COOPETITION AND COOPERATION AS DETERMINANTS OF RELATIONAL CAPABILITIES OF COMPANIES IN ELECTRONIC TRADE AND SERVICES SECTOR (BASED ON THE EXAMPLE OF THE PODLASKIE PROVINCE)

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Abstract
The aim of this article is to show the specificity and scope of relational capabilities of e-commerce and e-services companies. Firms located in the Podlaskie Province are used as an example. To achieve the purpose an example of relationships which arise in the process of the creation of cooperative and coopetitive relationships was used. The conclusions were supported by the results of quantitative and qualitative research conducted among e-commerce and e-services companies in the Podlaskie Province, contained in the report “Starters of the Podlaskie Province economy. The sector of electronic commerce and services”. The research was conducted by the IBiA VIVADE sp. z o. o. in 2012 by order of the Provincial Labour Office in Białystok. The authors of this paper participated in the implementation and analysis of research results. (Widelska, Dębkowska, at. Al, 2012).

Key words: coopetition, cooperation, relational capabilities, electronic trade and service sector

1. INTRODUCTION

The universality of e-commerce and e-services becomes an inseparable symptom of the contemporary socio-economic development. The Internet is currently not only a place to make purchase–sales transactions, but also a space to build relationships among stakeholders. Besides, it is an essential tool for communication of a company with the environment.

E-services are services which are provided via the Internet and are automated (may require little human intervention) and remote. An e-service is distinguished from a service in the traditional sense by the lack of human intervention on the other side and its remote provision (Flis, et al, 2012). Electronic commerce (e-commerce, e-trade) should be understood as the transactions carried out in the network, based on the IP protocol. Within such an exchange, goods and services are ordered by the network, but the payment and the final delivery of the ordered goods or services can be implemented outside the network. E-commerce refers to transactions between the companies with individuals, government institutions and other private and public organizations. Orders received by telephone, fax or e-mail messages are not a part of e-commerce.

The aim of this article is to show the specificity and scope of relational capabilities of e-commerce and e-services companies. Firms located in the Podlaskie Province are used as an example. To achieve the purpose an example of relationships which arise in the process of the creation of cooperative and coopetitive relationships was used. The conclusions were supported by the results of quantitative and qualitative research conducted among e-commerce and e-services companies in the Podlaskie Province, contained in the report “Starters of the Podlaskie Province economy. The sector of electronic commerce and services”. The research was conducted by the IBiA VIVADE sp. z o. o. in 2012 by order of the Provincial Labour Office in Białystok. The authors of this paper participated in the implementation and analysis of research results. (Widelska, Dębkowska, at. Al, 2012)
The main goal of the study was to identify the electronic trade and services sector as an area of growth and innovation of the Podlaskie Province as well as to indicate and analyze the sector as an area in which the global economy has great potential for development, and in the Podlaskie Province is not present, or is present in an embryonic form. Specific objectives were focused on: finding the main determinants and barriers to development occurring in the field of electronic commerce and services, presenting forecasts for the future of development of trade and electronic services in the Podlaskie Province, taking into account the risks and opportunities for development, providing objective and comprehensive information necessary for enterprises for strategic planning and determining their competitive position, providing information on the state and structure of employment and wages in the sector. The quantitative study has covered 60 companies belonging to the section: C, F, G, H, I, J, K, L (PKD [Polish Classification of Activity] 2007), for which the activities in electronic commerce and services are primary or secondary activity. This study was treated as a survey. A surveyed sample should not be regarded as a representative sample, because it was neither large enough nor random. The selection of items for a sample took place in an intentional manner. The results were not related to the population and static inference methods are not applied, which requires a random sample. This approach resulted primarily from the inability to determine the general population. The information obtained was referred in each case to a sample of companies. The study was performed using the CAWI technique using a questionnaire on a sample of 60 entities which declared operating in the e-commerce or e-services sector. More than two thirds of respondents were entities of a sub-section of e-commerce (mainly on-line shops). The remainders were companies declaring the provision of electronic services.

In the implementation of qualitative research there were used the following methods: a focus groups interview (FGI) and 10 in-depth interviews (IDIs). The panel was conducted among 10 representatives of the electronic trade and services sector. The purpose of the IDIs was to identify good practices in the development of companies of the electronic trade and services sector.

2. THE ESSENCE OF RELATIONAL CAPABILITIES OF A COMPANY

Changing market conditions, related primarily to the tightening of the competition for customers, force strengthening the relational sphere by enterprises. The relational sphere determines the extent of interactions with key groups of stakeholders. Particularly important relationships become the ones with external stakeholders: customers, cooperators and even competitors. From the point of view of a company, entering into this type of interaction is a key determinant of the strategy for an organization - defines the direction of future operations and decides about a current position of the company in the market or its future position there. In this context, building relationships takes on a broader meaning. Currently in management sciences a category of enterprise relational capabilities is spreading. They are defined as the ability to interact of a particular company with other entities in the environment, allowing access to external knowledge and accelerating its transfer. Relational capabilities refer to the sum of the relationships of the company with entities in the environment, rather than to a single relationship between two organizations. It belongs also to the category of dynamic capabilities, the essence of which is continuous learning and improvement, in order to adapt to changing environmental conditions. (Ciszewska-Mlinaric, Mlinaric, Obłój, 2012) The three other conceptual categories are closely related to the relational capabilities of the enterprise, i.e. business network, relational competence and relational capital.

Business network is a collection of long-term relationships (relations) formal and informal (direct and indirect) that occur between two or more entities. (Ratajczak-Mrozek, 2010) Currently, the company becomes a part of a specific business structure under which specific relationships and interactions are created. The success of the company depends on the intensity and character of relationships created within the structure. Moreover, the company deprived of the opportunity to build relationships generated within the network is not able to achieve the organization's objectives.

Relational competence is defined as the willingness and ability to cooperate. (Czakon, 2008) It means the use of knowledge, abilities and attitudes in the sphere of cooperation. It consists of direct and
personal connections of employees and managers with stakeholders based on the ability to cooperate, core competencies, propensity to trust and credibility. (Danielak, 2013) Relational competence is dependent on the level of interpersonal skills of managers and employees of the organization. It is considered the main factor of the success of the company and ultimately influences the creation of competitive advantage. (Carter, Gray, 2007)

Relational capital is the result of interdependence and interaction between entities tied by relationships. (Danielak, 2012) As the J. Kay indicates “a company is defined by its contracts and relationships. The added value is created by the ability to put together these contracts and relationships appropriately, so the quality and distinctive nature of these contracts is conducive to adding value. This distinctive character is as important as their quality”. (Kay, 1996) Building lasting relationships, which is essential from the point of view of the creation of relational capital, also requires that they are based on mutual accountability. The ability to create relations between enterprises with the environment is considered to be its core competences and can bring to the company a number of advantages, among which should be mentioned: (Mendryk, 2007)

- the possibility to increase the probability of approval for business operations,
- strengthening the positive image of the company in the market,
- the creation of a solid basis for building a high reputation, which is reflected in financial benefits (increased sales, profit)
- the provision of the foundation for the creation of unique value-generating resources.

An important factor in determining the scope and type of relationship is the specificity of the sector, understood as a group of companies producing identical products (services) or substitutes, which meet the same needs. Within each sector, there is internal competition for the customer or economic benefits arising from access to certain sources of supplies. The requirements of target markets force companies operating in the sector to take innovative actions and create distinctive competences. The situation in the sector may increase or limit the willingness of participants of the sector to act alone or based on mutual cooperation also with market rivals.

3. THE SPECIFICITY OF COMPANIES OF E-TRADE AND E-SERVICES SECTOR IN THE PODLASKIE PROVINCE

The characteristics of the sector of e-commerce and e-services in the Podlaskie Province can be made by analysis of selected indicators, such as:

- The number of enterprises using the Internet at work,
- The level of the use of IT in enterprises,
- The structure of the enterprise by the speed of the Internet connections,
- The level of purchases made by the company through the Internet,
- The percentage of employees working in enterprises that use computers at work,
- The number of enterprises purchasing via the Internet,
- The number of websites owned by the company,
- The percentage of companies selling online.

Referring to the number of enterprises using the Internet at work, in 2011, 88,000 out of the 92,000 non-financial firms in Poland used the computer at work, most of them with an access to the Internet. In this respect, the Podlaskie Province performs better, because 1,990 out of the 2,051 businesses are computerized, which is above average for Poland (see Table 1).
Table 1. The use of ICT in Poland and the Podlaskie Province in 2007 and 2011

<table>
<thead>
<tr>
<th></th>
<th>Poland</th>
<th>2007</th>
<th>2011</th>
<th>Podlaskie Province</th>
</tr>
</thead>
<tbody>
<tr>
<td>The percentage of enterprises using computers</td>
<td>95.2</td>
<td>95.7</td>
<td>90.1</td>
<td>97.0</td>
</tr>
<tr>
<td>The percentage of enterprises using computers with access to the Internet</td>
<td>91.7</td>
<td>93.9</td>
<td>85.5</td>
<td>95.6</td>
</tr>
<tr>
<td>The percentage of employees in enterprises and using computers</td>
<td>34.7</td>
<td>42.3</td>
<td>27.6</td>
<td>37.1</td>
</tr>
<tr>
<td>The percentage of employees in enterprises and using computers with access to the Internet</td>
<td>26.1</td>
<td>35.2</td>
<td>20.8</td>
<td>30.6</td>
</tr>
</tbody>
</table>

Source: (Widelska, Dębkowska, at al., 2012)

In the years 2007-2011 a significant improvement in the equipment in computers in companies of the Podlaskie Province was made. Also the quality of the Internet connections does not differ from the national average; whereas the change in the structure of employees using a computer at work (including with an access to the Internet) is noticeable. Due to this fact the Podlasie Province was not and is still not equal to the national average, which is associated with a large share of agricultural activity in the region (see Figure 1).

![Fig.1. The structure of enterprises by the speed of Internet connections](image)

The 13.7% of companies in the Podlaskie Province made purchases over the Internet. This is not a satisfactory indicator. In 2011, 16.4% of Polish companies made purchases over the Internet. For most of them, the share of orders placed electronically did not exceed 10% of the total value of purchases. The highest percentage of orders placed electronically (44.5%) were among the companies employing more than 250 people.

The Podlaskie Province compares unfavourably with the rest of the country in terms of the number of training institutions offering computer courses. Out of the 2,255 national training institutions registered in the Register of Training Institutions only 60 are located in the Podlaskie Province. (E-Podlaskie – kierunki..., 2012)
Referring to the communication role of the Internet, it is important to refer to the number of companies that have their own websites. Web presence is becoming an essential tool for the identification of the company in the market. Over the last five years not only changes in owning websites by enterprises could be observed, but mostly in their use. As shown by the CSO data, the percentage of companies using a website to present the offer and price list of products in the Podlaskie Province has doubled (see Table 2).

| Table 2. The use of website by the companies in Poland and the Podlaskie Province in 2007 and 2011 |
|---------------------------------|---------------|---------------|
| Poland                         | Podlaskie Province |
| The percentage of companies with a website | 53.2 | 64.7 | 50.0 | 63.9 |
| The percentage of companies with a website for an easy access to product catalogues or price lists | 28.9 | 46.9 | 26.2 | 49.9 |
| The percentage of companies with a website to enable ordering or booking online | 11.6 | 19.1 |

Source: (Widelska, Dębkowska, at al., 2012)

The percentage of companies selling online for over 5 years has quadrupled, but still more than six times as much as increased sales revenues of companies conducted sales over the Internet. The Podlaskie Province against Poland looks satisfactory (see Table 3).

| Table 3. E-sales companies in Poland and the Podlaskie Province in 2006 and 2010 |
|---------------------------------|---------------|---------------|
| Poland                         | Podlaskie Province |
| 2006   | 2010 | 2006 | 2010 |
| Percentage of companies engaged in e-sales | 2.5 | 10.0 | 2.6 | 11.9 |
| The total net value of sales over the Internet (million PLN) | 52572 | 324781 | 947 | 3223 |
| The percentage of net sales revenues obtained over the Internet | 3.1 | 11.0 | 3.0 | 8.1 |

Source: (Widelska, Dębkowska, at al., 2012)

Referring to the economic situation of companies of the analyzed sector in the Podlaskie Province, based on the results of quantitative studies, most of them evaluate their economic condition as average. According to 32% of the entities participating in the survey, the condition of companies in the examined sector is good, and only 10% of respondents rated the factor studied as very good. In the process of qualitative research additional determinants of the economic condition of the companies of the analyzed sector were distinguished. According to the entrepreneurs, the situation of enterprises of e-services sector in the Podlaskie Province is largely determined by the economic specificity of the region. The most important reasons in this regard were the following:

- the structure by entities of the local economy based on small enterprises, expressing a limited demand for advanced electronic services,
an unsatisfactory level of technical infrastructure,
− a low level of innovation of companies in the Podlaskie Province,
− the traditional structure of the local economy based on traditional industries, limiting the demand for e-services,
− an unsatisfactory level of promotion of the region, based mainly on cultural and natural values,
− an unsatisfactory level of competitiveness of companies in the Podlaskie Province,
− unused potential of the Podlaskie Province as a commercial region,
− a low level of intellectual capital in the region, and thus lack of specialists in the field of specialized electronic services.

The situation of the e-commerce and e-services sector in the Podlaskie Province is determined by the specificity of the region in which these companies operate. The Podlaskie Province is associated as a region with a low level of absorption of innovations. Expenditures on research and development in the province in 2010 accounted only for 0.26% of the outlays in the country. The expenditures on research and development per capita are among the lowest in Poland (Dębkowska, Jurczuk, at. Al., 2011). However, the assessment of the economic situation made by the companies participating in the survey shows that the analyzed industry can be considered as a growing and developing one, affecting the change in the image of the Podlaskie Province.

4. COOPETITION AND COOPERATION AND RELATIONAL CAPABILITIES OF COMPANIES OF E-TRADE AND E-SERVICES SECTOR IN THE PODLASKIE PROVINCE

The dynamic market environment and a constant struggle for the customer causes that companies are increasingly forced to seek alternative methods of cooperation. This means that in certain market situations the same companies operating in the market can be both cooperators and competitors for each other. This form of created relations is defined as coopetition. (Figiel, Kuberska, Kufel, 2011) It is based on a combination of contradictory or even mutually exclusive relationships, if we see them in the traditional manner. (Walley, 2007; Romaniuk, 2012). “Non-traditional” approach to building relationships with competitors consists in a parallel use of the model of cooperation and competition against the same company in the sector providing a similar range of services. The creation of coopetitive relationships is defined as a hybrid behavior due to the simultaneous combining cooperation and competition. (Crisan, 2013) Although coopetition itself seems to be a risky form of cooperation, the relational capabilities, which are its consequence are conducive to exchange of knowledge and thus innovation. (Ritala, Hurmelinna-Laukken, 2013) Cooperation is defined as the joint execution of tasks, and similarly as competition is one of strategies that allow to build a sustainable competitive advantage. Relational capabilities within the cooperation allow to create interdependencies and connections within which cooperation with other business entities develops. (Nowak, 2012) Through cooperative relationships, companies can gain the following: (Ciszewska-Mlinaric, Mlinaric, Oblój, 2011)

− access to resources and markets,
− significant benefits associated with the extension of the knowledge base and international growth,
− a reduction in the costs of coordination and production, an increase in flexibility and responsiveness,
− a higher level of efficiency.

As the results of quantitative and qualitative research show, cooperative and coopetitive capabilities of Podlaskie enterprises in the sector of e-commerce and e-services are limited. Analyzing relationships
from a competition point of view, it should be emphasized that the vast majority of the surveyed companies (87%) perceive it as a strong or very strong (see Figure 2).

![Figure 2: Competition in the sector in the opinion of respondents (n = 60)](image)

*Source: (Widelska, Dębkowska, et al., 2012)*

The analysis of global conditions of the sector shows that in the domestic and international markets the basis to compete for companies in the sector of electronic trade and services are their distinctive competences and a high standard of services provided. In such conditions, companies of the Podlaskie Province, often small, are frequently forced to compete for customers with large companies and corporations, including international ones. As it is clear from qualitative research, in the current market conditions the companies of the Podlaskie Province of the surveyed sector can be competitive, primarily due to lower operating costs. This gives them the opportunity to compete on price, but only while maintaining a high standard of services offered. According to the entrepreneurs participating in the study, a high quality of services is a factor that has the greatest impact on effective competition in the market. In their opinion, the high quality of customer service is almost as important. As the results of the survey show, the time of performing services is also relevant to the issue of competitiveness. An effective system of promotion, a wide range of services, high innovation, human resources, and lower prices turned out to be factors which had a weaker impact.

![Figure 3: Membership in clusters and the opinion of respondents on this form of integration](image)

*a company belongs to a cluster and has a high opinion on this form of integration
*a company belongs to a cluster, but its membership does not have an impact of its functioning
*a company does not belong to a cluster, but it is interested in such membership
*a company does not belong to a cluster, but it is not interested in such membership
*neither agree or disagree*

*Fig. 3. Membership in clusters and the opinion of respondents on this form of integration*  
*Source: own elaboration (n=60).*
The integration and consolidation processes are considered to be essential premises to enhance coopetitive and cooperative capabilities in the context of specific structures of companies. Cluster initiatives are one of the manifestations of this type of relationships. Participation in them can foster the exchange of experiences and increase the accessibility of specific target markets. Companies present in the structure of the cluster receive agglomeration advantages that allow them access to specific resources, expertise and specialized services. Cooperation within the cluster initiative provides an opportunity to create an efficient chain of value and the use of economies of scale through joint marketing and implementation of joint research projects with research and development units. (Dzierżanowski, Rybacka, Szultka, 2011) According to the research, only 5% of the surveyed companies of the e-services and e-commerce sector declare their membership of the cluster and at the same time highly appreciate this form of integration. For 30% of respondents, their contribution to a cluster initiative has no effect on increasing competitiveness. 13% of those entities participating in the survey is not a member of any cluster initiative, but is interested in such a cooperation. The research results confirm that the companies of the sector recognize the strong dynamics of the environment, manifested by an increase in consumer requirements, both in B2B and B2C relationships. Companies participating in the survey are strongly focused on increasing the quality of services. Such are the conclusions of quantitative research. The high quality of services is a factor which in the opinion of the enterprises of the sector has the greatest impact on effective competition in the market (the impact of this factor entrepreneurs marked 4.5, where 1 means very weak impact of a specific factor and 5 very high impact). The high quality of customer service is almost as important in their opinion. Difficult market conditions, including unsatisfactory potential of the region (analyzed in the context of demand for products of electronic commerce and services) and the predominance of small and medium-sized enterprises, should contribute to strengthening cooperative and coopetitive capabilities. However, this is not happening in the case of the electronic trade and services companies in the Podlaskie Province. Companies of the analyzed sector perceive the issue of building relationships rather traditionally. Competition is more a form of rivalry based on the offer than competition for the customer. Cooperation and coopetition force the creation of joint ventures, taking into account a broader time perspective. The creation of relational capabilities, including given forms of cooperation, is a process, but also a certain ability or distinctive competence. On the other hand, a turbulent environment can be a stimulating factor, and not limiting the relational capabilities of companies of the analyzed sector. The development of enterprises in the territorial aspect, but also an offer will require the exchange of knowledge and experience. This process forces an increase in the level of relational capabilities, focused on creating long-term strategies, but within the structure rather than individual entities. Cooperation and coopetition may translate to the strengthening soft skills, such as cooperative skills, strengthening interpersonal relationships, but also hard competences such as offer development or new know how development.

CONCLUSIONS
As the results of quantitative and qualitative research show, cooperative and coopetitive capabilities of Podlaskie enterprises in the sector of e-commerce and e-services are limited. Analyzing relationships from a competition point of view, it should be emphasized that the vast majority of the surveyed companies (87%) perceive it as a strong or very strong. Difficult market conditions, including unsatisfactory potential of the region (analyzed in the context of demand for products of electronic commerce and services) and the predominance of small and medium-sized enterprises, should contribute to strengthening cooperative and coopetitive capabilities. However, this is not happening in the case of the electronic trade and services companies in the Podlaskie Province. Companies of the analyzed sector perceive the issue of building relationships rather traditionally. Competition is more a form of rivalry based on the offer than competition for the customer. Cooperation and coopetition force the creation of joint ventures, taking into account a broader time perspective.
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