

OTDK-DOLGOZAT

Somosi Dávid Áron

MSc

2013

A kiszervezett szolgáltatások piac versenyképessége Lengyelországban
Competitiveness of the outsourced services market in Poland

Somosi Dávid Áron

Kézirat lezárva: 2012. június 24.

Abstract

This paper examines what are the main factors of the foreign direct investment regarding the outsourcing services market in Poland. It uses the concept of competitiveness to test the following hypothesis: Poland is a favourable place to outsource on the basis of competitiveness indicators. In my examination I highlight the factors that makes Poland more attractive destination of foreign direct investments than other countries in the region in the field of outsourced services? After a brief overview of the theory of competitiveness and its factors I summarise the current state of the foreign direct investments in Poland. I examine possible connections among different factors of competitiveness and the success of outsourced services market. Based on the analysis the hypothesis is proved to be true.

JEL code: O18, O47, O52

Key words: competitiveness, GCI, outsourcing, Poland, WEF

Table of contents

Introduction	4
1. Theory of competitiveness	5
1.1 The development of the concept of competitiveness	5
1.2 The diamond model.....	6
2. The Global Competitiveness Report by the World Economic Forum	7
3. The outsourced services markets.....	10
3.1 Characteristics.....	10
3.2 Different types of outsourcing	11
3.2.1 Dependence and ownership of service centres.....	11
3.2.2 Geographic location of outsourced services	12
3.2.3 Competitive factors of the outsourced services markets	13
4. Overview of FDI trends in Poland.....	14
5. Competitiveness of the outsourced services market in Poland	16
5.1 Benchmarking of Poland's outsourced services market related competitive factors	16
5.1.1 The scope of the analysis	16
5.1.2 Methodology	18
5.2 Results of the analysis	20
5.2.1 Strengths	20
5.2.2 Weaknesses.....	22
6. Conclusions and outlook.....	24
List of figures	25
Appendix	26
6.1 Appendix 1	26
6.2 Appendix 2	27
References	28

Introduction

Competitiveness is a key issue for every market players. Competitiveness can be defined in terms of nations, cities, firms, regions or even non-governmental organisations. Competitiveness of nations is essential for both policy makers and investors. I highlight these two groups because the fact that more and more countries tend to compete for attracting foreign direct investments (FDI) due to the effect of globalisation. During certain FDI decisions more countries with similar environment and capabilities usually from the same region compete with each other in order to win that investment. For example the post-socialist countries in the Central and Eastern Europe (CEE) region represent such a group. FDI projects play a significant role in the development of these countries, however, in many cases they are competing with each other to gain the limited amount of FDI targeted this region. Therefore it is really important for decision makers to take factors of competitiveness into consideration. They should indentify and recognise those favourable or unfavourable factors, which can determine the FDI decision in the end.

In my paper I examine the question of competitiveness using the case of the outsourced service market in Poland. I chose this case because of the fact that Poland became extremely attractive destination of FDI in the CEE region. Significance of the outsourced services market in the country is growing rapidly in terms of number of firms, employees, income etc. (KPMG, 2009).

First, I have an overview of the theory of competitiveness. Second, I introduce the Global Competitiveness Index (GCI) by the World Economic Forum (WEF), my examination and analysis is based on the method and results of GCI. Third, I introduce the basic characteristics of the outsourced services market and Poland's economy. Fourth, I analyse competitive indicators to test my hypothesis: Poland is a favourable place to outsource on the basis of competitiveness indicators. Based on my analysis I concluded that my hypothesis is right.

1. Theory of competitiveness

1.1 *The development of the concept of competitiveness*

In order to understand the competitiveness first of all it is important to have a quick overview of its historical background. According to Chikán-Czakó (2009) development of competitiveness is based on the followings.

Competitiveness has its roots in the 1980s. In these years the leadership role of the United States in the world economy was decreasing. As the Reagan administration recognised the tendency a comprehensive study was launched that aimed to identify the most important factors responsible for the declining position of the United States and dramatic improvement of Far Eastern nations in the international trade. More studies were born during this research that had a great and long lasting impact (Scott-Lodge (1985), Michael E. Porter (1999): *The Competitive Advantage of Nations*). The general and main conclusion of these works was that the United States' competitiveness had been declining continuously in the previous one and half decade and thus it had become more dependent on international trade. It was reflected by trade balance deficits, loss of market share, shrinking after-tax real wages etc. Moreover, the studies found that the greatest challenge is represented not by the traditional competitors (i.e. Western European countries) but rapidly growing, far eastern nations. The following reasons were pointed for the new situation (Chikán-Czakó, 2009, pp. 42):

- bad macroeconomic administration
- self-satisfied business world
- wrong public policies and inefficient institutions
- Far East challenge

The authors identified two national strategic alternatives: **redistribution focus** (the economic security and income redistribution are the most important economic policy, the government ensures the freedom of competition and increase the redistribution income) and **development focus strategies** (growth and productivity as well as competitiveness are the major goals of economic policy) (Scott-Lodge, cite Chikán-Czakó, 2009, pp.42-43).

1.2 The diamond model

According to Porter (1990) productivity is able to evaluate competitiveness of nations and continuous growth of productivity can lead to the rise of living standards¹. Productivity, however, is based on the performance and efficiency of firms in the country. The so-called diamond model by Porter is based on this recognition. According to Porter's approach competitiveness of a country or a firm is determined by both macro and microeconomic factors. The diamond model classifies the national environment by four factors, which can influence the firm level competitiveness. The diamond model and its factors are shown below in Figure 1.

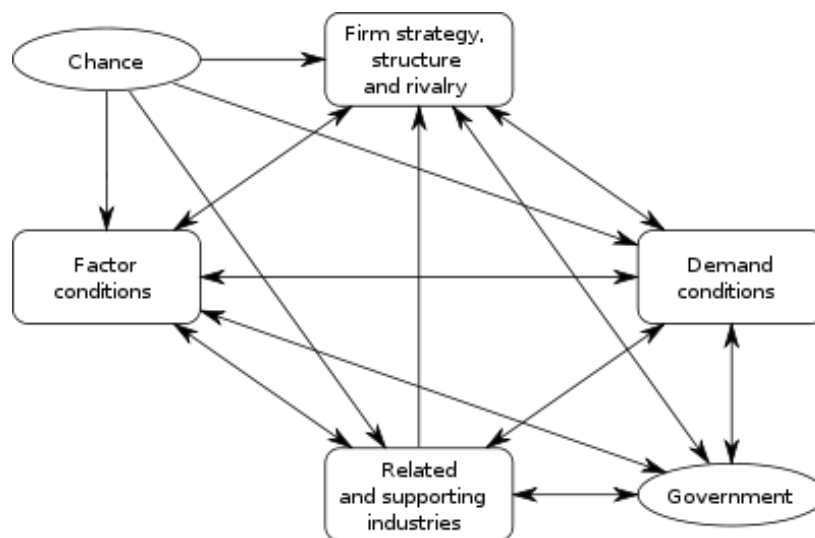


Figure 1. The diamond model

Source: http://upload.wikimedia.org/wikipedia/en/thumb/0/09/The_Porter_Diamond.svg/400px-The_Porter_Diamond.svg.png

Examples for elements of the model can be the followings:

- **Factor conditions** includes, inter alia, human resources (such as cheap labour costs in China), natural resources (such as oil and gas fields in Russia), or administrative and informational infrastructure (such as developed institution system in Switzerland).
- **Demand conditions** includes, inter alia, the demand volume (such as considerable domestic market in the United States) quality of demand (quality products are more popular in Scandinavia).

¹ Productivity means the efficiency of production. It is usually measured by the ratio of GDP/working hours-

- **Related and supporting industries:** the local suppliers, firms of related industries and industrial clusters (such as automotive in Stuttgart, Germany) also influence firm competitiveness for example by knowledge transfers or more efficient operations.

2. The Global Competitiveness Report by the World Economic Forum²

The Geneva, Switzerland based World Economic Forum (WEF) has been publishing its Global Competitiveness Report (GCR) since 1979. It has been using to so-called Global Competitiveness Index (GCI) as a tool to measure competitiveness of nations. In the report competitiveness is defined as “the set of institutions, policies, and factors that determine the level of productivity of a country” (WEF, 2011, pp. 4). Thus according to the authors of the report competitiveness is related to more and diverse fields (for example institutions, production factors) that determines the productivity of a country. The WEF (2011) also emphasise the fact that the level of productivity determines the wealth and development of nations. Since productivity influences the profitability of investments more competitive countries are more likely to grow faster as well. In other words the concept of competitiveness is both static and dynamic: productivity determines the ability of maintaining high profitability, but productivity is also an important driver of profitability of investments that is a key explanatory factor for economic growth potential.

In order to have a more detailed examination the WEF uses data from public sources (for example UN, IMF databases) and the results of surveys carried out with leaders of the local businesses. While the former has about one-third the latter has around two-third of weight in the overall results, which are expressed in scores ranged between 1-7. In 2011 142 countries were involved in the report. The WEF uses more than 110 variables in order to determine the competitiveness results of a country. These 110 variables are divided into 12 main categories (pillars), which belong to 3 basic groups that are the followings.

I. Basic requirements

1. Institutions
2. Infrastructure
3. Macroeconomic environment
4. Health and primary education

² In this chapter I largely rely on the report of WEF (2011).

II. Efficiency enhancers

5. Higher education and training
6. Goods market efficiency
7. Labor market efficiency
8. Financial market development
9. Technological readiness
10. Market size

III. Innovation and sophistication factors

11. Business sophistication
12. Innovation

These three groups are highly connected to the stages of economic development. GDI identifies three main stages of economic development: (1) factory-driven; (2) efficiency-driven; and (3) innovation-driven. Additional two transitional stages are applied between the three stages. The three groups of the 12 main factors are in line with these stages of economic development. A less developed, factory-driven country the most important and determining factors of competitiveness are rather from the first group of factors (for example primary education including level of illiteracy). In such cases it is usual that the economic development are based on natural sources or cheap labour so the main source of income can be the export of a natural resource (for example oil and gas in the case of Nigeria). Despite this a highly developed, innovation-driven country has to take into account factors of the third group as key elements of maintaining or developing the competitiveness of the country (for example level of innovation including R&D spending). In this case the engines of economic development are high added value services and developed industries thus for example financial services can be one of the main income sources in a developed country (see Switzerland). The basis of each stage of economic development category is the GDP per capita. Taking into consideration that weight and importance of competitiveness factors depend on the stage of development the WEF applies different weightings (see Figure 1). According to Porter (1990) the following factors are necessary in order to develop from one stage to the next one: motivation; domestic competition; renewal of demand for quality; ability to overcome selective factor disadvantages; readiness to establish new ventures.

Stages of development					
	Stage 1	Transition from stage 1 to stage 2	Stage 2	Transition from stage 2 to stage 3	Stage 3
	Factory-driven		Efficiency-driven		Innovation-driven
Income threshold (GDP per capita in US\$)	< 2,000	2,000 – 2,999	3,000 – 8,999	9,000 – 17,000	> 17,000
Weights of basic requirements	60%	40-60%	40%	20-40%	20%
Weights of efficiency enhancers	35%	35-50%	50%	50%	50%
Innovation and sophistication factors	5%	5-10%	10%	10-30%	30%

Figure 2. Weights of main subindexes and income thresholds for stages of development

Source: Based on WEF (2011, pp. 10)

According to the 2011-12 Global Competitiveness Report the 10 most competitive economies in the world and their scores are shown in Figure 2.

The 10 most competitive economies in 2011-12		
Rank	Country	Score
1	Switzerland	5.74
2	Singapore	5.63
3	Sweden	5.61
4	Finland	5.47
5	United States	5.43
6	Germany	5.41
7	The Netherlands	5.41
8	Denmark	5.40
9	Japan	5.40
10	United Kingdom	5.39

Figure 3. The first 10 countries of the GCI in 2011-12

Source: Based on WEF (2011, pp. 15)

Based on the descriptions and data mentioned above it is clear that countries with high scores are typically economies with high level of income, technological development and service sector providing high added value has a significant role as well.

The GCI and the GCR are valuable source of information regarding competitiveness of nations. Because of the wide range of competitiveness indicators it is possible to identify

the relative strengths and weaknesses of each country. This kind of data can be extremely important regarding international business cases. Multinational corporations (MNC) organise their operation in more countries with different environment. If a MNC wants to widen its operation in more countries and plans to invest capital in a totally market it is important to evaluate and compare the potential countries in the fields of relevant indicators. One of the most important part of foreign direct investments (FDI) decisions are location advantages of the new market the firm wants to enter (Dunning, 1980). Competitiveness reports usually cover a wide range of information that indicates such advantages, thus analysing the data of the GCR can be a proper first step of evaluation and shortlist process when it comes to location analysis. In other words GCR can be used as a right tool to determine the range of potential new countries where the firm wants to continue its international operation.

3. The outsourced services markets

3.1 *Characteristics*

Before I examine the development and current state of the Polish outsourced services market it is important to have a general overview of the characteristics of this kind of services.

After the failure of many centralisation attempts in the eighties and nineties companies became to distinguish their primary (core) processes (e.g. marketing and sales), and supporting processes (e.g. HR management, accounting) to focus on their main, value added activities in line with the value chain framework introduced by Michael Porter in 1985. As a result of this a considerable trend of outsourcing started in the early 1990s. Nowadays it is usual for MNCs to have outsourced activities, which are not part of the core processes of the company in order to decrease operating costs and enhance effectiveness. Therefore mainly multinational companies tend to decide to outsource their operations to low-cost locations, where the less important processes of the company can be carried out. However, not only costs are taken into consideration, quality, effectiveness, and strategic goals as well as new business opportunities can be also identified as important drivers of outsourcing. Service centres that manage the outsourced processes can utilise the economics of scale since one centre is specialised in one activity and eliminate potential duplications of activities at the client company (for example each

division has its own accounting department that could be outsourced to one service centre, which is specialised to manage all these accounting activities centrally). Moreover, the majority of service centres operates in market conditions that can be a good indicator of quality and effectiveness. In addition service centres can support the business process reengineering and focus on new growth opportunities for the client company (Kontra-Lajkó, 2011). Thus, we can see that there is a more sophisticated argumentation than only cost cutting in favour of outsourcing.

3.2 *Different types of outsourcing*

The different ways of outsourcing can be classified according to more points of view including type, geographic location, dependence, and ownership aspects. In the followings I characterize these groups.

3.2.1 *Dependence and ownership of service centres*

Companies have basically two methods of outsourcing based on the fact whether they own the service centre or it is a totally separate and independent entity. The first one is to open and operate a company-owned shared service centre, while the second one is to outsource operations to a third-party provider (Stepien, 2009).

3.2.1.1 *Shared service centres*

The shared service centres (SSC) are usually set up as a subsidiary but separate legal entity by the mother company. Thus the SSC's client is the mother company for which it manages the outsourced processes. Because of the fact that it is a separate entity it cannot be considered as an internal service unit, however, it is not a totally independent service provider either. What is the difference between an independent and a totally independent company? Because of this relation and dependence between the mother company and the SSC, shared service centres are called "captive" service providers since they cannot make offers or perform services for other companies and their decision-making is relatively limited and determined by the owner (client) company, too (Kontra-Lajkó, 2011). For example Carlsberg Group, the 4th largest brewery group in the world established a subsidiary, Carlsberg Accounting Service Centre (ASC) in Poznan, Poland. It is an independent, shared-service company that provides accounting services to other companies within the Carlsberg Group. The ASC's aim to be a key player in the Finance

operating model for North West Europe of the Carlsberg Group and to deliver finance services with high quality at competitive unit costs (Carlsberg Group, 2012).

3.2.1.2 *Third party service providers*

Outsourced activities can be managed by an independent company as well that is specialised in a specific field of supporting processes and offer and provide services for more, different clients at the same time. These are the so-called “non-captive” service providers because they may have more, different clients and since they are not subsidiaries their decision making is not limited by a mother company. The services are based on long-term contracts. This kind of companies compete with each other on the market, thus their service (managing standardised supporting processes) must be competitive both in terms of quality and price. The most frequent types of services in this field are IT supporting activities, HR administration, telecommunication, and customer service (Kontra-Lajkó, 2011). The biggest companies among third party service providers are also MNCs operating worldwide, such as Tata Consulting, and Accenture.

3.2.2 Geographic location of outsourced services

Classification of service centres can be done by geographic aspects as well. Based on the distance between the locations of the core and supporting processes we can distinguish (1) offshore outsourcing; (2) nearshoring; and (3) onshore outsourcing (Kontra-Lajkó, 2011). The characteristics and advantages of each types are summarised in the following table.

Type of outsourcing	Description	Example
Offshore outsourcing	The company outsources its processes to another country and thus, it utilises the advantages of the different geographic location such as lower labour cost, tax rates or different time zone.	Outsourcing from highly developed countries to low cost Asian or Latin-American countries such as India or Brazil.
Nearshoring	It is similar to the offshore outsourcing, however, relatively close distance is important both in cultural and geographic terms. In this case companies utilise the advantages of similar culture, working ethics, time zones and lower travelling costs.	Outsourcing from Western European headquartered companies to Central and Eastern European locations.
Onshore outsourcing	In case of onshore outsourcing the primary and the outsourced supporting processes take place in the same country. It is a frequent solution when the same cultural or administrative environment is necessary (e. g. same language, legislation).	Outsourcing from the capital to the country in a smaller city or town where operating costs are significantly lower

Figure 4. Different types of outsourced services regarding geographic location

Source: Kontra-Lajkó (2011)

3.2.3 Competitive factors of the outsourced services markets

Competitive factors of outsourced service markets could be understood if we look at the characteristics of the processes and types of jobs in this field. It is clear that almost every task requires knowledge, thus more developed human resource is necessary (with skills such as English language, good computer command, good analytical skills etc.). Apart from this only few items of equipment are required to manage such services such as information technology infrastructure (computers, servers, broadband networks) and office infrastructure (available and appropriate offices with the right transport connections). All in all almost all the SSC senior managers interviewed in literature (see Kontra-Lajkó, 2010; KPMG, 2009) agree on that labour quality and cost are the main drivers of this industry and only few additional, non-human related factors are taken into consideration when it comes to consider the advantages of a possible shared service centre locations.

4. Overview of FDI trends in Poland

In this chapter I sum up the economic growth and inward foreign direct investment (FDI) trends took place in Poland in the past few years.

Polish economic growth and macroeconomic stability were both outstanding among the European Union (EU) member states in the last few years of the two thousands. The Polish economy could grow despite the global economic downturn in 2009 moreover Poland was the only EU member that had positive growth rate in that year (Andersen, 2010). Between 2008-2013 the highest average annual gross domestic product (GDP) growth rate will take place in Poland (3.32%) that significantly overtakes the second best performing Slovakia's rate (2.02%) (Eurostat, 2011a³). Besides the GDP growth rate there are more fields of the economy in which Poland has recently made considerable improvements. Regarding the absolute number of FDI projects in a year, Poland was ranked 7th best performing in the EU in 2009 (102 projects), however, there was a significant jump regarding this number in the last couple of years (Ernst & Young, 2010).

According to the latest UNCTAD⁴ surveys carried out among multinational corporations (MNCs) worldwide Poland proved to be the most attractive destination regarding FDI decisions in the EU, while globally it was the 6th most attractive FDI destination. Only the BRIC⁵ countries and the United States were ranked ahead of Poland. Moreover, besides Poland only the Czech Republic was represented among the top 20 attractive countries from the Central and Eastern European region (PMR, 2011). On the other hand the Ernst & Young's 2010 European attractiveness survey showed that the judgement of attractiveness can change a lot only in a few years of time. While in 2006 Western Europe and Central and Eastern Europe (CEE) were the two most attractive regions, in 2010 China edged out Western Europe in this position (see Figure 5).

³ The source of the following macroeconomic data is the online database of Eurostat (<http://epp.eurostat.ec.europa.eu/tgm/table.do?tab=table&init=1&plugin=1&language=en&pcode=tsieb020>)

⁴ UNCTAD: United Nations Conference on Trade and Development.

⁵ BRIC countries are Brazil, Russia, India and China.

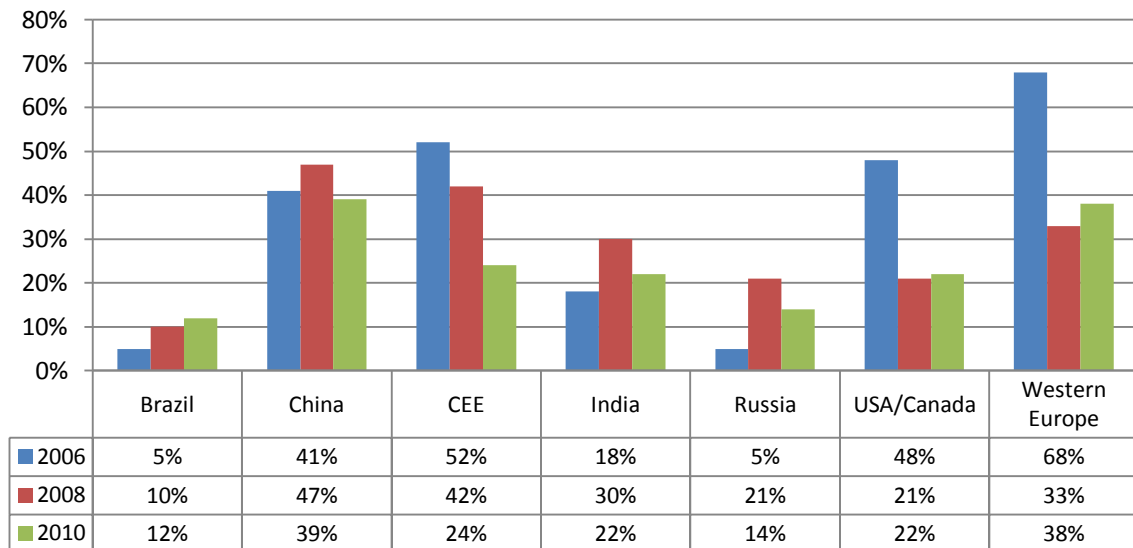


Figure 5. Most attractive FDI regions in 2010⁶

Source: Based on Ernst & Young (2010)

In general investors tend to focus more on emerging markets because they are recognising that their return on investment could be a stable – and possibly more profitable – in emerging and high-growth markets, while their risks could be also manageable (Ernst & Young, 2010). This phenomenon rises the question with which country does Poland compete for FDI inflow? On the one hand it competes with other countries in the CEE region that have similar economic, political, social and cultural environment, on the other hand as an outstanding attractive FDI destination it competes with other top rated economies such as China or India.

Among the FDI projects in Poland the role of manufacturing investments and business process outsourcing is considerable. Numerous foreign companies set up and operate shared service centres (SSC) and regional development centres, among which investments related to knowledge intensive industries, such as information technology are also represented (Berry, 2011).

Based on the findings and facts mentioned above it can be interesting to know: what is the reason for the outstanding Polish performance? As I have already mentioned before FDI location decisions are usually based on the comparison and evaluation of different competitiveness factors of the potential locations. Thus, if we want to examine the reasons

⁶ Statistics are based on the Ernst & Young's 2010 European attractiveness survey with 814 total respondents selecting 3 possible answers regarding FDI attractiveness of the regions.

for the outstanding Polish performance regarding economic growth and FDI it is essential to examine the competitiveness of the country in details while comparing it to the results of other countries in the region at the same time.

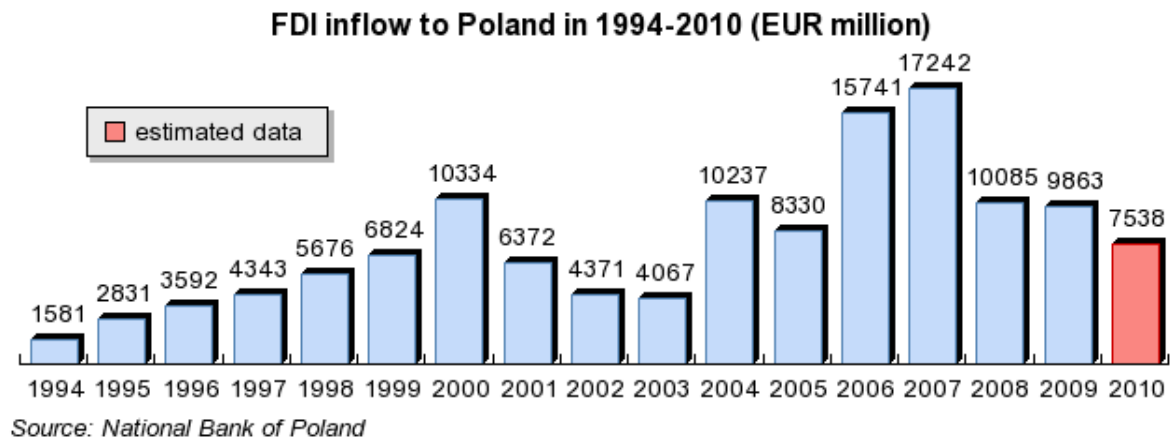


Figure 6. FDI inflow to Poland in 1994-2010 (EUR million)

Source: http://www.paiz.gov.pl/poland_in_figures/foreign_direct_investment

Based on the WEF reports and their own research Dimian and Danciu (2011) consider the deliberate economic policy and the rise of internal market as the main success factors of Poland avoiding recession. In addition the authors point out that the high level of education and the development of financial services should be also considered as main strengths of the country. Taylor (2010) emphasises macroeconomic drivers, mainly the low inflation rate, and indebtedness as well as limitation of foreign currency loans, and significant amount of foreign exchange reserves regarding the question: why could Poland avoid the recession and keep up the good economic performance.

5. Competitiveness of the outsourced services market in Poland

5.1 *Benchmarking of Poland's outsourced services market related competitive factors*

5.1.1 The scope of the analysis

In this section I evaluate Poland's performance in the fields that are highly related to the competitiveness and success of outsourced services. I make the analysis in a hypothetical company's point of view that aims to set up a captive shared service centre. I use various data sources, however, the basis of my whole analysis is Global Competitiveness Reports

by the World Economic Forum. From these reports I highlighted sub-components of the so-called Global Competitive Index (GCI), which measures the overall competitiveness of a country. These sub-components are able to measure the performance and efficiency of the most important factors that should be taken into account when a company wants to determine the most suitable environment to set up and operate a shared service centre. I list these sub-components and explain the reason for selecting them later. In order to have a more detailed picture I use further data and statistics that are connected to the sub-components (for example English learning connected to the quality of educational system).

The factors I analyse are also appropriate for “non-captive” service centre, however, I find it better to narrow the scope of the analysis for the following reason:

If a MNC wants to outsource to a non-captive service provider, than it is mostly interested in the quality and costs of the services and the location is more or less neutral. In case of outsourcing to a captive SSC, considerations further than cost and quality must be applied and location gains increased importance.

In my analysis I focus mainly on quality issues that influence the success of a shared service centre, however, I include drivers that indicate the potential scale of costs as well. Because of the fact that my main question is what makes Poland more attractive than other countries in the CEE region I benchmark the Polish data with six other countries from this region. Therefore the hypothetic company that wants to set up a SSC considers only CEE countries, namely Bulgaria, Czech Republic, Hungary, Poland, Romania, Slovak Republic, and Slovenia.

I have selected 17 indicators (sub-factors) of competitiveness from the Global Competitiveness Report by the WEF. These 17 items are selected on the bases of my statements in chapter 3.2.3.

The whole list of indicators with the name of the containing pillars is the following:

1. Strength of investor protection (institution)
2. Quality of overall infrastructure (infrastructure)
3. Tertiary education enrolment (higher education and training)
4. Quality of educational system (higher education and training)

5. Quality of management schools (higher education and training)
6. Extent of staff training (higher education and training)
7. Total tax rate (goods market efficiency)
8. Flexibility of wage determination (labor market efficiency)
9. Rigidity of employment index (labor market efficiency)
10. Hiring and firing practices (labor market efficiency)
11. Redundancy costs, weeks of salary (labor market efficiency)
12. Pay and productivity (labor market efficiency)
13. Reliance on professional management (labor market efficiency)
14. Brain drain (labor market efficiency)
15. Availability of latest technologies (technological readiness)
16. Willingness to delegate authority (business sophistication)
17. Availability of scientists and engineers (innovation)

.All of them are connected to the successful operation of a SSC. For example low quality of infrastructure (such as lack of international airports or highways expresse) can make the whole operation and group level of coordination more difficult or poor labor market efficiency (for example high redundancy costs) can raise both implicit and explicit additional operating costs.

5.1.2 Methodology

In order to compare the benchmark group countries by the above mentioned 17 indicators I developed a ranking method to have more detailed picture of the overall performance. Each indicator in the Global Competitiveness Report is measured by different type and range of scores and each one is ranked among the 142 countries of the report. The basis of my ranking method is the following: I used and transformed the score data to evaluate each selected sub-indicator in order to receive the so-called “relative performance rank”, which aims to sign the strengths and weaknesses of each country. Ranking a country only by absolute can be the score can be misleading since the different standard deviations and ranges of the scores. I explain the whole method by the example of the following case.

Let’s say there are three countries (A, B, and C) with two indicators (X and Y). The scores are shown below:

	Country A	Country B	Country C	Country B's rank	Country B's RP score
Indicator X	3.0	4.9	5.0	2	2.10
Indicator Y	5.9	4.0	3.0	2	3.31

According to both indicator X and Y Country B is ranked second, however, it is clear that the “value” of the two 2nd ranks are not the same at all. Let's say indicator X represents the quality of labour, while indicator Y represents some infrastructure related performance. In a decision maker's point of view Country B could be also a good decision since Country C and B have almost the same level of labour quality. Meanwhile Country B is much more expensive than Country C. Thus I found it important to develop a more sophisticated ranking that can support such decisions. The basic logic of it is to give “punishment” scores to the original ranks. The amount of punishment is in line with the differences between the country measured and the country that ranked first. The higher the difference is the larger the punishment is. For example punishment for Country B in the field of Indicator X is considerably low since it is only 0.1 point behind the first ranked Country C. On the other hand punishment is considerably high in the field of Indicator Y since the difference is 1.9 point. Thus the formula of the new ranking (called relative performance rank) should take into consideration the range of the scores (the difference of maximum and minimum scores) and the relative difference between the best scores and the score of the country we analyse. Therefore I developed and used the following formula to receive the relative performance ranks.

Let's say:

C_n is the county measured;

$RP_{C_n}(X)$ is the score of relative performance of C_n country in the field of indicator X;

R is the absolute rank of C_n ;

S_{C_n} is the score of C_n country in the field of indicator X;

MAX_H is defined as $\max\left(\frac{S_{C_1}}{\max(S_{C_1}, S_{C_2}, \dots, S_{C_n})}, \frac{S_{C_2}}{\max(S_{C_1}, S_{C_2}, \dots, S_{C_n})}, \dots, \frac{S_{C_n}}{\max(S_{C_1}, S_{C_2}, \dots, S_{C_n})}\right)$;

MIN_H is defined as $\min\left(\frac{S_{C_1}}{\max(S_{C_1}, S_{C_2}, \dots, S_{C_n})}, \frac{S_{C_2}}{\max(S_{C_1}, S_{C_2}, \dots, S_{C_n})}, \dots, \frac{S_{C_n}}{\max(S_{C_1}, S_{C_2}, \dots, S_{C_n})}\right)$;

MAX_L is defined as $\max\left(\frac{\min(S_{C_1}, S_{C_2}, \dots, S_{C_n})}{S_{C_1}}, \frac{\min(S_{C_1}, S_{C_2}, \dots, S_{C_n})}{S_{C_2}}, \dots, \frac{\min(S_{C_1}, S_{C_2}, \dots, S_{C_n})}{S_{C_n}}\right)$;

MIN_L is defined as $\min\left(\frac{\min(S_{C_1}, S_{C_2}, \dots, S_{C_n})}{S_{C_1}}, \frac{\min(S_{C_1}, S_{C_2}, \dots, S_{C_n})}{S_{C_2}}, \dots, \frac{\min(S_{C_1}, S_{C_2}, \dots, S_{C_n})}{S_{C_n}}\right)$.

If high values of score are favourable then relative performance rank is calculated as the

followings: $RP_{C_n}(X) = R * \left(1 + \left(1 - \frac{\frac{S_{C_n}}{\max(C_1, C_2, \dots, C_n)} - MIN}{MAX - MIN}\right)\right)$.

If low values of scores are favourable then relative performance rank is calculated as the

followings: $RP_{C_n}(X) = R * \left(1 + \left(1 - \frac{MAX - \frac{S_{C_n}}{\max(C_1, C_2, \dots, C_n)}}{MAX - MIN}\right)\right)$

Using this method Country B's RP score from the above mentioned example is 2.1 in the field of Indicator X, while 3.31 in the field of Indicator Y. Low difference between the simple rank and the RP score sign low punishment. The lower RP score is achieved by the country the better its performance is. The lowest possible RP score by the formula described above is 1.0, which shows the country is the best-performing regarding the indicator in question

After calculating the scores of each indicators for Poland and the benchmark group I highlighted the indicators with the four highest RPR and four lowest RPR for Poland. High RP scores signs strengths, while low RP scores the weaknesses of Poland.

5.2 Results of the analysis

In this chapter I summarise the results and highlight the most important observations of the analysis reviewing Poland's strengths, weaknesses, and overall performance. For the full analysis, results, and further details see Appendix 2.

5.2.1 Strengths

Best performing indicators in connection with Poland proved to be Willingness to delegate authority (part of the Business sophistication pillar), Flexibility of wage determination (part of Labor market efficiency pillar), Quality of educational system, and Extent of staff training (both are parts of Higher education and training pillar).

Strengths				
	Indicator	RP Score	Rank/BG*	Rank/142**
1	Willingness to delegate authority	1.00	1	52
2	Flexibility of wage determination	2.13	2	47
3	Quality of educational system	2.18	2	78
4	Extent of staff training	2.33	2	55

Figure 7. Strengths of Poland and their relative performance (RP) score

* *Rank/BG: Poland's rank in the benchmark group*

** *Rank/142: Poland's rank among all the countries in the GCR*

Source: WEF (2012) and own calculations

In general this result shows us that Poland's relative strengths are rather based on labour related soft drivers such as good tertiary education and training as well as empowering. Well educated labour that is willing to take responsibility is favourable for outsourced services that are knowledge based activities absolutely, although they do not necessarily require the high-end kind of knowledge. Moreover, Poland's strengths are factors that usually cannot be changed fast, they are rather the result of a long process or the domestic culture. This means for example that it takes many years to see the payoffs of a higher education system development policy. But for example willingness to delegate authority is an indicator that is highly embedded to the local culture and thus it could be changed only in the very long run. All in all Poland's strengths are factors that can ensure competitive advantage for several years because imitation or implementation of such factors takes considerable resources and time for a nation. Regarding the highlighted fields Poland's main competitors are Slovenia (in the field of willingness to delegate authority), Hungary (in the flexibility of wage determination), and the Czech Republic (in quality of educational system and extent of staff training).

However, Poland's labour and education related statistics are in line with these strengths only in some aspects. According to the QS (2012) Poland's has the best higher educational infrastructure in the region (the most universities ranked among the top 700 in the world). Based on Eurostat (2011b) the annual expenditure on public and private educational institutions compared to GDP per capita (26.7% in Poland) is favourable as well comparing it to the benchmark group average 24.9%. In this field only Slovenia performs better than Poland (28.6%). Poland's figure of pupils learning English in upper secondary general education (92.4%), however, is below average (93.1%) and it is ranked only fifth among the seven countries.

5.2.2 Weaknesses

Poland's most significant weaknesses are the Availability of latest technologies (part of the Technological readiness pillar), Rigidity of employment index (part of the Labor market efficiency pillar), Quality of overall infrastructure (part of the Infrastructure pillar), and Availability of scientists and engineers (part of the Innovation pillar).

Weaknesses				
	Indicator	RP Score	Rank/BG*	Rank/142**
1	Availability of latest technologies	8.57	5	115
2	Rigidity of employment index	8.52	5	118
3	Quality of overall infrastructure	7.73	5	87
4	Availability of scientists and engineers	6.00	4	59

Figure 8. Strengths of Poland

* *Rank/BG: Poland's rank in the benchmark group*

** *Rank/142: Poland's rank among all the countries in the GCR*

Source: WEF (2012) and own calculations

The weaknesses show a more diffuse picture that rather includes hard drivers. For example quality of overall infrastructure (which is due to the poor road and railway network in Poland) can be developed relatively fast – if the necessary financial resources are applicable – with almost no regard to the local culture or other long term factors. This is what happens in Poland right now: due to the 2012 UEFA European Football Championship the Polish road network will be developed significantly. including a lot of kilometres of new motorways. As for availability of latest technologies a similar argument can be made: upgrading technological infrastructure is rather a cost issue that can be solved in short term if intention and financial resources are available. On the other hand availability of scientists and engineers is more like a longer term issue as it takes several years for a science and engineering related education supporting policy to have an impact. However, this is up to only a smaller part of the whole outsourced services industry, where such skills are necessary. Finally, rigidity of employment index is rather a legislation issue that can be improved relatively fast by new and less rigid employment rules.

According to Eurostat (2011b) Poland's science and technology graduates per year is above the average of the seven countries measure (Poland has 14.3 graduates, while the average is 13.8 graduates in science and technology per 1,000 of population aged 20-29 years). It means that domestic competition for this kind of profession is quite intensive. It

points out an important observation: looking at the supply side of certain factors (i.e. number of science graduates a year) is not necessarily enough to know how competitive that factor is. Intensity of competition regarding that factor (i.e. number of companies that employ science graduates) must be taken into account as well.

6. Conclusions and outlook

In this paper I emphasised that all market players have to take into account the indicators of competitiveness. In my argument it was particularly true in an international business perspective regarding the phenomenon of foreign direct investments.

In the recent years Poland has become one of the most attractive markets of FDI projects. Several MNCs have already chosen Poland as the place of their global or regional outsourced services centre instead of other countries in the region. The aim of outsourcing is basically to reduce costs and have a better quality of supporting processes in a firm. Taking this into account it is interesting to examine what competitive factors are the most significant and favourable in Poland. I analysed 17 indicators of competitiveness that are strongly related to the outsourcing services market and compared these results to other countries in the CEE region that could be potential competitor of Poland for the same FDI decisions.

In summary, the result of my analysis was that Poland has competitive advantages in the field of labour quality and culture. These can be considered as strong advantages since they are long term factors. Other factors such as taxation or communication infrastructure can also ensure competitive advantages, however, they can be modified or developed in a few months or years. So it is easier to develop the latter fields of competitive advantage for other countries and thus these kinds of advantages can disappear quickly. In the other hand long lasting, education and culture related factors cannot be imitated by others easily, but they can ensure competitive edge that makes the country more attractive. I do not say that factors such as taxation or transport infrastructure are not important but strong prioritisation of their developments can be misleading in the long run. Based on this governments or nations that want to establish long lasting competitive advantages should rather focus on soft factors (such as working culture, or level of tertiary education) instead of short-term benefits for foreign investors (such as tax reductions or road network).

List of figures

Figure 1. The diamond modell	6
Figure 2. Weights of main subindexes and income thresholds for stages of development	9
Figure 3. The first 10 countries of the GCI in 2011-12	9
Figure 4. Different types of outsourced services regarding geographic location	13
Figure 5. Most attractive FDI regions in 2010	15
Figure 6. FDI inflow to Poland in 1994-2010 (EUR million)	16
Figure 7. Strengths of Poland and their relative performance (RP) score	21
Figure 8. Strengths of Poland	22

Appendix

6.1 Appendix 1

Absolute ranks of the countries analysed among the 142 countries in the WEF report by the 17 sub-indicators and the 3 most important pillars.

	Bulgaria	Czech Republic	Hungary	Poland	Romania	Slovak Republic	Slovenia
Infrastructure	74	38	48	41	77	69	57
Higher education and training	87	36	46	74	95	101	37
Labour market efficiency	70	30	45	31	55	53	21
Strength of investor protection	56	42	66	58	92	59	102
Quality of overall infrastructure	36	77	100	36	36	93	20
Tertiary education enrolment	124	29	46	87	139	74	33
Quality of educational system	47	34	24	19	23	41	4
Quality of management schools	101	49	80	78	90	117	63
Extent of staff training	102	82	77	78	92	106	54
Total tax rate	128	39	111	55	79	87	83
Flexibility of wage determination	28	104	114	82	90	103	57
Rigidity of employment index	63	61	41	47	90	77	126
Hiring and firing practices	48	27	61	68	118	61	129
Redundancy costs, weeks of salary	55	119	50	114	91	116	141
Pay and productivity	16	42	72	21	15	51	76
Reliance on professional management	16	31	58	45	55	14	97
Brain drain	111	43	63	65	84	59	81
Availability of latest technologies	127	79	121	96	131	111	58
Willingness to delegate authority	106	40	43	88	115	49	46
Availability of	103	45	121	52	96	80	51

scientists and engineers							
--------------------------	--	--	--	--	--	--	--

6.2 Appendix 2

Poland's relative performance (RP) scores for each indicator selected in ascending order.

		Poland's RP score	Poland's rank	Strength / Weakness
1	Willingness to delegate authority	1.00	1	Strength
2	Flexibility of wage determination	2.13	2	Strength
3	Quality of educational system	2.18	2	Strength
4	Extent of staff training	2.33	2	Strength
5	Strength of investor protection	2.58	2	
6	Tertiary education enrollment	2.97	2	
7	Quality of management schools	2.90	2	
8	Brain drain	4.00	3	
9	Reliance on professional management	4.03	3	
10	Pay and productivity	4.25	3	
11	Redundancy costs, weeks of salary	4.47	3	
12	Total tax rate	4.64	3	
13	Hiring and firing practices	5.89	4	
14	Availability of scientists and engineers	6.00	4	Weakness
15	Quality of overall infrastructure	7.73	5	Weakness
16	Rigidity of employment index	6.63	5	Weakness
17	Availability of latest technologies	8.57	5	Weakness

References

Andersen, Camilla (2010): Poland: European Success Story but Challenges Ahead, IMF Survey online, Source:

<http://www.imf.org/external/pubs/ft/survey/so/2010/car032610a.htm>, downloaded: 2011.12.11.

Balaton, Károly – Tari, Ernő (szerk.) (2007): Stratégia és üzleti tervezés, Aula kiadó, Budapest

Berry, E Blake (2011): Investing in Poland 2011, Warsaw Business Journal, Warsaw

Carlsberg Group (2012): Our Company, source:

<http://www.carlsberggroup.com/Company/asc/Contact/Pages/default.aspx>, downloaded: 2012.03.20

Chikán, Attila – Czakó, Erzsébet (2009): Versenyben a világgal. Vállalataink versenyképessége az új évezred küszöbén. Akadémiai Kiadó, Budapest. pp. 36-80

Dimian, Gina Cristina – Danciu, Aniela (2011): National and Regional Competitiveness in the Crisis Context. Successful Examples, Theoretical and Applied Economics Vol. 18, No. 11, pp. 67-78

Dunning, John H. (1980): Towards an eclectic theory of international production: some empirical tests, Journal of International Business Studies, 11 (1), pp. 9–31.

Ernst & Young (2010): Ernst & Young's 2010 European attractiveness survey Waking up to the new economy, Source:

[http://www.ey.com/Publication/vwLUAssets/Attractiveness_survey_2010_EU/\\$FILE/Attractiveness_survey_2010_EU.pdf](http://www.ey.com/Publication/vwLUAssets/Attractiveness_survey_2010_EU/$FILE/Attractiveness_survey_2010_EU.pdf), downloaded: 2011.12.11

EuroStat (2011a): Real GDP growth rate – volume Source:

<http://epp.eurostat.ec.europa.eu/tgm/table.do?tab=table&init=1&plugin=1&language=en&pcode=tsieb020>, downloaded: 2011.12.11.

EuroStat (2011b): Education and training - Main tables, source:

http://epp.eurostat.ec.europa.eu/portal/page/portal/education/data/main_tables, downloaded: 2012.03.25.

Invest in Poland (2011): Foreign Direct Investment in Poland, Source:
http://www.paiz.gov.pl/poland_in_figures/foreign_direct_investment, downloaded:
2012.01.03.

Kontra, Veronika – Lajkó, Erika (2011): Multinacionális vállalatok a kiszervezett szolgáltatási iparágban in Chikán, Attila (szerk.): Multinacionális vállalatok hatása a hazai versenyre és versenyképességekre, Budapesti Corvinus Egyetem Vállalatgazdaságtan Intézet Versenyképesség Kutató Központja, Budapest

KPMG (2009): Poland as the destination for Shared Service Centers, KPMG, Warsaw

Paiz (2011): Foreign Direct Investment in Poland, source:
http://www.paiz.gov.pl/poland_in_figures/foreign_direct_investment, downloaded:
11/12/2011

PMR (2011): UNCTAD: Poland most attractive FDI destination in EU, Source:
<http://www.polishmarket.com/107950/UNCTAD-Poland-most-attractive-FDI-destination-in-EU.shtml>, downloaded: 2011.12.11.

QS (2012): QS World University Rankings 2011/12, source:
<http://www.topuniversities.com/university-rankings/world-university-rankings/2011>,
downloaded: 2012.03.25.

Stepien, Tomasz (2009): Your place or mine?, The Financial Director Polska Guide To: Outsourcing in Poland, London

Taylor, John B. (2010): Why Was Poland the Only EU Country to Avoid Recession? Economics One, 24/06/2010, Source: <http://johnbtaylorsblog.blogspot.com/2010/06/why-was-poland-only-eu-country-to-avoid.html>, downloaded: 2011.12.11.

WCY (2011): The World Competitiveness Scoreboard 2011, Source:
<http://www.imd.org/research/publications/wcy/upload/scoreboard.pdf>, downloaded:
2011.12.11.

WEF (2011): The Global Competitiveness Report 2011-2012, Source:
http://www3.weforum.org/docs/WEF_GlobalCompetitivenessReport_2010-11.pdf ,
downloaded: 2012.01.03.