

THE ENTREPRENEURS OF AN INDUSTRIAL REGION ABOUT THE OPPORTUNITIES OF BUILDING THE LEARNING REGION – THE RESULTS OF EMPIRICAL RESEARCH IN THE SILESIAN VOIVODESHIP

Małgorzata Suchacka, Robert Pyka

*University of Silesia in Katowice, Department of Social Science, Institute of Sociology,
e-mail: malgorzata.suchacka@us.edu.pl, robert.pyka@us.edu.pl*

Abstract: The knowledge economy sets new rules for the functioning of enterprises and the market. Industrial regions transform their economy with specially appointed institutions. It also depends on the entrepreneurs themselves, their attitudes and approaches to knowledge and learning. The introductory part of the article will concern the theoretical foundations of innovation and learning region. Next chapters will concern characteristics of Silesia and used methodology. The obtained results concern interviews conducted with 60 Silesian entrepreneurs. Qualitative studies based on 60 in-depth interviews conducted in late 2010 to 2011 allowed to present their attitude to human capital and knowledge transfer, opinion about cooperation between all actors, innovation in region and companies, opportunities for large learning region created on the area of Polish and Czech part of Silesia. The article concludes providing a number of concrete recommendations – called 3C – that could constitute integral elements of deeper insight into the process of creating a learning region.

Key words: learning region, innovation, innovative climate, cooperation, regional actors, human capital

1 INTRODUCTION

In the era of economic hesitation, knowledge creation, diffusion of technology, innovation and learning, interaction and social networks have all come to be vital elements of future development. Analysis of these factors is especially important for group of scientist and also entrepreneurs, experts and policy makers. In the nineties some of researchers noticed that R&D¹ activity and technological progress is concerned strictly with the region, its institutional and cultural factors. They offered new insights into mechanisms of regional economies. It occurs that areas affected by industrial decline might be interesting places of revolution in regional thinking. The

¹ R&D means Research and Development

concept of learning region is quite interesting taking into account its genesis, stages of formation, individuals and institutions involved in this process. Researchers notice the role of many important factors of social origin – such as social capital, human capital, networks, the level of social trust, regional climate and quality of life, culture of economic organizations and region. Also regional experts, politicians and entrepreneurs agree that this topic needs deeper research.

The initial part of the article examines the doctrines and discourses associated with learning region, innovations and the role of companies in the regional development. The next section provides short characteristics of studied region, which was Silesia and methodology of own research. Presented empirical example concerned interviews with entrepreneurs proved that Silesia voivodship bears some of the characteristics of the learning region, but it creates slowly from the form of various enclaves. There were analyzed entrepreneurs opinion about human capital, knowledge transfer, innovation in region and companies, cooperation between all regional actors, opportunities for big learning region created on the area of Polish and Czech part of Silesia. The article concludes providing a number of concrete recommendations that could constitute integral elements of deeper insight into the process of creating a learning region.

2 AROUND THE LEARNING REGION – DEFINING MAIN ISSUES

The competitiveness is a result of appearance of the innovation in many areas of the social – economic life. Innovations of this type are the most widely understandable change. The social – cultural transformations support the diffusion of innovation, but one should also take into consideration the specific regional placement, the fast communication and definite cultural factors, which can have the deciding influence on the course of these processes. “Innovations based on a brilliant idea probably surpass all the remaining categories taken together in the terms of the number” (Drucker, 2004: 151). The innovation is often an accidental result of the cooperation and the disputes between companies and different actors from surrounding companies. The most spectacular results of an interest in innovations were probably observed as a result of their fundamental impact on the economy. The first serious analyses of the effect of the innovation were being taken in the context of functioning of enterprises. One of the first researchers who related the concept of innovation to enterprises and the process of directing was Joseph Schumpeter. Innovation in his understanding means putting production factors together in the new way (Schumpeter, 1989: 62). It is also a process of “creative destroying” (Schumpeter, 1960: 107, 112). In the 90’s people started noticing that only innovating in the system may cause the expected effects. Such enterprises which applied the systematic attempt to the innovation were called learning organizations. One of the first authors who focused his attention on values, being elements of the corporation culture was Peter Senge. He called these values disciplines. “The learning organization is a place,

where people constantly discover the way of creating the reality surrounding them and how can it be changed.” (Senge, 2004: 28). In his opinion pillars of such organizations are personal championship, mental models, building the common vision, team learning, systematic thinking. However the proposal of Peter Senge did not extend beyond the area of the enterprise and the process of directing and making the decision inside the enterprise.

Around the same time, when Peter Senge wrote about learning organizations – Richard Florida presented his conception of learning region. It was a parallel idea which defined the region as the area of the competent linking competence, of active personal and institutional connections and wide involvement in the public and private partnership (Florida, 1995: 527-536). Florida emphasized that these institutions were acted like a magnet attracting talented people which form the creative class. It is characterized by a high level of the human capital which means the abilities, the qualification and original features of the personality. In fact they decided about the economic success – scientists, engineers, architects and designers, writers, artists, musicians, other employees of free professions, where the creativity is a desired factor. These are people who create the climate supporting the creativity and the innovation (Florida, 2002). The chain of representatives’ connections of the creative class has often an institutional and formal character (first and foremost unofficial), because representatives of the creative class unwillingly enter formal structures and relations. The trust level is high enough so formalizing these connections is not necessary. Innovative individuals generally would not tolerate pressure. An appropriate climate, expressed in the participation in the social and economic life of people with diversified lifestyles and economic, political opinions, sexual preferences and religious, high competence, specialist abilities, openness, supports such a situation. The possibilities of the rapid change, of using remarkable entertainment, of establishing many interesting social interactions encourage to this. The climate accompanying these processes must still be colored with positive cultural values of the region – with the ones which simultaneously will not be colliding to the expectations of the creative class.

Many researchers pointed out to the lack of abilities of the accurate distinction of factors of regional surroundings, of factors of surroundings even broader – perhaps of domestic range – and of the factors associated with the innovative policy, which can be classified both to regional, as well as general factors (Sternberg and Arndt, 2000: 3-7). The learning region is characterized – according to some researchers – with the special kind of management rooted into the institutional density (Asheim, 2000). It concerns the appropriateness of prepared together and accepted principles of storing, using and transmitting the knowledge. The appropriately functioning infrastructure is necessary for that – starting with motorways on information highways finishing. Other continuators of the research on learning organizations are pointing however at the sequence of regional factors affecting their development. Arnoud Langendijk discusses regional, named factors amongst trainee factors determining development of the organization “with regional laboratory of the knowledge” (Langendijk, 2001: 136-155). Also Mike Osborne, Kate Sankey and Bruce

Wilson conducted the research associated with the topic and tested it taking into consideration the social capital, the management and the education on the regional level. (Osborne et al., 2007). Other researchers pointed to the specific kind of phenomenon called the regional innovative paradox, which consists of connecting regional factors with innovative actions of enterprises (Oughton et al., 2002: 97-110). Particularly in this context the process of modeling the local communities in the direction of learning region seemed interesting.

3 SILESIA – INDUSTRIAL REGION IN THE PROCESS OF CHANGE

The present situation of that industrial region has been influenced by the past 20 years of transformation. It has been a time of political and economic change in Poland as well as changes in the direction of knowledge - based economy and participation in the processes of globalization. After the domination of the state - owned sector there was a necessity for industrial restructuring, which would increase efficiency and competitiveness. Privatization was supposed to be the most important measure, which was related with the change of ownership structures of state - owned enterprises. The restructuring of hard coal mining was difficult because of different reasons – mainly because of social and economic costs. Some of coal mines were supposed to be aided by investment and social projects, but some of them had to be liquidated. Due to the liquidation of large industrial factories employees were forced to create small and medium - sized enterprises. A lot of other enterprises had been privatized and changed their owners. At the same time many people from Silesia showed entrepreneurial skills and took advantage of the situation starting small and medium - sized business.

After administration reform in 1999 Silesian voivodeship belongs to the smallest in Poland. It is only 12 294 square kilometers (that is 3,9 % of the area of Poland). It is inhabited by almost 4,7 mln people – that is 12,14 % of the population of Poland, which puts the voivodship in the group of most populously inhabited. It is also urban region, because of the fact that 79,8 % of population live in towns, mainly of industrial and post - industrial character. (Bank Danych Lokalnych GUS, 2010). Silesian region has polycentric nature – there is no one, main centre that would fulfill the metropolitan functions. Although there is a capital of voivodship – Katowice – but there are also a lot of other important cities nearby. The Silesian Voivodeship is home to 45 higher schools – private and public – including 3 universities (Silesian University, Medical University, Economic University), 4 higher schools of technology, 13 higher schools of economics, 2 higher schools of pedagogy, and 15 higher vocational schools (Bank Danych Lokalnych GUS, 2010). In total, the Silesian higher schools educate around 181,3 thousand people, which accounts for around 10 % of the total number of students in Poland. Silesian region ranks first in Poland in terms of communication infrastructure, transport accessibility and industrial base. In the regional economy still dominate sectors: mining

(60 mines produce 91,2 % of sold coal mining production in Poland) and metallurgical (18 iron and steelworks). There rushed tenth part of foreign capital imported into Poland in the nineties. The value of foreign investments is estimated at about 3 billion \$ – primarily these are investments in the automotive industry (Rozwój regionalny w Polsce, 2009). In Silesia voivodship there is a dynamic development of high - tech branches. It is probably an effect of the fact that Silesia is among leaders in Poland in terms of the percentage of academic and research employees in all employed in R&D sector. The potential of R&D sector included 132 entities in 2005, which is 12 % of all R&D institutions in Poland. (Regionalna Strategia Innowacji Województwa Śląskiego na lata, 2003 – 2013). Silesian voivodship seems to have a huge potential, which properly used may facilitate the strengthening of innovativeness of whole region.

Part of the research presented below, also relates to entrepreneurs opinion about the Polish - Czech cooperation, therefore it would be appropriate to describe the position of Moravian - Silesian Region and to compare the reality preconditions with the entrepreneurial perception. The Moravian - Silesian Region is located in the north - eastern part of the Czech Republic. It was formed pursuant to Constitutional Act, together with the other 13 Czech regions, as a self-administrative territorial unit as of 1st January 2000. This region consist of two historical regions of the Czech Crown. Today, on the mental map Silesia is somewhere between a country and an ethnic region. There is also another term used quite often to describe the region – Ostravsko or the Ostrava Area. (Siwek and Bogdova, 2007). Today the region area is 5 427 km² and consists of 6 former districts (from the west Bruntál, Opava, Nový Jičín, Ostrava-city, Karviná and Frýdek-Místek) and 22 municipal districts with an extended competence. This region has 5 statutory cities, 35 towns, 3 townships and 256 villages. The most important cities are Havířov, Karviná, Frýdek-Místek, Opava and Třinec. It is third the most populous region in the Czech Republic and in terms of its area it ranks in the first half (sixth rank). The status of the population of the region was 1 249 897 inhabitants on 31st March 2008 (Moravskoslezský kraj – about the region, 2011). “The Czech Statistical Office stated that in 2008, for example, the population in all regions, including the Capital City of Prague increased, with one exception. The Moravian - Silesian Region was the only one where the population fell.” (Ryšavy and Šaradin, 2011: 7). There are 11 higher professional schools along with 5 universities in the Moravian - Silesian Region. The universities comprise 16 faculties and provide study programs for more than 45 000 students. (Characteristics of the moravskoslezský region, 2011). This region is full of great internal differences, which makes it similar to the Silesia voivodship. The west and south-east of this region are formed by the mountain areas of Jeseníky and Beskydy mountains with beautiful countryside, but the north-east part has a high concentration of heavy and mining industries. “Besides these traditional branches, modern heavy engineering, automotive production, electronics and the ICT sector are gaining in importance. The past 10 years have been marked by a significant inflow of FDI, which was facilitated by more than 1000 hectares of industrial zones. During the past 20 years,

numerous endogenous firms, as well as regional start-ups and spin-offs, have been established.” (Tödting et al., 2012).

Both regions – Silesia voivodship and Moravian - Silesian Region – as old industrial regions suffer from a predominance of basic and traditional industries. Both are regions with a considerable industrial tradition. Also both regions are a part of a transformed country with a state socialism and central planning background.

4 BASIC INFORMATION ABOUT THE RESEARCH – METHODOLOGY AND TECHNIQUE

The paper constitutes a part of a larger research supported by ministerial project “Industrial region as a ‘learning region’ – sociological conditions of transformations on the case of silesian voivodship”. Analysis have been conducted in all four sub - regions of the voivodship, which differ in the cultural context as well as level of development and industrial tradition. Analysis have contained 100 interviews with decision - makers, free experts and entrepreneurs from three sectors of the economy. In each of five groups of respondents was conducted 20 interviews. It was taken into account in four sub - regions of the voivodship, which eventually gave over 25 interviews in each sub - region. 60 interviews were conducted among the regional companies and 40 interviews with regional policy makers and experts representing mainly business support institutions. Using qualitative method and interview technique all respondents could feel free in their responses. They were asked about their opinion concerning cooperation between major partners of the region, opportunities for the emergence of the learning region, and factors of promoting the development of the region. For the purposes of this article there will be analyzed only 60 interviews with entrepreneurs. Their opinion about forthcoming learning region in Silesia voivodship seems to be the most realistic.

5 RIGHT ATTITUDE TO HUMAN CAPITAL, KNOWLEDGE TRANSFER

Very fundamental factor showing transformation from traditional region into learning region is a change of attitude to human capital. It means a new approach to investment of both employees and above all employers. Employees start to understand that their value on labor market is not estimated only due to job seniority and their post quality does not depend only on their salary, but this what is important issue – is their experience, openness to changes and ability to permanent learning and the fundamental factor of assessment of employers is self development program offered by them.

Observing the basic processes taking place in nowadays Silesian market labor, some very important changes that happened during political and economical transformation in Poland, might be noticed as far as attitude to human capital is concerned. The replacing of socialistic economy by free - market economy and the

functioning of political freedom exacted both employers and employees to take totally new basis implicated by functioning in conditions of free concurrence. From one side the position of employers strengthened giving more possibilities to choose from big number of employees from labour market and to impose them their conditions, but on the other hand the employer searching for a qualified employee with specific competences and experience has to endeavor after him, offering him proper conditions including permanent training and possibility to self development, meanwhile he must be competitive to others employers.

Without doubt just employees with the highest skills in their specialization, are able to difficult and persistent work, but also capable to solve problems by their own. They are also creative which means – able to create new quality and innovative solutions. They have the most comfortable situation on labor market.

“We have taken actions which aim was to create package of employee’s development and giving them chances. It’s one of our priorities to promote and give the chance to self development of managing staff and employees working on project.” (service company).

New economical conditions as the consequence of functioning of capitalism, but also political transformation which reflection might be manifested in the carrier of citizen or employee, or the consciousness of somebody’s own value on labor market force entrepreneurs to apply new forms and systems of managing in company. Better skilled and qualified employees require possibilities to make their own mind, take initiatives, leading their project, so they want more autonomy, what implicates on flattening hierarchy structure in company and diminishing of distances between the decisive centre and employees on different level.

“Now the young generation, has its own demands. It’s more difficult to get an employee. It used to be like that: A boss came to an employee and said what to do and in fact in what why it should be done. Now it must be dialogue between both of them.” (industrial company).

The majority of represents of companies taking part in research confirmed that one of the most important value in their companies are their employees. Those respondents often underlined their low rotation of employees as a consequence of introduction the innovative motivation systems in their enterprises. Systems include also package of social benefits, they support internal promotions and provide with trainings which guarantee raising qualifications.

“The good point for our employees that for all new positions the internal candidates are taken at first. So in our company promotions and professional development is possible. (...) We have ‘Leadership institute’ – it is a kind of internal school in our company. For today it act centrally, those internal trainers offer different trainings – from soft HR to technological advanced.” (industrial company).

However, respondent indicated also the fact, that even today there are companies which being the relict of socialistic system do not use new managing processes, where human capital is not appreciated and all those companies just want to last.

These kinds of enterprises exist often because of their inertia force and they last till market for service or goods they offer and demand are provided. These kinds of enterprises often bothers with serious problems when they have to be concurrence in free market, or when there is a niche that other concurrence companies take advantage of. In this case low flexibility and ability to introduce changes eg. in company's products means company's marginalization and its gradually decline, what might be avoided by introducing fast restructuring sometimes joined with privatization.

"I know some people, especially in industry, where the side effects of older system are strong, destructive till today and they influence the attitude towards employees, people and women in labor market." (industrial company).

These kind of phenomena might be seen also in private companies, often small, in which the owners don't have introspection and do not predict their action in future while creating strategy of self development. Effect of such kind of thinking is often realization of investments in longer time in human capital, but they do not guarantee profitability in short term. They increase probability for maintaining the concurrence domination and higher profits in the future. However this intensifies transformation some earnings to investments what in small companies is not always possible and approved, because it is connected with limiting current consumption by its owner.

„If we think only about money we won't have innovation." (service company).

5 COOPERATION BETWEEN ALL ACTORS

One of assumption of functioning learning region is functioning net of many – sided cooperation between actors of regional development, who are representing both business sector and public administration as well as scientific – research institutions. Only proper cooperation between actors can guarantee proper circulation of information and knowledge which enable to create new knowledge. Entrepreneurs who participated in researches were rather critical assessing cooperation between those actors in Silesia region. Furthermore their answers concerning the possibilities of creating learning region in Silesia region were rather diverse and ambiguous. Although respondents seemed to notice the acting of creative class and regional elite. In their opinion their action are weakly visible, because they act rather separately. However respondents indicated the Silesian ethos of work as very precious.

"There are less and less creative people, well qualified and high skilled leave Poland. There is a big potential but in the same time we suffer from lack of force to use it, and the Silesian potential is not advertised enough." (service company).

"I can assess it as a person who is not Silesian. My professional perspectives developed in Silesia region because I met the people who worked as

an engine of my professional development. I see the capital of creative people, but in the same time I see people uneducated but hard working. Silesia is a region where work is respected.” (industrial company).

Researches show that entrepreneurs do not seem to believe in effectiveness and sense of cooperation. They often say that it is waste of time. Their experience show that they have to cope alone with everything. That’s why their company’s development bases only on their company’s internal resources. Cooperation with external actors is rather rare.

As far as assessment of institutions, whose aim is to support business, is concerned it’s rather negative. Most of respondents have never take advantage of their offer or service. The reason of lack of cooperation with them is rather caused by lack of convenient information. Entrepreneurs often mentioned the information chaos or fact that they do not know where to find information.

“I don’t have good memories with such kind of institutions because action taken by them weren’t finalized and were inefficient.” (industrial company).

“(…) All incubators and clusters don’t exist in our consciousness.” (food productive company).

General the low level of cooperation assessment was also noticed in cooperation between actors connected with business and knowledge. Although actors indicated on big potential that consists of big number of universities which are in Silesia region and highly skilled staff, in their opinions the biggest problem is in creating efficient communication system between science and business world. Most entrepreneurs were not able to give examples of knowledge transfer between Silesian universities and companies, however they hoped that such kind of projects are realized.

“I don’t see cooperation. I know that this region has a big potential, same good universities, highly skilled staff, (…) But I can’t find a common policy (…) to me it is not coherent.” (service company).

“I don’t have knowledge but I hope that it works…” (food productive company).

Silesian entrepreneurs as their partners more often showed brand organizations to universities. However the situation described above does not mean that there is no cooperation between science and business in Silesia region. It really exists, but it is rather multidimensional and superficial, so it is suitable for initial phase of establishing contacts when partner, fields and forms of cooperation are searched. The existing cooperation is not formalized and the most often it is connected with dealings, but unfortunately entrepreneurs says that there is a barrier in this field because there is no financial support to students dealing and practices.

“There are students from Silesian University of Technology. However we are not its permanent partner – we participate only in some of their initiatives, but it is always temporary.” (industrial company).

“We don’t have any project with University, but we allow its students to have practice in our company. (...) We don’t have any formalized cooperation.” (industrial company).

Respondents gave a lot of reasons for lack of deeper cooperation between entrepreneurs and research sector or its low level of efficiency in Silesia region. One of often given example was a hierarchical structure in universities or in public sector, in some of enterprises and in its consequences, which are difficulties in communicating with proper person. One of foreign respondent, who runs her own business in Poland, noticed that people who can make a decision often hide behind their titles and posts, avoiding contacts with others and pretending to do very important things. Lack of trust and openness is one of basic reason of low level of cooperation between actors in Silesia region.

“In my opinion everything in Poland is treated too seriously, too officially, and it’s also the reason why nearly everything goes wrong - people are too stiff to communicate well. The most important thing is a contact with other people. (...) To me the communication is very difficult. For example, I call to the kindergarden and I can’t make an appointment with it’s director. Is she a queen that I can’t talk to her? The same situation is at the University. Everywhere there are titles etc. and signs as dr, director etc.” (service company).

Among reasons for low level of cooperation, entrepreneurs gave also difficulties with flow of information between subjects, which are interested in this cooperation. This assessment might come out of the fact that there is not a coherent system of flow and exchange of knowledge and information, which might be institutionalized and also become a common practice. For now this system is incoherent and heterogenic, what makes impression of chaos and general improvisation.

“I also have lack of information. To be sincere, I don’t want anybody to give me all information but it would be nice to know where I should search it.” (service company).

Most entrepreneurs, who were complaining on low level of cooperation with research institutions said that its reasons are the results of lack of money needed for realisation of research project in cooperation with universities and no need for such cooperation. Entrepreneurs often said that universities and research institutions were not necessary, because they could solve their problems on their own.

Entrepreneurs had a lot of objections to universities and research institutions. The basic objection was their detachment from reality and needs of a market. Some entrepreneurs claimed that there in nothing they can learn from scientist, because their technology are less advanced than this used by business. Other barrier is administrative procedures and formal problems, which are connected with cooperation with universities. Another one strictly connected with time – is lack of unified and proven legislative solutions in commercialising researches’ results.

“The work which is done by the university stays there and it has nothing to do with this what happens in companies, entrepreneurs and labor market.

Companies are able to function without university's help and I isn't add value. There is a question if the initiative should be done by company. (...) I won't try. This is just a thing that can be done after one telephone call. I have a lot of experience so I know that universities aren't interested at all. Analyses are so expensive that we use only our internal knowledge.” (industrial company).

Next objection mentioned by entrepreneurs is a low motivation of scientists for cooperation with commercialized subjects, what in their opinion is connected with functioning of university in conditions of – so called – soft financing and lack of financial motivation at universities' employees, whose salary do not depend on its efficiency.

6 LEARNING REGION OVER POLISH AND CZECH PART OF SILESIA?

Rising a large learning region reaching from Wrocław to Katowice, Krakow and Ostrava in the Czech Republic caused the most positive emotions in respondents. However, most of them confine the region to the borders of Upper and Lower Silesia without Krakow. They justified the necessitate for the creation such a region basing on their experience and work already conducted. However, the opinion differed considering the economic sector which represented respondents. The most enthusiastic were entrepreneurs from the services sector, a little less from the industry sector. In the first sector farmers in fact did not have specific contacts with the Czech economy. In this sector – mines were exceptions. Such contacts often result from existing personal relationships, rather than from formal links crystallizing one of the major regions in Europe.

Entrepreneurs of the service sector stressed benefits of the expansion of its market and that now there has been an exchange of ideas, knowledge and technology.

“I think that this region may arise. Basing on our experience, on cooperation with industry in Ostrava, I can say that we communicate very well without using a foreign language. We understand because people there speak in Silesian. So it is very easy to communicate. Young people speak English here, there is also no obstacles, technical language is very similar. We go to the same conferences, where both engineers and scientists share their knowledge. We have been on the Czech market since 1993, shortly after the formation of our company. (...) If our partners know what they want and we are able to understand each other on the technically level, there is no problem. They know that quality, and standard is the most important.” (service company).

Czech Republic is the direction of vivid interest in the surveyed companies. Similar language helps a lot, but above all, a common interest and awareness of market niches:

“Looking at their promotional materials, web sites – they are in the early eighties – there is a lot to do. This is not far away. No language barrier. Well, I do not speak Czech, but it may not be so bad. Ostrava is near, they also are able to speak in Polish. We have industrial connections with Ostrava. I have heard that the Czechs praise about our services, they come here for many products. If we give them a little bit of our culture, they would willingly have benefited from this.” (service company).

Cooperation is always associated with the prospect of profit. As a result it is always economic calculation, but plans also apply to the exchange of knowledge and experience. Common trade certainly links and also organized industrial conferences and trade fairs helps it. Contacts between companies are amplified when working together with local government from Polish and Czech cities. Companies at various meetings can present their strengths. One respondent pointed to contacts of local authorities and inhabitants:

“No borders has caused that people come to us, read the Polish press on the Czech side, or even farther on in Prague – where we have already been seen and they come to us as to its manufacturer or its wholesaler. We of course instruct our employees, go to the Czech side, and Slovak, to seek the client. He also knows of course that he cans easily buy, avoiding the break-neck procedures, which were 20 years ago. We seek opportunities for cooperation with the Czech Republic as much as possible. Entering the Union, it has increased our exports, simply because boundaries have ceased to exist. Mainly it influenced to the Silesian region of Czech – Ostrava, Karvina. I know that the Institute of Civil Engineering in Ostrava was doing something for us what he also could do in a Institute in Warsaw, but they did it in a shorter time, cheaper and in addition it was near.” (service company).

Respondents noticed changes and they have more optimistic approach to the possibility of deeper cooperation. In fact, among entrepreneurs of services sector there was no statement negatively perceiving this cooperation and the possibility of rising learning region on the Polish and Czech part of Silesia. Foundations necessary to create such a region already exist – trade, mutual use of services, integration of people, cooperation of local authorities. Also first effects of the exchange of ideas and technology can be observed. Unfortunately these contacts still are mainly based on personal relationships, which is good for starting, but it is not a proof of the advancement of this process.

Respondents from industry sector also spoke positively about creating common learning region on the Polish and Czech side of Silesia, but their attitude was a little bit more skeptical. The main requirement for creation of such a region is primarily the intensity of such contacts, as well as their extent covering not only trade. According to their statements such cooperation is very limited. Most companies work simply with companies that were a part of their organizational structure or were selling polish products:

“We are working with the Czech Republic and Germany, but it's all in scope of some renovation work. We have contractors or subcontractors from different places – even all over the world. However, I know nothing about having some close contacts with business organizations from the Czech Republic.” (industrial company).

Cooperation on a simply business level has arranged quite well, until partners see it as a profitable business. However some of respondents have shown some fear of opening up too much:

“Companies that we have in the Czech Republic have been linked to several companies. There is a large manufacture profiled for coffee and also produce tea. They had people with innovative capabilities, but had no chance, because of the lack of capital. Entering into our group has opened them the door to our research and development centers. There has been an integration of the staff, who are working on innovation, with those people over there. Part of that team is here. This partnership works. This is a beautiful idea to cooperate, but in such a difficult market conditions where we operate, it is extremely violent competition. Looking for the cooperation surface between these companies is one of the most dangerous activities. Loyalty is not what we can count on, while the great desire to take advantage of other people's experiences – as much as possible. We really make sure that nothing came out of the company too soon.” (industrial company).

Caring for the preservation of know-how is a major obstacle in forming a learning region on the Polish and Czech site. Traders also pointed to other barriers such as local patriotism, or cultural differences between Silesia and Małopolska:

“I do not really believe in rising of the learning region from Wroclaw to Krakow and Ostrava. There is too much local patriotism, which will not allow for the approach with the one front of the offer. It is difficult to manage with the agglomeration, which had become a metropolis. Cultural exchange – yes, but economic exchange, exchange of thoughts, ideas – not yet.” (industrial company).

It occurs that the partners' interests can connect, but also other factors may determine the shape of European regions. Several interviewees pointed to the cultural or historical factors:

“Learning region even from Poznań by Wroclaw to Ostrava – yes, but not in Cracow. This region may arise because culturally and historically we are similar. Such were the boundaries of the annexations. This division is still alive according to influences of German culture and industrial culture. This industrial culture came here to Silesia from Germany, and hence the division of Polish regions. This heavy industry were build in Silesia by Germans. In Krakow, not anymore. There was developed a culture, but not industrial. There was a lot of political freedom – the Polish language in schools. Whole cultural elite had lived in Krakow. Under the Russian oc-

cupation they do not develop anything, there was a total Russification. From Poznań to Silesia it was the effect of technical and German culture on the culture of the region. Approach to work is what also differ inhabitants of these regions. It can be seen even in the region.” (industrial company).

Cultural and historical considerations were often cited factor. It was also pointed to this type of separateness within the voivodship of Silesia, which contains areas of all three annexations.

Entrepreneurs from the first sector – primarily associated with coal mining – pointed to the close business contacts with Czech partners. Large mining companies such as Kompania Węglowa SA or Katowicki Holding Węglowy conduct quite wide cooperation with similar companies in the industrial parts of the Czech Silesia.

“We have great contacts with mining companies on the other side, we meet for talks – these are mainly business talks. It's fun to talk when we both declare to be from Silesia. These connections are somewhere. However, whether there is cultural exchange – a local government probably have more to say. We have these relationships, we have business contacts, and I think they are much better than it seems. As for the exchange of technological ideas it was rather not followed.” (industrial company).

In the mining industry, even though it was emphasized cultural community, but those comments were complementary to dominant hard business rules. A similar culture can be an element facilitating business, however for exchanging ideas and commonly developed projects is too early. However the exchange of goods and workers is visible:

“As far as cooperation with the Czech Republic is concerned we have contact with the company producing various machines and their quality of service is also very good. We also sell to the Czech Republic different things, but we buy equipment for transport. As for the exchange of staff and training we have nothing in common, but I know that some people who left the mine, they started to work in the Czech mines. I do not know how many, but some people work there in those Czech mines. (...) Such a determined cooperation between the regions – I do not notice. There is tourist crossing and trade – all this at an individual level. Inhabitants are integrated. A lot of Czechs come to Raciborz for shopping. This is happening at the moment in the border areas. In the longer perspective the region from Wroclaw to Krakow and Ostrava – perhaps there is a chance, but in the long term, now it is too early.” (mining industry).

Such skepticism is quite common in this sector. Farmers – mostly acting on the small areas will not think about the cooperation with the same entrepreneur abroad. Only farmers on the larger areas may be tempted to momentum in their plans – but these are few. From the opinion of farmers it can be concluded that normal commercial exchange and integration of border inhabitants should be enough. Such a region is not an aim of any government – therefore it remains to wait for the spontaneous

creation of such a region, which can create itself, but not necessarily will – even in the very distant future.

Generally, Polish - Czech cooperation towards the creation of learning region from Wroclaw, Krakow and Ostrava does not look satisfactory. Entrepreneurs pointed mainly to business contacts. Cultural community is not the bonding element supporting the region. Entrepreneurs are full of worries about company secrets, local patriotism, cultural differences within the region, and even in the voivodship. Basing on these statements, it can be concluded that such a region is really unrealistic even in the perspective of 10 years. Rising trade exchange and integration of inhabitants will probably constitute foundations.

6 CONCLUSIONS

All known doctrines and discourses associated with learning region, innovations and the role of companies in the regional development still need deeper research. There are a lot of ideas connected with this topic, but they do not cover complicated nature of these phenomenon. It would be useful to analyze it deeper using better tools and unknown till this time regions. That is why it is so interesting for geographers, sociologists and economists.

The case study of Silesia shows, that areas affected by industrial decline might be an interesting place of revolution in regional thinking. The results of empirical research in the Silesia region prove that it's hard to say that Silesian voivodship is a learning region now. The alternative between industrial region and the learning region seems to be unjustified. Everything shows that it's possible to create a learning industrial region.

Anyway there are at least three levels of determinant which influence on the process of creating the learning region:

1. right attitude to human capital and knowledge transfer,
2. cooperation between all actors,
3. the perspective of building learning region over administrative boundaries.

To sum up entrepreneurs attitude to human capital it should be stressed that there can be observed a new approach to investment of employers. Their position on labor market depend on self development program offered by them. Also employees start to understand what is important issue – their experience, openness to changes and ability to permanent learning. It is undoubtedly fact that employers had strengthened giving more possibilities, but on the other hand – searching for a qualified employee with specific competences and experience – they have to offer proper conditions including permanent training and possibility to self development. Transfer of knowledge on the basic level seems to be very important for them. Respondents however were divided and some of them emphasized that there are some relicts of socialistic system, where human capital is not appreciated and all those companies just want to last. Unfortunately it also concerns some employees. These units – enterprises and employees are destined for marginalization and their gradually de-

cline. Research shows that most of interviewed companies confirmed that one of the most important value in their strategy are their employees. It also concerns small companies.

Entrepreneurs have rather critical opinion about cooperation between all actors in Silesia region. They do not seem to believe in effectiveness and sense of cooperation. It is the more important if it concerns company's image. That is why cooperation usually is conducted on the level of local government. In their opinion decision makers are more important than scientists or business organizations, because all taxes or communication infrastructure depends on them. Only few of respondents seemed to notice the acting of creative class and regional elite. In their opinion their action are weakly visible because they act rather separately. Although respondents indicated on big potential that consists of big number of universities, in their opinions the biggest problem is in creating efficient communication system between science and business world. Most entrepreneurs were not able to give examples of knowledge transfer between Silesian universities and companies. This little cooperation which takes place is rather multidimensional and superficial, so it is suitable for initial phase of establishing contacts when partner, fields and forms of cooperation are searched. It also is not formalized and often connected with students dealing and practices. It seems that the main reason of little cooperation between scientific and business organizations – is lack of trust and openness and also some mechanisms supporting entrepreneurs.

In the process of creating learning region in Silesia – all important actors should have extensive imagination. It seems to be a feature of all entrepreneurs. In different scientific discussion there were such a suggestion that it is possible to create larger region including Czech part of Silesia. From the research concludes that the opinion differed considering the economic sector which represented respondents. The most enthusiastic were entrepreneurs from the services sector, a little less from the industry sector. However they all were quite optimistic most of them do not believe in rising such a region. They have personal relationships and more optimistic approach to the possibility of deeper cooperation, but they are afraid of stealing know – how. Several interviewees pointed to the cultural or historical factors that may be foundations necessary to create such a region – trade, mutual use of services, integration of people, cooperation of local authorities. Common learning region nowadays seems to be really unrealistic, even in the perspective of 10 years.

All processes have the enclave nature – it concerns applying innovations, knowledge transfer, right attitude to human capital, cooperation between all actors, faith and belief in the possibilities of creating learning region. The process of creating the learning region will run from typical forms of enclave, to more and more wider hugging net of institution acting in supporting the innovation climate. It can be observed pioneer transformation on many levels of social life – relating functioning institutions, enterprises, leading in direction creating innovative climate.

The main barrier is low level of cooperation and the conviction that development might be based only on their own forces. Respondents felt the lack of stable

support for building the bases of learning region. They stressed that integration of province in innovative climate and building trust on regional level is the necessity.

To conclude it would be useful to provide a number of concrete recommendations:

1. better COOPERATION between all actors especially scientific and business organizations. It is a keynote for every institution from the highest to the lowest level,
2. better CLIMATE supporting innovation and trust. It should be an element of national strategy which should translate to regional and organizational levels,
3. everybody's CONCENTRATION on innovation and mutual trust. It should be an element of primary education, not only in school, but also on the level of organizational learning.

3xC could constitute integral elements of deeper insight into the process of creating a learning region.

Acknowledgements

This paper is based on the author's research financed by Ministry of Science and Higher Education (project No NN 116 3355 38 entitled: "Industrial region as 'a learning region' – sociological conditionings of the transformations on the example of the Silesian Voivodeship").

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Podnikatelia z priemyselnej oblasti o možnostiach budovania učiaceho sa regiónu – výsledky empirických výskumov v Sliezskej vojvodstve

Súhrn

Všetky známe doktríny a diskusie spojené s učiacimi sa regiónmi, inováciami a úlohou podnikov v regionálnom rozvoji upozorňujú na požiadavku ďalšieho výskumu. Existuje veľa poznatkov spojených s touto témou, ktoré však nepokrývajú celú zložitú povahu týchto javov. Ukazuje sa nevyhnutné hlbšie analyzovať hlbšie doterajšie poznatky pomocou nových nástrojov a metód a objasňovať doteraz neznáme fenomény o regiónoch v tejto oblasti. To je dôvod, prečo je táto téma tak zaujímavá pre sociológov, geografov a ekonómov.

Prípadová štúdia Sliezska ukazuje, že oblasti postihnuté úpadkom priemyslu môžu byť zaujímavým miestom, kde sa dá dospieť k „revolúcii“ v úvahách o regionálnom rozvoji. Výsledky empirického výskumu v oblasti Sliezska dokazujú, že je ťažko konštatovať, že Sliezske vojvodstvo je dnes už učiacim sa regiónom. Alternatíva, buď priemyselný región alebo učiaci sa región sa zdá byť neopodstatnená. Všetko ukazuje, že je možné vytvoriť priemyselný učiaci sa región.

Všeobecne sa dá konštatovať, že existujú prinajmenšom tri úrovne determinantov, ktoré majú vplyv na proces vytvárania učiaceho sa regiónu:

1. správny prístup k ľudskému kapitálu a prenos poznatkov,
2. spolupráca medzi všetkými aktérmi,
3. perspektíva budovania učiaceho sa regiónu cez administratívne hranice.

V procese vytvárania učiaceho sa regiónu v Sliezskej vojvodstve je dôležitá požiadavka, aby všetky významné subjekty v regióne mali veľmi dobrú predstavu o ich možnostiach a úlohách v procese kreovania učiaceho sa regiónu. Zdá sa však, že nie všetkým podnikateľom sú tieto skutočnosti známe, resp. nie všetci túto požiadavku rešpektujú. Z urobeného výskumu sme došli k záveru, že stanovisko k možnostiam vytvorenia učiaceho sa regiónu závisí od príslušnosti k sektoru hospodárstva, z ktorého pochádzal respondent. Najinformovanejší a najoptimistickejší boli podnikatelia z od-

vetvia služieb, trochu menej poznatkov o svojich úlohách a možnostiach mali zástupcovia priemyselných odvetví. Výskum ukázal, že väčšina opýtaných spoločností potvrdila, že jednou z najdôležitejších hodnôt ich rozvojovej stratégie sú ich zamestnancami. Tento záver sa týka aj malých podnikov.

Avšak, všetci respondenti boli celkom optimistickí. Majú dobré osobné vzťahy a optimistický prístup k možnosti budúcej hlbšej spolupráce. Na druhej strane, ale majú strach z možnej krádeže know - how. Niekoľko respondentov poukázalo na kultúrne či historické faktory, ktoré sú nevyhnutné pre vytvorenie takejto oblasti, existujúca spolupráca v rámci obchodu, vzájomné využívanie služieb, integrácia osôb v rôznych oblastiach podnikania, spolupráca miestnych úradov apod. Spoločný učiaci sa región sa zdá byť v súčasnej dobe pre región Sliezskeho vojvodstva naozaj nereálna predstava, a to i v pohľade perspektívy 10 rokov.

Na záver, je vhodné uviesť niekoľko konkrétnych odporúčaní pre proces kreovania učiaceho sa regiónu:

1. Lepšia kooperácia medzi všetkými aktérmi, najmä vedeckých a obchodných organizácií. Je to kľúčový faktor pre všetky inštitúcie od najvyššej po najnižšiu úroveň.
2. Lepšia klíma na podporu inovácií a dôveru. Malo by byť súčasťou národnej stratégie, ktorá by mala byť preklápaná do úrovne krajskej, resp. aj na nižšiu úroveň.
3. Lepšia koncentrácia na inovácie a na vzájomnú dôveru. Tvorba inovácií a vzájomná spolupráca by mali byť prvkami primárneho vzdelávania, a to nielen v školách, ale aj v oblasti manažérskej výchovy.

Tento 3xK model by mohol predstavovať integrálny prvok, ktorý je potrebný pre razantnejší nástup procesu vytvárania učiaceho sa regiónu.