participants catch up with the office in question. This phenomenon takes place mainly when collaborating with non-governmental organizations or private companies. Local offices perceive themselves as role models for realizing tasks according to legal regulations, norms, and ethical standards. Thanks to network interactions, partners increase awareness and standards of relations and ways of doing tasks and projects.

Interestingly, none of the analysed offices gain rent from appropriating value created by other network participants. It results from the role and nature of a local government office itself. The office constitutes a local administration unit, a public organization that is supposed to fulfil the needs of citizens and organizations operating on its territory. Within the network, a local office realizes tasks and projects which are beneficial also for organizations that are a part of the network. Thus, from an office perspective (as a knot in the local public network), it is not about competing (within confines of which appropriating processes appear) but building a partnership with common objectives. Moreover, legal regulations constitute rigid frames concerning the office's possibilities of interactions with other units. They become a significant factor that limits potential actions that would allow appropriating value created by other network participants. Local government offices (communes) perceive themselves as the units that put great attention to operating and collaborating according to law regulations, transparently and ethically, with respect for all parties' rights. Hence, offices do not have possibilities, and at the same time, they do not notice any potential advantages of appropriating value.

Table 2 presented what a public organization gains network rent types on another level of network collaboration maturity. Underlined types of rent are the advantage that can be gained only by public organizations (in this case – a local government office). They constitute about a half (23 out of 45) of all the gained types. It proves how important it is to analyse network rent separately for different organizations, representing different sectors. In the case of a local office, the gained benefit is related to both the office's characteristics (as a local public administration unit) and the unique conditions of each region (commune). Hence, it is substantially different from the rent that could be achieved by private companies or NGOs. As a result, the analysis allowed identifying the collaborative advantage's unique characteristics for public organizations participating in collaborative networks.

Table 2. Types of network rent for public organizations – the dynamic perspective

Maturity level	Type of rent
1. Informing/ Consulting	<p>Dominating rent: Gaining knowledge from other network participants (<u>mostly from other public organizations</u>) Diffusion of knowledge to other network participants (<u>mostly to NGOs</u>) Synergy effect by summing non-material resources (knowledge and competences) <u>Building competition between NGOs for tasks commissioned by office</u> <u>Possibility of delegating tasks and developing offer of public services</u> Mastering skills of building dynamic competencies <u>Building social awareness of local issues and phenomena</u> <u>Activating local community</u></p> <p>Other rent: Reduction of transactional costs <i>ex ante</i> Implementing procedural and ethical standards of collaboration Better understanding of characteristics and objectives of organizations operating in region <u>Building touristic attractiveness of commune</u> <u>Possibility of exploiting voluntary service</u></p>

2. Common operational projects	<p>Dominating rent: Multi-directional flow of knowledge Synergy of experience, competencies and material resources <u>Building competences of public managers (including entrepreneurial skills)</u> Reduction of transactional costs <i>ex post</i> (by integrating resources) Lower hierarchical costs (thanks to network coordination) Ability to re-configure resources Adapting process management solutions <u>Bigger possibilities of realizing own tasks</u> <u>Increase in quality of commissioned tasks</u> <u>Increase in scale and quality of fulfilling needs of local community</u></p> <p>Other rent: <u>Lower costs of realizing commissioned tasks</u> Better organization of internal operations (implementing new methods of management by benchmarking) <u>Increase in touristic attractiveness of region</u></p>
3. Strategic partnership	<p>Dominating rent: Multi-directional flow of knowledge Synergy of various resources Increase in efficiency of gaining and integrating resources Skills of integrating and re-configuring competences Increase in value from being part of local public network as number of participants grows <u>Bigger possibilities of realizing own tasks</u> Catching up other public organizations (convergence) <u>Building conditions for social and economic development of region</u> <u>More efficient policy of town/city (building life value for local community)</u> <u>Building civic awareness and behaviour</u> <u>Benchmark of managing public organizations</u> <u>Increase in quality of commissioned tasks</u></p> <p>Other rent: <u>More efficient managing communal resources and providing public services</u> More efficient managing organization (better competencies of public managers) Reduction of transactional costs <i>ex post</i> Lower hierarchical cost <u>Lower costs of realizing commissioned tasks</u> More efficient creating office's and commune's image <u>Bigger touristic attractiveness of region</u></p>

Source: Own study.

7. Conclusions and Implications

The presented analysis allowed a thorough understanding of relational and dynamic characteristics of network collaboration, which constitutes crucial value for network science development (Watts, 2004; Hudson, 2004; Isett and Provan, 2005; Moller and Wilson, 1995). Network collaboration may bring benefits for private companies and organizations representing the public sector (Lane, 2000). It has become an essential part of network governance for public institutions, also at a local government level (Klijn, 2008; Hooghe and Marks, 2001). Hence, the author made a theoretical contribution of conceptualizing types of network rent possible to gain by a local public office as a member of the network (from the egocentric perspective). Furthermore, to strengthen the study's practical contribution, the author presented a pattern of creating a collaborative advantage by gaining various types of network rent

as collaboration achieves another level of maturity. The intention was to make presented considerations a guideline for public managers regarding what sort of benefit a public organization can and ought to gain when realizing its tasks within the inter-organizational network. Awareness of the possibilities and mechanisms allows making managerial decisions, which lead to the more effective realization of a commune's strategy, providing public services, and faster economic and social development of a region.

The results confirmed the correctness of the operationalized classification of the network rent. The analysis leads to a clear-cut conclusion that engagement in network collaboration allows creating collaborative advantage. This sort of advantage means concrete, various types of benefit (in the egocentric perspective) referred to as the network rent. What is crucial, numerous diagnosed types of the network rent gained by a commune are characteristic only for public organizations, which proves that their operating conditions and objectives are substantially different from organizations representing other sectors.

Analysed classifications and conditions allow the increase in awareness of phenomena concerning the process of creating collaborative advantage. In decisions about the way of participating and developing network relations, public managers should acknowledge that as the collaboration achieves another level of maturity, the character of gained benefit changes. At the level of informing/consulting, the dominating types of rent are participation in the network of value and creation/diffusion of knowledge. At the same time, rent from lower costs constitutes a limited advantage. However, as the cooperation develops and achieves another maturity level, another vital rent appears. Realizing tasks and projects together with other organizations, a commune can benefit from the synergy of material and non-material resources, building dynamic competencies, and finally – exploiting convergence effect and network effect. On the other hand, researched offices do not the appropriate value from other network participants, which is strongly determined by the character and status of a commune itself, and quite the opposite to the approach of private companies (for whom appropriating value from other participants constitutes one of crucial network rent).

Awareness and understanding of conditions of building network interactions with other units operating in a region constitute a fundament for conscious gaining various types of the network rent and, as a result, effective creation of the commune's collaborative advantage (Lank, 2007; Huxham, 2000; Huxham, 2003; Vangen and Huxham, 2010, Vangen and Huxham, 2013; Vangen *et al.*, 2015). However, it must be stressed that the used method and carried out research were focused on understanding some particular phenomenon and gaining information about chosen, crucial issues referring to the development of network collaboration by a commune. The author intended to create both theoretical and empirical ground for further research. Therefore, potential further studies ought to include creating hypotheses that would be verified statistically using quantitative methods.

References:

- Amit, R., Schoemaker, J.P. 1993. Strategic assets and organizational rent. *Strategic Management Journal*, 14(1), 33-46. DOI: 10.1002/smj.4250140105.
- Baker, H.R. 1993. Building multi-community rural development partnership. In: R. C. Rounds, ed., *The structure, theory and practice of partnership in rural development*. ARRG working papers series, 5, 37-40.
- Baker, W.E. 1992. The network organization in theory and practice. In N. Nohria, B. Eccles, eds., *Network and Organizations*. Harvard Business School Press.
- Blomgren Bingham, L., O'Leary, R. 2008. Big ideas in collaborative public management. M.E. Sharpe.
- Bryson, J.M., Crosby, B.C., Stone, M.M. 2015. Designing and implementing cross-sector collaborations: Needed and challenging. *Public Administration Review*, 75(5), 647-663.
- Church, J., Gandal, N., Krause, D. 2008. Indirect Network Effects and Adoption Externalities. *Review of Network Economics*, 7(3), 337-358. DOI: [10.2139/ssrn.369120](https://doi.org/10.2139/ssrn.369120).
- Czernek, K., Czakon, W. 2016. Trust-building processes in tourist cooperation: The case of a Polish region. *Tourism Management*, 52, 380-394. <https://doi.org/10.1016/j.tourman.2015.07.009>.
- Edelenbos, J., Klijn, E.H. 2007. Trust in complex decision-making networks: a theoretical and empirical exploration. *Administration and Society*, 39(1), 25-50. <https://doi.org/10.1177/0095399706294460>
- Eisenhardt, K.M. 1991. Better Stories and Better Constructs: The Case for Rigor and Comparative Logic. *Academy of Management Review*, 16(3), 620-627. DOI: 10.2307/258921.
- Eisenhardt, K.M., Graebner, M.E. 2007. Theory building from cases: Opportunities and challenges. *Academy of Management Journal*, 50(1), 25-32. <https://doi.org/10.5465/amj.2007.24160888>.
- Eisenhardt, K.M., Martin, J.A. 2000. Dynamic capabilities: What are they? *Strategic Management Journal*, 21, 1105-1121. DOI: [10.1002/1097-0266\(200010/11\)21:10/11<1105::AID-SMJ133>3.0.CO;2-E](https://doi.org/10.1002/1097-0266(200010/11)21:10/11<1105::AID-SMJ133>3.0.CO;2-E).
- Evans, P., Karras, G. 1996. Convergence Revised. *Journal of Monetary Economics*, 37, 249-265.
- Flyvbjerg, B. 2012. Five misunderstandings about case study research. In: M. Savin-Baden, C. Howell Major, eds., *Qualitative Research: The Essential Guide to Theory and Practice*. Routledge.
- Fu, N. 2015. The role of relational resources in the knowledge management capability and innovation of professional service firms. *Human relations*, 68(5), 731-764.
- Fuente de la, A. 1997. The Empirics of Growth and Convergence: A Selective Review. *Journal of Economic Dynamics and Control*, 21, 23-73. [https://doi.org/10.1016/0165-1889\(95\)00925-6](https://doi.org/10.1016/0165-1889(95)00925-6).
- Gebo, E., Bond, B.J. 2019. Improving inter-organizational collaborations: An application in a violence reduction context. *The Social Science Journal*, 1-9. DOI: 10.1016/j.soscij.2019.09.008.
- Goerdel, H.T. 2006. Taking initiative: proactive management and organizational performance in networked environments. *Journal of Public Administration Research and Theory*, 16(3), 351-363. DOI: [10.1093/jopart/mui051](https://doi.org/10.1093/jopart/mui051).
- Grant, R.M. 2005. *Contemporary Strategy Analysis*. Blackwell.

- Hibbert, P., Huxham, C. 2005. A Little About the Mystery: Process Learning as Collaboration Evolves. *European Management Review*, 2, 59-69. DOI: [10.1057/palgrave.emr.1500025](https://doi.org/10.1057/palgrave.emr.1500025).
- Hooghe, L., Marks, G. 2001. *Multi-Level Governance and European Integration*. Rowman & Littlefield.
- Hopkins, L., Chamberlain, D., Held, F., Riley, T., Zhou Jing Wang, J., Conte, K. 2019. Collaborative Networks in Chronic Disease Prevention: What Factors Inhibit Partnering for Funding? *International Journal of Public Administration*, 4(1), 1-9. DOI: [10.1080/01900692.2019.1669177](https://doi.org/10.1080/01900692.2019.1669177).
- Horn, J. 2018. Economic Rent. In: M. Augier, D.J. Teece, eds., *The Palgrave Encyclopedia of Strategic Management*. Palgrave Macmillan. https://doi.org/10.1057/978-1-137-00772-8_475.
- Hu, Q., Khosa, S., Kapucu, N. 2016. The intellectual structure of empirical network research in public administration. *Journal of Public Administration Research and Theory*, 26(4), 593-612. DOI: [10.1093/jopart/muv032](https://doi.org/10.1093/jopart/muv032).
- Hudson, B. 2004. Analyzing Network Partnership: Benson Revisited. *Public Management Review*, 6(1), 75-94. <https://doi.org/10.1080/14719030410001675740>.
- Huxham, C. 1993. Pursuing Collaborative Advantage. *The Journal of the Operational Research Society*, 44(6), 599-611. <https://doi.org/10.1057/jors.1993.101>.
- Huxham, C. 2000. The Challenge of Collaborative Governance. *Public Management*, 2(3), 337-358. DOI: [10.1080/14719030000000021](https://doi.org/10.1080/14719030000000021).
- Huxham, C. 2003. Theorizing Collaboration Practice. *Public Management Review*, 5(3), 401-423. DOI: [10.1080/1471903032000146964](https://doi.org/10.1080/1471903032000146964).
- Huxham, C., Vangen, S. 2000. What Makes Partnerships Work. In: S. P. Osborne, ed., *Public-Private Partnerships: Theory and Practice in International Perspective*. Routledge.
- Huxham, C., Vangen, S. 2004. Doing Things Collaboratively: Realizing the Advantage or Succumbing to Inertia? *Organizational Dynamics*, 33(2), 190-201. DOI: [10.1109/EMR.2004.25132](https://doi.org/10.1109/EMR.2004.25132).
- Huxham, C., Vangen, S. 2005. *Managing to Collaborate: The Theory and Practice of Collaborative Advantage*. Routledge.
- Huxham, C., Vangen, S., Huxham, C., Eden, C. 2000. The challenge of collaborative governance. *Public Management Review*, 2(3), 337-358. DOI: [10.1080/14719030000000021](https://doi.org/10.1080/14719030000000021).
- Isett, K.R., Provan, K.G. 2005. The Evolution of Dyadic Inter-organizational Relationships in a Network of Publicly Funded Non-profit Agencies. *Journal of Public Administration Research and Theory*, 15(1), 149-165. DOI: [10.1093/jopart/mui008](https://doi.org/10.1093/jopart/mui008).
- Kanter, R.M. 1994. Collaborative Advantage: The Art of Alliances. *Harvard Business Review*, 74(4), 96-108.
- Kapucu, N., Hu, Q., Khosa, S. 2014. The state of network research in public administration. *Administration & Society*, 1-34. DOI: [10.1177/0095399714555752](https://doi.org/10.1177/0095399714555752).
- Klaster, E., Wilderom, C., Muntslag, D. 2017. Balancing relations and results in regional networks of public-policy implementation. *Journal of Public Administration Research and Theory*, 27(4), 676-691. DOI: [10.1093/jopart/mux015](https://doi.org/10.1093/jopart/mux015).
- Klijin, E.H. 2008. Governance and governance networks in Europe: an assessment of 10 years of research on the theme. *Public Management Review*, 10(4), 505-525. <https://doi.org/10.1080/14719030802263954>.
- Lane, J.E. 2000. *New Public Management*. ProQuest Library.
- Lank, E. 2007. *Collaborative advantage*. Palgrave Macmillan.

- Lasker, R.D., Weiss, E.S., Miller, R. 2001. Partnership Synergy: A Practical Framework for Studying and Strengthening the Collaborative Advantage. *The Milbank Quarterly*, 79(2), 179-205. DOI: [10.1111/1468-0009.00203](https://doi.org/10.1111/1468-0009.00203).
- Lucidarme, S., Cardon, G., Willem, A. 2015. A comparative study of health promotion networks: Configurations of determinants for network effectiveness. *Public Management Review*, 2015(18), 1163-1217.
- Macdonald, D. 1990. Glasgow's Collaborative Advantage. *First*, 4(52).
- Mayne, J., Wileman, T., Leeuw, F. 2003. Networks and partnering arrangements: New challenges for evaluation and auditing. In: A. Gray, B. Jenkins, F. Leeuw, J. Mayne, eds., *Collaboration in public services: The challenge for evaluation*. Transaction Publishers.
- Miles, M.B., Huberman, A.M., Saldana J. 2014. *Qualitative Data Analysis. A Method Sourcebook*. Sage Publications.
- Moller, K., Wilson, D.T. (Eds.). 1995. *Business Marketing: An Interaction and Network Perspective*. Kluwer Academic Publishers.
- Mu, R., Jia, J., Leng, W., Haershan M., Jin, J. 2018. What Conditions, in Combination, Drive Inter-Organizational Activities? Evidence from Cooperation on Environmental Governance in Nine Urban Agglomerations in China. *Sustainability*, 10, 1-16. DOI: [10.3390/su10072387](https://doi.org/10.3390/su10072387).
- Najda-Janoszka, M. 2016. *Dynamic Capability-Based Approach to Value Appropriation*. Jagiellonian University Press.
- Newman, J., Barnes, M., Sullivan, H., Knops, A. 2004. Public participation and collaborative governance. *Journal of Social Policy*, 33(2), 203-223. DOI: [10.1017/S0047279403007499](https://doi.org/10.1017/S0047279403007499).
- Niemczyk, J. 2013. Network rent. In: R. Borowiecki, T. Rojek, eds., *Co-operation of companies in market economy. Competition – cooperation – development*. Foundation of Cracow University of Economics.
- O’Leary, R. 2016. Retrofitting Collaboration into the New Public Management: Lessons from New Zealand. *Ewha Journal of Social Sciences*, 32(1), 5-51. <https://ssrn.com/abstract=2780831>.
- Paruchuri, S., Awate, S. 2017. Organizational knowledge networks and local search: The role of intra-organizational inventor networks. *Strategic Management Journal*, 38(3), 657-675.
- Peteraf, M.A. 1993. The Cornerstones of Competitive Advantage: A Resource-based View. *Strategic Management Journal*, 14(3), 179-191.
- Sakai, K., Kang, N.H. 2000. International strategic alliances: Their role in industrial globalization. OECD, DSTI Working Paper/DOC 5.
- Siciliano, M.D., Wang, W., Medina, A. 2020. Mechanisms of Network Formation in the Public Sector: A Systematic Review of the Literature. *Perspectives on Public Management and Governance*, gvaa017. DOI: [10.1093/ppmgov/gvaa017](https://doi.org/10.1093/ppmgov/gvaa017).
- Silvia, C. 2017. Evaluating Collaboration: The Solution to One Problem Often Causes Another. *Public Administration Review*, 78(3), 472-478. DOI: [10.1111/puar.12888](https://doi.org/10.1111/puar.12888).
- Stabell, C.B., Fjeldstad, O.B. 1998. Configuring value for competitive advantage: on chains shops and networks. *Strategic Management Journal*, 19(5), 413-437. [https://doi.org/10.1002/\(SICI\)1097-0266\(199805\)19:5<413::AID-SMJ946>3.0.CO;2-C](https://doi.org/10.1002/(SICI)1097-0266(199805)19:5<413::AID-SMJ946>3.0.CO;2-C).
- Teece, D.J., Pisano, G., Shuen, A. 1997. Dynamic Capabilities and Strategic Management. *Strategic Management Journal*, 18(7), 509-533. DOI: [10.1142/9789812796929_0003](https://doi.org/10.1142/9789812796929_0003).

- Vangen, S., Hayes, J.P., Cornforth, C. 2015. Governing Cross-Sector Inter-Organizational Collaborations. *Public Management Review*, 17(9), 1237-1260. DOI: 10.1080/14719037.2014.903658.
- Vangen, S., Huxham, C. 2003. Nurturing Collaborative Relations: Building Trust in Interorganizational Collaboration. *Journal of Applied Behavioural Science*, 39(1), 5-31. DOI: 10.1177/0021886303039001001.
- Vangen, S., Huxham, C. 2010. Introducing the Theory of Collaborative Advantage. In: S. P. Osborne, ed., *The New Public Governance? Emerging Perspectives on the Theory and Practice of Public Governance*. Routledge.
- Vangen, S., Huxham, C. 2012. The Tangled Web: Unraveling the Principle of Common Goals in Collaborations. *Journal of Public Administration Research and Theory*, 22, 731-760. DOI: 10.2307/23321340.
- Vangen, S., Huxham, C. 2013. Building and Using the Theory of Collaborative Advantage. In: R. Keast, M. Mandell, R. Agranoff, eds., *Network Theory in the Public Sector: Building New Theoretical Frameworks*. Taylor & Francis.
- Wang, Q., Chen, Y., Xie, J. 2010. Survival in Markets with Network Effects: Product Compatibility and Order-of-Entry Effects. *Journal of Marketing*, 74(4), 1-14. DOI: 10.1509/jmkg.74.4.1.
- Watts, D.J. 2004. The 'new' science of networks. *Annual Review of Sociology*, 30(1), 243-270. <https://doi.org/10.1146/annurev.soc.30.020404.104342>.
- Whetsell, T.A., Kroll, A., DeHart Davis, L. 2020. Formal Hierarchies and Informal Networks: How Organizational Structure Shapes Information Search in Local Government. Retrieved from: <https://arxiv.org/abs/2006.08019>.
- Yin, R.K. 2014. *Case study research: Design and methods*. Sage Publications.