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DEVELOPMENT OF MODERN BUSINESS SERVICES SECTOR IN POST-INDUSTRIAL CITIES – LOCATION FACTORS AND THE EFFECTS OF INVESTMENTS IN KATOWICE AND THE UPPER SILESIAN AGGLOMERATION

ROZWÓJ SEKTORA NOWOCZESNYCH USŁUG BIZNESOWYCH W MIASTACH POPRZEMYSŁOWYCH – CZYNNIKI LOKALIZACJI I EFEKTY INWESTYCJI W KATOWICACH ORAZ AGLOMERACJI GÓRNOŚLĄSKIEJ

ABSTRACT: The article focuses on the development of the modern business services sector in post-industrial cities. Firstly, a definition of the business services sector is introduced, including location factors influencing foreign investments as well as the effects of such investments on local and regional economy. Secondly, there is presented the development of the modern business services sector in Poland, the Upper Silesian Agglomeration and Katowice, and the process of structural changes which were implemented in Katowice in order to attract projects from modern business services sector. Then, the case studies are discussed as follows: IBM Delivery Centre, Rockwell Automation and Capgemini Centre. An analysis is presented, dealing with the question which of the location factors described in the analytical part mattered the most in these cases. In the end, the sector impact on the regional and local economy of Katowice and Upper Silesian Agglomeration is outlined.

KEY WORDS: modern business services sector, post-industrial city, urban growth, Katowice, Upper Silesian Agglomeration, foreign direct investment

Introduction

Globalization of services is a relatively recent phenomenon, with a dynamic development of the modern business services sector taking place around the world only over the last 20 years or so. Not so long ago, many services were considered local and were expected never to be subjected to global competition. The situation changed with tech-

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nological advancement and reduction of transportation costs. The purpose of this paper is to present the development of the modern business services sector in post-industrial cities, as exemplified by Katowice and the Upper Silesian Agglomeration, the analysis of location factors and the assessment of the effects of the investments.

This paper consists of three parts. The first part presents the theoretical background and definitions of the modern business services sector, location factors considered for the purpose of investments in this sector and the effects of such investments for local and regional economy. The second part depicts the development of the modern business services sector in Poland, Upper Silesian Agglomeration and Katowice as well as the structural and visual transformation of Katowice that improved attractiveness of the City, its competitive advantage and living conditions. The third part presents case studies involving three companies from the modern business services sector: IBM, Capgemini and Rockwell Automation, together with the analysis of the location factors that mattered the most in each case. The article concludes with effects of the investments on the local and regional economy.

The paper was prepared using the desk research method as well as on the basis of the author's personal experiences and knowledge acquired over the long period of cooperation with existing and potential investors looking to locate their investments in the Province of Silesia, especially in Katowice.

Theoretical background

While in the 1980s outsourcing was mainly used by businesses as the method to procure semi-finished products and sub-assemblies from suppliers located in other countries, in the 1990s the term started to be associated with purchase of specific services from foreign enterprises. These trends in delocalization may be explained in terms of the multinational enterprises theory, as indicated by the OECD (2002), and – as suggested by Midelfart-Knarvik (2000) and Puga (2001) – in terms of the location patterns, including the new economic geography.

Rybiński (2007) defines outsourcing as transfer of procurement activities, manufacturing, services or general business processes or their part to another company, while offshoring as transfer of procurement activities, manufacturing, services or general business processes or a part thereof outside one's home country.

Companies decide to use offshoring/outsourcing to reduce costs of manufacturing, services or specific business processes. More and more prominence is being given to such motivations as cheaper expansion methods and risk management executed through the use of existing, proven solutions. Also important is the desire to take advantage of the best practices developed by outsourcing vendors, to recruit new customers or expand to new markets, improve the quality of manufacturing processes and services, boost innovation by using foreign intellectual capital but also by outsourcing of support functions and focusing on activities that are strategically important for the company's business.

Table 1

Different types of sourcing

Category	No changes in location, On-site	Nearshore Services provided from adjacent or nearby country or location	Offshore Services provided from distant locations
Complete ownership (e.g. Shared Services Centre)	Status quo	Captive nearshoring	Captive offshoring
Shared ownership	Joint venture outsourcing	Joint venture nearshoring	Joint venture offshoring
No ownership	Outsourcing / In-sourcing	Nearshoring	Offshoring

Source: prepared by the author on the basis of Gupta, S. Puranam, P., & Srikanth, K., (2006) *Services Sourcing in The Banking and Financial Services. Exploring Myths and Describing Emerging Best Practice*. London: London Business School and Capco Institute.

One of the key reasons behind outsourcing/offshoring is also the need to reduce risk, both financial and human resources-related, as Rybiński (2007) observes.

There is evidence that the largest multinational corporations have been able to increase significantly their income by focusing more on the development of human resources, especially by improving the communication and cooperation methods within the organization. Bryan and Zanimi (2005) emphasize that many processes in companies have been standardized and that companies have been using offshoring for greater specialization, including processes that require great expertise.

Furthermore, it has been proven that offshoring improves labour productivity. Mary Amity and Shand-Jin Wei (2005) argue in their paper that in the years 1992–2000 service offshoring accounted for 11 to 13% of the labour productivity growth in the USA.

The Association of Business Service Leaders – ABSL (2014) provides a broad definition of the sector. It includes research and development activities. Considerations regarding the sector were based on the analysis of service centres with foreign and Polish capital: shared service centres (SSC), business process outsourcing centres (BPO), IT outsourcing centres (ITO), research and development centres (R&D) and customer contact centres. Modern business services sector is characterized by specific location factors. Diana Farrell (2006) mentions the following factors that influence the process of localization abroad the services based on information and communication technologies. They are presented in Table 2.

A combination of these factors allows an investor to choose the most attractive location. It is most important, from the investor's standpoint, to provide – through a given location – a suitable combination of accessibility and quality personnel, costs of conducting business, and access to infrastructure. Good infrastructure is a must have. A-class office space with good IT infrastructure (Internet bandwidth with high speed service restoration).

Table 2

The most important characteristic features of particular places that affect decision making process

Costs	Labour: current average wages for skilled workers and managers Infrastructure: unit costs for telecom networks Internet access, and power Real estate: cost of class A office space Corporate taxes: the total tax burden or, conversely, the tax breaks and other incentives for local investment
Availability of skills	Skill pool: size of labour force with the required skills Size of offshore sector: dollar volume and share of employment in the sector, as well as share of these services as a percentage of total exports Vendor landscape: size of local sector providing IT services and other business functions
Environment	Government support: policy on foreign investment, labour laws, bureaucratic and regulatory burden, and level of corruption Business environment: compatibility with prevailing business culture and ethics Living environment: overall quality of life, prevalence of HIV infection, and serious crimes per capita Accessibility: travel time, flight frequency, and time difference
Market potential	Attractiveness of local market: current GDP and GDP growth rate Access to nearby markets: in the host country and adjacent regions
Risk profile	Disruptive events: risk of labour uprising, political unrest, and natural disasters Security: risks to personal security and property from fraud, crime, and terrorism Regulatory risk: stability, fairness, and efficiency of legal framework Macroeconomic risk: cost inflation, currency fluctuation, and capital freedom Intellectual-property risk: strength of data and IP protection regime
Quality of infrastructure	Telecom and IT: network downtime, speed of service restoration, connectivity Real estate: availability and quality Transportation: scale and quality of road and rail network Power: reliability of power supply

Source: Farrell, D. (2006), *Smarter Offshoring*. Harvard Business Review. No. 6, p. 88.

Decision on the location of services centres is based on many factors. The most important factors include the competitive labour costs and the availability of highly qualified, potential employees having advanced command of various languages. Here, universities providing science and research facilities of the highest quality are very important as well. These are necessary elements, as some centres offer services so advanced (e.g., related to KPO – Knowledge Outsourcing) that the centres employ individuals with PhD (Gerefi, Fernandez-Stark, 2010).

Transport infrastructure enables fast travelling and reaching a city centre easily. In this case, developed air links network is the most important, as it makes it possible to reach the clients and the parent company quickly. Well-developed business infrastructure – the availability of a modern office space – is necessary, as most of the investors of the modern business services sector do not construct buildings; they rent the already existing office space instead. In order to operate effectively, the services centres require

availability of subcontractors, such as consulting and training companies, as well as other business support companies and hotel and catering services enabling implementing internal training processes and receiving clients. Another important factor is the country where the services centre is to be constructed. It should be politically stable and predictable (Cushman&Wakefield, 2015). Also, the importance of a stable legal system is emphasised (Micek, Działek, Górecki, 2010). The exemptions and investment incentives (grants) are important, but they do not play the key role. A positive image of a city can be created by a support of the local authorities for the investors willing to construct new services centres (Micek, Działek, Górecki, 2010). The positive attitude of the local authorities is related mostly to the image. The presence of other investors of the modern business services sector, which encourages joining the already operating companies, is quite important as well.

Many advisors to the potential investors emphasize the quality of life issues in the city taken into consideration for investment. Very important is the brand of the city, its cultural offer, restaurants, international schools, entertainment.

The factors influencing the quality of life are important from the point of view of managerial staff/the board, which frequently requires the new place of residence to be attractive. It is especially important in the case of managers from the USA and Western Europe. This factor is also important in terms of recruitment fostering – if new employees are to move to a new location, it has to be attractive to them.

According to K. Pniewski of the Deloitte consulting company, which frequently supports the investors during the location selection process, “An important role in making the final decision is played not only by a country, but by a city and the related so-called ‘quality of life’: the city nature and the offer not related to business – entertainment, restaurants, housing, access to foreigners’ schools, etc. The frequently subjective impression made by cities during visits to them plays an important role in the decision-making” (Pniewski, 2008).

According to K. Klincewicz of the University of Warsaw: “IT specialists and a significant group of employees of BPO centres are a part of the so-called creative class, that is the class of the professionals creating new knowledge and innovations. Richard Florida’s research (Florida, 2002) on the motivation and needs of the creative class members emphasises the importance of the social factors, everyday life comforts and spending free time at choice”, (Klincewicz, 2008). These are the reasons for the importance of the life quality factors such as: labour market quality, level of the development of the residential real estate market, transport infrastructure, availability and development of green areas, level of development of the leisure industry, cultural offer, educational offer, availability of healthcare, and the aesthetic qualities of a city.

Among the presented location factors, it is worth emphasising especially those aspects of the city attractiveness which are related to the city life quality, availability and development of green areas, the level of development of the leisure industry, cultural offer and the aesthetic qualities of a city (for instance: Is there a historical market square in the city?). Attractiveness of the city, understood as an ability to attract citizens of

other cities, influences the decisions related to the location of modern business services companies.

The effects of investments of modern business services companies on local and regional economy

Modern business services sector companies can create expanded relations with the local business environment. NASSCOM and Deloitte report published in 2008 (Indian IT Industry: Impacting the Economy and Society. NASSCOM, Deloitte, 2008) reveals that one IT/BPO/SSC sector job results in creation of 4 jobs in the local environment (Micek, Działek, Górecki, 2010). According to G. Micek, J. Działek, J. Górecki (2010), the authors of "Centra Usług w Krakowie ich relacje z otoczeniem lokalnym" ("The services centres in Krakow their relations with the local environment"), these figures are overstated due to the belief that the jobs created at the suppliers companies were result of an activity of one company or sector, while the companies providing the services to the BPO/SSC/ITO industry have also many other clients.

G. Micek, J. Działek, J. Górecki have estimated that the services centres in Krakow influence their environment by creating jobs at the companies providing services to the services centres. Supplies multiplier effects are the largest in the training industry and in the transport industry and, cumulatively, they result in creation of almost 1,400 jobs in the environment. The number is smaller compared to the production companies. The income multiplier effects result in creation of almost 1,900 workplaces in the environment. Over 40% of them are related to commerce. 80 jobs are related to the centres' guest services (tourism, catering, transport). Overall, 1,000 jobs in service centres generate circa 270 jobs in the environment.

Another factor influencing local economy is PIT, CIT and property tax revenue. A very significant positive influence in terms of human capital development is noticeable as well. Companies of the modern business services sector finance or subsidise many educational services and trainings for their employees. Such educational services and trainings include both technical trainings involving providing knowledge related to a particular industry, and the basic trainings, language trainings, and postgraduate programs. It should be noted that the services centres play an important role as local employers, as they create a large number of new, well paid jobs for young people, including those that have just graduated.

Empirical results

The processes that are shaping the international division of labour in global economies have strengthened Poland's position as one of the most frequently chosen locations for business services centres. Reports indicate that over less than two and a half years

the sector has grown by 50%. The rationale behind these investments is the lower costs of labour in Poland in comparison to Western Europe and the United States of America. Also the quality of work plays a role: more complex processes are being transferred to Poland because there are enough qualified people to handle them. For a few years now Poland has been seizing the opportunities: according to ABSL (2014a), there are more than 470 centres with diversified business profiles. In the Tholons Top 100 Outsourcing Destinations report (2014), Krakow was ranked 9th, Warsaw – 32nd and Wrocław – 65th. Language differences are relevant for these types of investments, many investors appreciate the large number of languages spoken by young Poles. The availability of people speaking different European languages is much higher in Poland than, for example, in India. That is why Poland is a perfect location for nearshoring – servicing companies in Western Europe.

According to the ABSL (2014a) report from 2014, the service centres with foreign capital in Poland, belong to 325 investors and employ 128,000 people. Ten largest business service locations, including Krakow, Warsaw, Wrocław, Tricity, Łódź, and the Katowice Agglomeration, Poznan, Bydgoszcz, Szczecin, and Lublin, employ 95% of all the employees in service centres with foreign capital in Poland. Krakow shows the biggest employment rate, foreign service centres employ 30,600 individuals, which makes up 24% of all sector employees in Poland. The modern business services sector is also gaining importance in the Katowice Agglomeration, one of the six most important modern business services locations in Poland.

Companies that started their investments in Poland first in Krakow, Wrocław or Warsaw are looking to open their second or third centre in Poland and would like to use the human resources from the second biggest agglomeration in Poland – the Upper Silesian Agglomeration. The wages in Warsaw, Krakow and Wrocław has grown and the competition for qualified labour has intensified in these cities so the companies are looking for other cities to source the candidates.

The Upper Silesian Agglomeration comprises data from service centres based in Katowice, Gliwice, Sosnowiec, Ruda Śląska, Tychy and Dąbrowa Górnicza. According to the ABSL report (2014), there are 64 service centres in the area, owned by 57 investors from 10 countries. These are mainly investors from the United States (15) and Polish companies (14), but also include projects from the United Kingdom, France, the Netherlands, Germany, Sweden, Finland, India and Canada. Currently the service centres in Katowice and the Katowice Agglomeration (Upper Silesian Agglomeration) employ around 15,000 people. The majority of them (2/3) work for entities that are partially owned by foreign capital. Polish companies have formed 34% of the jobs in the sector, followed by French – 21%, American – 17%, British – 17% and 11% have been created by companies from other countries.

The majority of centres in the Katowice Agglomeration have their seats in Katowice (45 out of 64), that gathers 2/3 of the total employment in this sector. This is due to the fact that the majority of A-class office space buildings are located in Katowice. The proactive and positive attitude towards investors by Katowice City Hall and the efforts

to attract new investors to this city plays also some role. The total number of service centres in the Katowice Agglomeration includes 20 shared service centres, 17 – IT outsourcing centres (ITO), 14 – customer contact centres (Contact Centres), 7 – research and development centres (R&D), and 6 – business process outsourcing centres (BPO) states ABSL (2014) in its report.

The services centres in Katowice and in Katowice Agglomeration provide services in 24 languages. These are mostly European languages. The vast majority (92%) of the examined centres provides services in English. The languages used in many services centres include Polish (84%), German (60%), French (44%) or Italian (36%). The centres, where different European languages were spoken, e.g., Czech, Dutch, Russian and Spanish, constituted a large percentage of the examined centres. In slightly more than $\frac{1}{4}$ of the analysed centres, seven and more foreign languages are used. The modern business services sector, due to the need of providing services related to the various business processes for the clients from different countries, employs persons with the command of foreign languages. Apart from language competencies, knowledge and experience related to a particular business process is important. The salaries are between PLN 2,800 – 5,000 gross. The employees take advantage of non-wage benefits [Grafton, 2014]. As a result of relatively high salaries and employing young people, modern business services companies contribute to lowering the youth unemployment rate and the number of people willing to leave Poland to find work. Therefore, the modern business services sector companies positively influence the local economic development.

The Association of Business Service Leaders in Poland created local divisions in the largest Polish agglomerations. Their task is to moderate the cooperation of these companies with the environment: other services centres, the authorities of special economic zones, providers of products and services, city halls and local community, business support institutions, labour market and universities. The most recent example of active cooperation is ABSL project of enhancing cooperation with the universities in terms of training the students in the skills important for the modern business services sector (ABSL Academy 2016).

Specification of structural changes in Katowice

The development of extractive and heavy industries at the end of the 19th and in the early 20th century became a major factor of Katowice development as a city. At the turn of the 19th and the 20th century, industry became a major challenge and even a significant encumbrance in the process of the city's transformation.

The economic decline of many mining and heavy industry sector companies in the 1990s resulted in a social crisis in the Upper Silesia Agglomeration. The centres of the post-industrial cities became clusters of poor people: the unemployed, individuals holding low-level qualifications, families with many children, elderly and infirm people. The poverty has resulted in social problems, such as vandalism, alcoholism, higher crime

rates, etc. Such phenomena, in turn, catalyse real estate deterioration. The crisis has also affected public utility facilities, which decreased the quality of the provided services, in some cases it even made fulfilling of certain functions impossible. The appearance of train stations in the centres of post-industrial cities, the stations being frequently shabby (Polko, 2010), reflects the nature of the problem. The mining and heavy industry issues have resulted in formation of post-industrial areas not only in industrial districts, but also in the city centre – in the case of Katowice, former Katowice mine area was located in the immediate vicinity of Spodek. It is very important for cities to attract modern business services companies to the degraded land. This is a very difficult and demanding process, as these companies prefer to invest in greenfields, where the quality of life is high and employees may spend their free time in many very attractive ways.

Between 1998 and 2015 Katowice made a strategic decision and undertook to launch some projects accordingly. Katowice is transforming from an industrial city with coal mines and steel works into a post-industrial city and becoming one of the most important business, scientific and cultural centres in Poland. It is due to those remarkable changes as well as labour and scientific potential, together with advanced infrastructure that so many investors from modern business services sector have decided to invest in this location. The crucial projects are focused on the road infrastructure, city centre revitalization, investment in the cultural infrastructure and scientific facilities.

The fundamental changes in Katowice transformation started with road infrastructure projects. As a result, the Upper Silesian Agglomeration has acquired one of the best developed transportation system. It is recognized as an area with a very good access to transport, not only thanks to the main routes, but also because of a high concentration of the road infrastructure. The region has a well-developed urban transport network, with 362 km of streetcar lines.

Between 2006 and 2015, the years that mark the time horizon for structural changes, the City was the subject of many revitalization efforts. The Centre Transformation project was a large-scale and complex undertaking that involved transformation of public service buildings, public spaces, road and streetcar infrastructure and development of commercial spaces. The first stage of the project involved modification of the road system, public squares, streetcar tracks and technical infrastructure in the area. The main aim of the second stage was the creation of a friendly public space. This was achieved through the redevelopment of Korfanty Avenue and the Market Square.

The structural changes and the efforts to enhance Katowice's metropolitan functions have also resulted in cultural investments. The post-industrial area spreading between Korfanty Avenue, Katowicka Street, Wróblewski Street and Roździeński Avenue, i.e., the site of the former "Katowice – Kleofas" coal mine and of its workers' housing estate, perched on both sides of Markiefka Street, has been transformed into Katowice's Culture Zone. Undeniably the Culture Zone is the Katowice's flagship investment project, bringing the qualitative change to the city's image and brand. The Culture Zone located at the very heart of the former "Katowice" coal mine is the next step of the revitalization process. The location carries a very deep symbolic significance as it epitomizes

the City's departure from the heavy industry and mining, but it smoothly connects the past with the future. The new seat of the Polish National Radio Symphony Orchestra (NOSPR) is an integral part of the new Culture Zone in Katowice. While describing the new Culture Zone in Katowice, the new seat of the Silesian Museum opened in June 2015 must be mentioned. The latest finished project is the International Congress Centre (ICC), the investment focusing on the future utilitarian purposes as well as creating new quality of public space and architecture. The investments, first launched only a few years ago, are already helping the capital city of the Upper Silesian Agglomeration to become one of the leading cultural, business and tourism centres in Poland.

Another key project that has been transforming the image of the city is the modern railway station featuring the *Galeria Katowicka* shopping mall, as well as the adjacent stylish 3 Maja Street and Mariacka Street which have become a 'go-to' place for night-time activities.

Katowice, knowing that a strong academic centre plays an important role in the decision making process within modern business services sector, demonstrates also strong support for investments related to acquisition of knowledge, science and education. There are a few examples of projects connected with the academic infrastructure. One of them is The Scientific Information Centre and Academic Library (Polish acronym: CINIbA) which is a joint project of the University of Silesia and the University of Economics in Katowice. Another one can be the financial support for the Advanced Information Technology Centre (AITC) – the seven-storey building filled with the latest IT and energy-saving solutions. These strategic projects confirm Katowice's identity as a city of modern architecture, a shopping and entertainment centre of the Upper Silesian Agglomeration that boasts contemporary commercial and recreational spaces, as well as safe and vibrant public space to meet friends and to relax, and a centre of science, global business and education.

One of the effects of the development of modern business services in post-industrial city like Katowice is the revitalisation of post-industrial areas. If the management of Capgemini, the modern business services company, did not believe in the Silesia Business Park business office project of Skanska and did not conclude the pre-let agreement, the construction of the Silesia Business Park at the post-industrial areas of the former Baildon smelter would last much longer. The companies create also job places for young people, helping to improve the migration balance (often negative in the case of post-industrial cities).

The case studies of modern business services sector project in post-industrial cities

In 2008 and 2009, IBM began to search for a new destination for its delivery centre. Katowice attempted to attract this investment. Despite the fact that Katowice was taken into consideration, eventually Wrocław won. However, the city of Katowice decided

to continue its efforts in attracting IBM to invest in here. In May and July 2010, two groups of IBM experts were working on possible solutions that could become a part of the long-term development strategy of the intelligent Katowice Agglomeration – IBM Executive Service Corps Programme 2010 – Katowice Smarter City. The programme looked at Katowice from three perspectives: *the city of commerce and culture, the well-planned city* and *the city of digital innovation*.

Following the assessment, IBM issued recommendations defining the steps that should be taken to make this area a friendlier place both for citizens and investors. These recommendations inspired the city authorities to carry out the following projects:

- improvement of the public transport system in Katowice in cooperation with other cities of the Katowice Agglomeration and the Community Municipal Transport Association of the Upper Silesian Industrial Region (KZK GOP) (ITS – intelligent transport system project, Dynamic Passenger Information System, Silesian Public Services Card);
- launch of the Katowice's Intelligent System for Monitoring and Analysis (KISMIA);
- implementation of the project "SilesiaNet" – building information society in the central sub-region of Silesian Province: the City of Katowice; implementation of the project "Developing a broadband network for the information society of Upper Silesia communes with hotspot access points"; implementation of the project "Development of 3.600–3.800MHz radio access network (WiMAX) in Katowice";

It seems that Katowice's participation in the IBM Executive Service Corps showed IBM decision makers that Katowice is a post-industrial city that is willing to change into a modern city with advanced technology and indirectly created a unique opportunity for Katowice to re-apply for opening the IBM investment centre in here. In 2013 – IBM announced that they would invest in Katowice. IBM Delivery Centre Poland based in Katowice started operating activities in August 2013. This new centre, generating up to 2,000 jobs joined IBM's strategic network of IBM delivery centres, providing a wide range of IT services. The location factors that mattered the most in the case of the IBM investment were: availability of skilled labour with IT and language skills, the potential of universities for cooperation, good infrastructure (A-class office space with good IT infrastructure – Internet bandwidth with high speed service restoration), government support and quality of life in the city.

The second case study is the branch of Rockwell Automation in Katowice. As part of their investment in Katowice, which was included in the Katowice Special Economic Zone, Rockwell Automation, the leading supplier of industrial automation solutions, motor control devices and information software has created jobs in such areas as engineering/software development, services centre for various types of activities (including finances, IT, procurement), production involving assembly of electronic, mechanical and electrical components as well as in the sector of power electronics. Rockwell Automation has been operating in Katowice since May 2006. It currently employs more than 1,000 people. The construction of the centre, which now has the area of 16 thousand sq metres, began in September 2006. The Company decided to invest in Katowice due to an access to competent and qualified staff in the vicinity. This versatile facility

houses a manufacturing plant, an R&D centre specializing in software development and a common administrative unit.

The third case study refers to Capgemini Polska which did place its trust in Katowice in early 2006 and now employs nearly 1,500 specialists. The company's Katowice branch consists of two prestigious office locations, where Capgemini mainly delivers and develops modern services related to IT infrastructure management, supporting customers located across the Globe. The operations in Katowice started with basic support for end users but today the company offers complex IT Infrastructure Management support and IT Transformation Services to develop IT technologies based on the highest standards. The site in Katowice plays a major role in Capgemini Global IT Infrastructure Delivery Network, ensures the continuity of processes and the effective attainment of operational and business goals for customers all over the world. The company's competences also include an innovative approach to IT services management. The employees of Katowice Delivery Centre become experts constantly developing their competencies in Service Desk, ITIL Process Management, IT Infrastructure Support, and Transformation Services. That enables the company to participate in the most complex projects implemented for companies in the public sector, power industry, pharmaceutical industry, chemical industry, financial sector. In the case of Capgemini investment, the most important location factor was the access to qualified staff. The company wanted to create a new center in Katowice to source the employees from the Upper Silesian Agglomeration – very important was the availability of skilled labour with IT and language skills. To a certain extent the government support mattered – the investment was included in the Katowice Special Economic Zone – so the project was exempted from Corporate Income Tax. As the three observed firms, which have already been located in Katowice for a few years, have had to adjust their activities to the changing reality, they are working now on more complex processes: some of the easier processes have migrated outside Poland – for example to India or got automated. New – more complex processes are successively introduced to Katowice offices of these companies.

Conclusions

Companies from the modern business services sector choose Katowice because of the huge potential of the local labour market. Availability of people with the knowledge of foreign languages, according to companies and human resources advisors, seems a little worse than in Krakow. However, Katowice has a comparative advantage in human resources connected to the industry – so for such a company like Rockwell Automation it was easier to staff the shared service centre with specialists that know the background of industrial processes. In comparison to Krakow, Katowice – as a post-industrial city – has a lower perceived quality of life – it has not that many tourist attractions, there are fewer restaurants – an important factor for some of the investors from modern business services. The companies are often visited by their international

clients and it is a comparative advantage to have, for example, a medieval market square in the city. It is also easier to attract employees to a city with a high quality of life.

The modern business services sector projects exert a significant influence on the local and regional economy. The development of modern business services sector in a post-industrial city like Katowice brings many advantages. Labour market diversifies and new jobs are created. As mentioned before, the sectors bring more and more new jobs each year. Also new educational offers are created due to cooperation between business and universities. The good example can be the IBM case study. So far IBM has signed cooperation agreements with the following 5 universities in the region: University of Economics in Katowice (October 2013), Katowice School of Economics (GWSH) (June 2012), University of Dąbrowa Górnicza (October 2012), University of Silesia (October 2012), Silesian University of Technology which continues its cooperation within the framework of the Letter of Intent signed in 2001 confirming its participation in the *Partners in Education* programme.

Cooperation with the IT giants will certainly help Polish universities to boost their competitive advantage and will help to align students' and graduates' competences and skills with the requirements of the contemporary labour market. It has also made it possible to conduct activities and classes during which students have access to cutting edge infrastructure and are able to acquire knowledge that can be directly applied in their future professional activities.

The sector also influences the connectivity between the Upper Silesian Agglomeration cities resulting from human and capital movements. Development of the office market and construction of new high-class office buildings is another important result. Undoubtedly, the introduction of new companies from the business services sector has an impact on the development of the office building market. Thanks to them, the demand for high-quality office space in the city grows and many new office projects have been completed. Primarily, the following should be mentioned: IBM (new headquarters in A4 Business Park) and PwC together with Capgemini (new seats in Silesia Business Park). The total supply of office space in Katowice is approx. 337,000 sqm, making it the fifth largest office market in Poland, after Warsaw, Krakow, Wrocław and the Tri-City. A further influence of the sector is noticed in business tourism. Most of the new jobs are created in the hotel and catering services, retail gift (often luxurious), culture (museums), and tourism services (guides, etc.) The effects appear as well in the increase in incomes for local budgets from the corporate income tax (CIT), personal income tax (PIT), and property tax value. An increase in household purchasing power is the next result. The sector development effects are expressed through the impact of spending by centres workers' salaries on the labour market. Opening new business service centres and a growth in employment at existing centres increases household purchasing power and results in the development of other companies that address their needs as consumers. Part of the employees' income is devoted to consumer goods and services and goes to different sectors of economy. There should be more European funds available for modern business services investments and also for city halls attracting such companies to a city – maybe through the Regional Operational Programmes.

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ROZWÓJ SEKTORA NOWOCZESNYCH USŁUG BIZNESOWYCH W MIASTACH POPRZEMYSŁOWYCH – CZYNNIKI LOKALIZACJI I EFEKTY INWESTYCJI W KATOWICACH ORAZ AGLOMERACJI GÓRNOŚLĄSKIEJ

ABSTRAKT: Artykuł skupia uwagę na rozwoju sektora nowoczesnych usług biznesowych w miastach przemysłowych. Po pierwsze, wprowadzono definicję sektora nowoczesnych usług biznesowych wraz z określeniem czynników lokalizacji determinujących inwestycje zagraniczne, jak również wskazano na efekty tego rodzaju inwestycji w ramach gospodarki lokalnej i regionalnej. Po drugie, zaprezentowano poziom roz-

woju sektora nowoczesnych usług biznesowych Polsce, Aglomeracji Górnośląskiej oraz w Katowicach, a także proces zmian strukturalnych zachodzących w Katowicach w celu przyciągnięcia projektów sektora nowoczesnych usług biznesowych. Kolejno zaprezentowano studia przypadków: IBM Delivery Centre, Rockwell Automation and Capgemini Centre. Zaprezentowano analizę, które z czynników lokalizacji scharakteryzowane w części analitycznej w największym stopniu dopasowane są do analizowanych przykładów lokalizacji działalności sektora nowoczesnych usług biznesowych. Na zakończenie zarysowano wpływ analizowanego sektora na regionalną i lokalną gospodarkę Katowice oraz Aglomeracji Górnośląskiej.

SŁOWA KLUCZOWE: sektor nowoczesnych usług biznesowych, miasto przemysłowe, rozwój miejski, Katowice, Aglomeracja Górnośląska, bezpośrednie inwestycje zagraniczne