THE RELATIONAL CAPITAL OF CLUSTERS AS A CATALYST OF THEIR COMPETITIVENESS

Introduction

The complexity of modern economy requires “collective knowledge” i.e., a co-operative approach and collaboration on numerous levels. Clustering seems to be an idea that might fulfil these requirements. The model of a mature cluster initiative is a concept of a network of relationships and contacts that are, in a way, above the independent entities – participants of the cluster, who may even be competitors [Rosińska-Bukowska, 2012: 55–80].

Owners of many organizations believe that building a network of relationships is one of the main factors that guarantee market success [Perechuda, Chomiak-Orsa, 2013: 305–319]. This is due to the fact that the relational resources of an enterprise, which form the intellectual capital together with human and structural capital, create new opportunities for gaining competitive advantage.

Building relational capital focuses on creating such conditions that enable initiating, developing and strengthening relationships between the members of the given organization and between the organization and the entities in its environment [Gach, 2009: 176–184]. The impulse that triggers the development of co-operation is often the demand for tangible resources (production capacity or funds) and intangible ones, such as agreements or access to unique knowledge, skills and competences [Danielak, 2010: 119–128].

The aim of the paper is to present the importance of relational capital of cluster participants for increasing the competitiveness of clusters and to formulate guidelines for developing relationship management strategies.

* Beata Chmielewiec, PhD., Assistant Professor – SGH Warsaw School of Economics.
1. The notion of relational capital and its meaning

From the perspective of resource-based strategy, sustainable competitive advantage results from the fact that the organization possesses resources that are unlimited, impossible to be replaced by substitutes, are confidential and may be synergic to each other [Barney, 2001: 4–57]. In such terms, the intangible resources become a carrier for the increase in value of companies [Pike et al., 2005: 111–124; Del Canto, Gonzales, 1999: 891–905]. In response to the need to define all intangible assets of an enterprise, the notion of intellectual capital was created [Edvinsson, Malone, 2001: 56; Lindgren et al., 2009: 17–24, Mouritzen, 2009: 154–162]. In subject literature, the most quoted definition is that presented by L. Edvinsson who defined intellectual capital as the difference between the market and book value of an organization, where the total intellectual capital consists of the following sub-sets [Herman, 2008: 38–47; Łopaciuk-Gonczarczyk, 2008: 37–55; Wróbel: 11–15; Kasiewicz et al., 2006: 87]:

- human capital,
- internal structural capital,
- external structural capital.

According to this approach, human capital includes education, knowledge, and experiences of employees, the sources of creativity and innovativeness for the organization [Kisielnicki, 2008: 33; Kurowska, Derlatka, 2009: 52–54]. Internal structural capital, which is very often referred to as the organizational capital in literature, is defined as the set of intellectual property assets of an organization, its processes and methods, executive procedures, databases and communication and information infrastructure [Chomiak-Orsa, 2013: 107]. For the purposes of this paper, internal structural capital is treated as relational resources, which can be transformed into internal relational capital by subjecting them to the relevant transformation processes. On the other hand, most authors equate external structural capital with relational capital. It is defined as the structures used for maintaining the appropriate relations with the environment i.e., among others, systems for finding customers, sales networks, research and development projects, client databases, the brand and reputation of the enterprise and strategic partnerships [Chomiak-Orsa, 2013: 107]. In this paper, the external structural capital is treated as a set of relationships with stakeholders from the environment – both contractual and institutional ones.

The position of relational capital in the intellectual capital of the enterprise may be shown with use of a simplified presentation of the intellectual capital model by K.E. Sveiby (Figure 1).

In contemporary organizations, the structural capital developed as a result of internal and external relations becomes particularly important. As a result of linking the resources of various entities, added value is created that enables to increase their
individual strategic flexibility [Urbanek, 2008: 69]. This value is expressed precisely in the relational capital, which is generally defined as the potential benefits from the links of the organisation and the network of relations with its internal and external stakeholders [Danielak, 2010: 119–128].

Figure 1. The position of relational capital in the intellectual capital of an organization

![Figure 1. The position of relational capital in the intellectual capital of an organization](image)


The main difficulty faced by researchers who conduct literature studies is the variety of theoretical approaches to the essence of relational capital and the lack of unambiguous terminology. In subject literature, relational capital is described by different terms. Some authors [Nahapiet, Ghoshal, 1998: 242–266; Wagner, 2011: 277–283] treat it as a form of social capital (apart from its structural and cognitive dimensions), where relations constitute resources that foster the achievement of individual and collective goals. Others [Capello, Faggian, 2005: 75–87] even claim that it is justified to use the term “relational capital” instead of “social capital”. However, social capital exists everywhere where we are dealing with a local community, while relational capital refers to the possibility to share various capabilities and interaction between various entities that trust each other and co-operate, even at a distance [Capello, Faggian, 2005: 75–87].

Some of the authors focus on the essential role of clients in creating value, and separate client capital [Saint-Onge, 1996: 10–14]. Additionally, it has been referred to as the external structural capital [Cuganesan, 2005: 357–373] and market capital [Warschat et al., 1999]. On the other hand, J. Fitz-enz [2001] presents it as a network

---

1 This approach is justified by reference to the definition of social capital by R. Putnam, according to whom it is the total value of all social networks and the principles generated within them: trust, norms, ties and the sense of belonging to local community that may increase social effectiveness, by facilitating coordinated actions. See R.D. Putnam [1993].
of relations with all groups whose interests are connected with the given organization. The term relational capital was used in the studies by J. Roos and G. Roos [1997: 413–426] or J. Jurczak [2006: 39–46].

At the same time, in subject literature the essence of this issue is analyzed from numerous perspectives, including the point of view of the theory of intangible resources and potential benefits, access to knowledge, network theory and partner relations.

Thus, according to G. Michalczuk [2009: 71–78], relational capital reflects the intangible resources of an organization that are based on interactions with groups (entities) in the environment i.e., clients, suppliers, competitors and widely understood partners. Shaping beneficial relationships between the enterprise and its stakeholders should foster gaining benefits by each of the parties. Such a benefit, being a value, takes the form of relational capital, which, according to the concept of capital of I. Fischer equals the value of resources at the given moment, while profit consists of the flows of services and property during the given period [Dobija, 2003: 118].

According to A. Ujwara-Gil [2009: 181], relational capital is first of all knowledge anchored in inter-organizational relations and built based on the external organizational links, market connections, relationships with clients, suppliers and centers of authority and industry, as well as technological networks that are available in the environment. However, the amount of knowledge acquired by the enterprise depends on three main dimensions of relational capital i.e., trust, the level of transparency in relationships between entities and the frequency of interactions [Liu et al., 2010: 237–238]. High level of mutual trust should promote sharing knowledge, while learning should be stimulated by transparency (especially the openness of partners), and the reinforcement of social ties between partners should be reflected in a high level of interaction (face to face or via information systems).

Relational capital is sometimes also analyzed in terms of network relationships – as the potential benefits obtained from the connections maintained by the organization and the network of relations with its external stakeholders [Gach, 2009: 176–184]. This results from the fact that network relationships become the basis for building corporate competitive advantage, based on the key competences that emerge as a result of numerous co-operative connections between the enterprise and its direct competitors [Cygler, 2009: 84]. Participation in a network enables, mainly [Niemczyk, 2008: 537–544]:
- sharing key competences,
- free flow of data, information and knowledge,
- obtaining synergic effects,
- reducing the operational costs of individual units.

Creating a network of relationships with the environment is the fourth and final phase of the organizational development model proposed by F. Glasl and B. Lievegoed [1993]. However, company’s development at the third stage is based on interpersonal
relations, mainly inside the company, phase four highlights the relationships between the organization and its environment, hence it is referred to as: the association phase i.e., the stage of establishing a network of relationships with the environment. Building a network of relationships should be considered as the necessary condition for the functioning of enterprises on the modern, globalized market. However, only the smooth use of the created network should be considered as the sufficient condition [Jamka, 2017: 43].

Relational capital reflects the value of relationships between the enterprise and its partners. At the same time, partnership entails sharing risk and benefits, planning and creating strategies together, joint works on new products, as well as resolving conflicts skillfully, flexibility and striving to improve competitiveness [Danielak, 2012: 23]. Other important factors are the expected continuity of relationship and strengthening the ties.

2. The role of relational capital in building the competitive position of cluster participants

The classical model of a cluster is based on the concept by M.E. Porter, according to which a cluster should be defined as a spatial concentration of interrelated enterprises, institutions and organizations connected by a developed network of both formal and informal relationships, based on a shared development trajectory, which simultaneously compete and cooperate in certain aspects of their activities [Porter, 2001: 17]. A cluster is a specific type of network, characterized by certain distinctive properties (Table 1).

<table>
<thead>
<tr>
<th>Table 1. The differences between a network and a cluster</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factor</td>
</tr>
<tr>
<td>--------</td>
</tr>
<tr>
<td>Membership</td>
</tr>
<tr>
<td>Borders</td>
</tr>
<tr>
<td>Dominant type of relationships between entities</td>
</tr>
<tr>
<td>Nature of agreement between organizations</td>
</tr>
<tr>
<td>Added value</td>
</tr>
<tr>
<td>Common goals</td>
</tr>
<tr>
<td>Geographical closeness</td>
</tr>
</tbody>
</table>

Source: Downar, Frankowska [2012: 11–54].
Regardless of the existence of various definitions of a cluster, the following main **key attributes** should be emphasized [Rosińska-Bukowska, 2012: 55–80]:
- **geographical closeness** – shared location that enables the interpenetration of resources gathered by members;
- the adequate **critical mass** of the set – a number of members that guarantees that the mutual flows will be constant and varied;
- **relationships** – awareness of the interrelations;
- **common goal** – interactivity manifested in focusing the activities on active collaboration, at least in a specific aspect.

The modified concept of the cluster is based on using the specified attributes not for the production of goods or services, but for generating added value to the previously known standard in a systematic way. In simple terms, this may be explained as using the diversity of the participants of the given system rather for sustaining the competitive advantage than for obtaining it. Modern approach to cluster management consists in triggering the **synergy effect** that results from the **coopetition-based approach**\(^2\).

In broader terms, **the relational capital of the cluster** is perceived as the overall benefits, both tangible and intangible, qualitative and quantitative ones that result from joining the network system being a cluster by the given actor, who is the beneficiary of the cluster [Smolska, 2014: 323–333].

The relational capital of a cluster represents the set of relations with all interested groups, referred to as the **stakeholders** [Cyfert, Krzakiewicz, 2009: 137–138; Szalkowski, 2008: 38], or, differently, as: strategic fans of an organization [Oblój, 2007], interested groups [Galata, 2007], groups of interest [Ward, 1997; Penc-Pietrzak, 2000], stakeholders [Kozmiński, Piotrowski, 2002], **stakeholders** [Berliński, Penc-Pietrzak, 2004], or, finally, partners [Lisiński, 2004]. One of the pioneers of the stakeholders’ theory, R.E. Freeman [1984] defines the term as all persons or groups who influence the operations of an enterprise or are influenced by it. Each of them presents and seeks internal values, so it has certain expectations [Skrzypek, 2009: 20]. However, “the most mature approach to the relationships with stakeholders assumes engaging in a systematic dialogue with them, joint planning and implementing various types of ventures related to corporate social responsibility” [Wachowiak, 2012: 20].

In the course of an analysis of the strength of relationships between the stakeholders and the enterprise and their types, I have distinguished\(^3\) **three categories** [Cyfert, Krzakiewicz, 2009: 129–148; Adamczyk, 2009: 87–88; El-Gohary et al., 2006: 595–604; Lim et al., 2005: 831–840]:

\(^2\) Coopetition is a specific way of operating that allows to build potential based on close cooperation between the members of an Alliance combined with competitive struggle. See Cygler J. [2009], *Kooperencja przedsiębiorstw. Czynniki sektorowe i korporacyjne*, SGH Warsaw School of Economics, Warsaw.

\(^3\) A very detailed and accurate review of the typology was presented in the paper: P. Klimas [2011].
- **internal** (sub-decisive) stakeholders – owners, shareholders, management, employees, formal and informal groups;
- **external** (contractual) stakeholders – suppliers, customers, competitors, investors, distributors, retail chains, banks, insurance companies, B2B, business environment institutions;
- **institutional** stakeholders – government and local self-government institutions, local communities, etc.

Their influence on the goals of the company and the whole cluster depends on numerous external and internal factors, as well as on the goals and expectations of each of the groups. The sub-decisive stakeholders build the **internal relational capital** that is defined as the set of intellectual property rights of the organization, work processes and methods, executive procedures, databases and the communication and IT infrastructure. On the other hand, **external relational capital**, understood as the structures used to maintain proper relations with stakeholders from the environment, both contractual and institutional ones, includes, among others, customer search systems, sales networks, research and development projects, the brand and reputation of the company as well as strategic partnership [Perechuda, Chomiak-Orsa, 2013: 305–319].

In subject literature, the main key to the success of an organization and at the same time, the factor determining the competitive advantage of the given cluster are considered to be the **relational competences** [Carter, Gray, 2007: 385–400] of the members of enterprises gathered in the cluster. This means using the knowledge, skills and attitudes in the co-operation area [Moczydlowska et al., 2017: 29]. The abilities to establish and maintain contact smoothly, empathy, the ability to co-operate in striving to achieve common goals, to overcome differences in views and interests and to resolve conflicts become important [Oleksyn, 2010: 25]. This results from the fact that it is the people who co-create the cluster that work on creating, using and developing the relational capital. Conscious and methodical actions of employees of all entities forming the cluster in the context of building proper inter-organizational relations increase the likelihood of achieving market success. Thus, the **competitiveness** of cluster participants may increase only by mutual stimulation to improve its intangible elements that are derived from human resources. This relation is presented in Figure 2.

The experience and competences of all employees of an organization allow it to enter into various types of relationships with the entities in the environment, thus contributing to achieving **relational competitive advantage** (Figure 3). The source of this advantage may be the distinguishing of resources that will be allocated for common use by the participating entities by each of the parties [Danielak, 2012: 105].

F.S. Nobre and D.S. Walker [2011: 333–345] looked for competitive advantage not only in the key competences of an enterprise, but precisely in the possibility to co-operate with partners. Inter-organizational co-operation within a cluster offers
potentially higher chances to use the possibilities and resources of different enterprises to achieve a bigger competitive advantage than when they are acting in isolation.

Figure 2. The stimulation-based nature of the influence of human resources on the development of relational capital and the competitiveness of cluster participant

![Diagram](image)

Source: own study based on: Chomiak-Orsa [2013: 111].

Figure 3. Relational competitive advantage

![Diagram](image)

Source: own study based on: Danielak [2012: 104].
The driving force of relational competitive advantage is relational rent\textsuperscript{4}. It is manifested in generating common benefits as a result of the co-operation and joint development of shared resources as part of co-operation between enterprises [Muzyčzka, 2010: 451–472].

In reference to relational competitive advantage, four main relational rents may be distinguished [Cygler, 2009: 79–82]:

- **internal rent** – emerging as a result of combining the internal resources of an organization with shared resources;
- **acquired relational rent** – one that refers to shared resources that the parties engage in co-operation;
- **incoming resources diffusion rent** – rent obtained from network relationships between resources that refers to the unintended benefits that result from using shared and exclusive resources of a partner;
- **outgoing resource diffusion rent** – rent generated as a result of the leak of company resources to its co-operants; it emerges symmetrically to the incoming resource diffusion rent.

However, the potential of the relational rent of enterprises grouped in a cluster will be higher, because the partners are able to minimize transactional costs [Gorynia, Jankowska, 2008: 32] that include the costs of negotiations, monitoring, coordinating and enforcing agreements with external entities [Eiriz, Wilson, 2006: 275–291].

3. The strategy of the relational capital of clusters

Creating an effective strategy that will foster obtaining benefits from building relational capital requires the organizations grouped in the cluster to develop methods of identifying the sources of this capital and tools that will enable to measure it. In business practice this generates major problems, as there are no established standards for the measurement of relational capital of an enterprise [Michalczuk, 2009: 71–78].

There is no single, best method to manage relationships [Young, Wilkinson, 1997: 53–97]. However, one may notice that, in the context of maintaining long-term relations with entities in the environment, the importance of strategic thinking and management increases, as strategy constitutes the foundation for the development of long-term relationships with key partners. A model solution related to managing relationships in a network of alliances was presented by A. Eilles, M. Bartels and B. Brunsmann [2003: 30–34], who divided it into three stages i.e.:

\textsuperscript{4} The term relational rent was introduced by W. Czakon, who defined relational rent as “a supernormal profit jointly generated in an exchange relationship that cannot be generated by either firm in isolation and can only be created through the joint idiosyncratic contributions of the specific partners”. See W. Czakon [2005a: 10–13; 2005b: 31–40; 2009: 47–66].
Beata Chmielewiec

- **first stage** – referring to a strategy based on the potential of the co-operating enterprises and their possibilities to create various products or services and to offer specific products thanks to involving the competences of both the company and external entities;
- **second stage** – connected with building a portfolio of relationships and consisting in skillful identification and integration of partners within that portfolio;
- **third stage** – concerning the management of relationships as a portfolio; it means the realization of tasks within the interrelations between specific relationships and the allocation of the resources of individual entities. Here, it becomes necessary to modify the content of the portfolio as well as to monitor and measure the results.

Usually, managing a portfolio of relationships offers larger possibilities to obtain benefits from valuable relationships than managing single relationships [Danielak, 2012: 108].

Using the elements of the relational resources theory in developing company strategy, each relationship may be described and modelled in terms of such categories, as: the entity participating in the relationship, as well as the purpose and form of the relationship [de Wit, Meyer, 2007: 217–249]. Thus, the adopted starting point should be the identification and analysis of the needs of stakeholders with respect to creating a portfolio of relationships, with use of the following methods:

- stakeholder maps [Freeman, 1984],
- the matrix by M. Johnson and K. Scholes [Johnson, Scholes, 1999],
- the analysis of the profiles of key strategic partners of the organization [Lisiński, 2004: 86–87].

Although these methods differ in terms of the manner of analysis and presentation of results, their aim is not only to determine the key groups of stakeholders, but first of all to identify and describe the power of their influence on the creation of relational capital, which is often characterized as validation and urgency of the demands of particular groups [Oblój, 2007: 218]. Other types of actions will be taken in reference to strategic relationships with these partners, on which the development of the enterprise depends, others to maintain or strengthen relationships with entities that are not of key importance, and still others when focusing only on sales transactions.

Nevertheless, the synthetic procedure of developing a comprehensive strategy for building relational capital of cluster participants should contain the following stages [Chomiak-Orsa, 2013: 129–130]:

- identification of stakeholders,
- development of forms of dialogue with stakeholders,
- identification and the scope of using IT in supporting relationships with stakeholders,
- implementation of the relevant models of measuring and estimating the benefits from creating relational capital.
The adopted relationship management strategy should be compliant with the overall development strategy of the cluster organization.

Conclusions

Appropriate policy for creating relational capital enables to obtain economic benefits by all partners of the alliance. Adopting a strategy based on creating and improving relational capital by organizations, both in internal terms and including the environment of the organization, is becoming a major trend in creating the philosophy of business activity [Perechuda, Chomiak-Orsa, 2013: 305–319].

It is doubtless that combining the resources and competences of two or more enterprises that maintain a partner relationship may result in creating valuable strategic assets that are difficult to imitate or acquire. Mutually beneficial relationships focused on increasing the market effectiveness of partners are the source of the competitive advantage of clusters. However, the perfect cluster is the dynamic cluster, with a lot of traffic in the network of relationships [Downar, Frankowska, 2012: 11–54]. The model of a mature cluster initiative is a concept of a network of relationships and contacts that are, in a way, above the independent entities – participants of the cluster, who may even be competitors. On the other hand, lack of the appropriate approach and developed relational strategy may lead to the emergence of numerous hindrances and the risk of weakening or even terminating the relationship.

References


The Relational Capital of Clusters as a Catalyst of Their Competitiveness


[54] Penc-Pietrzak I. [2000], *Strategie biznesu i marketingu*, Profesjonalna Szkoła Biznesu, Cracow.


[64] Szalkowski A. [2008], Zarządzanie zasobami ludzkimi w organizacji opartej na wiedzy, Cracow University of Economics, Cracow.


THE RELATIONAL CAPITAL OF CLUSTERS AS A CATALYST OF THEIR COMPETITIVENESS

Abstract

The aim of this article is to present the importance of cluster relational capital as a factor increasing its competitiveness and then to formulate guidelines for the creation of a relationship management strategy in a cluster organization. The article defines a cluster, presents the essence of relational capital and its impact on the competitive position of cluster participants. The author also proposed a procedure for creating a comprehensive strategy for building the relational capital in the cluster.

Keywords: relational capital, cluster, competitive advantage, relationship management strategy

JEL classification codes: J24, L14, M54, O34

KAPITAŁ RELACYJNY KLASTRA JAKO KATALIZATOR JEGO KONKURENCYJNOŚCI

Streszczenie

Celem artykułu jest przedstawienie znaczenia kapitału relacyjnego klastra jako czynnika zwiększającego jego konkurencyjność, a także sformułowanie wytycznych do stworzenia strategii zarządzania relacjami w organizacji klastrowej. W artykule zdefiniowano klaster, przedstawiono istotę kapitału relacyjnego i jego wpływ na pozycję konkurencyjną uczestników klastra. Zaproponowano także procedurę opracowania kompleksowej strategii budowania kapitału relacyjnego w klastrze.

SŁOWA KLUCZOWE: KAPITAŁ RELACYJNY, KLASTER, PRZEWAGA KONKURENCYJNA, STRATEGIA ZARZĄDZANIA RELACJAMI

KODY KLASYFIKACJI JEL: J24, L14, M54, O34