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## THE ROLE OF CLUSTERS IN THE PROCESS OF INTERNATIONALISATION OF SME SECTOR ENTERPRICES

**A b s t r a c t:** The purpose of this article is to present the, existing in the literature, core concepts of cluster functioning. The author focuses on the analysis of the bunches' influence on the process of enhancing the enterprises' competitiveness and on the internalisation process stimulated by this kind of agreements. The theoretical aspect of the work has been broadened by the author analysis of Polish clusters which have gained the position on the international market. This article has been created based on the available literature and the data from Polish Agency for Enterprise Development.

**K e y w o r d s:** clusters, internationalisation, small and medium sized enterprises.

### INTRODUCTION

Dynamic changes which are taking place in the global economy determine the necessity for the enterprises to constantly adapt to the new market conditions. In effect, companies' effective adjustment to the changing economic environment has become the indicator of their survival in the increasingly more demanding business environment. The need to systematically raise one's competitiveness concerns both global companies and the subjects possessing smaller economic potential. For most internationalisation is one of the crucial development moments which has a significant influence on the growth of the market value. The issue of small and medium subjects' internationalisation is particularly interesting as it is this group of companies that faces the biggest

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market barriers in the mentioned process. Many experts search the solution of these problems by joining the enterprises into bunches (clusters) thanks to which local companies can expand internationally.

The purpose of this article is to discuss the clusters' influence on the raising of the competitiveness of the SME sector enterprises and to stimulate the internationalisation process by that type of agreements. The paper has overview character. Literature analysis methods and Polish Agency for Enterprise Development's secondary data analysis have been used in the article.

## 1. THE CORE OF CLUSTERS' FUNCTIONING AND THE PREMISES OF THEIR CREATION

The determinant of the contemporary economy is the pursuit of existing in it subjects of systematic development and the constant raising of one's market potential. In effect, enterprises must head for the relentless increase of their competitiveness in order to oppose the economic pressure imposed by other market participants. Competitiveness phenomenon has complex character; therefore, there are many economic theories that describe it. Enterprise's competitive context - according to the author - is best expressed as: "the ability to design, make, and sell products (services) which prices, quality and other assets are more attractive than equivalent products (services) that are offered by domestic and foreign competitors" [Kisiel, 2005, p. 15]. In the age of dynamic economic changes and progressive globalisation, the forms of economic subjects' rivalry are taking more complex frames. It is directly caused by the fact that, currently, market pressure is not only applied by domestic subject but also largely by foreign competitors. This state is affecting mainly market participants, both the biggest ones and the second-class players. The natural effect of this class asymmetry is the necessity for the cooperation between the enterprises that have less potential and for the creation of groups that allow them to rival the market elite.

In the literature dedicated to this issue, one can find, among others, the concept of the creation of inter-enterprise cooperation defined by the names of competitive logic and transactional logic which can comprise the base of creating cluster initiatives.

- Competitive logic is based on building the position of cooperating enterprises by expanding the range of operations and using the effect of mutual experiences. This process is carried out by the accumulation of resources, know-how, and sells networks in the partners' ambits [Romanowska, 1997, p 65].
- Transactional logic is based on the pursuit to enhance competitiveness

by specialisations and complementarity of exploiting the cooperators' resources. In other words, each side of the agreement brings specific resources that allow to improve the value chain of the interrelated enterprises [Romanowska, 1997, p 66].

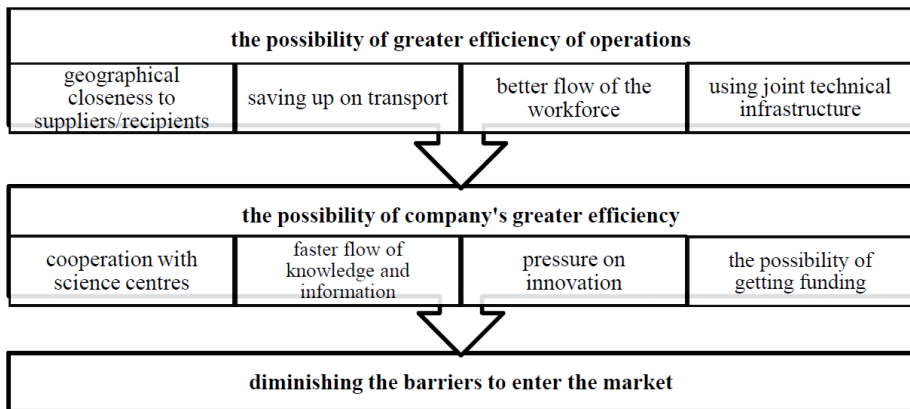
Concepts above reflect the possibilities created by the cooperation of market subjects that are apparent and well-known in the economy. Unfortunately, enterprises' alliances often have short-term and inconsistent character. In response to this, the solutions to formalise cooperation and remould it to long-lasting relation have been searched. It gave the beginning to the idea of creating clusters, that is, bunches of enterprises. One of the leading researchers of this theory was M. Porter. In his works he described clusters as: "geographic concentration of mutually related companies, specialised suppliers, service providing units, companies operating in affined fields and the institutions related to them (for example universities, standardization units and trade associations) in particular areas, competing with each other but also cooperating with each other" [Porter, 2001, p. 248]. As far as the introduced form of the inter-enterprises cooperation seems simple in its nature, the achievement of this kind of collaboration is connected to a long and complex process. For cluster initiation to be turned into a permanent agreement, it must be embedded in favourable economic and social environment. There are many theoretical schools that define in which conditions clusters can be created. Aside from the idea promoted by M. Porter, schools that can be indicated as the main currents are: Californian school, Nordic school and that of industrial districts. Their characteristics are shown in table 1.

Table 1. Selected theoretical concept of clusters' creation

<b>Theory's name</b>	<b>Factors underlying the cluster's creation and development</b>
<b>Industrial districts concept</b>	External economies + mutual trust and industrial character of operations lead to the gain of innovation.
<b>Californian school</b>	The disintegration of vertical organisation structure, the reduction of transactional costs, strong cluster's social aspect orientated on the local labour market, informal subjects' cooperation.
<b>Nordic school</b>	Innovation as a learning process - learning as a local process resulting from uncodified knowledge.
<b>Porter's conception</b>	Basing on subjects' proximity, from which emerges: better access to production factors, competitiveness, and access to recipients.

Source: [Observatory of European SMEs: Regional clusters in Europe No. 3, 2002]

As it can be seen, each of the presented definitions shows a different view on the concept of cluster's creation and functioning. However, there are connected by some common elements that may be defined as cluster's determinants, which are: "territorial subject concentration, universal character, connections corresponding to strategic correlations and social relations"[Góra, 2008, p. 314]. Factors underlying cluster's creation are causing enterprises in that structure to obtain many advantages that allow them to function in the economy more effectively. This issue does not just concern raising the companies' efficiency as a part of functioning on the global market, obtaining the competitive advantage on almost every plane meets its further implications in creating enterprise's position on the international market. Profits resulting from cluster functioning are shown in picture 1.



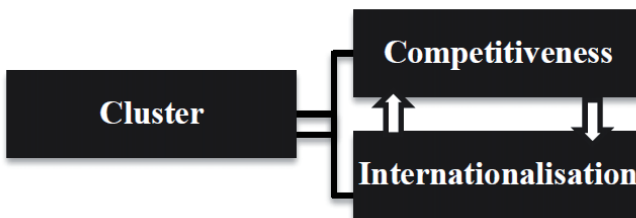
**Picture 1.** Profits resulting from enterprises' cluster functioning.  
Source: [Mikołajczyk; Kurczewska, 2008]

## 2. CLUSTERS AND THE PROCESS OF ENTERPRISES' INTERNATIONALISATIONS – THEORETICAL VIEW

The process of enterprises' internationalisation is regarded as the crucial moment of its development. However, this stage is achieved by relatively small percentage of companies due to the big barriers that are restricting that process. These restrictions can be caused both by enterprises' internal imperfections and their external environment. In that moment, a question should be asked: if cluster functioning can effectively break internationalisation barriers of subject possessing smaller market potential? According to the study of M. Gorynia and B. Jankowska [2008] it can be said that mentioned reliance exists. The concept introduced by the researchers assumes a trilateral link between enterprises' cluster functioning, competitiveness, and internationalisation.

The relation between cluster existence and raising the competitiveness

of the companies that are a part of it, besides from the already discussed aspect of subjects cooperation, results also from its internal competition. The consequence of that situation is some kind of selection inside the very bunch of companies. This means that the only remaining subjects are those that use the chances given by partner cooperation most effectively. Elimination factor of the weakest is natural aspect raising the competitiveness of the entire structure. Cluster functioning has also contributed to the raising of the competitiveness on the international scale which can give rise to enterprises' economic expansion to the new markets. On the other hand, internationalisation process allows for the raising of enterprises' competitiveness by, for example, know-how transfer, expanding production scale, or improving the quality of the produced goods. Then, the bilateral character of competitiveness and internationalisation should be highlighted [Gorynia; Jankowska, 2008, p. 105]. Discussed relation is shown in picture 2.



Picture 2. The relation between : cluster, competitiveness, and internationalisation.

Source: [Gorynia; Jankowska, 2008, p.105].

Clusters in themselves are the element that enhances the advantages created in the competitiveness - internationalisation relation and helps break barriers that those processes restrict. However, the important fact is that the majority of cluster-based enterprises are the companies from the SME sector to which classic internationalisation forms and theories simply do not apply. Those are usually created for the subject of much bigger potential and with the capital that allows them to create advanced internationalisation strategies [Gorynia; Jankowska, 2008, p. 108].

In order to fulfil the topic, the author decided to focus on the analysis of the barriers restricting the possibilities of the internationalisation of the SME sector's European enterprises. Now, the results of studies carried out due to the order from European Commission will be shown. Making this juxtaposition, the special attention was focused on the possibilities of breaking internationalisation barriers by cluster functioning.

Table 2. Internationalisation barriers of the SME sector's European enterprises

Internationalisation barriers	
Internal	External
Prices of the produced goods	The lack of capital
High internationalisation costs	The lack of public support
Quality of the produced goods	Restricted access to information
Employees' qualifications	Administration costs
Specificity of the produced goods	Legislative differences
Language barriers	Duties and other scale barriers

Source: [Internationalisation of European SMEs, 2010].

The analysis should begin with the elemental problem of the European SME, which is the price and quality of the offered goods and services. The value and specificity of the made products express the overall enterprise's efficiency. That phrase is used to express the company's ability to obtain resources and then to remould them into the goods and services offered on the market and to lift its position in regard to other subjects functioning on the market [Ujwary-Gil, 2008, p. 256]. The necessity to skillfully acquire and harness resources is vital while heading to economic internationalisation. Cluster functioning allows the fast transfer of the necessary assets between enterprises and the obtainment of a better negotiating position while acquiring them. It translates both to the growth of the functioning's flexibility of the whole structure and the reduction of production costs [Cygler, 2002, p. 149]. Mutual cooperation and know-how exchange can also contribute to the creation of innovative conceptions and technological solutions which can result in, for example, new patents or product concepts. It corresponds to the quality of the produced goods and can contribute to the building of new market trends. It is also vital in the process of raising employees' qualifications, skills transfer, management culture, or while implementing innovations into the production process.

The important problem in the internationalisation process of the enterprises possessing smaller potential is its high costs. This factor can be analysed both as a problem of enterprise's interior and as resulting from its economic environment. Enterprise cooperation - as it has been already mentioned - allows to reduce production costs. However, it often happens, that the cooperation with subject possessing bigger potential can help smaller subjects to raise into the international arena. This cooperation, aside from the *stricte* capital form, can also adopt the form of the exchange of experiences or valuable information concerning the target market [Koszarek 2011]. Restricted access to information, procedures, or law in a target country is the main factor, alongside the lack of capital and public support, that limit internationalisation. In the article, it has

been shown that clusters serve the purpose of the exchange of experiences and information and, at the same time, limit the costs connected to the research of the target capital's place.

### 3. THE EVALUATION OF POLISH CLUSTERS' INTERNATIONALISATION

The last part of the paper is devoted to the discussion of the internalisation process of Polish enterprises belonging to clusters. For that purpose the data from Polish Agency for Enterprise Development have been analysed. See table 3.

Table 3. Structure of the clusters of international range functioning in Poland

Province	Overall number of clusters	Clusters of European range	Global clusters	Number of SME in international clusters	Number of big companies in international clusters
Mazovia	35	11	6	373	12
Silesia	28	8	3	314	27
Wielkopolska	22	7	4	314	12
Podkarpacie	16	6	5	231	40
Lower Silesia	16	4	2	222	20
Malopolska	12	2	1	106	31
West Pomerania	12	9	2	580	28
Podlasie	10	3	2	186	9
Pomerania	10	2	1	156	33
Lublin	9	6	-	304	13
Swietokrzyskie	8	2	1	122	1
Lodz	8	3	1	75	43
Lubuskie	5	5	-	70	-
Kuyavian-Pomeranian	5	2	1	63	14
Opole	3	-	1	46	-
Warmia-Masuria	2	-	1	30	-
Sumary	201	70	31	3192	283

Source: own study based on the data from: *Polska Agencja Rozwoju Przedsiębiorczości*.

According to the data from Polish Agency for Enterprise Development, currently there are 201 clusters in the country. In the first quarter of 2016 there were 100 clusters of domestic or regional range and 101 clusters operating on the, at least, European level in that group. Among the clusters that have internationalised, 31 broadened their operations to the global level. It is worth noticing that the biggest bunches of those clusters (15 total) are located in Mazovia Province, Wielkopolska Province, and Podkarpacie Province [Interaktywna Mapa klastrów PARP]. Analysing the internationalisation level of Polish cluster, it can be said that the number of internationally active clusters is relatively high. What is important, the number is dynamically increasing; in the first quarter of 2015 the number of clusters operating outside Polish borders was estimated to be around 85.

The matter that requires further discussion is the evaluation of internalisation potential of the SME sector subjects. The number of economic subjects (altogether) operating in clusters of the international range is estimated to be around 3475. The majority of them are SME sector enterprises - 3192. Unfortunately, the number of companies functioning in clusters is still small and is just the minor percentage of all the companies (around 1,7 mln subjects) functioning in Poland [Raport o stanie sektora małych i średnich przedsiębiorstw w Polsce w latach 2012 -2013, 2014] Based on previously presented theoretical aspect it can be stated that clusters create favourable conditions for the internationalisation process of many enterprises having smaller market potential. It is apparent that most Polish clusters create themselves surrounded by big enterprises “drawing in” smaller ones. There are, however, proficiently functioning clusters that have entered the international operations without any help from big companies. Currently there are 47 clusters of this type in Poland. It means that effective internationalisation is possible because of cooperation, even of subjects possessing relatively small market potential. Clusters of this kind function mostly in the area of Mazovia Province (11), Silesia Province (8), Wielkopolska Province (6), and Lubuskie Province(5). Usually, those clusters owe their international success to the finding of the market niche which exploration is the effect of the cooperation between cluster participants. It also confirms the thesis that the synergy of subjects functioning within the cluster and the favourable business environment can be the indicator of competitiveness which allows to achieve international success.

## CONCLUSIONS

In the paper it has been shown that clusters are the effective solution that allows to even the economic field between the subjects functioning on the mar-



ket. It is particularly important to the companies operating on the international scale. The fact results from the unique relation that is created by the synergistic link between cluster participants. Exploring the effects of mutual cooperation allows to increase the group's competitiveness and leads to breaking through the barriers that limit most enterprises in the internationalisation process.

In the case of the Polish economy, one can talk about the dynamic development of clusters in the recent years. One can see more and more significance of those kinds of agreements for the specialist businesses which can create the vital element of the country's economic position in the future. In the paper it has also been proven that forming clusters creates chances for the SME sector enterprises to broaden their operations to the international level.

## LITERATURE

- Cyglar J., (2002) *Organizacje sieciowe jako forma współdziałania przedsiębiorstw*, [in:] Przedsiębiorstwo partnerskie, Romanowska M., Trocki M. (ed.), Warszawa.
- Gorynia M., Jankowska B., (2008) *Klasy a międzynarodowa konkurencyjność i internacjonalizacja przedsiębiorstw*, Warszawa.
- Góra J., (2008) *Model dynamiki klastra jako narzędzie badania jego możliwości adaptacyjno-rozwojowych*, [in:] Pangsy-Kania S., Piech K. (ed.) *Innowacyjność w Polsce w ujęciu regionalnym: nowe teorie, rola funduszy unijnych i klastrów*, Warszawa.
- Interaktywna Mapa klastrów PARP*, <http://www.pi.gov.pl/PARP/data/klastry/> [13.03.2016].
- Internationalisation of European SMEs*, (2010) European Union.
- Kisiel M., (2005) *Internet a konkurencyjność banków w Polsce*, Warszawa.
- Koszarek M., (2011) *Inicjatywy klastrowe: skuteczne działanie i strategiczny rozwój*, Warszawa.
- Mikołajczyk B., Kurczewska A., (2008) *Rola klastrów w podnoszeniu konkurencyjności i innowacyjności przedsiębiorstw. Przykład klastrów Japońskich* [in:] Pangsy – Kania S., Piech K. (ed.), *Innowacyjność w ujęciu regionalnym: nowe teorie, rola funduszy unijnych i klastrów*, Warszawa.
- Observatory of European SMEs: Regional clusters in Europe No. 3*, (2002) European Union, [http://ec.europa.eu/regional\\_policy/archive/innovation/pdf/library/regional\\_clusters.pdf](http://ec.europa.eu/regional_policy/archive/innovation/pdf/library/regional_clusters.pdf) [13.03.2016].
- Porter M., (2001) *Porter o konkurencji*, Warszawa.
- Raport o stanie sektora małych i średnich przedsiębiorstw w Polsce w latach 2012 -2013*, (2014) <https://www.parp.gov.pl/files/74/81/713/21789.pdf> [10.03.2016].
- Romanowska M., (1997) *Alianse strategiczne przedsiębiorstw*, Warszawa.
- Ujwary-Gil, A., (2008) *Efektywność wykorzystania zasobów w tworzeniu wartości dodanej wybranego przedsiębiorstwa budowlanego* [in:] A. Nalepka (ed.) *Organizacje komercyjne i niekomercyjne wobec wzmożonej konkurencji oraz wzrastających wymagań konsumentów*, Nowy Sącz.

## ROLA KLASTRÓW W PROCESIE INTERNACJONALIZACJI PRZEDSIĘBIORSTW SEKTORA MSP

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**Słowa kluczowe:** klastry; internacjonalizacja; małe i średnie przedsiębiorstwa.