

## ORIGINAL PAPER

# STRATEGIC MANAGEMENT AND MEASUREMENT OF COMPETITIVENESS OF REGIONS ON EXAMPLE OF COUNTRIES EU

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## ABSTRACT

The aim of this paper is to outline the substance of strategic management in relation to regional development with focus on the basic indicators that evaluate regional competitive advantage. Strategic management presents the collection of methods and approaches that are applicable to the regulation of regional development. The basic requirement of this process is to increase competitive advantage of the regions. It is possible to define regional competitive advantage as the ability of regions to generate revenues and keep employment rate at a level corresponding to national and international competition. The level of regional competitiveness is, for example, measurable by GDP per capita index. Besides this indicator, we can also use the evaluation of labour productivity expressed as GDP per employee as well as the ratio of employable population to the total of economically active inhabitants.

For these monitored indicators, the Czech Republic doesn't belong to the best countries. It is on the 19<sup>th</sup> place among the countries of EU in GDP per capita and it is also not very good in productivity evaluation, expressed by GDP per employee (20<sup>th</sup> place). On the other hand, the Czech Republic belongs among the countries with quite high employment rate (12<sup>th</sup> place). An application of the point method shows that the Czech Republic is on 18<sup>th</sup> place according to an average of selected indicators resulting from the GDP description per resident. It reaches only 70.2% of the level of the leading country, Luxemburg. The results of the article were obtained in the frame of the project MSM 6007665806 a MPSV 1J 016/04-DP2.

**KEY WORDS:** Competitive advantage, regional development, GDP, strategic management

## ABSTRAKT

Cílem příspěvku je nastínit podstatu strategického řízení a jeho význam pro rozvoj regionů se zaměřením na základní indikátory, které jsou využitelné k hodnocení konkurenceschopnosti regionů. Strategické řízení představuje využití řady metod a postupů, které jsou aplikovatelné v rámci usměrňování regionálního rozvoje. Základním požadavkem tohoto procesu je zvýšit konkurenceschopnost regionů, kterou je možné vyjádřit jako schopnost regionu generovat příjmy a udržet míru zaměstnanosti na úrovni odpovídající národní a mezinárodní konkurenci.

Konkurenceschopnost regionů lze například zjistit pomocí úrovně hrubého domácího produktu na obyvatele. Kromě tohoto ukazatele můžeme využít hodnocení úrovně produktivity práce (HDP na zaměstnance) a rovněž také počtu zaměstnanců k počtu obyvatel v produktivním věku.

Česká republika nepatří ve sledovaných ukazatelích za rok 2004 k nejlepším. Z pohledu HDP na obyvatele dosahuje mezi zeměmi EU 19 místo, horší je rovněž při hodnocení produktivity vyjádřené HDP na zaměstnance (20 místo). ČR patří naopak mezi země s poměrně vysokou mírou zaměstnanosti (12 místo). Z aplikace bodové metody vyplývá, že se Česká republika nachází na 18 místě dle průměru vybraných ukazatelů vycházejících z deskripce HDP na obyv. a dosahuje pouze 70,2 % úroveň nejlepšího Lucemburska. Výsledky zveřejněné v příspěvku byly získány v rámci projektu MSM 6007665806 a MPSV 1J 016/04-DP2.

**KLÍČOVÁ SLOVA:** Konkurenceschopnost, regionální rozvoj, HDP, strategické řízení

## INTRODUCTION

The importance of strategic management for the development of regions is growing, together with the effort of the regional representatives to increase the performance and competitive advantage of their regions. Individual countries, regions, cities, and towns compete among each other especially in the acquisition of economic subjects, which create and stabilize new jobs, thereby influencing prosperity and the standard of living of their residents.

In all the EU countries, regional development is supported and controlled by the individual states and regional institutions. This process is managed and planned. There is a significant shift in the paradigms of regional politics concerning increased importance of, for example, learning regions, creating innovative environment, or the support of networks and clusters [1]. In the light of this new approach, the regional development goals are based on increasing competitive advantage and utilizing proactive, planned, and strategic manner of their implementation. Programs of support are being scaled back and, at the same time, developmental programs emphasizing regional institutions and collective decision making with the largest possible public participation are gaining ground [6]. These new approaches are implemented and ensured by the means of utilizing modern tools of strategic management. They consist, besides methodic apparatus (its foundation are analyses of inner and outer environment, SWOT analysis and so on), of suitably defined mission of the region, determination of interests of key implementing entities, setting the goals and ways for reaching them (the strategy) and their consequent implementation and control [3, 4, 5, 7, 11, 12].

## AIM AND METHODS

The objective of this paper is to outline the principle of strategic management and its significance for the regional development. Another goal is to evaluate the level of the competitive advantages of the individual EU countries with the focus on defining the Czech Republic's position. We used the description of GDP development and related indicators (see table 1) for this evaluation. For the purpose of the analysis, we compared data from the year 2004. The source of the data is Eurostat [8]. To assess the monitored indicators, we also utilized the point method [2]. The principle of this method is to redistribute, for each selected indicator, 1000 points for

the data of individual countries. The best country in the monitored indicator is assigned 1000 points. The rest of the countries are then given points proportionate to this maximum value. We used the point system to evaluate the standing of per capita GDP, and an average standing was chosen to comprise the following indicators: GDP per employee ( $GDP * Empl^{-1}$ ), the number of employees per number of economically active inhabitants ( $Empl * Inh-pr-age^{-1}$ ), and the number of economically active inhabitants<sup>1</sup> per total population ( $Inh-pr-age * Inh^{-1}$ ).

## RESULTS

Strategic management represents the collection of methods and approaches that are applicable to the regulation of regional development. This process can include the following (modified [3]):

- ❖ defining the mission of the development of the region - it depends on visions, values and expectations of the key implementing entities.
- ❖ setting the strategic and performance objectives - the objectives might comprise e.g. social development of regions, development of infrastructure, improvement of environmental aspects of the life of the local population, better territorial distribution of economic activities in the region etc.;
- ❖ formulating strategy (determining strategic alternatives, their evaluation - assessment and selection) – we seek to answer the question of how to meet the future objectives. Also essential is to use the results of both the external and internal environment analyses (situation analysis);
- ❖ introducing and implementing the selected strategy (strategy implementation) - this component is related to the further elaboration of regional development strategies into more detailed programs, measures and activities. The success of the strategy implementation depends to a certain degree on the motivation of all the stakeholders and apart from other things it is also associated with the level of culture in the community;
- ❖ evaluating results and proposing corrective measures (strategic control) – it serves to ascertain the success rate of the selected strategy and also signals the necessary changes at whichever stage of its implementation.

Basic requirement of this process is to increase competitive advantage of the regions in the long run. We can define the regional competitive advantage as the ability of the

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The number of economically active inhabitants is given by the number of employed and unemployed inhabitants. Slovenia has the highest value of the ratio of average economically active inhabitants to the total population (72.3%). In contrast, France has the smallest ratio, which is 6.7 percentage points less than in Slovenia. The Czech Republic with 71.6% EAI occupies the 4th rank among the nations of the EU.

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Table 1: Selected indicators of competitive advantage of the EU countries in 2004

	<b>Population (in thousands)</b>	<b>GDP * Inh<sup>-1</sup> (in €)</b>	<b>GDP * Empl<sup>-1</sup> (in €)</b>	<b>Empl * Inh-pr- age<sup>-1</sup> (in %)</b>	<b>Inh-pr-age * Inh<sup>-1</sup> (in %)</b>	<b>GDP * Inh<sup>-1</sup> (points)</b>	<b>Average<sup>1)</sup> (points)</b>
Belgium	10396	24600	61958	60,3	66,0	506,5	743,8
Czech Republic	10196	5000	10875	64,2	71,7	102,7	641,3
Denmark	5379	30800	60793	75,7	67,2	635,4	813,9
Germany	81589	26500	61099	65,0	67,6	551,1	769,2
Estonia	1348	3600	8298	63,0	70,2	75,3	621,9
Greece	10616	11400	29369	59,4	68,4	245,0	657,9
Spain	42440	14300	33939	61,1	69,3	295,1	682,6
France	58850	23700	60527	63,1	65,7	514,9	750,4
Ireland	4059	24200	52672	66,3	69,3	497,0	758,8
Italy	57442	16500	42695	57,6	67,7	341,9	684,8
Cyprus	714	12800	27919	68,9	69,1	273,0	698,9
Latvia	2319	2800	6377	62,3	70,5	48,5	597,4
Lithuania	3434	2400	5663	61,2	68,2	57,5	614,6
Luxemburg	447	47900	117037	61,6	67,5	1000	913,4
Hungary	9944	4900	12575	56,8	69,0	101,3	601,6
Malta	400	7700	20835	54,0	68,5	158,3	610,4
Netherlands	16119	24200	48490	73,1	68,8	500,7	774,5
Austria	8045	27400	59813	67,8	68,6	571,6	782,7
Poland	37601	3900	10838	51,7	71,0	81,6	582,9
Portugal	10504	10200	20897	67,8	71,9	209,3	686,9
Slovenia	1997	10900	23178	65,3	72,3	224,7	684,2
Slovakia	5370	4000	9809	57,0	70,8	81,3	602,7
Finland	5205	26400	58260	67,6	67,2	543,6	770,9
Sweden	9006	26800	56197	72,1	66,1	549,7	779,6
United Kingdom	58285	18800	40003	71,6	67,1	394,9	736,2
<b>EU 25</b>	<b>451703</b>	<b>18200</b>	<b>43016</b>	<b>63,3</b>	<b>68,0</b>	<b>x</b>	<b>x</b>
<i>EU Candidate</i>							
Bulgaria	7786	1500	3965	54,2	69,3	30,6	566,6
Croatia	4216	4600	12771	54,7	68,6	98,5	591,1
Romania	21638	1500	3521	57,7	72,9	30,4	597,4

1) Average number of points as indicator of GDP \* Empl<sup>-1</sup>, Empl \* Inh-pr-age<sup>-1</sup>, and Inh-pr-age \* Inh<sup>-1</sup>  
Source: Czech Statistical Office- www.czso.cz, personal calculations

region to produce products and services, which will be able to compete on the international market, while securing and maintaining the incomes of its inhabitants [10].

Competitive advantage of the regions is periodically monitored and evaluated in the framework of the EU. There were a number of programs proposed for its support, even, for example, in connection to the lowering of unemployment, productivity growth, technological development, investment, transition to economy of knowledge and so on. For example, the White Paper stresses the competitive advantage of the industry, productivity growth and improving the standard of living. Productivity and employment rate were selected, in the sixth periodical report about the social and economic situation and development of the EU regions in the year 1999 [9], as the key factors defining competitive

advantages of the regions. Lately, the competitive advantage of the regions or important sectors influencing the development of the regions of the EU have been addressed in the Lisbon Strategy and also in places such as the counsel for the development of rural areas using the European agricultural fund for the rural development (EAFRD), which should be in place by the year 2007.

Based on the above, it is possible to determine the competitive advantage of the regions using the levels of GDP per capita [5]. GDP itself represents the overall monetary value of goods and services created during a given time period in a specific region. The time period is usually one year. GDP per capita is used in international comparisons as well.

It is possible to further break down the gross national product per capita according to the following relation [6]:

$$\frac{GDP}{Inh} = \frac{GDP}{Empl} * \frac{Empl}{Inh - p - age} * \frac{Inh - p - age}{Inh} \quad 1$$

GDP monetary units	gross national product in
Inh	number of inhabitants
Empl in economy	number of employed people
Inh-pr-age productive age (economically active)	number of inhabitants in

The key indicators, from the view point of region's development management, are primarily the labor productivity, expressed by GDP per employee, and the total number of employees to the number of inhabitants in productive age. The ratio of the number of productive-age inhabitants to the total population can be influenced only slightly. The advantage in using GDP is the possibility to measure the efficiency of the individual countries or subsections of these countries.

The value of GDP, measured in market values, reached the value of 8,367,184 million Euros in the year 2004. Germany contributed the most to this number (more than ¼); France, United Kingdom and Italy followed (more than 11%). The Czech Republic is in this sequence in 16<sup>th</sup> place with 0.6% share. The smallest contributions to the total GDP of EU were provided by the Baltic states, Cyprus, and Malta (approximately 0.1%).

The differences per capita in GDP among the EU 25 member countries are substantial, and in many of the newer member countries there will be the requirement for considerable growth, lasting more than a generation, in order to significantly reduce this disparity. Considering the year 2004, the EU gross domestic product per capita was more than 18,200 euro. Luxemburg reached the highest value (at 47,900 euro per capita). The European average as a whole was exceeded by additional 11 countries besides Luxemburg. The lowest values of this indicator were registered in Lithuania and Latvia (less than 3,000 euro per capita). In the Czech Republic, this indicator measured at 5,000 euro per capita which puts it, in comparison with other countries, all the way in 19<sup>th</sup> place.

An important factor, from the view of evaluating per capita GDP, is the total population of the individual countries. Germany had the greatest population at the end of 2004 (more than 18%), followed by France, United Kingdom, and Italy (more than 12.6% in each of them). In contrast, Luxemburg and Malta (with less than 0.5

million inhabitants each) counted among the smallest. The Czech Republic with almost 10.2 million inhabitants occupies the 11<sup>th</sup> position (2.3% of total EU population lives here).

Based on per capita GDP (Table 1), the important factors for evaluation of competitive advantage of the individual countries or the regions are employment and productivity rates.

The employment rate of the EU member countries are generally not in the vicinity of specified targets of the Lisbon Strategy, which represents the level of 70% by the year 2010 (and even level of 67% by the year 2005). The average employment level of EU 25 was 63.3% in 2004. Only four member countries, Denmark, Netherlands, Sweden, and United Kingdom exceeded the 70% rate of employment level. Poland, on the contrary, has this indicator only at 51.7%. Thirteen countries of the EU had a lower level of employment than the average of Europe as a whole. Czech Republic can claim a rather high level of employment (64.2% which puts it in 12<sup>th</sup> place).

The differences in productivity among the member countries are even more pronounced than the differences in the employment rate. The per employee share of the created GDP was on the average 43,000 euro. Luxemburg exceeded this average by 2.7 times. The lowest productivity was, once again, in the Baltic states. The Czech Republic with its 11,000 euro GDP per employee reaches only the 20<sup>th</sup> position among the EU countries. The ten new member countries (they joined in 2004) have pretty much the lowest productivity. At the same time the productivity of the original 15 countries (except Portugal) exceeds the productivity of all the new member countries.

Table 1 lists selected values of competitive advantage of the EU countries as well as additional possible EU candidate countries according to Table 1. The results of the point method calculations (last two columns) are also shown in the Table. When we compare the per capita GDP, we can see the leading position of Luxemburg to which we assigned 1000 points. Denmark with 635 points, Austria with 572 points, and Germany with 551 points occupy the subsequent positions. The Czech Republic occupies the 19<sup>th</sup> position and in comparison with Luxemburg it only attains 10.2% of its per capita GDP (this is represented by 103 points). If we consider the average evaluation of the remaining three indicators, the standing of the individual countries changes very slightly. Luxemburg still remains in the number one position, followed by Denmark and then Austria. Poland (according to the average indicators) occupies the last position among the EU countries. The Czech Republic ranks 18<sup>th</sup> when the parameters being monitored are considered, and it only reaches 70.2 % of



the level of Luxembourg.

Long term differences in monitored indicators across the EU confirm clearly that active policy of cohesion is really needed. At the same time, it is relevant that the proposed reforms of policy of cohesion and policy of rural development focus on growth and employment. This new line of thinking is, on one hand, based on the unified framework of development, supported, for the most part, from the EU structural funds, and on the other hand is based on the necessary activation of domestic resources (the potential capacity of the individual countries and their regions). An application of principals and processes of strategic management can be very helpful in this matter.

## CONCLUSION

The primary goal of the EU policy of cohesion is to decrease the differences in the levels of the regional development. As a consequence of the EU expansion to 25 member countries (Bulgaria and Romania are preparing to join the Union in the year 2007), divergence of the economic advancement has grown markedly. This is also shown by established indicators, based on the GDP per capita description presented in this paper. New member countries have significantly lower level of income per capita and employment rate than the rest of the EU countries. At the same time, these countries have been very dynamic during the last few years, showing rapid growth of both, GDP and productivity, which leads to reducing of the differences. This positive tendency must be supported by the change of regional politics, which has to focus on potential development of the individual countries and their regions. The emphasis is placed especially on innovation, learning regions, creating networks, and the support of small and medium sized businesses. This process is more efficiently controlled by the utilization of strategic management.

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