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**COOPERATIVE AND COMPETITIVE
RELATIONSHIPS IN HIGH EDUCATION
SECTOR IN POLAND**

Abstract

Coopetition builds on the idea that firms – competitors cooperate to create values and to appropriate value. Despite extant research on this topic, our understanding about how firms are engaged in cooperative relationships with their rivals is still in its early stages.

This paper explores the higher education sector in Poland from the perspective of cooperative and competitive relationships, and analyses its performance on three different levels, i.e. macro, meso, and micro using case-based insights to answer the question(s).

We propose that cooperative relationships amongst a variety of different universities increase their competitiveness and enhance the diffusion of knowledge. In the long run this translates into benefits for all parties and into a rise in the efficiency of the entire education sector.

Keywords: *coopetition, competition, cooperation, strategy, university, resource heterogeneity, convergent goals.*

Introduction

We can observe increasingly innovative forms of relationships between competing organizations when we view them through the framework of the cooperative relationship (Czakon, 2012). This makes us believe that the source of competitive advantage, is a set of relationships between the firm and other market players. The organization that sets up such a relationship can be more beneficial in the market. As a result the competition for the relational value is treated as a third leg in the theory of strategy (Contractor, 2002). Research on coopetition is limited mainly to business organizations, however, relations of coopetition can easily be observed in the non-business sectors, for instance in higher education.

Siregar, Dagnino, and Garraffo (2011) state: “Connectivity between the concepts of Relationships, Strategy and Resources brings perspectives such as resource based view and relational view into [our] consideration as potential theoretical perspective in explaining coopetition. All the results at the end may affirm coopetitive strategy as a new form of strategy, an alternative to the two other main paradigms – competition and cooperation – that are already corroborated in the field of strategic management”.

The higher education is a unique sector that permits us to observe systems of cooperation and competition, both characteristics of so called coopetition strategy. Moreover, colleges and universities communicate with their environment in a natural way. This communication process takes place through: students, that in the vast majority are employed in surrounding areas; staff, who are carrying out research for outside companies and teams of researchers, which are working together with outside companies as well as within the framework of the university's general procedures and so they are developing interconnected links with surrounding businesses and companies so establishing an cooperative relationships. In almost laboratory conditions, we mean case-based insights individual variants of relationships are possible to be analysed and assessed qualitatively in terms of their effectiveness and efficiency.

This article aims to diagnose the current state of cooperative and competitive relationships within the academic environment and suggests what future might be. The reasoning visualizes that we undertake the identification of the type of the relationship between the organizations in the researched sector. In other words the concept of the paper refers to the identification of the types of relationships. This is particularly important since such a relationship has not been observed yet.

1. Coopetition in strategic management literature

In the world of business many companies decide to take not only competitive actions, but also actions, which rely on cooperation with other competitors. Research conducted by A. Brandenburger and B. Nalebuff (1996) likewise G. Dagnino and G. Padula (2002), amongst others, present situations where competitive and cooperative actions appear simultaneously. Research on coopetition has been increasing rapidly in recent years and the very concept has been used to clarify the economic and social effects of networking in various sectors and countries (de Ngo, and Okura, 2008). Until 1996, studies on coopetition were limited to proposals of A. Brandenburger and B. Nalebuff (1996). Since the mid-90s of 20 century however many more publications focusing on this subject have become available, such as: dyadic coopetition between two entities (Bengtsson, Kock, 2000), heterogeneous coopetition (e.g. Luo, 2004) and inter-organizational coopetition (e.g. Amburgey and Rao, 1996; Tsai, 2002; Luo, Slotegraaf and Pan, 2006).

G. Hamel et al. (1989) treat coopetition as a continuation and natural consequence of competition. Cooperation and competition can therefore be per-

ceived as the phases of the organization's life cycle. M. Bengtsson and S. Kock (2000) suggest that the benefit companies derive from coopeitition is an effect of the combination of the pressure of competitors (effect of the competition), with an ability to access greater resources (effect of the cooperation

Coopetition is defined as "a system of actors operating on the basis of the partial compliance of interests and purposes". It is an approach that is still developing, allowing for new and different examinations into the field of strategic management (Dagnino et al., 2008). Coopetition, claims W.Czakon, is a particular object of study, requiring a specific theoretical approach (Czakon, 2009).

In general terms, coopetition is a strategy of joint value creation, a strategy of competition in the distribution of values in conditions of a partial similarity of purposes and the changeable structure of the positive-sum game (Dagnino et al., 2008). In A. Lado's, as well as M. Bengtsson and S. Kock's (2000) opinion, it is these two significant forces, the pressure of competition and desire for cooperation – that constitute coopetition, allowing for a rare situations in which competitors show the initiative directed at rent-seeking (Lado et al., 1997). Coopetition is also "driven" by the need for strategic flexibility. Many studies have focused on the search for an innovative benefit in innovation-related coopetition, or simply in innovation networks (Ritala, Hurmelinna-Laukkanen, 2009). These studies are conducted mainly in business enterprises and rarely in other types of organizations (Lundberg, Andresen, 2012). It is possible, however, to find examples of coopetition in the education sector in several research projects – International research collaboration: opportunities for the UK higher education sector, 2008; Review of closer collaboration between universities and major publicly funded research agencies, 2004 (Commonwealth of Australia, 2004); Lundberg, Andresen, 2012. How do we study co-opetition in practice? Research on coopetition has theoretical character largely. Listed authors attempt to offer coopetition classifications and models (Luo's studies, 2004, 2006, 2007; Rusko, 2011, p. 311-320; Mention, 2011, p. 44-53).

2. Research concept

In this study, Kenworthy's method of distinguishing levels of micro, macro and meso coopetition is used (Kenworthy, 2005). The level of macro coopetition refers to the relation between groups of organizations, including those from various sectors. The meso level refers to vertical and horizontal relationships amongst organizations. The micro level concentrates on the entities within the organizations.

Most studies focus only on inter-organizational network ties and do not incorporate into their research the effect of interpersonal relationships, which can also facilitate economic interactions between organizations (Ingram and Roberts, 2000).

The basic question concerns the benefits, in terms of knowledge and economic value that we receive from every type of relation.

For the purpose of this study three important variables have been considered: interests and goals, relations, and resources. As Branderburger and Nalebuff propose cooperation/coopetition strategy is characterized by partially convergent interests and goals and this view has been widely accepted by researchers since 1996. The relations between partners are another important attribute determining cooperation. The importance of relations in building a competitive advantage is highlighted by a resource-based view (Barney, 1991). Relations are a source of competitive advantages. They who have the valuable resources win a competitive advantage.

Relational capital between partners in a network of relationships can foster cooperative relationship, as it creates a basis for learning and knowledge transfer on the one hand, and curbs opportunistic behaviour so preventing the leakage of critical knowledge, on the other. Therefore, relational capital can enable competition and co-operation to co-exist.

The overall goal for firms to cooperate with other firms is to strengthen their competitive positions by inter-partner learning and by obtaining valuable resources from their cooperative relationships. This is recognized in both the literature on alliances (e.g. Parkhe, 1993; Reuer and Tong, 2010) and coopetition (e.g. Gnyawali and Madhavan 2001; Luo, 2007). Papers written on alliances (thoroughly) described how firms achieve stronger competitive positions by cooperating with other firms through: internalizing partner skills and resources (Ahuja, 2000; Prahalad and Hamel, 1990; Oum et al., 2004), learning from partners (Dussauge, Garrette and Mitchell, 2000), knowledge sharing and creation (Inkpen, 2000; Khanna, Gulati and Nohria, 1998), growth in size and market share (Oliver, 2001; Reuer and Tong, 2010), protection from radical new innovations which will erode a firm's competitive position (Rothaermel, 2001; Afuah, 2000), sharing the risks and costs of research and development (Hagedoorn, 2002; Ouchi and Bolton, 1988), raising entry barriers (Eisenhardt and Schoonhoven, 1996) and creating economies of scale (Koh and Venkatraman, 1991; Garrette, Castaner and Dussauge, 2009; and Yami et al., 2010).

Gulati (Gulati, Singh, 1999) develops the notion of network resources, which refer to those resources that emerge from a firm being embedded in inter-

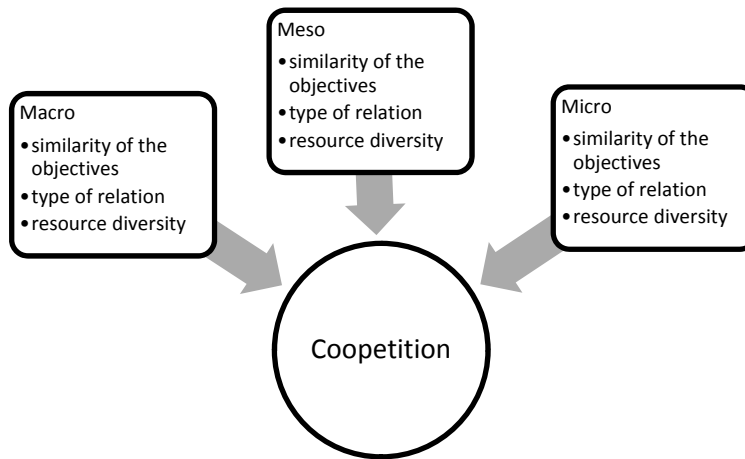
firm networks. Other studies show that network resources are particularly important to a firm's acquisition of competitive capabilities (McEvily and Zaheer, 1999) because network resources offer valuable information about new business opportunities (Gulati, Singh, 1999). Regarding the resource-benefit of the cooperative relationship, the main aspect discussed by some researchers is, that it is best if the variety of resources available in the organisations environment is use together in order to survive the demanding and changing environment (Tsai, Fang, and Lin, 2005). Cooperation between firms occurs when they present economic benefits for each other rather than the result of the alliance meaning that costs associated with acquiring resources in the market or developing them internally are incurred (Williamson, 1991). Typically, the type of association in collaborations is tilted towards partial interdependence, in which the firm uses cooperative arrangements with other firms to attain its objectives.

Heterogeneity in resources can foster cooperative relationships, because unique and complementary resources can be advantageous both for co-operation and competition.

In a typical network, three types of resource flows take place between partners – information flows, asset flows, and status flows – and firms' ability to access and use network resources varies depending on their structural position in the network (Gnyawali and Madhavan, 2001).

3. Research framework and methodology

The study assumes three levels analysis of the types of relationship. The first level is a macro level between universities and the environment, mainly business. The second level is between universities and the third is level is between university departments, inside organizations. On all these levels, factors that may affect the increase in the quality of the relationships will be examined. The research assumes that these factors are: the degree of similarity of the objectives, the type of relationship binding the main participants and the degree of resource diversity on both/all sides.

Figure 1. Conceptual model

In particular, at the value of the macro level relies on communication and information flow as well as generating inter-sector knowledge and the transference of this information. This results in the possibility of accumulating knowledge. The value in this case is obtained by reducing aggressive and suboptimal rent-seeking, and by agreeing on sharing both benefits and funds. Relationships of the university and contextual surrounding strengthens their competitiveness, but also affects the synergy between the competitive parties (Bizzi and Langley, 2012).

Therefore, we ask the following question:

Q1: Does a higher level of convergent interests and goals between the university and business environment lead to a higher level of cooperation?

Q2: Does the sense of cooperation between the university and business environment dominate in terms of their relationship?

Q3: Will heterogeneity in resources between the university and business environment lead to cooperation?

In our opinion, answering these questions helps identify the types of relationships between universities and business organizations. The chosen way to identify this type of relationship enables us to determine whether in this case, the relationship between these entities is simultaneous competition and cooperation, or if there is only cooperation between them.

At the meso level, the value can be seen in the results of intra-sector creation and transfer of new knowledge, deep communication and the flow of information as well as joint action on co-development.

Coopetition of many differing varieties of universities increases their competitiveness and enhances the diffusion of knowledge, and in the long run, translates into benefits for all cooperative sides and a rise in efficiency rise throughout the entire education sector.

Therefore, we ask the following question:

Q4: Will higher levels of convergent interest and goal between universities lead to higher level of cooperation?

Q5: Will higher levels of cooperation between universities lead to increased level development throughout the education sector (meso coopetition level)?

Q6: Will heterogeneity in resources between universities lead to coopetition (equal competition and collaboration)

At the micro level, where value is added through an extensive system of communication and information flow, and through the creation and transfer of new knowledge within an organization, the economic benefits (economic value) are obtained through greater involvement of all stakeholders of the organization (Enz and Lambert, 2012; Bizzi and Langley, 2012).

Cooperation between many different departments and units can influence the rise in their level of effectiveness, In order to answer this we must first look at the following questions:

Q7: Will higher levels of convergent interest and goals between departments and researchers lead to higher level of cooperation between departments (cooperation – dominated)?

Q8: Will higher levels of competition between departments and researchers lead to higher levels of faculty (school) effectiveness?

Q9: Will heterogeneity in resources between departments and researchers lead to coopetition (equal competition and collaboration)?

Referring to resource diversity we follow Bengtsson and Kock thesis: “Heterogeneity in resources can foster cooperative relationships, as unique resources can be advantageous both for cooperation and competition” (2000, p. 421).

Finding the complex results need in order to answer these questions, using the available data and information, is almost impossible. The main obstacle is the lack of possibilities in comparing in similar operating conditions. Practically

speaking, in order to fully answer these questions a sample of mature sectors in established Polish universities would have to be available for research. Such a situation will more than likely only be possible in about 10 years as currently the higher education sector and in particular the economics department is in a process of growth and development, triggered by implementing new changes in how it functions in Poland.

4. Sample characteristics and methods

As of 1 March 2014 in Poland there were 5 public universities and 38 faculties of economics at other public universities (16 at universities, 18 at polytechnics and 4 at the agricultural colleges) operating. In addition, nearly 150 private higher education institutions educating in the field of economics and 25 public vocational schools educating at the first cycle of studied, mainly in the field of management were operating. The largest and most important “players” in the market include: University of Economics in Katowice, Cracow University of Economics, Poznan University of Economics, Warsaw School of Economics, Wroclaw University of Economics.

As of 30 November 2010, 59,184 students were enrolled in these five universities. A total of 415,559 – students were studying in the field of economic and administrative sciences at public universities in Poland. This means ca. 2/3 of all students in Poland (the total of 1,841,251) were studying (CSO, 2011). Other statistics which show the study of economics in relation to the rest of the higher education sector are unable to be used for analysis owing to the specific nature of the study of economic. These specific features are: a very low level of expenditure needed for educating an individual student in comparison to other types of colleges, a high percentage of part-time students – nearly 50% and a low statistical citation rate in the field of social sciences. All these factors make the study of economic very hermetic in a sense.

The five most important business schools in Poland are representative for the Polish higher education. These universities have a decisive influence on the level of both economics and management and the quality of those graduating with economics in Poland. They will also be subject for exploration in the context of the stated hypotheses.

There are 23 departments in five business colleges in Poland. A further 38 economic departments exist in other private higher education institutions. In total, in public universities there are 51 departments grouping ca 200 chairs,

bringing nearly 2,500 researchers and PhD students. These employees work independently conducting research, which may result in some 5,000 scientific articles, monographs and chapters in books per year.

The HEI sector, in particular the economic department in Poland is a highly competitive sector. It is difficult for a natural cooperation. This follows from the fact that virtually all of its revenues comes from teaching activities (the subsidy and tuition fees from non-full-time students). Therefore, each student recruited actually means more revenue. And every school is a real competitor. The number of students ranges from 10 thousand at Warsaw School of Economics to 21 thousand at Cracow University of Economics (2010). This illustrates the differences in the activity of recruiting departments.

Data used in the work was obtained from different research methods. They were primarily unstructured interviews with the staff of the analysed business schools, as well as primary data from different reports and financial statements from analysed business schools. The different data was then compared in order to eliminate factual inaccuracies. The study used comparative analysis and presentation of the usual techniques of quantitative data.

5. Macro level analysis

The macro level concerns the analysis of the relationships between universities and the business environment. This relationship is still in its infancy and is mainly limited to the use of resources offered by both partners in teaching activities. A high degree of convergent interest and goals has to be dealt with. In most Western universities, this type of relation is also one of the most common. Analysis of five universities' and careers offices' websites selected for the study show that these universities are connected to about 20 global companies which offer their student work programs.

The second area of cooperation is in applied research, undertaken at the request of individual companies. The situation of analysed universities differs substantially from other universities. In case of economic HEIs the competition for research grants is great and completely differs from the competition for grants from departments at other colleges. Apart from colleges, global consulting companies, small and medium enterprises advising in the area of finances, accounting, management, logistics, etc. and of course companies' own developmental departments seek to receive contracts from the business domain.

A report prepared by the staff of the University of Economics in Katowice emphasizes these facts and indicates that companies "are mostly not interested in the implementation of joint research (66% negative responses), nor in participating in the process of education (65%) or providing university students and graduates with placements (55%). They are moderately (30-40% of responses) interested in consulting, expertise and training conducted for their benefit by university staff" (Model współpracy uczelni..., 2010).

A rapid development of consultancy conducted by university research staff outside the formal framework of the university is a significant specificity of Polish economic HEIs. Most research staff working for business colleges is or will be also working in a business or as a business consultant. This results from the specificity of teaching and research activity, as well as from an economic necessity caused by the low rate of pay for salaries, and competitive salaries in the private consulting sector. Such connections unquestionably improve the quality of research and teaching processes.

Previous studies show the positive impact of better coordination and increased diversity of resources for the cooperating parties (Garcia and Velasco, 2002). Cooperation also means an access to external knowledge (Spence, Coles, and Harris, 2001) and coordination of organizational learning, particularly through an access to the partner's core competencies (Bengtsson and Kock 2000). From a strategic point of view the cooperation with competitors gives the opportunity to be more flexible and more responsive to the environment. Cooperation also has potential costs, such as losing control of key activities, information and resources (Håkanson and Ford, 2002).

Similar challenges are faced with regards to relationships between colleges and business companies. The recruitment activity of global businesses is conducted virtually in all business colleges in Poland and is another example of cooperation, especially as a few from these global businesses have own colleges located outside Poland. It is also interesting to look at those companies whose business and capabilities prove to be a useful resource for the educational establishment they have a relationship with. The clearest example of this can be seen when looking at financial pulling power of both partners. The business is a party in possession of a financial surplus. According to research commissioned by EandY in 2008, Research and Development activities in Poland take place mainly in the public sector. 60% of the expenditure on Research and Development was financed by the state, while in the EU it was 40%, and in case of OECD countries – 34% (OECD, 2008; Wolszczak-Derlacz and Parteka, 2008).

Universities in Poland have reduced financial resources. An interesting example of cooperation can be seen in research where scientists who have knowledge and skills that the company's staff do not possess, benefit from the knowledge of these companies which is often stored in the form of databases, specific knowledge and secret knowledge. This is particularly true of research in the area of macro-economics and finance. Unfortunately, such forms of cooperation in Poland are still rare. Such relationship always benefits and costs both parties. Whilst there are many positive examples, it is also possible to find a lot of negative attempts to use "the competition and cooperation". Many companies use their position of power to forcing universities which are in a disadvantage position to take certain actions, such as forcing a university to place their funds on developing practices and departments which focus on the needs and practices of that particular company.

The observations carried out in five business universities after the reforms present a very high willingness to change; there is an annual double-digit rise in the share of the external research funding and a growing participation in the teaching process of business specialists.

The identification of the types of relationships at the macro-level seems problematic, since the research activity outside the university cannot be a measure of cooperation between universities and organizations from the business environment. It is because the activity in this field indicates the relationship of cooperation.

6. Meso level analysis

The area of research activities is becoming more competitive. Limited budgetary resources are being divided by the National Science Centre according to a criteria, which is based on multiple teams of researchers who existing in competition with one another. Though there are funding bodies which, favour research carried out jointly by several centres, however they are in the minority in Polish economical schools and almost seem like a symbolic gesture of cooperation rather than anything else. In Poland, research is customarily conducted individually, in contrast to other Western countries, where most research is collaborative. The activities of five major business schools give a few examples of cooperation, such as: joint research conferences, and textbooks and scholarly monographs written by research teams.

The lack of joint research, as well as the small number of individual research programs, is the result of the fact that researchers are overloaded with

teaching work. This is particularly evident in the economic universities, which are oriented towards financing their activities with tuition fees. This is confirmed by the previously quoted evidence of studies carried out by EandY. A negative correlation between the teaching burden and research productivity of the staff has been observed.

The conclusion is that research and teaching are in fact more competitive, than complementary (Wolszczak-Derlacz and Parteka, 2008).

7. Micro level analysis

In conditions when autarky, but also maintaining high competitiveness is ineffective, a partnership can turn out to be the success factor between members of interacting organizations. According to P. Bourdieu, social capital, which came into existence as a result of having durable networks of relations, is a collection of resources supported by a mutual acquaintance and recognition, and participation in such an organized network provides each of its members support in the form of resources – including relational – which is owned by the whole group (Bourdieu, 1985). In this regard, each member of the network becomes a kind of node, the agent making their own relational resources available to other members of network. In this way an existing multi-directional plain of contact enhances the possibilities of the partnership, and each of the entities involved are a potential node, enabling the further expansion of the network. Anything which connects with other operators of within the same environment, regardless of their position and the nature of the relationship may become a node.

Collaborating teams are most often grouped around independent researchers having considerable research achievements and/or academic position, and most often solve research problems from narrow research sub disciplines. More and more of these horizontal structures can be noticed among young staff working mainly in a virtual environment. In the future, there will be more such examples. Rules for financing research projects have impact on that. Both the financial resources coming from the government and the European Union prefer teams composed of researchers from different backgrounds. It is also possible to find examples of excessive competition (rat race) that blocks the creation of systems of cooperation. It is a syndrome of generation Y.

Competition leads to the department's development measured in: the number of research activities carried out, degrees obtained and the quality of the teaching process and position in the market. Unfortunately, in the majority of

Polish economic universities two examples of activities can be observed. The first is limiting the faculties and departments ability to collaborate and pursue strategies of independence (autarky). Understanding the simple rules of synergy is often difficult. Increased ability of implementing the principle of synergy may result from of the competition between researchers for research grants. Analysis of applications submitted to the National Science Centre; show a dynamically growing research activity in academic staff. Also, activities within a network of contacts may surprisingly increase such activities.

In practice, researchers, not only the Polish ones, have very narrow specializations. Such a solution should therefore contribute to linking diverse knowledge and skills while maintaining the possibility of competing for other resources. Examples of such processes can be observed in research and teaching. They are: joint research projects, faculties and teaching specialties led through different departments, joint scientific conferences, a voluntary association of units in the form of institutes, and cyclical administering of the departments' affairs. However, the limited scope of such solutions, results from the general low financing of science in Poland, which has already been pointed out.

Conclusions, recommendations, limitations

The aim of cognitive research is to formulate applications of testing the effectiveness of types of relationship at different levels of analysis. Being able to carry out examinations which go beyond the formal boundaries of an organization is especially valuable. Showing possible means of exploiting cooperation benefits and costs from the level meso and macro to the level of the micro organization is another conclusion of these examinations. The greatest difficulty is in proving that the benefits of such collaborations between different parties are in fact beneficial for all and that the sum of the whole is greater than its parts.

Changes in the criteria for assessing the effectiveness of higher education, which are now moving in the direction of those criteria used in other Western universities, will foster the growth of cooperation in this regard. Apart from rare examples of collaboration in the form of joint conferences, incidental joint research projects and attempts to implement network possibilities, so as to exchange knowledge, cooperation is practically non-existent. The lowest level of cooperation exists at the micro level. Here too, it is possible to take note of only a few examples of institutional cooperation. Many different forms of cooperation occur at the level of departments and individual employees. However, there exist

the benefits which are offered by relationship networks between researchers and educators, though these exist at a personal/ individual level rather than owing to a formal contractual agreement. To some extent future research approach should be oriented to the network level. Studying co-competition at the network level and maybe the articulation of different levels within the network is good perspective to extent our understanding of co-competition in higher education sector.

Co-location, cluster formation, international and national networking, sharing of infrastructure, co-investment in infrastructure and research, are critical for collaboration.

We recognize some limitations of the study, mainly due to the methodology adopted and context as well. This study addresses a specific context. Due to this there is a need for generalization of research finding to allow for further in depth research

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